

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Bachelor Thesis

Gas industry in Russia - Gazprom case study

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Angelina Bepalykh

Business Administration

Thesis title

Gas industry in Russia – Gazprom case study

Objectives of thesis

The purpose of the study is to present the characteristics of gas production in Russia, analyse the position of natural gas in the country and the role of Gazprom corporation. The main aim of theoretical part is to gain an understanding of the origin, the development of Russian gas production and it's future strategies based on different sources of information about Gazprom corporation.

The purpose of the practical part is to evaluate production, reserves and transportation of natural gas by Gazprom from 2007 till nowadays. The results will be compared with global leaders of gas production from the perspective of financial results. In the practical part, the corporate results will be evaluated from the perspectives of annual budget of the Russian Federation as well as the global competitiveness of gas industry will be evaluated.

Methodology

Bachelor thesis is divided into two main parts, theoretical and practical one. For the theoretical part are used different types of information resources such as books, articles, scientific publications, bibliographic databases and found information on Internet search.

Practical part provides data from the chosen period (2007 – 2016), where also economic crisis was included. Data are sourced from Gazprom corporation official annual reports and from official governmental resources. Practical section consists of financial statements, budget data, time series analysis.

Methods that are used in this thesis are financial analysis, method of competitiveness of foreign trade, time series analysis. Technical information will be represented through examination of price and charts.

The proposed extent of the thesis

40 – 50

Keywords

Gas industry, natural gas , Gazprom, Russian federation, financial analysis

Recommended information sources

A. Vavilov, David Nicholls – Gazprom: An Energy Giant and Its Challenges in Europe. -M. Palgrave Macmillan, 2015. – 275 p.

Dr Jakub, M Godzimirski – Russian Energy in a Changing World: What is the Outlook for the Hydrocarbons Superpower?. -M. UACES , 2014 . – 218 p.

Johnathan P. Stern – The future of Russian gas and Gazprom. -M.: Oxford ; New York . Oxford University Press, 2005. – 270 p.

Kevin Rosner – Russia: Gazprom and the Russian State. 2006. – 40 p.

Vaclav Smil – Natural gas : Fuel for the 21st Century . – M.: John Wiley & Sons, Ltd., 2015. -251 p.

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Declaration

I declare that I have worked on my bachelor thesis titled "Gas industry in Russia - Gazprom case study" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 13.03.2018

Angelina Bepalykh

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Gas industry in Russia - Gazprom case study

Abstract

The following thesis is about gas industry in Russian federation and corporation Gazprom. It also has a description of global natural gas market, overview of global gas consumption and production. The thesis contains information about natural gas development in Russia and overview of Gazprom's development and its main activities. The observation include modern problems of Russian gas industry.

In the practical part was done financial comparison of 2 world gas leaders (ExxonMobil, Chevron) with Gazprom. Research revealed that Gazprom position is stable without extreme jumps. All calculated indicators are increasing from year to year. The study showed that the contribution of Gazprom in Russian budget is also great. It contributes 43% in oil and gas industry budget income. Gazprom makes approximately 15% of total federal income in Russian budget. The other section of theoretical section represents the description of vivid gas trade of natural gas. Gazprom exports natural gas in Europe and Post Soviet countries .All in all it consists of more than 34 countries. It exports around half of produced natural gas .In 2016 it exported 212 billion cubic meters of gas (420 billion cubic meters was total production in 2016).

Keywords: Gas industry, natural gas, Gazprom, Russian federation, gas production.

Plynárenský průmysl v Rusku - případová studie společnosti Gazprom

Abstrakt

Následující práce se zabývá plynárenským průmyslem v Ruské federaci a společností Gazprom. Obsahuje také popis globálního trhu se zemním plynem, přehled globální spotřeby a výroby plynu. Práce obsahuje informace o historii těžby zemního plynu v Rusku a přehled o vývoji Gazpromu a jeho hlavních aktivitách. Pozorování zahrnuje moderní problémy ruského plynárenského průmyslu.

V praktické části se uskutečnilo finanční srovnání dvou světových vůdců plynu (ExxonMobil, Chevron) se společností Gazprom. Výzkum ukázal, že pozice Gazpromu je stabilní bez extrémních výkyvů. Všechny sledované kazatele rostou rok od roku. Studie ukázala, že příspěvek Gazpromu do ruského rozpočtu je také skvělý. Podílí se 43 procenty na příjmech Ruské federace z ropného a plynárenského průmyslu. Současně příjmy z Gazpromu přispívají zhruba 15 procenty do celkového federálního rozpočtu. Druhá část teoretické části představuje popis živého mezinárodního obchodu se zemním plynem. Gazprom vyváží zemní plyn v Evropě a post-sovětských zemích. Celkově se skládá z více než 34 zemí. Vyváží zhruba polovinu vyrobeného zemního plynu. V roce 2016 vyvezla 212 miliard kubických metrů plynu (v roce 2016 byla celková výroba 420 miliard kubických metrů).

Klíčová slova: Plynárenství, zemní plyn, Gazprom, Ruská federace, výroba plynu.

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Introduction

Nowadays gas industry plays a key role in the economies of many countries as it is one of the most vital resources needed for almost every activity carried out by people. The gas industry is the youngest and fastest growing branch of the fuel industry. It deals with the extraction, transportation, storage and distribution of natural gas. An important role is played because of the low production cost in comparison with the production cost of other types of fuel – coal, peat or oil.

The Russian gas industry is an important component of the economy and the world energy supply system. The revenue from the gas sector has a significantly impact on the national budget, which provides the possibility of financial support from the government of the national economy. Today Russia is ranked as the 2nd in the world in terms of proven natural gas reserves (32.3 trillion cubic meters). It produces 579.4 billion cubic meters which is 16% of global production.

Gazprom is the largest natural gas producer in the country and in the world. It produces more than 66% of country's gas and 11% of world's one. Company makes about 8% of Russia's GDP and at the same time provides about a quarter of all tax payments to the country's budget. It exports natural gas in more than 30 countries from European and Asian parts of the world.

The theoretical part describes the structure of the global natural gas market. Provides data about global gas consumption, production and proved reserves. It has detailed description of Russian natural gas industry: its origin, development and modern problems. Evaluates Russian position in global gas market. Focuses on main Russian and global gas producer – Gazprom corporation. It contains history of corporation and its main activities such as transportation, production and reserves. Contains information about Gazprom future projects and strategy.

The practical part is divided into two parts. First one compares Gazprom with two other big corporations that can be describe as main competitors of Gazprom. That companies are: Chevron and ExxonMobil. For comparative analysis was used available data from annual financial reports. The second part represents information about international trade and the impact of Gazprom to Russian economy.

Objectives and methodology

1.1 Objectives

The purpose of the study is to present the characteristics of gas production in Russia, analyse the position of natural gas in the country and the role of Gazprom corporation. The main aim of theoretical part is to gain an understanding of the origin, the development of Russian gas production and its future strategies based on different sources of information about Gazprom corporation.

The purpose of the practical part is to evaluate production, reserves and transportation of natural gas by Gazprom from 2007 till nowadays. The results will be compared with global leaders of gas production from the perspective of financial results. In the practical part, the corporate results will be evaluated from the perspectives of annual budget of the Russian Federation as well as the global competitiveness of gas industry will be evaluated. During the research will be defined 3 main questions: How much does Gazprom contribute to Russian budget? What role does natural gas trade play in Russia? How much different results shows Gazprom comparing its global competitors?

1.2 Methodology

Bachelor thesis is divided into two main parts: theoretical and practical one. For the theoretical part are used different types of information resources such as books, articles, scientific publications, bibliographic databases and found information on Internet search.

Practical part provides data from the chosen period (2007 - 2016), where also economic crisis was included. Data is sourced from Gazprom corporation, ExxonMobil and Chevron official annual reports, consolidated financial statements and from official governmental resources. Practical section consists of financial statements, budget data, time series analysis.

Methods that are used in this thesis are comparative financial analysis, method of competitiveness of foreign trade, time series analysis.

In comparative analysis of Chevron, Gazprom and ExxonMobil corporations will be used main indicators such as : Revenue, Profit, Net profit margin, Return on asset, Return on equity, Quick ratio, Current ratio, Working capital and Earning per share. Each of the mentioned indicators is provided with explanation and formulas during the research.

Given corporations were chosen as leading players within the oil and gas industry and that are publicly traded.

Technical information will be represented through examination of price and charts.

Literature Review

1.3 Global natural gas market, production and consumption

1.3.1 Global gas market

Nowadays there are three gas markets: North American, European and Asian. As territorial elements of the global natural gas market are allocated 5 regional markets: the CIS market, Central and South America, Middle East, Australia and Oceania, Africa

The North American market includes three countries: Canada, Mexico, the United States. This market is almost isolated from others. It can be described as the most integral and formed, competitive gas market with a single pricing system. The centre of the market is the United States with developed gas transportation system covering the whole continent. Transboundary gas supplies can be carried out in both directions. In USA the total length of interstate gas pipelines is 460 thousand kilometres they are owned by 160 independent companies. Also there are about 3.5 thousand gas storages in the country. (U.S. Energy Information Administration, 2014)

Figure 1 : North American natural gas network



Source : U.S. energy information administration

The European market includes 28 EU countries, Norway, Switzerland and as well as Turkey and the Balkan countries that are not part of the EU. In total the European market includes 39 countries, mostly connected with a well-developed network of gas pipelines and intercountry trade, or unrelated (island Cyprus or "energy islands" - the Baltic countries), but institutionally integrated as members of the European Union. Institutional integration is an important criterion for the integrity of this market. The common sign of many of its member countries is dependence on imported gas supplies. The most important feature that determines the uniqueness of the European market is the process of its liberalization under control of the European Commission to form a unified regional gas market. For example in Northwest Europe (the United Kingdom, Belgium, the Netherlands own production is significant and level of transport infrastructure development is very high. That means that a single gas market has already formed. (Energy Infrastructure and Markets Database, 2015)

Many other countries (Germany, Denmark, Italy, Hungary and Croatia) faced the problem of exhaustion of fields.

Ukrainian crisis highlighted the dependence of European energy markets on natural gas. Ukraine and countries of south-eastern Europe suffer from disruptions in the supply of Russian gas. (World Energy Council, 2018)

The Asian market includes all Asian countries : South Asia, Southeast Asia and East Asia. It includes 22 independent countries, as well as the island of Taiwan. This regional market is based on large-scale supplies of its own gas from Southeast Asia. Strong and, increasing dependence on gas imports is a characteristic feature of many of its countries.

The Asia-Pacific market remains regional, but it has global features. This is due to the fact that Middle East and African exporters are supplying quite large volumes of their gas to the Asian-Pacific market. Some countries exporting trunk gas to Europe (Russia, Turkmenistan, Iran) are also trying to direct some of their exports to Asian-Pacific countries. (Ourlook of natural gas, 2017)

The CIS market is the most developed of the regional markets. It consists of 11 CIS countries, including Russia, as well as Georgia, which is not a member of the CIS, and republics of Abkhazia and South Ossetia. There is no organizational commonality in the region but it is united by a long-term transcontinental gas transportation system. The

territorial structure of gas transportation system was laid down in the Soviet years and has not changed fundamentally since that time.

Natural gas creates a new reality for the economies of the world. Three main events of the past few years have placed natural gas at the centre of attention: the shale gas revolution in the United States, the reduction of nuclear power after the Fukushima accident in Japan, and the geopolitical conflict between Russia and Ukraine. Large development of non-traditional types of gas has led to structural changes in the global energy market. (With the US achievements in the development of shale gas, it has become a leader in the production of natural gas, and, soon, it is expected that it will become a net exporter) (World Energy Council, 2018)

There are some development forecasted trends trends of natural gas for the period 2013-2035(Cedigas report, 2016)

- Demand for natural gas will grow rapidly (+ 2.9% / year);
- The share of natural gas in the energy balance is projected to increase from 11% to 13.5%;
- Natural gas will play an increasing role as an industrial raw material due to relatively low prices
- The use of natural gas in the transport sector is expected to grow by 6% per year;
- In Asia, the development of nuclear and renewable energy sources will limit the production of gas;
- The share of electricity generation in natural gas consumption will decrease from 42% to 39%, while the industry will grow from 27% to 29%;

Gas is an energy resource used in everyday life and industry, and has ecological advantages over other resources. The development of international gas trading infrastructure is the main instrument of the process of globalization of the gas market.

1.3.2 World production

The gas industry plays a key role in the economics of many countries as it is one of the most vital natural resources needed for almost every activity carried out by human beings.

Global natural gas production is increased by 2.4% nowadays.

US contributed to that growth the most. Production of natural gas there was 749,2 billion cubic meters in 2016. The share of global production was 21.1%.

Second largest producer is Russia. In 2016 Russia produced 579,4 billion cubic meters of natural gas. The share of global production was 16,3%. The reason lies primarily in the production of natural gas using the unconventional method of fracking, which has flourished in the US.

Among major producer is Iran. In 2016 the total amount of production was 202,4 billion cubic meters that makes 5,7% of global production.

Growth in production was also recorded in Qatar – 181,2 billion cubic meters in 2016. that is 1.3% bigger than in 2015. For last ten years production in this country had increased by average 14,3% per year.

Canada is contributing 4,3% of global production. In 2016 total production was 152 billion cubic meters. But for the last ten years production had decreased by average 1,3% per year.(BP Statistical Review of World Energy,2016)

Table 1: Top countries by natural gas production for 2016 (billion cubic meters)

| Country | Total production in 2016 |
|--------------|--------------------------|
| US | 749.2 |
| Russia | 579.4 |
| Iran | 202.4 |
| Qatar | 181.2 |
| Canada | 152 |
| China | 138 |
| Norway | 116.6 |
| Saudi Arabia | 109.4 |
| Algeria | 91.3 |
| Malaysia | 73.8 |

Source : BP Statistical Review of World Energy, 2017

Table 2 : Global natural gas producers by region for 2016 (billion cubic meters)

| Region | Total amount produced |
|--------------------|-----------------------|
| North America | 948.4 |
| South America | 177 |
| Europe and Eurasia | 1,000.1 |
| Middle East | 637.8 |
| Africa | 208.3 |
| Asia Pacific | 579.9 |

Source : BP Statistical Review of World Energy ,2017

1.3.3 World consumption and future trends

Gas consumption global growth has averaged 2,3% per year from 2005-2016. In 2016 it was 3542,9 billion cubic meters that is nearly 1,5% greater than in 2015.

In North America gas consumption in 2016 is 968 billion cubic meters. That is 0,3% bigger than in 2015 due to strong growth in US (0,4%) and Mexico (2,5%). Across North America this growth has been led by the power and industrial sectors, which have undertaken fuel switching as gas has become more competitive. Change in gas consumption during last ten years 2005-2015 has increased by 2,1% per year. Total share of global consumption is 27,3%

In Europe and Eurasia in 2016 consumption rose more than 1.7% (1029,9 billion cubic meters), driven by stronger economic growth overall and better competitiveness of gas in the power sector. Leader in that growth was the UK where gas consumption increased by 12.2%. Gas consumption in France and Germany grew by more than 9%. Total share in the world is 29,1%.

In Asia Pacific region total share of global gas consumption is 20,4% (722,5 billion cubic meters). In Asia gas consumption is estimated to have grown 2.7% in 2016. For the last ten years period 2005-2015 gas consumption had increased rapidly by average 5,6% per year. The explanation for that are government policies that help to develop domestic production, and incentivize gas consumption across sectors to reduce pollution. Consumption in India has 9,2% growth in 2016. From 2005-2015 average annual growth was just 2,5%. A driver of slow growth in the region was countries experiencing domestic production declines, such as Indonesia, Thailand, and Bangladesh.

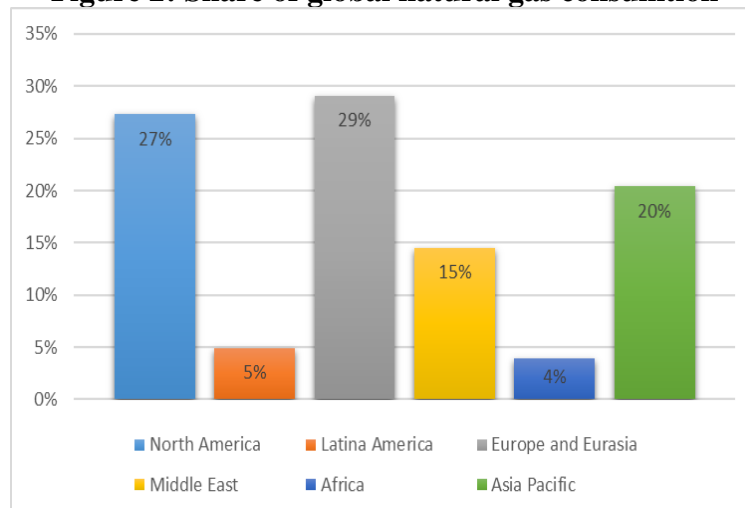
In Latin America in 2016 consumption is estimated to have declined by 2,5% (171,9 billion cubic meters). The reason for that is sharp fall in Brazil (down 12,5%). Total global share of natural gas consumption is 4,9%.

In Middle East in 2016 consumption growth is 3,5% (512,3 billion cubic meters). Total global share is 14,5%. The sustained growth of gas consumption in the Middle East from 2005 has been driven mostly by Qatar and Israel. This was due in large part to a substantial increase in the use of gas in the power and petrochemicals sectors.

In Africa consumption growth in 2016 is 1,4% (138,2 billion cubic meters). Total global share is 3,9%. African countries are continuing the trend of increasing gas

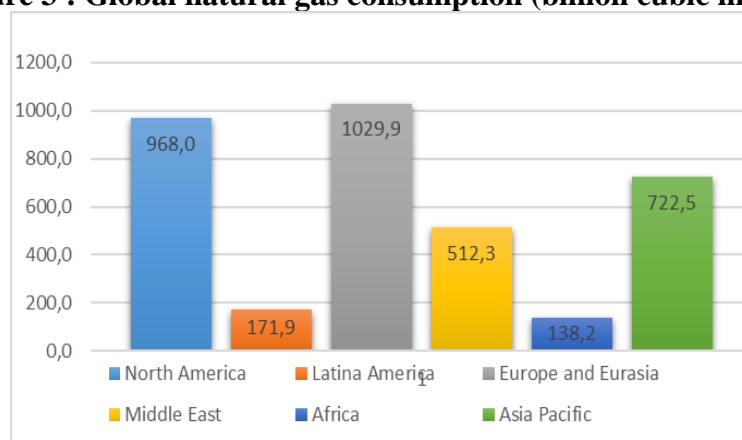
penetration mainly driven by Algeria and Egypt. In Algeria, the government has focused on developing gas-fired power generation capacity to shift away from oil. (Global gas report , international energy outlook ,2005)

Figure 2: Share of global natural gas consumption



Source: PB Statistical Review of World Energy 2017

Figure 3 : Global natural gas consumption (billion cubic meters)



Source: PB Statistical Review of World Energy 2017

Future trends of global consumption of natural gas is projected to grow fast. Natural gas is the fastest growing component of world primary energy consumption. It is supposed to increase by an average of 2.3 percent annually until 2025. From 2002 to 2025, consumption of natural gas is forecasting to increase by almost 70 percent. The electric power sector accounts for almost one-half of the total growth in worldwide natural gas demand.

On a regional basis, the largest increases in natural gas consumption worldwide are projected for the transitional economies of Eastern Europe and the former Soviet Union

and for emerging Asia. Natural gas use in the former Soviet Union will increase by 63 percent. In emerging Asia, gas use is expected to nearly triple from 2002 to 2025. In the mature market economies natural gas consumption is forecasting to increase by average of 1.6% per year from 2002 to 2025. growth in the mature market economies projected mostly for North America. In Western Europe natural gas is expected to grow at an annual average rate of 1.8%. (University of energy research RAN, 2016)

1.4 History of gas production development in Russia

The gas industry of Russia has existed for over 100 years. Gas development started in Russia on an industrial scale at the end of the nineteenth century with the financial and technological investment of major foreign investors, notably, the Rothschild family and the Nobel brothers. By that time, the major cities in Russia were supplied with a gas network, primarily for lighting, which was the first widespread application of gas. Gas was for the most part produced and used locally. (History of Russian gas industry,2000)

In 1913 was produced only 0,2 billion cubic meters of gas. The production had been increasing. In 1932 it reached 1 billion cubic meters. in 1937 it was almost 2,2 billion cubic meters.

Production of gas and building gas pipelines played a big role for the economy that time. First pipeline was built in 1940 in Western Ukraine. It length was 68 kilometers.

Due to the development of new methods of production after World War II gas production had increased 180% compared to prewar time. In 1950 it was 5,8 billion cubic meters. During next 5 years was produced 10,4 billion cubic meters of gas. That time USSR was the first in Europe and second in the world after USA in gas production. Such rapid development of gas industry was because of the biggest natural gas reserves in the world.

In 1960 large gas fields were discovered in Western Siberia,in the Komi region,in Turkmenistan. This discovery helped to increase gas production in 1965 to 127.7 billion cubic meters and by the end of 1970 to 198 billion cubic meters. (recognized the potential importance of the vast Siberian gas reserves to the east of the Ural mountains. This plan marked the beginning of the “Siberian period,” with the opening of the world-class fields in Urengoi that were discovered in 1966 and first brought into service in 1978.)

The development of gas fields in Western Siberia faced a lot of difficulties such as transportation, severe weather conditions, permafrost. Despite all the difficulties gas industry in Western Siberia developed extremely fast. one Urengoy field in 1978 had produced 65 billion cubic meters per year. (Gazprom and the Russian state,2006)

To transfer gas to central and other regions of the country Unified Gas Supply System was built. System represents a unique engineering complex encompassing gas production, processing, transmission, storage and distribution facilities in European Russia and Western Siberia and also supplied gas abroad for example in Czechoslovak republic, Hungary, Austria, France, Bulgaria, Italy.

In 1980, the country produced 435.2 billion m³ of natural gas. In 1981 were discovered new fields in Turkmenistan, Astrakhan, Tyumen and Orenburg regions. By the end of 1985, gas production in the USSR had reached 643 billion cubic meters. Western Siberia accounted for 376 billion m³, of which 270 billion m³ was produced by the Urengoy field.

In 1984 USSR became the top producer of natural gas even got ahead of USA.

In 1988, the Ministry of the Gas Industry was transformed into a state joint-stock company - Gazprom.

In 1990, gas production in the country amounted to 815 billion cubic meters

The dissolution of the Soviet bloc in 1990, and the USSR in 1991, had a major impact on the contractual environment for gas exports to the West. In particular, the political changes created transit countries. The routes of all the pipeline projects connecting the European part of Russia to the outside world passed through Belarus and the Ukraine. In fact, at the time of the Soviet Union's dissolution, about 90% of Russia's gas exports were traveling through Ukraine. (Rosner, 2006)

The collapse of the Soviet Union caused economic shockwaves that dramatically lowered gas production in the 1990s it was just 643 billion m³ in 1991, 617 billion m³ in 1993, 595 billion m³ in 1995, and 571 billion m³ in 1997. The reasons for this situation were a drop in industrial production, low cost of gas in the domestic market, a high level of non-payments, the entry of the largest gas fields into the stage of falling production.

In 2006 - 2011 years. The gas production in Russia has reached its historic maximum - 656 - 665 billion m³ per year.

After the global financial and economic crisis, which caused a decline in demand and prices for energy in 2008 - 2009, the increase in gas production in Russia in 2010-

2011. was provided mainly due to the restoration of the domestic market, which was more beneficial to independent producers, which are focused on direct deliveries to customers in the country. At the same time, Russia failed to restore its positions in Europe, which affected the results of Gazprom's work. (Gazprom, 2014)

Table 3: Production of natural gas in USSR (billion cubic meters)

| 1928 | 1932 | 1937 | 1940 | 1950 | 1955 | 1960 | 1970 | 1980 | 1985 | 1990 | 1991 |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 0.3 | 1 | 2.2 | 3.2 | 5.8 | 9 | 45.3 | 198 | 435 | 643 | 640 | 643 |

Source: based on data from Neftegaz Analytics

Table 4 : Production of natural gas in Russian federation (billion cubic meters)

| 1993 | 1995 | 1997 | 2000 | 2004 | 2008 | 2010 | 2012 | 2014 | 2016 |
|------|------|------|------|------|------|------|------|------|------|
| 617 | 695 | 571 | 583 | 573 | 601 | 588 | 592 | 578 | 579 |

Source: Rosstat statistics

1.5 Gazprom

1.5.1 Foundation of Gazprom and it's main goals

One of the first deposits of natural gas were discovered in the Soviet Union in 1942. Then the first gas pipeline Buguruslan-Kuybyshev was built. Exploration and development of gas sources continuously continued, new pipelines were built. Nevertheless, this was not always enough to satisfy the needs of the population. Everything changed the period from 1970 to 1980. For the USSR it was marked by the discovery of new gas fields in the Volga region, Siberia and the Urals. Gas production in the Soviet Union has been growing and in 1984 it took the leading position in the world of gas raw materials. The extraction of this resource per year amounted up to 587 billion cubic meters

Since 1948 the Main Directorate for the production of natural gas operated in the USSR. In 1956 it became Glavgaz (Main Directorate of the Gas Industry under the Council of Ministers of the USSR). In 1963, the State Production Committee for the Gas Industry of the USSR was created, which assumes the functions of its predecessor. In 1965 the Ministry of the Gas Industry is being formed. From it subsequently are allocated the organizations of two directions: gas and oil. In 1989, the State Gas Concern "Gazprom. in

1998 it was renamed into the current Gazprom (Open Joint Stock Company). (Rosner, 2006)

From 1989 to 1992 Gazprom was headed by V. S. Chernomyrdin. At that time the concern completely controlled the search for gas fields in the whole USSR, carried out its distribution and sale. In 1991 happened the collapse of the Soviet Union which affects not the best way. The countries that used to be part of the USSR gain independence, and along with it, the rights to all gas sources located on their territory, as well as property rights to the respective pipelines. Losses at that time accounted for 25% of the total number of compressor stations, as well as over 30% of pipelines. Control over all the transit gas pipelines that passed from Russia to Europe, completely passed to the CIS and Baltic countries.

In 1992 Chernomyrdin delegates his authority to lead his first deputy Rem Vyakhirev and the president signs several decrees from which it follows that the gas resources of the whole country are transferred to the concern. (Gazprom: The Evolution of a Giant in the Global Oil and Gas Industry, 2007)

If in early 1992 it was completely owned by the state, but in 1993 it was completely privatized and distribution of Gazprom shares began.

Since 2000, Gazprom has been actively developing. Over the past decade there has been an active growth of the company. "Gazprom" concludes all new contracts for the supply of gas to European countries also establishes relations with the countries of Asia

In 2002 the Russian Government directed Gazprom to coordinate the implementation of the state Eastern Gas Program. Since November 2010, Gazprom has completed the acquisition of a 100% stake in Beltransgaz and became the owner of the Belarusian gas transportation system. In 2011 Gazprom completed construction of the Sakhalin-Khabarovsk-Vladivostok gas pipeline, launched the first stage of the Nord Stream gas pipeline. In 2014, Gazprom increased its stake in ArmRosgazprom to 100% which owns gas transportation assets on the territory of Armenia and carry out gas supplies to the consumers of the republic. In April 2014, PJSC Gazprom acquired a 100% stake in the authorized capital of KyrgyzgazProm - the importer of natural gas to Kyrgyzstan, the owner of the gas transportation and gas distribution systems of the republic. (Russian Energy , 2014)

In May 2014 Gazprom and CNRS signed the largest 30-year contract for the purchase and sale of Russian pipeline gas in the Russian history and in November - the

Framework Agreement. In May 2015 - the Agreement on the main conditions for gas supply to China from the Russian Federation from fields of West Siberia. In September - a Memorandum of Understanding on the project of pipeline supplies to China of natural gas from the Russian Far East. (Gazprom,2015)

In 2015 Gazprom, BASF, ENGIE, OMV and Shell signed the Shareholders Agreement for the construction of the Nord Stream-2 gas pipeline system. In addition,

In October 2015 began the construction of the Amur Gas Processing Plant-the largest in Russia and one of the world's largest natural gas processing enterprises. Design processing capacity of the plant is 42 billion cubic meters of natural gas per year. The plant will receive gas from the Yakutia and Irkutsk gas production centres. The processed gas will be delivered to China. When the plant opens, it will employ around 3,000 people. The exact year of finishing the project isn't set yet.

In addition, the following were signed:

- Long-term agreement between Gazprom and Trubodetal for batch production, delivery, technical, service and maintenance of special-purpose ball valves;
- Memorandum of Understanding on the development of the use of liquefied natural gas between Gazprom and the Ministry of Hydrocarbons and Energy of Bolivia;
- Agreement between Gazprom and the Ministry of Hydrocarbons and Energy of Bolivia on updating the General Scheme for the development of the gas industry in Bolivia until 2040;
- "Memorandum of Understanding on the supply of natural gas from Russia along the Black Sea bottom through third countries to Greece and from Greece to Italy" between Gazprom, DERA and Edison for the purpose of organizing a southern route for the supply of Russian natural gas to Europe. (Gazprom;projects,2015)

1.5.2 Mission and future projects

The mission of the concern "Gazprom" is to provide consumers with natural gas, other energy resources and products of their processing, ensuring the principles of reliability, efficiency and balance.

The strategic goal is the formation of Gazprom as a leader among global energy companies by diversifying sales markets, ensuring the reliability of supplies, increasing the efficiency of operations, and using scientific and technical potential. (Gazprom-energy,2017)

The priority direction of the concern's development is the formation of the market of gas engine fuel and its further expansion in the Russian Federation and abroad. Gazprom plans to increase the production of gas chemistry products, increase the extraction of valuable components from gas and increase the efficiency of production of products of a deeper level of processing. (The Future of Russian Gas and Gazprom,2015)

Future projects of Gazprom corporation are:

«*Nord Stream 2* »

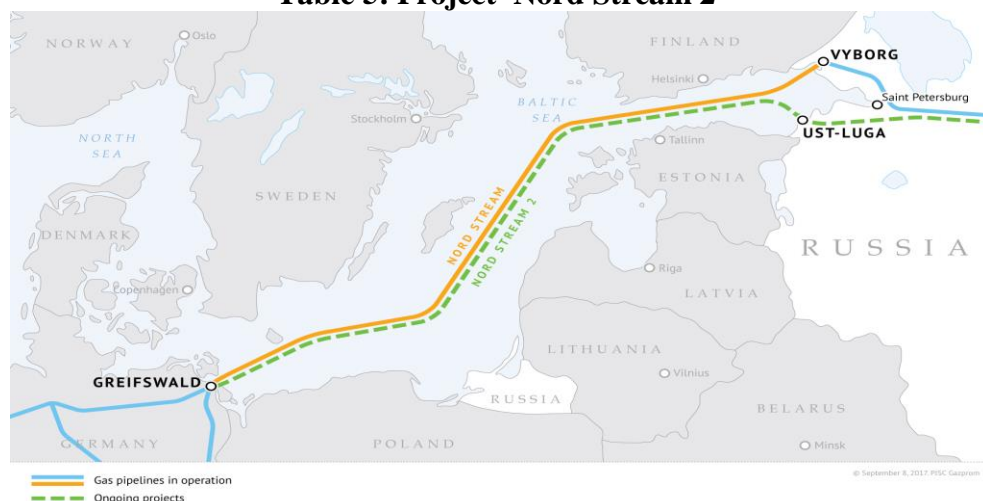
"Nord Stream-2" is a new export gas pipeline from Russia to Europe via the Baltic Sea. It, as well as the acting "Nord Stream", will directly link Gazprom and European consumers.

The decision to build Nord Steam 2 is based on the successful experience in building and operating the Nord Stream gas pipeline.

The entry point of the Nord Stream 2 gas pipeline into the Baltic Sea will be the Ust-Luga area of the Leningrad Region. Then the pipeline will stretch across the Baltic Sea. Its exit point in Germany will be in the Greifswald area close to the exit point of Nord Stream.

The route covers over 1,200 kilometres. The total capacity of two strings of Nord Stream 2 is 55 billion cubic meters of gas per year. The project is supposed to be done before late 2019. (Gazprom,2018)

Table 5: Project 'Nord Stream 2'



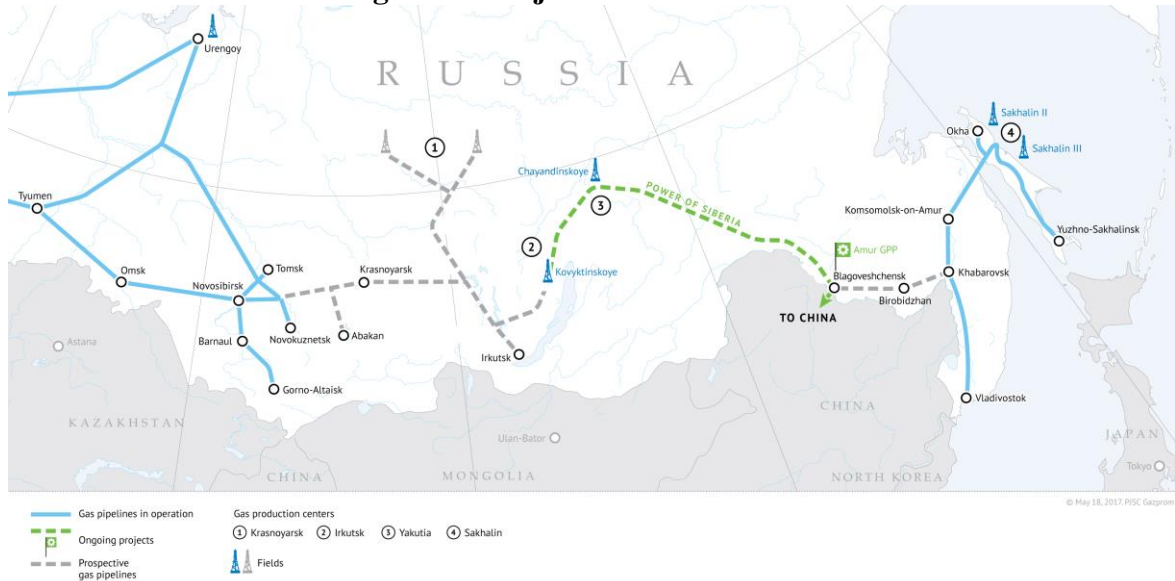
Source: Gazprom.com

"The Power of Siberia"

The "Siberia Power" gas pipeline that has length about 3,000 km. It will transport gas from the Irkutsk and Yakutia to Russian consumers in the Far East and China.

The pipeline route passes through swampy, mountainous, seismically active, permafrost and rocky areas with extreme environmental conditions. The absolute lowest air temperatures along the Power of Siberia route range from minus 62 degrees Celsius to minus 41 degrees Celsius. (Gazprom,2018)

Figure 4 : Project 'Power of Siberia'



Source : Gazprom.com

"Turkish flow"

It is the future export pipeline from Russia to Turkey through the Black Sea. The project is designed to replace the failed "South Stream" project. The first and second strings of Turkish Stream will have the throughput capacity of 15.75 billion cubic meters each.(Gazprom,2018)

Figure 5 : Project 'Turkish flow'



Source : Gazprom.com

1.5.3 Natural gas reserves

Russian federation has the second largest gas reserves in the world after Iran. Global share of natural gas in Russia is 17.3%. Gazprom has one of the biggest natural gas reserves in the world. It has 72% of gas reserves in the country. The other 28% of total gas reserves in Russia belongs to independent companies (23%) and Undistributed subsoil reserve Fund (5%) (Gazprom.ru)

In 2016 Gazprom reserves of gas were 23.8 trillion cubic meters. Total gas reserves in Russia were 32.3 trillion cubic meters. (Gazprom annual report, 2016)

| 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------|------|------|------|------|------|------|------|------|------|
| 20.8 | 21.2 | 21.9 | 22.5 | 22.9 | 23.3 | 23.2 | 23.5 | 23.7 | 23.8 |

Source : Gazprom annual reports 2006-2016

Table 7 : Top 10 largest gas reserves by country 2016 (trillion cubic meters)

| Country | Resevres |
|----------------------|----------|
| Iran | 33.5 |
| Russia | 32.3 |
| Qatar | 24.3 |
| Turkmenistan | 17.5 |
| USA | 8.7 |
| Saudi Arabia | 8.4 |
| United Arab Emirates | 6.1 |
| Venezuela | 5.7 |
| China | 5.4 |
| Nigeria | 5.3 |

Source : BP Statistical Review of World Energy 2017

1.5.4 Natural gas production

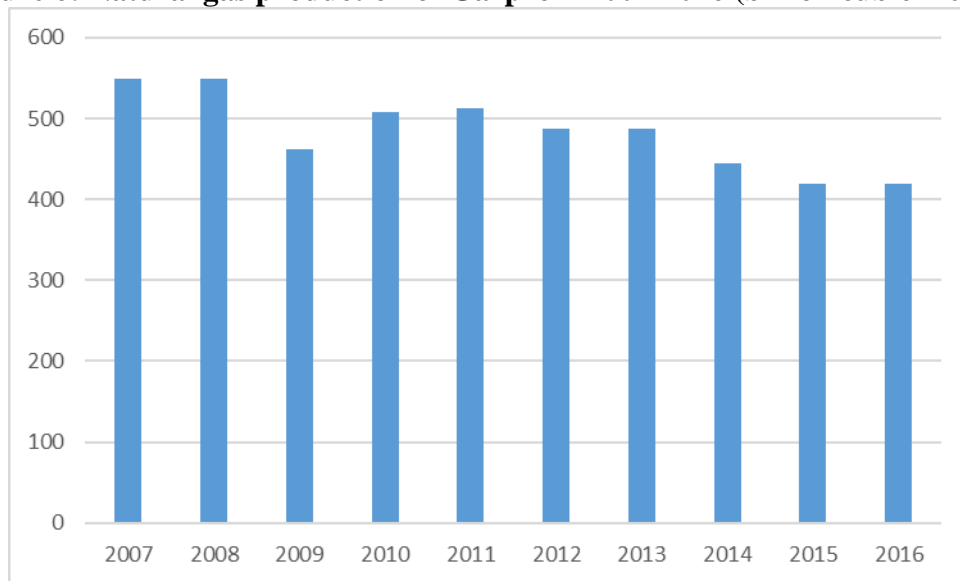
Gazprom produces 66% of Russian gas and 11% of world one. The rest of Russian natural gas production belongs to Vertically Integrated Oil Company 14%, Novatek 8,2%, independent companies 10%, Rosneft 1,8%.

Production of gas for last 5 years is decreasing. in 2016 Gazprom had produced 420 billion cubic meters of natural gas. That is 22% less that it was in year 2011 (513 billion cubic meters). (Gazprom annual report, 2016)

One of the reasons for the decline is the reduction of gas consumption in the domestic market. That fact has a lot of explanations. first one is weather conditions (warm winters in Russia). The second reason is a slowdown in economic growth since 2013. The other reason is decreasing production in electric power industry and thermal power engineering. That industries consume the greatest amount of natural gas (56%).

The other reason is decline of export. That happaned due to decline of demand for Russian gas from Ukraine and some EU countries such as Italy and Germany. (Pirani, 2009)

Figure 6: Natural gas production of Gazprom 2007-2016 (billion cubic meters)



Source : Gazprom annual reports 2005-2016

1.5.5 Gas transmission

Gazprom has the world's largest gas transmission system. Its main part is part of the Unified Gas Supply System of Russia. This system is a unique technological complex that includes gas production, processing, transportation, storage and distribution facilities in the European part of Russia and Western Siberia. It provides the whole cycle from the field to the consumer. Centralized management and the availability of parallel ensure uninterrupted gas supply even at peak seasonal loads. (Ananekov, 2006)

The total length of the gas transportation system on the territory of Russia is 171 thousand km. It has 253 compressor stations out of 268 total compressor station in Russia.

The unified gas supply system of Russia is managed from the central dispatching office of Gazprom. There is a 24 hours control of supply of natural gas to Russian and foreign consumers. (Ananekov, 2006)

Gazprom provides an access to gas pipelines to independent companies. In 2016, 24 companies provided gas transportation services through Gazprom's gas transportation system in the Russian Federation.

Table 8: inflow and distribution of gas via Gazprom's Gas Transportation System in Russia (billion cubic meters)

| 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 706.7 | 714.3 | 589.7 | 661.2 | 663.7 | 666.2 | 659.4 | 627.5 | 602.6 | 622.6 |

Source : Gazprom.ru

In 2016 total amount of transmitted gas was 622.6 billion cubic meters. Amount of transmitted gas is decreasing every year. The reason for it is lack of transport capacity.

The capacity of the gas transmission system is exhausted because it was build long time ago. Nowadays Gazprom needs investments to build new pipelines and repair old ones. (Gazprom,2016)

1.6 Problems faced by russian gas industry.

1.6.1 Gazprom as a monopoly.

Gazprom is the largest producer of natural gas in Russia. Gazprom has a monopoly on gas transportation in the Russian market. The monopoly on transport gives Gazprom advantages in establishing the prices of gas and dictating the terms of transportation of raw materials for independent producers. According to the Union of Independent Gas Producers Gazprom buys gas from independent producers below market prices. The purchase of gas from independent producers is a big benefit for Gazprom corporation. The production of natural gas by independent producers makes makes the gas balance more safe and allows generating additional cash income for Gazprom. (Gazprom's monopoly and Nabucco's potentials, 2013)

Independent producers do not have the opportunity to set their own prices because they do not have their own processing capacities. All gas processing is concentrated in Gazprom. Also independent producers have no right to export produced gas to the external market. The right of export according to the existing Russian legislation is owned by Gazprom. The name of that act is : ‘Monopoly for exporting pipeline natural gas’. The controlling stake of Gazprom (51%) is owned by the state: the company is an instrument of state policy, which imposes quite certain restrictions and obligations on the specifics of its business. State support brings to Gazprom advantages such as:

- Support of Gazprom's expansion abroad and support in forming Gazprom's image among foreign investors.
- Lower interest rates on loans due to government guarantees. (CEC vs Gazprom,2015)

There are problems that make normal functioning of the concern difficult.

- decrease of production

Gazprom does not have any real prospects for a significant increase in gas production in the near future due to a lack of investment. Now corporation invests in the construction of new pipelines

- increase in the cost price of gas production;

Price of gas is constantly rising every year and it is much higher than rates of inflation. Russian federation is the country that has huge gas reserves but it must pay huge prices for gas.

The only thing that will help to prevent is to prohibit Gazprom to raise prices. Also let it to monopoly, keep prices low as a state monopoly. After that the problem of many high prices will be solved. For example tariffs for utilities. Electricity mostly depends on gas tariffs. If tariffs increase by 15 percent, then electricity will grow by at least 10 percent.

- decrease in the efficiency of gas transportation.

The main gas transportation system was built in the Soviet Union and since then there weren't any significant investments in its development have been made. In recent years Gazprom didn't construct any new pipeline. The shortage of transport capacity is the main risk for Gazprom. If the demand of gas and gas production from independent producers grows, the risk associated with transportation will increase that makes it difficult to cover needs of the domestic market and at the same time to export natural gas abroad. But on the other hand, the shortage of pipeline capacity increases Gazprom's ability to keep independent producers 'under pressure' and reduce the price of gas purchased from them. Because independent producers are forced to sell gas to the monopoly at the price set by it.

- Gazprom is running out of financial resources

The solution for that problem can be increasing of investments. It will be necessary to increase the tariffs on the products of natural monopolies to the market level. To ensure that tariffs do not grow extremely high it is necessary to launch natural restraints in the form of competition mechanisms. This mechanism means that existing large companies will be divided into several small ones that will compete with each other. And the

consumer will choose the supplier who will offer him the most attractive terms. Also transportation component should be a separate state company. (Gazprom: An Energy Giant and Its Challenges,2015)

1.6.2 Ecological problems

During the process of gas production the most active impact on the natural environment occurs in the territories of the pipeline location and in the nearest settlements. There occurs deformation of the earth's surface (Chandra, 2006)

In case if the field operates long time the lowering of the earth's surface can occur. The displacement of the earth's surface can lead to the destruction of water pipes, cables, railways and highways, power lines, bridges and other structures. Settling can cause flooding of lowered areas of territories. In some cases earthquakes.

The natural gas can contain highly toxic substances. For example in Volga field natural gas contains sulfur. Also gas production and processing companies pollute the atmosphere with hydrocarbons. Despite the fact that the gas is an environmentally good fuel sometimes these companies pollute water as well as the soil.(Natural gas: fuel for the 21st century, 2015)

1.7 Key players in gas market

Nowadays the biggest gas producing companies are: Gazprom, Roal Dutch Shell, Xto energy, China National Petroleum Corporation and British Petroleum.

Table 9 : The biggest gas producers in 2016 by Global Gas and Oil reserves study (billion cubic meters)

| Company | Total amount produced |
|--------------------------------------|-----------------------|
| Gazprom | 418.5 |
| China National Petroleum Corporation | 121.3 |
| Roal Dutch Shell | 105.44 |
| Xto energy | 104.7 |
| British Petroleum | 59.4 |

Source : gas production outlook 2017

- Roal dutch shell



Royal Dutch Shell

Royal Dutch Shell is a British–Dutch multinational oil and gas company headquartered in the Netherlands and incorporated in the United Kingdom. Shell was formed in 1907 through the amalgamation of the Royal Dutch Petroleum Company of the Netherlands and the "Shell" Transport and Trading Company of the United Kingdom. It is one of the six oil and gas "supermajors" and the sixth-largest company in the world measured by 2016 revenues.

Shell is vertically integrated and is active in every area of the oil and gas industry, including exploration and production, refining, transport, distribution and marketing, power generation and trading.. It markets and trades crude oil, natural gas, LNG, electricity, carbon-emission rights and also markets and sells LNG as a fuel for heavy-duty vehicles and marine vessels. Shell has operations in over 70 countries. (Shell.com, 2016)

The production of natural gas in 2016 was around 105 billion cubic meters. The amount of proved developed natural gas reserves in 2016 is 882 billion cubic meters. (ExxonMobil, 2016)

Table 10 : Natural gas production by Royal Dutch Shell 2007-2016 (billion cubic meters)

| 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------|------|------|------|------|------|------|------|------|-------|
| 84.9 | 88.6 | 87.7 | 96.2 | 92.9 | 97.7 | 99.4 | 95.7 | 86.6 | 105.4 |

Source: Royal Dutch Shell Outlook 2007-2016

- Xto energy



XTO Energy Inc. is an American energy company, principally operating in America, specializing in the drilling and production of unconventional oil and natural gas assets, typically from shale rock through a process known as hydraulic fracturing. It is a subsidiary of Exxon Mobil Corporation. XTO Energy is leading natural gas and oil producer in North America. The company operates across the US, in Montana and Pennsylvania, Utah and Louisiana, and Texas, Ohio, North Dakota, Oklahoma; and to a lesser degree in Alaska, Arkansas, New York, West Virginia, Wyoming, Colorado, New Mexico, and Kansas. It also has assets in Alberta, Canada. It also provide operational support for unconventional resource development in Argentina.

Natural gas production in 2016 was 104.7 billion cubic meters. The amount of proved natural gas reserves is 739 billion cubic meters. (ExxonMobil, 2016)

Table 11: Natural gas production by Xto Energy 2007-2016 (billion cubic meters)

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|----------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Amount of production | 97.0 | 94.0 | 95.9 | 125.6 | 136.1 | 127.4 | 122.4 | 115.2 | 108.7 | 104.7 |

Source: Xto Energy annual reports 2007-2016

- China National Petroleum Corporation



China National Petroleum Corporation is a Chinese oil and gas corporation and one of the largest integrated energy groups in the world. Its headquarters are in Dongcheng District, Beijing. China National Petroleum Corporation was established on September 17, 1988 on the basis of the Ministry of Petroleum Industry, mainly in charge of oil and gas upstream operations. It is a state oil company endowed with certain governmental administrative functions. (Cnpc report , 2016)

CNPC explores, refines and market crude oil and natural gas. The company produces crude oil, gas and petrochemical products. It also offers petroleum equipment manufacturing, pipelines. Corporation delivers natural gas to end user via a 50,836 km-long gas pipeline network. China National Petroleum Corporation delivered more than 98.1 billion cubic meters of natural gas to consumers in China. (Cnpc annual report, 2016)

CNPC has discovered more than 180 gas fields in China's major petroliferous basins, with cumulative proven recoverable gas reserves of over 3 trillion cubic meters.

Natural gas production in 2016 was 121.3 billion cubic meters.

Table 12 : Natural gas production by CNPC 2007-2016 (billion cubic meters)

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|----------------------|------|------|------|-------|-------|-------|--------|--------|--------|-------|
| Amount of production | 46 | 59.8 | 52.7 | 82.91 | 88.19 | 93.52 | 103.89 | 113.92 | 116.67 | 121.3 |

Source : CNPC annual reports 2007-2016

Practical Part

For practical part of this diploma thesis were chosen Gazprom and two international oil gas companies which are leading players within the oil and gas industry and are publicly traded. These firms are: Chevron Corporation and ExxonMobil corporation.

This chapter will be focused on comparative analysis of Chevron Corporation and ExxonMobil corporation and Gazprom. Also it will include the research about impact of Gazprom on Russian budget and analysis of Russian international trade.

At the beginning of research it is necessary to define the criteria which will define the scale of the analysis. A chosen time period of recorded values has been established from 2007 till 2016. Data for providing fundamental analysis was taken from companies' official annual reports. Currency which will be used in this market analysis will be US Dollar.

1.8 Gazprom economic results

Net sales of Gazprom in 2016 grew by 0.6% compared to 2015 and amounted to 6.1 billion RUB. The main factors in the change in revenue were the increase in revenues from sales of crude oil and gas to foreign countries (by 151.6 billion RUB). The other factor is decrease in revenues from the sale of natural gas to the Post Soviet countries (by 119.9 billion RUB) A significant part of Gazprom revenue is in foreign currency (mainly in dollars and euros). (Gazprom ,2016)

Table 13 : Net sales of Gazprom 2007-2016 (billion RUB)

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Net sales | 1,774 | 2,507 | 2,486 | 2,879 | 3,714 | 4,766 | 5,249 | 5,589 | 6,073 | 6,111 |

Source : Gazprom financial reports 2007-2016

Gazprom's operating expenses in 2016 increased by 13.1% to RUB and were 5.2 trillion. (in 2015 – 4.6 trillion RUB). A significant amount of operating expenses was spent on costs that were not controlled by Gazprom's management such as expenses for paying taxes and transit of gas. Gazprom is one of the key taxpayers in Russia. In 2016 taxes charged by Gazprom were 900.4 billion RUB and it increased by 95.3 billion RUB compared to 2015. (Gazprom ,2016)

Table 14: Sales profit of Gazprom 2007-2016 (billion RUB)

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|--------|------|------|------|------|-------|-------|-------|-------|-------|------|
| Profit | 486 | 895 | 553 | 822 | 1,105 | 1,350 | 1,587 | 1,310 | 1,228 | 725 |

Source: Financial reports of Gazprom 2007-2016

As a result of the fact that the growth of operating expenses exceeded revenue growth, Gazprom's sales profit in 2016 decreased by 502.7 billion RUB or by 40.9% compared to 2015 and was 725.6 billion RUB.

Table 15 : EBITDA of Gazprom

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------|------|------|------|------|------|------|------|------|------|------|
| EBITDA (%) | 37 | 40 | 39 | 38 | 42 | 35 | 38 | 35 | 31 | 22 |

Source: Financial reports of Gazprom 2007-2016

Table 15 shows the percentage of EBITDA . The decrease in EBITDA was 552.5 billion RUB or 29.5%, compared to 2015. The profitability of Gazprom's EBITDA in 2016 was 22% which is lower than in the previous year (in 2015 - 31%.) The decrease in EBITDA happened because of the tax growth. For shareholders the increase in profit was mainly due to the positive exchange rate differences on debt obligations denominated in foreign currency.

Table 16 : Total debt of Gazprom (billion RUB)

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total debt | 1,510 | 1,365 | 1,348 | 1,315 | 1,540 | 1,500 | 1,801 | 2,688 | 3,442 | 2,829 |

Source: Financial reports of Gazprom 2007-2016

The total debt of Gazprom in 2016 was 2,829.6 billion RUB and it decreased by 17.8% compared to 2015. The decrease in this indicator is mainly due to a decrease in the amount of loans and loans in ruble equivalent due to the depreciation of US dollar and Euro. (Gazprom for shareholders,2016)

Gazprom use a lot of different sources of borrowing capital. Gazprom mainly attracts borrowings in foreign currency: about 46% of the debt is US in dollars, and 34% - in euros. This is due to a number of factors, including low interest rates abroad and a large capacity of the market for foreign currency borrowings in comparison with ruble-denominated instruments. In addition, the currency structure of Gazprom's debt reflects the prevalence of different currency component in its revenue. (Gazprom for shareholders, 2016)

1.9 Comparative analysis of Chevron, ExxonMobil and Gazprom corporations.

1.9.1 Revenue

Revenue is the income that a business has from its business activities, usually from the sale of goods and services to customers.

Table 17 : Revenue of Chevron, ExxonMobil, Gazprom corporations 2007-2016 (million USD)

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Gazprom | 53,849 | 73,01 | 66,466 | 79,934 | 103,046 | 105,922 | 116,665 | 124,218 | 134,962 | 135,802 |
| ExxonMobil | 404,552 | 477,359 | 310,586 | 383,221 | 486,429 | 480,681 | 438,255 | 411,939 | 268,882 | 226,094 |
| Chevron | 273,005 | 171,636 | 204,928 | 253,706 | 241,909 | 228,848 | 211,97 | 138,477 | 114,472 | 141,722 |

Source : Chevron, ExxonMobil, Gazprom financial reports 2007-2016

Table 15 shows total revenue of Chevron Corporation, ExxonMobil corporation and Gazprom for ten year period. The biggest amount of revenue for the whole period has ExxonMobil corporation. The biggest amount was in 2011 - 486,429 million US dollars. From that year revenue of the company is decreasing. In 2016 this amount was 226,094 million US dollars. That is 18.9 % lower than in previous year and that is the lowest amount from the whole decade. The difference between revenue from 2016 and revenue

2011 is 260,355 million US dollars or 46%. That can happen due to vast new supplies of gasoline around the world, combined with the overproduction of oil, has sent crude prices sliding. While demand for gasoline has been strong, particularly in the U.S., consumption hasn't been enough to mop up all the fuel spilling out of refineries.

The second biggest amount of revenue has Chevron corporation. The biggest amount was fixed in 2007 - 273,005 million US dollars. In 2016 revenue was 141,722 million US dollars. that is 52% lower than in the beginning of decade. Chevron's revenue as well as ExxonMobil's has been decreasing since 2014. It happened because revenues reflect the low oil and gas prices during past 3 years. To prevent that company tried to cut capital and operating expenses.

The last company is Gazprom. In 2016 amount of revenue was 135,802 US dollars that is the biggest one out of the whole ten-year period. The lowest revenue was in 2007 - 53,849 million US dollar. Since that time amount is just increasing. In 2016 comparing the beginning of the period amount of revenue has increased 2,5 times. It should be taken under consideration that Gazprom out of given 2 companies earns money in different currency. Last 3 years the exchange rate in Russian federation is getting worse .

1.9.2 Profit

Profit is the amount of earnings that exceed expenses for the period.

In the table below is shown total profit of Chevron Corporation, ExxonMobil corporation and Gazprom. ExxonMobil has the biggest profit out of given 3 companies for the whole decade except years 2015 and 2016. In 2016 corporation reached the lowest profit – 7,84 million US dollars. That is 52% lower than in previous year and almost 6 times lower than in top year 2008.

Second biggest profit has Gazprom corporation. The amount could be bigger because last 5 years exchange rate is unstable and Russian currency is getting weaker. In 2015 and 2016 Gazprom surpassed ExxonMobil and Chevron. In 2016 it had 21,147 million US dollars profit that is 2.6 times bigger than ExxonMobil's profit and 2.3 times bigger than Chevron's profit. The biggest profit of Gazprom corporation is fixed in 2011 - 29,044 million US dollars.

Chevron corporation shows the lowest profit. The lowest one was in 2015 – 497 million US dollars. None of the given corporations never reached it's profit lower than 1 billion US dollars.

In 2016 Chevron extremely recovered and it's profit was 9,195 million US dollars. That happened due to new investment programs and reducing corporation expenses. The biggest profit was in 2010 - 26,895 million US dollar and in 2011 - 26,179 million US dollars but it was still lower than ExxonMobil and Gazprom profit.

Table 18 : Profit of Gazprom, Chevron, ExxonMobile from 2007 till 2016 (million USD)

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|
| Gazprom | 14,623 | 16,509 | 17,324 | 21,523 | 29,044 | 27,21 | 25,316 | 3,533 | 17,49 | 21,147 |
| ExxonMobil | 40,61 | 45,22 | 19,28 | 30,46 | 41,06 | 44,88 | 32,58 | 32,52 | 16,15 | 7,84 |
| Chevron | 23,931 | 10,483 | 19,024 | 26,895 | 26,179 | 21,423 | 19,241 | 4,587 | 497 | 9,195 |

Source : Chevron's, ExxonMobil's, Gazprom's financial reports 2007-2016

1.9.3 Net profit margin

To measure profitability of a company is used net profit margin.. It's always expressed as a percentage. It helps to understand how well a company uses its income. If margin is high that means the company generates a lot of profit for every dollar of revenue. A low net profit margin means the firm's high costs reduce the profit for each dollar of income.

The net profit margin allows you to compare one company against it's competitors. also it is used to see how a company improves over time.

Net profit margin formula is:

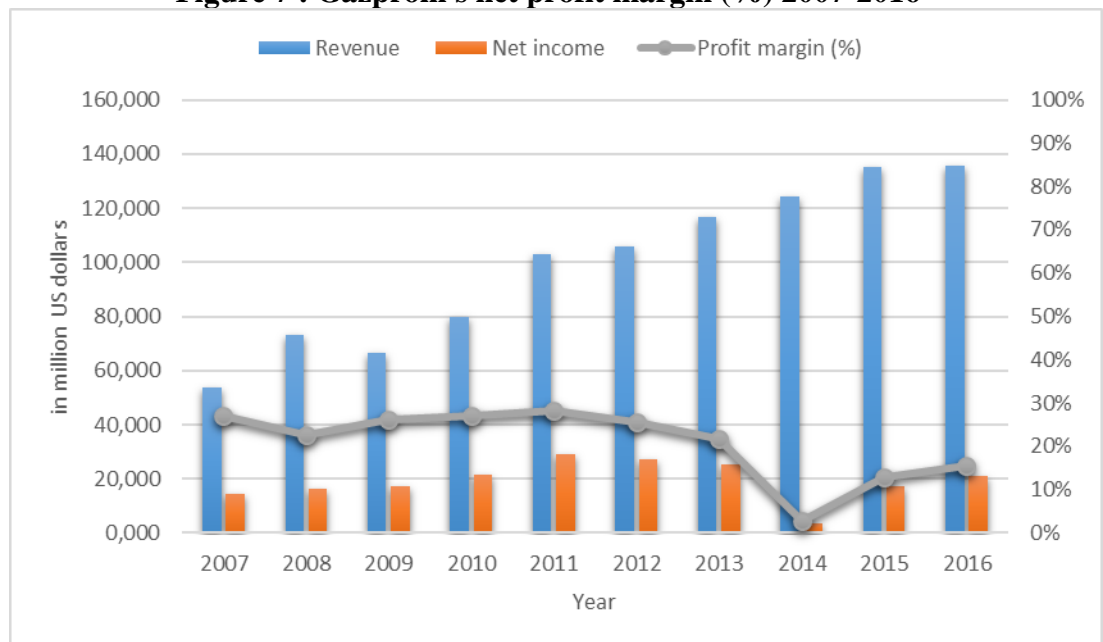
$$\text{Net profit margin} = \text{Net income} / \text{Revenue}$$

Gazprom.

Graph below represents Gazprom net profit margin from 2007 till 2016. In 2007 and 2011 the ratio was the highest and it reached 28%. It means that that years Gazprom corporation was the most profitable. Average net profit margin is ranging from 22%-27%. Only last three years collapsed. The least profitable year for Gazprom was 2014. That year net profit margin reached only 3%. In years 2015 and 2016 it started to recover. In 2015 it

was 13% that is below the average. In 2016 it reached 16% remaining lower than average point but keep increasing since 2014. A decrease in average prices (including excise and customs duties) expressed in rubles caused the decrease in the sale of gas to Europe and other countries.

Figure 7 : Gazprom's net profit margin (%) 2007-2016

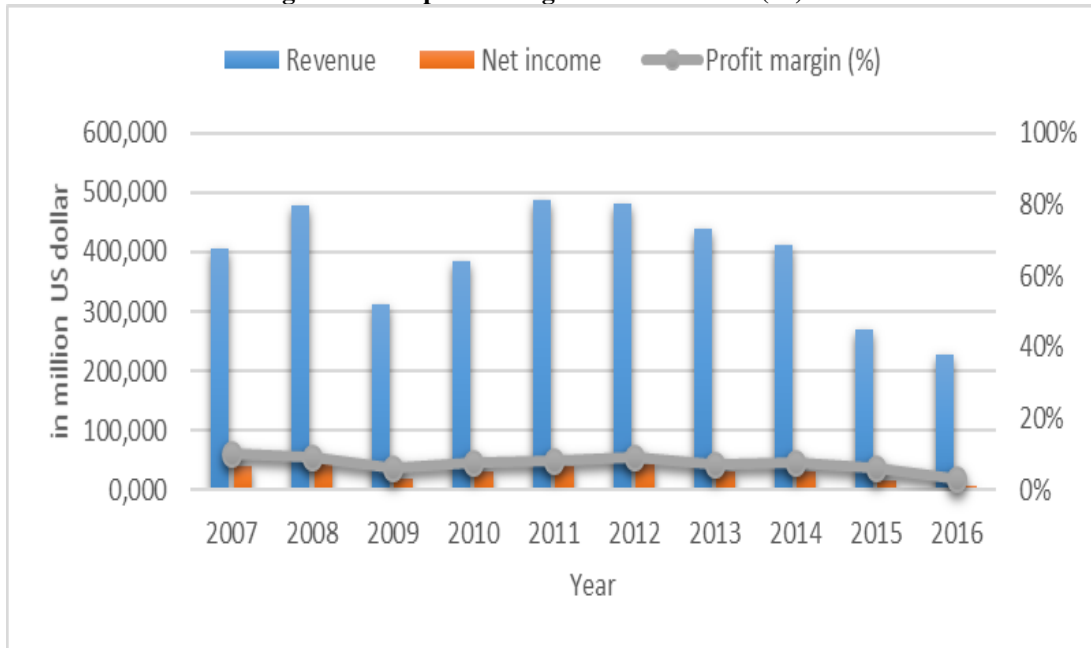


Source: Gazprom financial reports 2007-2016

ExxonMobil

The most profitable year for ExxonMobil was 2007. Net profit margin in 2007 was 10%. during ten years margin remains stable between 9-7 %. In 2015 and 2016 it started to decrease. For ExxonMobil year 2016 was the least profitable. In 2015 it was 6% and next year it dropped to 3%. For big corporations such percentage is too small. It means that high costs reduce the profit for each dollar of income.

Figure 8 : Net profit margin of ExxonMobil (%) 2007-2016

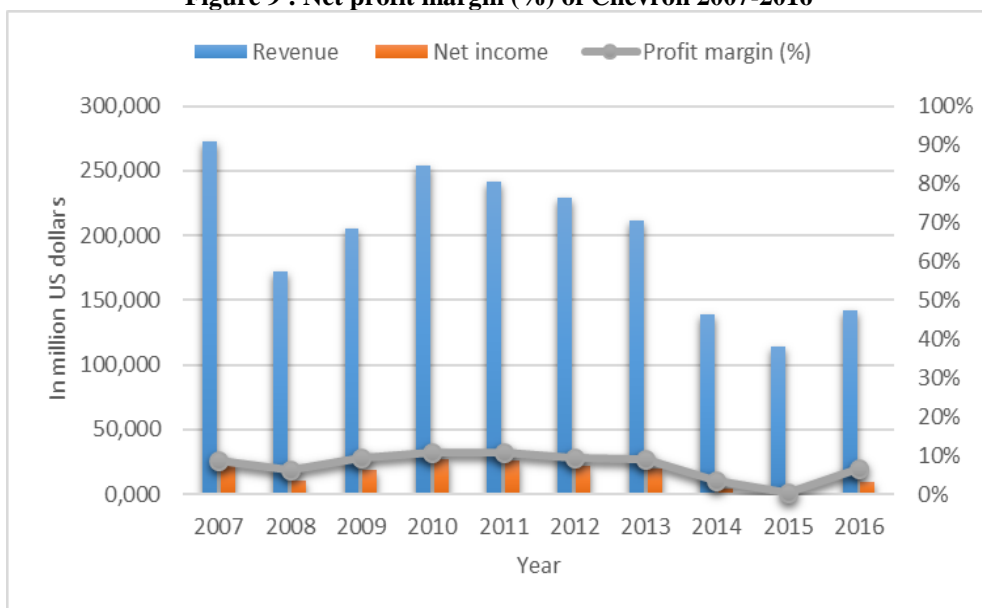


Source: ExxonMobil financial reports 2007-2016

Chevron

The most profitable years for Chevron corporation were 2010 and 2011 – net profit margin was 11%. In years 2007,2009,2012,2013 net profit margin has been remaining at the same position around 9 %. It extremely dropped in 2015 and reached the point lower than 1%. Next year it increased by 5 more percent.

Figure 9 : Net profit margin (%) of Chevron 2007-2016



Source : data from Chevron financial reports 2007-2016

Net profit margin comparison.

Comparing net profit margins of Gazprom, ExxonMobil, Chevron corporations over ten years the most profitable out of it is Gazprom. Most of the time its margin is higher than 20% that is 2 times higher than ExxonMobil and Chevron corporations.

Second most profitable corporation is ExxonMobil. It shows stable profitability ranging between 6-9% without sudden jumps.

Chevron has the lowest results. The net profit margin is jumping every year from relatively high result to extremely low one,

Both Gazprom and Chevron have rapid decline in their profitability in 2015. That could be connected with the collapse of oil and natural gas prices in global market.

1.9.4 Return on asset

The return on assets (ROA) is used to analyze a company's ability to generate profit from its assets. It's always expressed as a percentage. Higher ROA indicates more asset efficiency.

Return on assets formula is:

$$ROA = \text{Net Income} / \text{Total Assets}$$

Table below shows ROA of Gazprom, ExxonMobil and Chevron from 2007 till 2017 calendar year-end.

Table 19 : Gazprom's, ExxonMobil's, Chevron's return on assets (%) 2007-2016

| Calendar year-end data | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------------------|-------|-------|-------|-------|-------|-------|------|------|-------|------|
| ExxonMobile | 17.61 | 19.24 | 8.36 | 11.37 | 12.96 | 13.50 | 9.57 | 9.34 | 4.71 | 2.35 |
| Gazprom | 10.30 | 10.64 | 10.04 | 11.01 | 12.98 | 10.30 | 8.93 | 1.11 | 4.88 | 5.60 |
| Chevron | 15.44 | 6.44 | 10.89 | 13.64 | 11.83 | 8.80 | 7.40 | 1.72 | -0.19 | 3.58 |

Source : Gazprom, ExxonMobil, Chevron data from financial reports 2007-2016

Return on assets is a key indicator of the overall productivity of the company. The highest productivity from three observed corporations has ExxonMobil. In 2016 ROA was 2.35% that is 8 times lower than in 2008- year with the highest result. In 2009 return on

asset was 8.36% that is much lower than previous year. That might be the impact of Global Economic crisis 2008. After that the situation gets better till 2013. In 2013 ROA dropped almost at the same level as in 2009 and it was 9.57%. Since 2013 return on assets index keeps decreasing.

Gazprom ROA had had good results during 2007- 2012 period. In 2008 during Economic crisis its index (10.64%) didn't significantly change comparing previous (2007) and next year (2009). From 2013 index started to decrease as indexes of Chevron and ExxonMobil companies. In 2013 it was 8.93% and in 2014 it dramatically dropped to 1.11%.. after 2014 index increased but still didn't reach 10% point.

Chevron has the lowest results among given companies. In 2016 ROA was 3,58 but before that it reached negative result (-0.19%). A negative ROA shows that a company is not properly utilizing its capital and has wrong management. Also it might be because high levels of debt or corporation is investing a high amount of capital into its production while receiving little income. In 2014 company had precondition to have negative result because ROA was just 1.11% that is low indicator. All in all before 2014 the situation was much better and all indexes were higher than 8%.

1.9.5 Return on equity

Return on equity measures a corporation's profitability by revealing how well a company uses investments to generate earnings growth. The higher is the return on equity, more efficient the company's operations are making use of investments and funds. Return on equity (ROE) is expressed as a percentage and calculated as:

$$\text{Return on Equity} = \text{Net Income} / \text{Shareholder's Equity}$$

Table below shows ROE of Gazprom, ExxonMobil and Chevron from 2007 till 2017 calendar year-end.

Table 20 : Return on equity (%) of Gazprom, ExxonMobil, Chevron corporations 2007-2016

| Calendar year-end data | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Gazprom | 15.39 | 17.37 | 15.70 | 16.73 | 19.06 | 14.92 | 12.86 | 1.66 | 7.71 | 8.78 |
| Chevron | 29.23 | 11.74 | 19.31 | 23.75 | 20.30 | 15.00 | 12.65 | 2.98 | -0.33 | 6.26 |
| ExxonMobil | 34.47 | 38.53 | 17.25 | 23.67 | 27.26 | 28.03 | 19.17 | 18.67 | 9.36 | 4.64 |

Source : Gazprom, ExxonMobil, Chevron financial reports 2007-2016

ROE is usually used for comparing the performance of companies in the same industry. Comparing given companies: Gazprom, ExxonMobil, Chevron the best performance has ExxonMobil. During 2007-2012 period its ROE was more than 20% that is considered to be very good result. In 2008 corporation had the maximum ROE (38.53%). None of the observing companies had never reached ROE more 30% from the ten-year period. In 2009 after Global economic crisis the result was 17.25 that is two times lower than previous year. Since that year ExxonMobil return on equity didn't reach 30% but remained relatively good in comparison with Gazprom and Chevron. Only in 2016 ROE was the lowest out of three corporations.

Chevron's performance can be also considered good except years 2014 and 2015. In 2015 return on equity was negative (-0.33%). Usually negative ROE means that company didn't generate any profit for its shareholders and investors and this company isn't good to invest in it. Next year ROE had improved and was 6.26 %.. Maximum return on equity was almost 30% and it happened only ones in 2007.

In 2014 Gazprom showed bad result and its return on equity was 1.66%.. Next year the result was much better 7.71%.Gazprom ROE during 2007-2013 is ranging between 12-17% and only in 2011 it was 19.06%. ROA higher than 15% is considered to be good. It means that Gazprom is good corporation for investors and shareholders.

1.9.6 Quick ratio

The quick ratio is an indicator of a company's short-term liquidity, and measures a company's ability to meet its short-term obligations with its most liquid assets.

Formula to calculate quick ratio is:

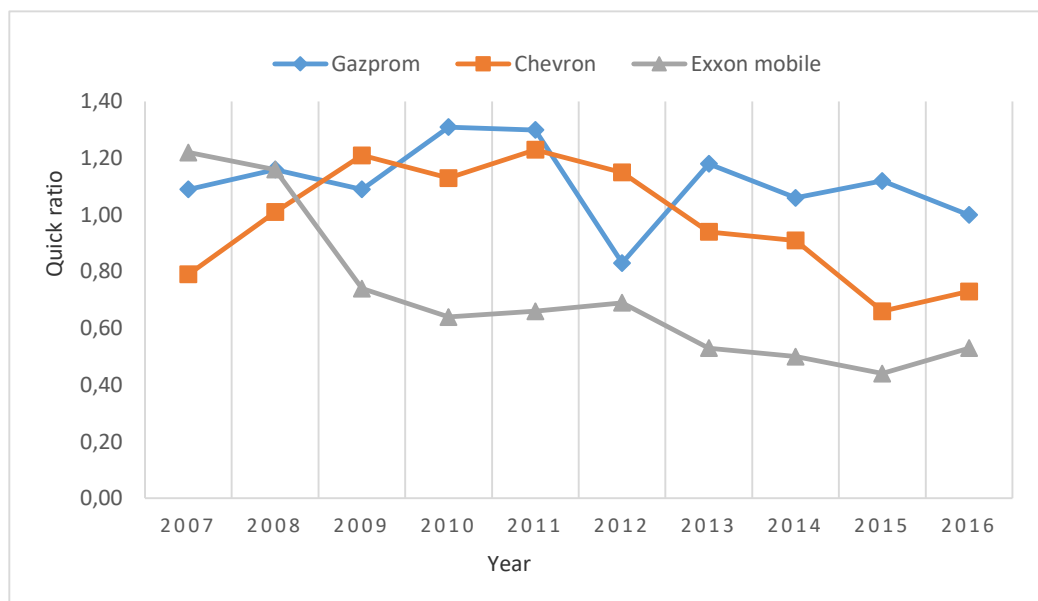
$$\text{Quick ratio} = (\text{current assets} - \text{inventories}) / \text{current liabilities}$$

The highest ratio from the given period has Gazprom corporation- 1.31 in 2010. During 2007-2016 period quick ration of Gazprom is more than one. Only in 2012 it was 0.83 but it is higher than ExxonMobil ratio at the same year (0.69).

Chevron is also performing good. The highest ratio was 1.23 in 2011. The lowest one was 0.66 in 2015. The lowest ratio remains relatively high in comparison with ExxonMobil (0.44) at the same year.

ExxonMobil quck ratio is lower than other observed corporation. It reached its maximum – 1.22 in 2007. Next year ratio was 1.16. Since 2009 this indicator had dropped and for the rest of the period didn't reach ratio more than 1.

Figure 10 : Quick ratio of Gazprom, Chevron, ExxonMobil 2007-2016



Source : Gazprom, Chevron, ExxonMobil annual reports 2007-2016

1.9.7 Current ratio

Current ratio is another indication of a firm's liquidity. It measures a firm's ability to pay off its short-term liabilities with its current assets.

The most common formula to calculate current ratio is :

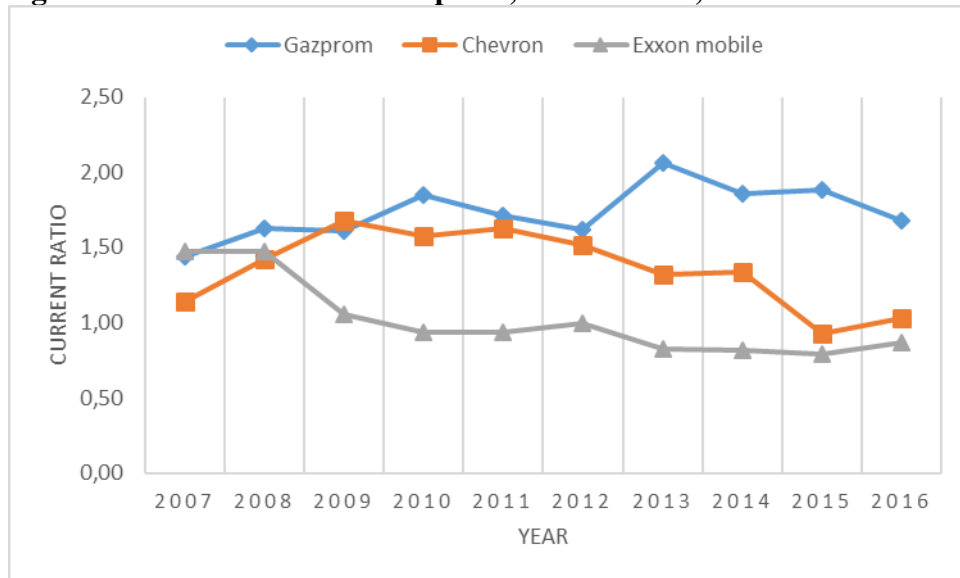
$$\text{Current ratio} = \text{Current assets} / \text{Current liabilities}$$

Maximal current had Gazprom corporation – 2.06 in 2013. During given period Gazprom exceeds ExxonMobil and Chevron in that indicator. Current ratio for the whole period is greater than one. High current ratio means that the company is more likely to pay the creditor back.

Ratio of Chevron company for given period is also greater than one but it'd never reached point greater than 2. The highest current ratio of Chevron was 1,68 in 2009.

ExxonMobil corporation showed good results only 2007-2009 period when its current ratio was greater than one. Since 2009 and till the end of the given period all indicators were less than one. The lowest ratio was 0.79 in 2015. It means that the corporation may have problems meeting its short-term obligations.

Figure 11 : current ratio of Gazprom, ExxonMobil, Chevron 2007-2016



Source : Gazprom, ExxonMobil, Chevron annual reports 2007-2016

1.9.8 Working capital

Working capital is a measure of both a company's efficiency and its short-term financial health

The basic calculation of the working capital is :

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

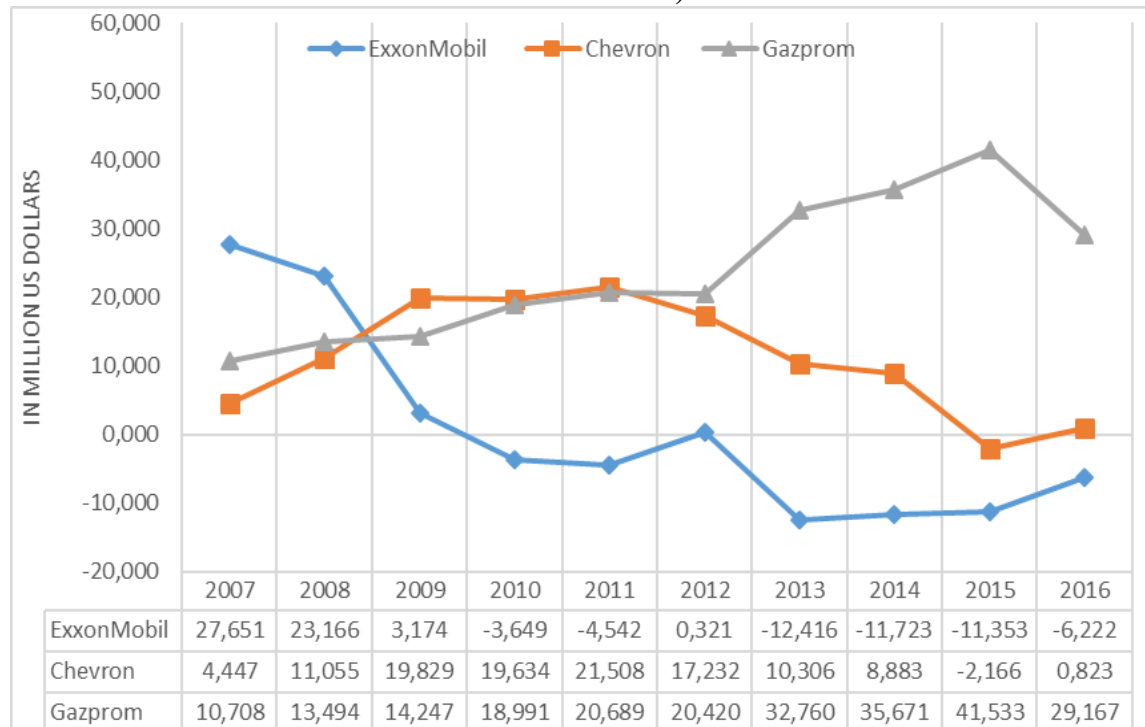
In 2009 ExxonMobil lost 87% of its working capital. The corporation's expansionary strategy desolated its working capital. From 2009 till 2011 ExxonMobil's working capital kept falling. The loss for that period was 32 billion USD. As the result of

losses are considerable decreases in current assets of the corporation. In 2012 working capital was positive – 321 million US dollars but the rest of the given period it only had working capital deficit. That usually happens when corporation’s current assets are less than current liabilities. (ExxonMobil Corporation, 2011)

Results of Chevron corporation are better. The company increased its payables, which reduced its current liabilities. Only in 2015 it had working capital deficit. Working capital that year was (-2) billion US dollars that was 5 times higher than ExxonMobil’s result at the same year. Next year company managed to reduce its current liabilities, specifically short-term debt and its working capital became positive 823 million US dollars. (Chevron, 2011)

Gazprom working capital is the highest out of three given companies. During ten-year period it had never had working capital deficit. In 2008 and following 2009 during Global economic crisis working capital was 13-14 billion USD. Gazprom had to decrease oil and gas prices and also decrease level in its current assets. After the crisis till 2015 working capital had been increasing by 4.5 Billion USD on average every year.

Figure 12 : Working capital of Gazprom, Chevron and ExxonMobil 2007-2016 (million USD)



Source : Gazprom, Chevron, ExxonMobil financial reports 2007-2016

1.9.9 Earnings per share

Earnings per share (EPS) is the portion of a company's profit allocated to each outstanding share of common stock. That indicator is important because it breaks down a firm's profits on a per share basis.

Basic formula to calculate earnings per share (EPS) is:

$$EPS = (Net\ Income - Dividends\ on\ Preferred\ Stock) / Average\ Outstanding\ Shares$$

Higher earnings per share is better than a lower ratio because this means the company is more profitable and the company has more profits to distribute to its shareholders. Chevron's EPS presented the highest value during 2007-2013 period. In 2014 it dropped and was \$2.45. next year Chevron had so called 'net loss per share'. That means negative value. It happens usually when company didn't turn a profit. EPS in 2015 was (\$-0.27) shows how much company lost per share of outstanding stock.

ExxonMobil earnings per share had been positive during 2007-2016 period without any losses. The growth of EPS was from 2010 till 2012 and reached almost \$10. High EPS is a sign of better earnings and a reliable company to invest in. Since 2014 the indicator was decreasing.

Gazprom earning per share is ranging between \$0.3 and \$2.5. Comparing three given companies Gazprom has the lowest EPS. it usually means that company is able to turn a profit but it doesn't have strong financial position.

Table 21 : Earnings per share of Gazprom, Chevron and ExxonMobile 2007-2016(USD)

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------|-------|------|------|-------|-------|-------|-------|------|-------|------|
| Gazprom | 1.24 | 1.39 | 1.47 | 1.87 | 2.53 | 2.4 | 2.2 | 0.3 | 1.4 | 1.9 |
| ExxonMobil | 7.26 | 8.66 | 3.98 | 6.22 | 8.42 | 9.70 | 7.37 | 7.60 | 3.85 | 1.88 |
| Chevron | 11.67 | 5.24 | 9.48 | 13.14 | 13.32 | 11.09 | 10.14 | 2.45 | -0.27 | 4.85 |

Source : Gazprom, Chevron, ExxonMobil financial reports 2007-2016

1.9.10 Results of comparative analysis

In the comparative analysis of Gazprom, Chevron and ExxonMobil corporations as main indicators were used total revenue, total profit, net profit margin, return on asset, return on equity, quick and current ratio, working capital and earnings per share. As

selected period for observation it was chosen period from 2007 till 2016. The data for analysis was collected basically from annual and financial reports of given corporations.

For ten-years period revenue of Gazprom had increase by 152%. Both ExxonMobil and Chevron revenues had decreased. ExxonMobil's revenue dropped by 93% and Chevron's by 98%. Despite the fact of decreasing revenue ExxonMobil has the highest results.

ExxonMobil's profit ,as well as its revenue, is the highest among given. Gazprom is on the second place because Chevron's profit dramatically dropped since 2014.

Observing net profit margin revealed that the most profitable is Gazprom. But company that is able to get the highest profit and properly use investments to generate earning growth is ExxonMobil corporation.

The expansionary strategy presented in 2009 by ExxonMobil desolated its working capital. As the result of that company had big losses and had to decrease current assets such as cash needed to pay for acquisitions, dividend payments. Chevron had different trend. Company reduced it short-term debt and increased its payables.

Gazprom didn't have critical jumps. Decrease in working capital was only during Global economic crisis 2008 and year after that.

The best company to invest in can be considered Chevron because it has the highest earnings per share. Second is ExxonMobil corporation. Gazprom has extremely low ratio. It means that corporation is good to invest in but profit from that will be low.

1.10 Natural gas trade

Today Russia takes first place in the world for proven gas reserves. Over 70% of gas production in the country is provided by Gazprom and its subsidiaries. As it was mentioned in the theoretical part of the thesis : according to Russian legislation Gazprom has monopoly for export.

The geographic structure of foreign trade is a system of distribution of goods between individual countries, groups of countries, formed by territorial or organizational basis. When considering the geographical structure of Russia's foreign trade, it is necessary to identify two main areas: Europe (including Turkey) and the rest (Post Soviet countries and Asia).

1.10.1 Europe

In 2016 Gazprom sold 228.3 billion cubic meters of gas for Europe which is 43.9 billion cubic meters or 23.8%, higher than the level of 2015. Net income from sales (excluding excise and customs duties) was 2 140.0 billion RUB. That is 1.2% lower compared to 2015 due to a decrease in average selling prices. The sales of natural gas European countries in 2016 amounted to 48% of the total volume of the natural gas sold by Gazprom (in 2015 - 41%) and 65% of net income from gas sales.

Table below shows the amount of exported natural gas in European part. the demand for Russian natural gas has increased. Countries that consume Russian gas the most are Germany, United Kingdom, Turkey and Italy.

Table 22: Gazprom's natural gas sales in countries of Western and Central Europe (billion cubic meters)

| | 2007 | 2010 | 2013 | 2016 |
|------------------------|------|------|--------|------|
| Austria | 5.4 | 5.6 | 3.880 | 6.1 |
| Bulgaria | 2.8 | 2.3 | 2.080 | 3.2 |
| Bosnia and Herzegovina | 0.3 | 0.2 | 0.130 | 0.2 |
| United Kingdom | 15.2 | 10.7 | 8.620 | 17.9 |
| Hungary | 7.5 | 6.9 | 4.440 | 5.7 |
| Germany | 34.5 | 35.3 | 29.500 | 49.8 |
| Greece | 3.1 | 2.1 | 1.930 | 2.7 |
| Denmark | - | 0.1 | 0.240 | 1.7 |
| Italy | 22 | 13.1 | 18.970 | 24.7 |
| Macedonia | 0.1 | 0.1 | 0.030 | 0.2 |
| Netherlands | 5.5 | 4.3 | 1.600 | 4.2 |

| | | | | |
|----------------|------|------|--------|------|
| Poland | 7.6 | 11.8 | 7.760 | 11.1 |
| Romania | 4.5 | 2.6 | 0.940 | 1.5 |
| Serbia | 2.1 | 2.1 | 0.630 | 1.7 |
| Slovakia | 1.3 | 1.7 | 3.660 | 3.7 |
| Slovenia | 0.1 | - | 0.370 | 0.5 |
| Turkey | 23.4 | 18 | 19.350 | 24.8 |
| Finland | 4.7 | 4.8 | 2.590 | 2.5 |
| France | 10.1 | 8.9 | 6.360 | 11.5 |
| Croatia | 1.1 | 1.1 | 0.9 | 0.7 |
| Czech Republic | 7.2 | 9 | 5.100 | 4.5 |
| Switzerland | 0.4 | 0.3 | 0.270 | 0.3 |

Source: data from Rosstat 2007-2016

Gazprom is one of the key suppliers of gas in the European market. In 2016 sales volume of Gazprom's gas to the European countries was 178.3 bcm, demonstrating an increase of 19.7 bcm or 12.4% to the level of the previous one of the year.

Decrease in own gas production in Europe and growth of its consumption increased the share of Gazprom's gas in the European gas market. also competitive level of gas prices of Gazprom, due to changes in the price of oil products helped Gazprom to become stronger in European market. (Global energy outlook 2016)

European gas market is specific so there are a lot disagreements about gas price. Gazprom conducts negotiations with each of buyers and after that signing contract in case of agreement of both sides.

In table below are represented average price of natural gas in European market in different currency.

Table 23 : Average natural gas export prices in Europe

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|
| RUB /1,000 m3 | 5,181.9 | 7,521.5 | 7,452.1 | 7,420.7 | 11,259.1 | 11,969.8 | 12,137.9 | 13,487.2 | 15,057.3 | 11,763.3 |
| USD /1,000 m3 | 211,1 | 256,0 | 246,4 | 243,5 | 383,0 | 385.1 | 380.5 | 349.4 | 245.6 | 176.0 |
| EUR /1,000 m3 | 144,2 | 181,5 | 171,7 | 184,0 | 275,3 | 299.8 | 286.3 | 264.5 | 221.5 | 159.0 |

Source : RussianStatistics reports 2006- 2016

1.10.2 Post Soviet countries

Gazprom supplies a significant portion of natural gas to the Former Soviet countries. In 2016 Gazprom sold 33.2 billion cubic meters of gas. Net income from sales was 309.6 billion RUB which is 27.9% less than in 2015 due to a decrease in volumes and average selling prices. In 2016 gas sales were about 7% of the total volume of the natural gas sold by the Gazprom. The reason of reduction of the volume of natural gas supply to the Post Soviet countries in 2016 was the result of a decrease in demand, primarily in Ukraine, as well as in the Baltic countries. (Russian natural gas outlook 2016)

From 2012 till 2016 gas supply is decreasing. The decrease in gas consumption was influenced by such factors as the general economic situation, the decline in industrial production, and an increase in the share of coal in the fuel and energy balance. Under Gazprom contracts natural gas is supplied to more than 12 countries but recent years but since 2014 Gazprom stop to supply gas in Azerbaijan and Uzbekistan. (Gazprom export outlook,2017)

Table 24 : Volume of gas supply by Gazprom 2007-2016 (billion cubic meters)

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|-------------------|------|------|------|------|------|------|------|------|------|------|
| Azerbaijan | | | | | | – | – | – | - | – |
| Armenia | 1.9 | 2.1 | 1.7 | 1.4 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 |
| Belarus | 20.6 | 21.1 | 17.6 | 21.6 | 23.3 | 19.7 | 19.8 | 19.6 | 18.4 | 18.3 |
| Georgia | 1.2 | 0.7 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.1 |
| Kazakhstan | 10.0 | 9.6 | 3.1 | 3.4 | 3.3 | 3.7 | 4.7 | 5.1 | 4.7 | 4.7 |
| Kyrgyzstan | - | - | - | - | - | – | – | 0.1 | 0.3 | 0.3 |
| Latvia | 1.0 | 0.7 | 1.1 | 0.7 | 1.2 | 1.1 | 1.1 | 1.0 | 1.3 | 1.3 |
| Lithuania | 3.4 | 2.8 | 2.5 | 2.8 | 3.2 | 3.1 | 2.7 | 2.5 | 2.2 | 0.9 |
| Moldova | 2.7 | 2.7 | 3.0 | 3.2 | 3.1 | 3.1 | 2.4 | 2.8 | 2.9 | 3.0 |
| Ukraine | 59.2 | 56.2 | 37.8 | 36.5 | 44.8 | 32.9 | 25.8 | 14.5 | 7.8 | 2.4 |
| Uzbekistan | - | - | - | - | 0.3 | – | 0.3 | – | – | – |
| Estonia | 0.9 | 0.6 | 0.8 | 0.4 | 0.7 | 0.6 | 0.7 | 0.4 | 0.5 | 0.4 |

Source : data from Gazprom-export annual reports 2007-2017

In 2014 Gazprom started to supply gas in Kyrgyzstan for the first time. The amount of supplied gas is 0.3 billion cubic meters.

The biggest consumer among CIS countries is Belarus. In 2016 Gazprom supplied 18 billion cubic meters of gas there .

Ukraine used to be the biggest consumer of Russian gas. Gas conflict between Russia and Ukraine started in 2013. Gazprom provided Naftogaz of Ukraine discount on gas because of the critical state of Ukrainian economy. Gazprom and Naftogas signed a contract. In case of non-paying for any reason the discount wouldn't operate according to signed contract. The total amount of Ukraine's debt for Russian gas in 2014 was \$ 2.2 billion. The Ukrainian side paid Russia less than 50% of the required amount - \$ 1.3 billion.

In a letter to the heads of several European countries Russian President Vladimir Putin said that in the face of Ukraine's growing debt for Russian gas, Gazprom would have to switch to a prepayment system and, in the event of a breach of the terms of payments, do not fully or partially supply gas. (Gas conflict,2013)

In July 2014 Gazprom in full compliance with the current contract, transferred Naftogaz to the advance payment of gas supplies, as there was no data on the receipt of funds on Gazprom's accounts at that time. Then Russia cut off gas supplies to Ukraine. It lasted couple of month and Ukraine paid part of debt. After payment gas supplies resumed.

From Table 24 can be noticed how gas supply in Ukraine declined since 2013.

1.11 Impact of Gazprom in Russian economy

In 2016 Gazprom Group had 66% of total Russian gas production. The share in electricity production in Russia was 14%, in Russia's oil and gas condensate production - 11%, and the share in the total volume of oil refining and stable gas condensate in the country is 18%.

The impact of Gazprom in Russian economy is great. Main factors that influence the economic growth of Russia are:

- significant impact of Gazprom in GDP of the Russian Federation
- new investments
- taxes
- a lot of job positions all over the country
- development of new gas and oil fields

1.11.1 Investments

Most of the investment of Gazprom is sent to the main production and to achieve strategic goals. This allows to guarantee the reliability of the production and technical complex and the dynamic development of the company. During the formation of the investment program Gazprom ranks investment projects in terms of their significance, taking into account their economic efficiency.

Table 25 : investment programs of Gazprom (billion RUB)

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------------------|-------|--------|--------|-------|---------|---------|-------|------|-------|------|-------|
| Investment programs | 703.5 | 710.13 | 761.53 | 802.4 | 816.363 | 776.648 | 1,026 | 806 | 1,043 | 842 | 1,128 |

Source : data gathered from Gazprom-investments.com 2007-2017

According to the investment program of Gazprom for 2015 the total investment amounted to more than 1.04 trillion RUB. Gazprom was able to maintain the necessary volumes of financing of all major investment projects as well as to increase gas supplies by 8% compared to 2014. In 2016 Gazprom's investment program was 842 billion RUB. Significant investments were made into the construction of the "Force of Siberia" (76.2 billion RUB) and "Turkish flow" (23.5 billion RUB). (Gazprom for shareholders,2015)

In 2017 the financing of the investment program was 1.1 trillion RUB. According to the budget of Gazprom for 2017 the amount of external financial borrowing will be 288.3 billion RUB. The approved financial plan guarantees the coverage of all of Gazprom's liabilities without financial harm to the corporation. The financing of the three largest projects of the oil and gas industry - the Power of Siberia, the Northern Stream-2 and the Turkish Stream - has also been approved for 2017. (Gazprom investment program,2017)

Strict control over costs and investments allows to develop all the links in the supply chain and generate positive free cash flow even with a noticeable deterioration in external conditions.

For more than ten years Gazprom's capital investments have been fully provided with operating cash flow.

Concerning the debt policy of the oil and gas corporation it is worth saying that the level of creditworthiness of "Gazprom" satisfies not only domestic creditors but also

foreign ones. Gazprom follows a conservative debt management policy. The main debt ratios meet all the requirements of the world's leading oil and gas company. The company carefully approaches the choice of sources of financing and uses leverage as efficiently as possible. Gazprom was able to form the optimal debt portfolio: loans with a maturity of more than five years occupy about a third of the portfolio and the share of borrowings with a fixed rate exceeds 95%. The risk of raising interest rates on funds raised by Gazprom is minimal. In the conditions of financial market instability in late 2014 - early 2015 Gazprom borrowed \$ 700 million at a rate of 4.3%, by 390 million and 350 million euros at a rate 2.75% (Neft Rossii , 2016)

1.11.2 Dividends

In 2014 dividends were 7.2 RUB per share. According to Russian accounting standards it was recommended to pay 90.2% of the net profit of the company Gazprom. This happened due to the global economic crisis which had a very negative impact on the export prices of Russian raw materials.

In 2015, the situation changed dramatically: Gazprom's paid out dividends in the amount 187 billion RUB. That is 46% of the company's net profit. It was also decided to increase dividend payments up to 50% according to international financial reporting standards. Now it provides dividend payments to shareholders in the amount from 17.5% to 30%.

In 2016 the level of dividends remained at the same level (7.89 RUB per share), which is more than 50% of adjusted net profit. (Gazprom,2016)

Gazprom is aimed to maintain the size of dividends in 2017-2019 in at the level of 2016. The decision on dividends in 2018-2019 is planned to be formed on the basis of an additional annual analysis of the situation in the international oil and gas markets, ensuring the size of net profit with free cash flow, as well as the situation in the financial markets. However, today's dividend policy is balanced (taking into account the interests of long-term development of the company and increase of profitability for shareholders).

In the next three years, Gazprom will improve its financial situation. It is considering the possibility of selling assets, increasing the volume of borrowings and freezing the amount of dividends at the level of 2016.

Table 26 : Information about Gazprom shares and dividends

| Year | Dividends per share (RUB) | Share of Russian federation (%) | Total number of shares issued | Shares hold by Russian federation |
|------|---------------------------|---------------------------------|-------------------------------|-----------------------------------|
| 2007 | 2.66 | 50.002 | 23 673 512 900 | 11 837 229 920 |
| 2008 | 0.36 | 50.002 | 23 673 512 900 | 11 837 229 920 |
| 2009 | 2.39 | 50.002 | 23 673 512 900 | 11 837 229 920 |
| 2010 | 3.85 | 50.002 | 23 673 512 900 | 11 837 229 920 |
| 2011 | 8.97 | 50.002 | 23 673 512 900 | 11 837 229 920 |
| 2012 | 5.99 | 50.002 | 23 673 512 900 | 11 837 229 920 |
| 2013 | 7.20 | 50.232 | 23 673 512 900 | 11 891 678 999 |
| 2014 | 7.20 | 50.232 | 23 673 512 900 | 11 891 678 999 |
| 2015 | 7.89 | 50.232 | 23 673 512 900 | 11 891 678 999 |
| 2016 | 7.89 | 50.232 | 23 673 512 900 | 11 891 678 999 |

Source : data from Investopedia.com and Gazprom annual reports 2007-2016

The share of Russian federation until 2012 was 50.002% and since 2013 it'd got 50.232% of Gazprom's shares. Total amount of issued shares is 23 673 512 900 and more than half of it belongs to the state.

1.11.3 Taxes

Gazprom is one of the key taxpayers in Russia. In 2016 total amount of taxes paid was 1.9 trillion RUB. Every accounting period company pays following taxes : Income tax, property tax, VAT, custom duty, excise duty and others.

Table 27 : Total taxes paid by Gazprom 2007-2016 (billion RUB)

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|--------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total taxes | 980 | 1,416 | 1,112 | 1,234 | 1,683 | 1,951 | 1,821 | 2,063 | 1,946 | 1,966 |

Source: income statements of Gazprom corporation 2007-2016

1.11.4 Contribution to Russian federation budget

Table 28: Analysis of Gazprom's contribution in Russian budget income

| Year | Total budget income (trillion RUB) | Budget income from oil and gas industry (trillion RUB) | Earning per all shares owned by the state (billion RUB) | Sum of taxes paid by Gazprom and shares owned by state (trillion RUB) | Share of Gazprom in total Russian budget income | Share of Gazprom in budget income from oil and gas industry |
|------|------------------------------------|--|---|---|---|---|
| 2007 | 7.781 | 2.897 | 31.487 | 1.011 | 13% | 35% |
| 2008 | 9.276 | 4.389 | 4.261 | 1.414 | 15% | 32% |
| 2009 | 7.338 | 2.984 | 28.290 | 1.140 | 16% | 38% |
| 2010 | 8.305 | 3.831 | 45.573 | 1.279 | 15% | 33% |
| 2011 | 11.368 | 5.642 | 1,061.80 | 2.744 | 24% | 49% |
| 2012 | 12.856 | 6.453 | 70.905 | 2.021 | 16% | 31% |
| 2013 | 13.020 | 6.534 | 85.620 | 1.906 | 15% | 29% |
| 2014 | 14.497 | 7.434 | 85.620 | 2.148 | 15% | 29% |
| 2015 | 13.659 | 5.863 | 93.825 | 2.039 | 15% | 35% |
| 2016 | 13.460 | 4.832 | 93.825 | 2.059 | 15% | 43% |

Source : Rosstat, 2016

In that abstract will be reaserched the impact of Gazprom corporation in Russian budged.

In 2016 the amount of total federal income was 13.460 trillion RUB . Oil and gas industry impacked 4.832 trillion RUB.

Total shares of Gazprom owned by Russian federation and amount of paid taxes can be considered as main indicators of impact.

In 2016 total shares according to Table 26 were 11 891 678 999. The dividend per share at the same year was 7.89 RUB. It means that 95 billion RUB has the state.

The amount of total paid taxes according to Table 27 in 2016 was 1,966 billion RUB.

Altogether total taxes and shares owned by government make 2 trillion 59 billion RUB.

Comparing the income of oil and gas industry income in Russian budget and sum of taxes and shares can be made an assumption that Gazprom contributed in 2016 approximately 43%.

Comparing total federal income and sum of taxes and shares the result in 2016 is 15%.

The biggest share of Russian budget income was in 2011. That year Gazpom contributed 49% in budget income from oil and gas industry and 24% in total federal budget income.

Conclusion

It is hard to overestimate the importance of the gas sector in the economy. Natural gas has a high natural productivity, that is why it widely uses in many branches of the national economy. The natural prerequisites of natural gas and the high level of technical progress in its transportation and production largely ensure the accelerated development of the gas industry

The world natural gas market is regionally fragmented into 3 formed (North American, European and Asian) and 5 emerging regional markets (former Soviet Union countries, Central and South America, Near and Middle East, Australia and Oceania, Africa) markets. For the last decade average global consumption of gas had increased. the biggest consumer is Europe (1029,9 billion cubic meters). As the result of that the production had increased too. Nowadays the largest natural gas producer is USA (749,2billion cubic meters), second country is Russia (579,4 billion cubic meters).

Gas industry in Russia has over 100 years history. Nowadays it can be considered as the most developed and largest in the world. The biggest and most productib gas companies in Russia is Gazprom. The company's activities are reserving, production and transportation. as it was mentioned in practical part of the thesis, only Gazprom has the right to export it products abroad. Company is occupying a leading position abroad especially in European and CIS countries. Decrease in own gas production in Europe and growth of its consumption increased the share of Gazprom's gas in the European gas market. Also changes in the price of oil products made prices of Gazprom competitive with Europe. Unified pipeline makes transportation of natural gas cheaper and faster in post Soviet countries. However Gazprom being the only one exporter and the largest in the country makes Russian gas market noncompetitive. It means that only Gazprom and the state can set the price of gas and conditions of the contract. As a result consumer don't have any other choices of price.

Gazprom activities have a great impact on Russian economy. Gazprom is one of the main taxpayers in the country. Also it discovers new gas fields and signs new investment contracts which is also contribute in Russian economy. The other fact is that Russian federation owns main stake of Gazprom (around 50,02%)

This diploma thesis also deals with comparative financial analysis of the companies that can compete with Gazprom. The companies were : ExxonMobil and Chevron. During

the examined period 2007-2016 ExxonMobil had the best result. The analysis revealed that ExxonMobil's profit, as well as its revenue are the highest. But the expansionary strategy presented in 2009 by ExxonMobil desolated its working capital. As the result of that company had big losses and had to decrease current assets such as cash needed to pay for acquisitions, dividend payments.

Observing net profit margin revealed that the most profitable is Gazprom. But company that is able to get the highest profit and properly use investments to generate earning growth is ExxonMobil corporation.

The expansionary strategy presented in 2009 by ExxonMobil desolated its working capital. As the result of that company had big losses and had to decrease current assets such as cash needed to pay for acquisitions, dividend payments. Chevron had different trend. Company reduced its short-term debt and increased its payables.

Gazprom didn't have critical jumps. Decrease in working capital was only during Global economic crisis 2008 and year after that.

The best company to invest in can be considered Chevron because it has the highest earnings per share. Second is ExxonMobil corporation. Gazprom has extremely low ratio. It means that corporation is good to invest in but profit from that will be low

The study showed that Gazprom position is stable without extreme jumps. All indicators are increasing from year to year. It doesn't have any losses during the given period 2007-2016. Even during Global Economic crisis the company managed to save its position. It means that Gazprom can be competitive with global leaders.

The researched revealed that Gazprom impacts Russian economy significantly. It happened due to new investments, taxes, a lot of job positions all over the country and development of new gas and oil fields. The contribution of Gazprom in Russian budget is also great. It contributes 43% in oil and gas industry budget income. Gazprom makes approximately 15% of total federal income in Russian budget.

The study represented the vivid natural gas trade of natural gas. The geographic structure of foreign trade is Europe (including Turkey) and the rest (Post Soviet countries and Asia). All in all it consists of more than 34 countries. According to Russian legislation Gazprom has monopoly for export. It exports around half of produced natural gas. In 2016 it exported 212 billion cubic meters of gas (420 billion cubic meters was total production in 2016). Nowadays Gazprom supplies a significant portion of natural gas to the Former Soviet countries and became one of the key suppliers of gas in the European market.

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