



Financial ratio analysis of Russian oil and gas companies

Evaluating financial standing of Lukoil, Rosneft and Gazprom
Public Joint-Stock Companies

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Abstract:	
<p>The research aims to perform an analysis of the financial performance of three energy companies to identify the most financially stable company. The author sets the main research question as Which company has the most stable financial position according to the ratio metrics within a 5-year period? The scope of the research is strictly limited and formed from the financial data obtained from the financial statements. The theoretical framework is divided into three sections. In the first section, the author is introducing the reader to the selected field of study from a larger scale, hence with the oil and gas industry. In the second section, the author explains the companies' selection. Afterward, in the third section, the author discloses the core concept – meaning and application of financial ratios associated with the selected industry in this study. Considering the Cross-sectional and Time-series analysis of financial ratios, a quantitative method was selected. Given the financial statements as secondary data, primary data was generated out of them in the form of financial ratios which afterward were compared and analyzed. According to the results obtained in ratio analysis, Lukoil has the most stable financial position because it has the highest returns on capital and equity, one of the highest liquidities, the lowest debt leverage, and ultimately the highest dividend yield. Only in the Current and Price to Cashflows ratios, Lukoil scored lower than Gazprom, nonetheless, considering the leverage ratio group, both companies resulted similarly. In conclusion, the ratio analysis is only one part of financial stability analysis and to make comprehensive and holistic assumptions internal data of the company is needed. It is crucial to consider ongoing projects and have short-term planning of the company on hand to be able to gauge fairly on future prospective.</p>	
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1 INTRODUCTION

1.1 Motivation

Analysis based on financial ratio evaluation of the company allows determining its current state, opportunities, and problems. This valuable information is used both for making current management decisions and for developing future strategies. Investors, shareholders, business owners are primary users of such information. Therefore, any company irrespectively of its business operations must be able to form adequate conclusions about the results of activities and make reasonable forecasts based on the data from the financial statements.

Analysis of financial indicators is one of the methods for assessing the state of the company and its capabilities in the future. It acts as the basis for strategic planning, helps managers to identify resources and directions for the subsequent development of the company, to find its strengths and weaknesses. The analysis of financial ratios is carried out to identify the optimal ways to achieve the set goals, such as increasing business activity - asset turnover, ensuring liquidity and financial stability, increasing the profitability of the company. An analyst must understand the variety of figures from accounting and management reporting to be able to determine the effectiveness of the company's current activities and develop recommendations for increasing them. It should be noted that in financial analysis, the main objective is not the absolute correctness of the calculation of ratios, but the correct interpretation of the results obtained because the effectiveness of the decisions made by the management of the company depends on this.

1.2 Aim of study

The research aims to perform an analysis of the financial performance of three oil and gas companies to identify the most financially stable company.

The term financially stable company has a broad meaning, so it has to be defined. In this context, it is a characteristic indicating company's ability to: generate an excess

return on the invested capital, convert its current assets to meet current liabilities, operate without debt overhang and create value for its investors. Thereby, the aim is to assess the listed above attributes to propose the most financially stable company.

Current research focuses upon one of the approaches in evaluating the financial performance of the three leading companies within the oil and gas industry. This approach implies calculation and analysis of financial ratios obtained from financial statements allowing to identify the most financially stable company. To emphasize the objectivity and rationality of the research, the selection of the companies is made upon common characteristics as business sector, the scale of operations, publicity status, geographical and jurisdictional zone. This allows to create an equitable environment and make unbiased analysis.

1.3 Background

Despite the controversial position of society on the usage of oil as an energy source, it remains one of the largest sources of energy for Finland in 2019 (Sandberg, 2020), as well as for the whole world (BP, 2020). Moreover, in June 2019th, during the recent Saint Petersburg International Economic Forum, the chairman of the board of directors of JSC Rosneft claimed that over the past year oil reserves in Russia have more than doubled due to the discovery of fantastic energy reserves in the Russian Arctic. The largest extracting oil company in Russia – Rosneft intends with the sustenance of the state to create an oil cluster from existing and new oilfields in the north of the Krasnoyarsk Territory, which will rapidly increase extraction in the upcoming years, which certainly will lead to the energy industry and market shift (PRIME, 2019). Consequently, it could be claimed that today's energy industry is a vital ramification of the global economy with expected growth opportunities, hence accentuating the significance and validity of current research.

1.4 Research questions and hypotheses

The author sets the main research question as:

Which company has the most stable financial position according to the ratio metrics within a 5-year period?

Thereafter, a sub research questions derived as:

1. Which company has the highest returns on capital and equity?
2. Which company has the highest liquidity?
3. Which company has the lowest debt leverage?
4. Which company generates the cheapest cash flow and had the highest dividend yields?

To reveal the stated questions, the author aims to conduct a comprehensive analysis of multiple financial ratios which will allow to assess financial performance and select the outperforming company. It is challenging to come up with hypotheses because none of the companies has an outstanding feature that would grant an advantage in selection.

1.5 Limitations

The scope of the research is strictly limited and formed from the financial data obtained from the financial statements consequently restricting and weakening the comparison overall since the internal analysis of financial data does not provide the holistic representation of companies' performance. Analysis of corporate financial risks, competency, position on the market and other external factors are an inalienable part of the evaluation process that is not included in current research.

1.6 Theoretical framework

Current research is not a continuation or development of previous academic investigations, the author is focusing the reader's attention on the result of the analysis with the central goal of applying practical data into theoretical concepts.

The theoretical framework is divided into three sections. In the first section, the author is introducing the reader to the selected field of study from a larger scale, hence with the oil and gas industry. In the second section, the author explains the companies' selection.

Afterwards, in the third section, the author discloses the core concept – meaning and application of financial ratios associated with the selected industry in this study. This section is mostly constructed upon the theory knowledge from academic books, whereas the other first two sections require to discover relevant literature and research.

1.7 Method

Considering the Cross-sectional and Time series analysis of financial ratios, a quantitative method was selected. The research could be considered quantitative because it seeks to explain data numerically (Bryman and Bell, 2011 pp. 150-153). Given the financial statements as secondary data, primary data was generated out of them in the form of financial ratios which afterwards were compared and analyzed. The author employs annual financial statements of chosen companies within the 5-year period to calculate financial ratios, thus 15 annual consolidated financial statements under IFRS were used in total. The selected companies are:

- PJSC Lukoil
- PJSC Rosneft
- PJSC Gazprom

The reasons behind this choice were that all mentioned companies are publicly listed within stock markets, thus have publicly available financial statements; they operate within the same industry with nearly equal business operational scales and are based in the same country which neutralizes currency risks. Moreover, considering financial statements, the reporting standards selected by the companies are the same.

1.8 Structure of the thesis

After revealing the methodology, a literature review will touch upon the oil and gas industry, selected companies, and financial ratios sections. In the result section, the author intends to extract financial data and calculate ratios. After the primary data is obtained, it would be possible to make Cross-sectional and Time-series analyses in the same section. Eventually, it will be feasible to conduct a generalised evaluation of

results in the discussion and conclusion sections to attempt to answer stated research questions.

2 METHODOLOGY

2.1 Description of methods

To be able to proceed to the conclusion and discussion section, it is necessary to open a discussion about actual methods that are going to be employed to reach the desired results.

Overall, the research could be split into 3 stages. The first stage is where the author actively searches for secondary data – finding the inputs for ratios calculations. Financial ratio by itself is an analytical method that consists of calculation of the relationship of the accounting data and the determination of the relationship of indicators (Weygandt, Kimmel and Kieso, 2009 pp. 801-802). Solely, the ratio cannot describe the overall condition of the company, but there are 2 methods that enable to broaden the meaning of ratios and allow to derive to concrete conclusions. According to Andrey Zahariev (2019, p. 48), there are 2 principal reasons for using ratios: company self-evaluation over time and benchmarking with industry peers. Thus, in the second stage, the author is trying to consider these reasons by applying Cross-Sectional and Time-Series Analyses for already calculated ratios. Where:

- Time-series analysis consists in comparing the indicators of the financial statements or ratios of one company with the results from previous periods.
- The cross-sectional analysis consists in comparing the indicators of the financial statements or ratios with the industry peers' results.

Firstly, ratios will be calculated for each company separately and plugged into a Time Series Analysis to provide a better self-performance evaluation over the 5-year period. Afterwards, it will be possible to combine calculated ratios for companies together in 1 figure and expand Time Series analysis into Cross-Sectional Analysis per each ratio. By doing so, the author is developing an evaluation by benchmarking each company to its industry peers and its own performance over time simultaneously. The author presumes that described methodology above will lead to the most efficient usage of financial ratios, therefore to the most accurate and realistic conclusion in the end. As a supportive argument for choosing the current methodology, Dao (2016 pp. 11-13) and Mrowinska

(2020 pp. 9-11) resorted to similar methods in their analytical works and conducted their research successfully.

2.2 Method of data collection

The main objective of the research is set on financial ratios analysis of 3 energy companies. To extract ratios, financial data will be synthesized from financial statements; hence, financial statements are considered as secondary data and ratios as primary data to be retrieved. The selected companies are:

- PJSC Lukoil
- PJSC Rosneft
- PJSC Gazprom

The secondary data is going to be collected from the financial statements as Income Statement, Balance Sheet and Cashflow Statement available online on official websites of the companies. Importantly to note that the secondary data for all 3 companies has common accounting standards called International Financial Reporting Standards (IFRS) which avoid miscalculations in accounting and consequently increase the reliability of the current research.

2.3 Selection of companies

The companies' selection is based on their common characteristics. The operational scale is nearly the same – selected companies have been holding the top 3 positions of Russian companies by turnover for the 2019th year (RBC, 2019). Gazprom, Lukoil and Rosneft are Public Joint-Stock Companies (PJSC), and all are being traded on the Moscow Exchange financial market (MOEX). The business sector, geographical and jurisdictional zone are similar since all the companies established their production in Russia. Consequently, the currency risk is neutralized. A more dilated overview of each company will be presented in the Literature review section.

2.4 Financial ratios

For the 2 methods mentioned above, the author intends to use the below-listed ratios (Brealey, Myers and Allen, 2017 pp. 732–748; Berk and Demarzo, 2017 pp. 69–79):

1. Accounting Rates of Return
 - a. Return on Equity (ROE)
 - b. Return on Invested Capital (ROIC)

2. Liquidity Ratios
 - a. Current Ratio
 - b. Quick or Liquid ratio

3. Leverage Ratios
 - a. Debt to Capital Ratio
 - b. Interest coverage ratio

4. Valuation Ratios
 - a. Price to Cashflow ratio
 - b. Dividend yield ratio

2.5 The reasoning behind selected ratios

The Accounting Rates of Return group is obligatory to be considered because these ratios measure company's ability to generate income relative to invested capital, equity and assets, therefore they disclose answers to sub-questions.

The Liquidity ratios group is assessing the company's ability to pay its short- and long-term liabilities thus reveals its financial position as well.

As far as energy companies are operating in the real sector of the economy they are considered as capital-intensive (Paminto, 2016 pp. 123–134), thus Leverage Ratios are examined.

Eventually, the Valuation ratio group has to be taken into account because one of the sub-questions is looking at the company's performance from the investment side, therefore the ability to generate cash and value has to be evaluated.

To emphasize the relevance of the selection of the current ratio groups it is possible to refer to (Putra, A.P., Lahindah, L. & Rismadi, B. 2014 pp. 42-51) and (Joseph H. J., Dion D. D. 2015 pp.13–26) research. Both have been focusing on the assessment of the financial performance of the oil and gas industry by using identical ratios listed above.

2.6 Method of evaluating the results

To present the results for the Cross-sectional method, Histogram charts are going to be built in Microsoft Excel. This type of visual graph allows to insert data from several years and multiple sources simultaneously and depict abnormal differences easily, thus, for each ratio, a separate Histogram for a 5-year period will be constructed based on the data obtained for each company in Time-Series analysis. A descriptive analysis will be presented under each Histogram respectively.

Findings obtained from the Time-Series analysis are not going to be presented separately in the Result section to avoid repetitiveness. These findings will be combined in a Cross-sectional histogram and presented together.

3 LITERATURE REVIEW

3.1 Oil and gas industry in Russia

To begin the literature review, the author intends to introduce the reader with an explanation of the importance of the oil and gas industry to Russia, thereafter, prove it numerically.

Russia is the third-largest oil-producing country and the second-largest gas-producing country in the world. Its economy, like the economy of other oil refining countries, depends on the level of development of the oil and gas complex (Elagina, 2020).

The name “oil and gas complex” refers to a group of industries for the extraction, transportation and processing of oil and gas, and the distribution of their refined products. Russian oil and gas complex plays an extensive role in world energy consumption. In 2018 it provided 12.39% of world oil production and 18.64% of gas production (BP, 2019 p. 5). In 2018, the share of the oil and gas industry in the mining sector in Russia was 72.4% (Asatryan, 2020), therefore, it should be noted that the Russian economy is exceedingly dependent on the mining of its raw materials with the dominance of the oil and gas sector. The revenues from hydrocarbon exports are used for the following purposes:

- financing the development of other sectors of the Russian economy;
- financing the development of other infrastructure projects;
- the formation of gold and foreign exchange reserves (Obvintseva and Litvinchuk, 2020 pp. 90–94).

Ultimately, the country's balance of payments and the maintenance of the ruble exchange rate depend on the results of the oil and gas complex. Revenues from the oil and gas complex make a large contribution to the country's GDP and constitute a 36% revenue part of the federal budget (U.S. Energy Information Administration, 2017). Reducing the influence of the Russian budget from oil and gas dependence has been one of the main problems for Russia. Nowadays this might not be considered as a huge problem, but in case of shocks in the market and changes in consumer taste of

preference, this might be a catastrophe. For example, European Union has considered declining in greenhouse gas emissions as a key target for 2030 by at least 40% compared to 1990-year levels meaning that there will be certainly an increase in renewable energy, thus a decrease in oil and gas products (European Commission, 2016).

In Table 1 below, the Russian federal budget income is presented (Ministry of Finance Russian Federation, 2021). Numerical data prove the fact that Russian budget income is strongly dependent on oil and gas revenue throughout a prolonged period of time (7 years).

Table 1. Brief information on the execution of the Russian federal budget (billion RUB)

		2012	2013	2014	2015	2016	2017	2018
	SECTION I							
1	Revenue, total	12 855,5	13 019,9	14 496,9	13 659,2	13 460,0	15 088,9	19 454,4
<i>1.1.</i>	Oil and gas revenues	6 453,2	6 534,0	7 433,8	5 862,7	4 844,0	5 971,9	9 017,8
<i>1.2.</i>	revenues	6 402,4	6 485,9	7 063,1	7 796,6	8 616,0	9 117,0	10 436,6
<i>1.2.1.</i>	Domestic production	2 603,8	2 681,5	3 113,6	3 467,6	3 780,6	4 741,9	5 430,9
1.2.1.1.	VAT (internal)	1 886,1	1 868,2	2 181,4	2 448,3	2 657,4	3 069,9	3 574,6
1.2.1.2.	Excise taxes	341,9	461,0	520,8	527,9	632,2	909,6	860,7
1.2.1.3.	Income tax	375,8	352,2	411,3	491,4	491,0	762,4	995,5
<i>1.2.2.</i>	Import related	2 445,8	2 418,0	2 474,3	2 404,4	2 539,6	2 728,6	3 211,5
1.2.2.1.	goods	1 659,7	1 670,8	1 750,2	1 785,2	1 913,6	2 067,2	2 442,1
1.2.2.2.	imported goods	53,4	63,4	71,6	54,0	62,1	78,2	96,3
1.2.2.3.	Import duties	732,8	683,8	652,5	565,2	563,9	583,2	673,0
<i>1.2.3.</i>	Other	1 352,7	1 386,4	1 475,2	1 924,6	2 295,8	1 646,5	1 794,2

The dynamics of prices in the industrial, transport, agriculture, and service sectors depend on oil prices consequently, therefore, Russia is interested in the development of this industry, including the willingness to play an active role in the capital markets serving the fuel and energy sectors internationally (Baburina, 2018 pp. 2340–2355).

As mentioned earlier, the name “oil and gas complex” involves a variety of different processes that could be separated and performed by companies independently from each other. Sometimes this could be employed as a solution in the short run, but in a long run, it incurs high variable costs which could lead to a great loss in the end. To avoid that, there had been created companies named VIOCs – vertically integrated oil companies that unite several enterprises or industries to create one complete production chain: from the development and creation of a product to its distribution to the end consumer (Saifullina and Osinina, 2018 pp. 34–36).

VIOCs account for the bulk of oil extraction as well as gas in the sector. The main oil extracting companies are Gazprom Neft, Lukoil, Surgutneftegaz, and Rosneft.

Concerning crude oil extraction in 2019th year: Rosneft extracted 195.11 million tons, LUKOIL - 82.12 million tons, Surgutneftegaz - 60.76 million tons, Gazprom Neft - 39.15 million tons (Interfax, 2020). Together, mentioned vertically integrated companies extracted 67,35% out of the total Russian crude oil extraction volume.

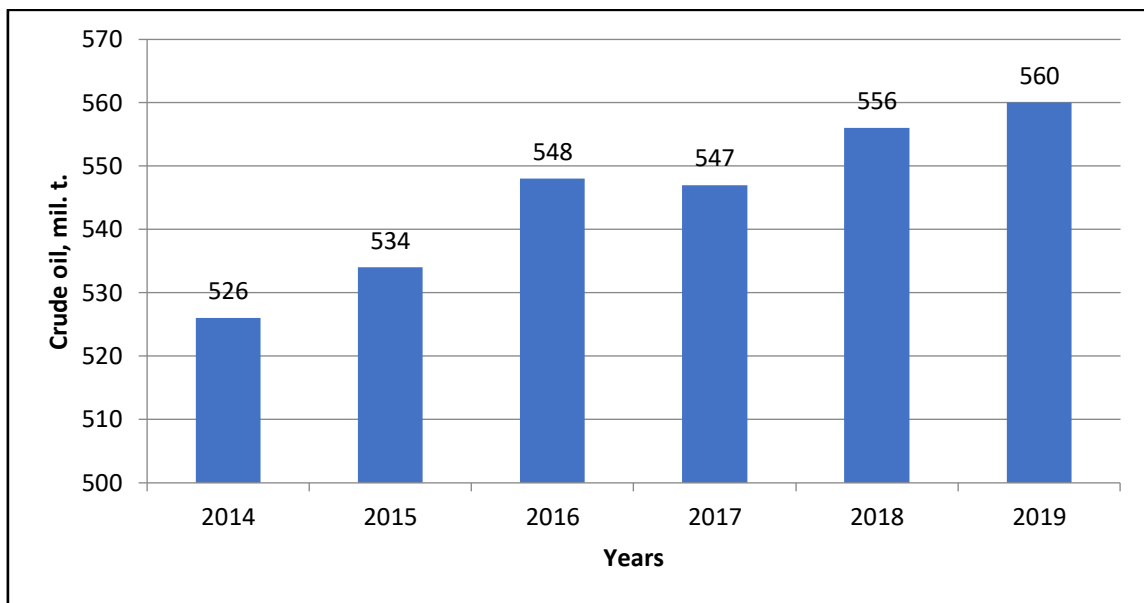


Figure 1 - Oil production in Russia in 2014-2019 years

In Figure 1 it is possible to track changes in Russian oil extraction from 2014 to 2019 year (Enerdata, 2019). Oil production grew moderately and in 2019 amounted to 560 million tons. In 2017, there was a decrease in oil production due to an agreement with OPEC+ countries. The decline in oil production was necessary to regulate the price (Meredith, 2017). The main factors behind the increase from 2017 to 2019 in production were the commissioning of new fields, as well as reaching the production plateau of previously commissioned fields. Production increased even as the OPEC + deal extended (Analytical Center for the government of the Russian Federation, 2020 p.17).

Continuing with vertically integrated companies in gas extraction, the volumes of natural and associated gas in 2019 were produced by Novatek – 70.3 billion cubic meters, Rosneft - 44.1 billion cubic meters, Gazprom Neft - 20.6 billion cubic meters, LUKOIL - 20.5 billion cubic meters, "Surgutneftegaz" - 9.6 billion cubic meters. The

results of these companies were accumulated to 22,34% out of total gas extraction. Nonetheless, those were independent companies, the absolute leader in this sector is considered to be a governmentally controlled Gazprom. In 2019, the company provided 64.9% of the total Russian gas production (Analytical Center for the government of the Russian Federation, 2020 p. 40). It appears controversial that there are two companies with almost identical names: Gazprom and Gazprom Neft. It is necessary to provide an explanation that Gazprom Neft is a subsidiary company of Gazprom. This division was needed in order to separate operational activities since companies focus on different production chains (Gazprom Neft PJSC, 2020). A more dilated overview of these companies will be presented in the Companies overview chapter.

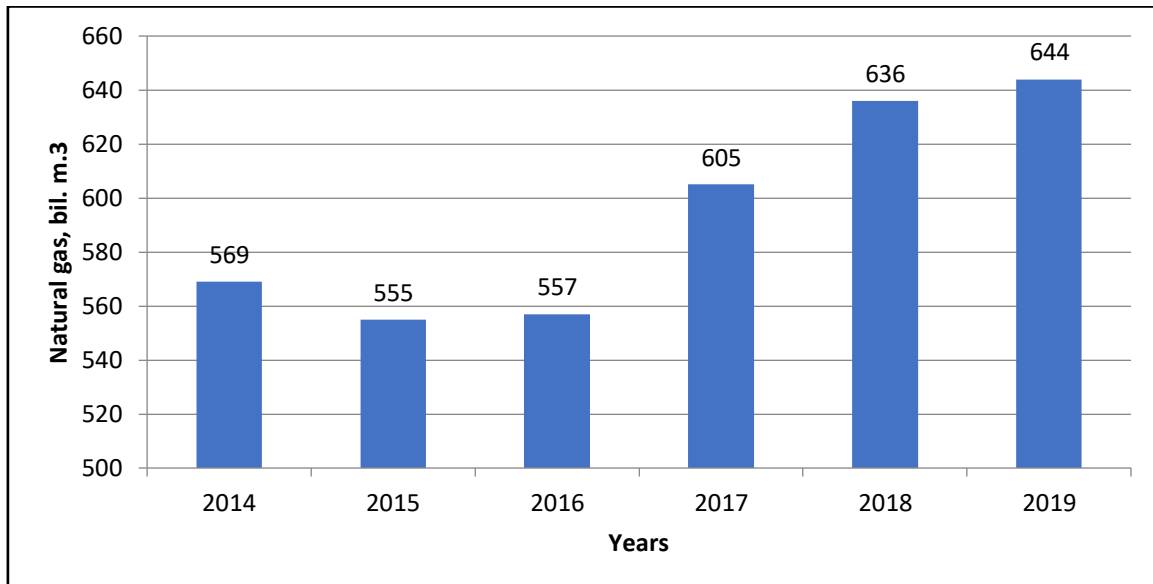


Figure 2 - Natural Gas production in Russia in 2014-2019 years

In Figure 2, Russian natural gas extraction from 2014 to 2019 year is presented (Analytical Center for the government of the Russian Federation, 2020 p.39).

In 2015, production of natural gas in Russia amounted to 555 billion cubic meters, which is 2,46% less than in 2014. According to the Russian Ministry of Energy, in 2015th gas supplies to the domestic market decreased by 3.1% compared to 2014th year. The main decrease in consumption is observed in the production of electricity and heat (Ministry of Energy of the Russian Federation, 2016).

In 2017, production of natural gas in Russia amounted to 605 billion cubic meters, which is 8,62% more than in 2016. The increase in production was caused by growing exports and domestic consumption. During this year, gas supplies to Russian consumers increased by 2.5% by 2016, reaching 468 billion cubic meters, and returned to the 2011 level after declining in 2012-2015. Supplies for the needs of energy, industry, and the household sector have increased (Analytical Center for the government of the Russian Federation, 2018 p. 35).

In 2019, according to Rosstat's operational data, production of natural gas in Russia amounted to 644 billion cubic meters, which is 1.26% more than in 2018 and is a record figure for the entire period of Russian gas production (Rosstat, 2020). The increase in gas production in Russia in 2019 was mainly due to the expansion of export supplies (Analytical Center for the government of the Russian Federation, 2020 p. 39).

To sub-conclude, in the 1st part of the literature review, the general data about oil and gas sectors were discussed. It was claimed that the Russian government budget is dependent on oil and gas revenues and proven afterwards with numerical data.

3.2 Review of the companies

In this sub-section, an overview of VIOCs selected for analysis will be discussed.

Most of the vertically integrated oil companies were formed during the privatization of the early 1990s, others were born as a result of the processes of mergers and acquisitions. Looking at a number of significant differences, both in structure and in the form of ownership, vertically integrated oil companies are similar in one common feature - activities throughout the production cycle: geological exploration, development of oil fields, oil production, processing into end-use products, and the wholesale and retail of oil products to consumers (Neftegaz.ru, 2014).

3.2.1 Lukoil

The public joint-stock company oil company Lukoil begins its history in 1991 when the oil concern “LangepasUraiKogalymneft” was created by the decree of the government

of the Russian Soviet Federative Socialist Republic (RSFSR), later transformed into OJSC in 1993, then into PJSC in 2015. The main regions for oil production of the company became Western Siberia, the Urals, and the Volga region. In 1994 the process of privatization of the company began and its shares were traded on the secondary market. At the same time, the company began to implement its first international project, becoming a participant in the development of the Azerbaijani Caspian field called Azeri-Chirag-Guneshli. In the second half of the 1990s and the 2000s, Lukoil significantly expanded the geography of its activities by signing contracts for geological exploration, development, and production of hydrocarbons in several countries of the near and far abroad and by increasing its foreign assets. In 2008, through the acquisition of shares in UGK TKG-8, Lukoil was transformed into an energy holding, simultaneously developing an oil refining business with Russian and foreign partners (Pederson, 2001).

Today it is one of the largest privately-owned vertically integrated companies in Russia, uniting a group of subsidiaries operating in such segments as exploration and production of hydrocarbons; their processing, trade, and marketing; production of petrochemical products; generation, transportation and sale of heat and electric energy, as well as related services. Projects for exploration and production are implemented in 14 countries. Moreover, considering proven oil reserves, Lukoil is amounting up to 11,2% out of all Russian oil reserves at the end of the 2019th year (BP, 2020; Lukoil, 2020 p.14).

Lukoil exports oil and oil products to the markets of Europe and the USA, to the countries of Asia, Africa, and Latin America. To improve export efficiency, the company uses its own sea terminals abroad. The company supplies its products by rail and pipeline transport and has its own refuelling complexes in airports based in the largest airport worldwide (Lukoil, n.d.).

Currently, more than 5000 gas stations operate under the LUKOIL brand in 22 countries of the world. The company is expanding the markets for its EKTO branded fuel, which is sold by more than half of its filling stations in Russia. There are about 2500 of them, or 21% of the total number of gas stations in the country (Lukoil, 2021 pp. 21-22).

According to Alexey Goncharenko, Director for Russia and Eastern Europe at Minale Tattersfield, LUKOIL is one of the most "advanced" players among large gas station chains. At the same time, the fundamental difference between LUKOIL and other Russian companies is that over the course of many years, since the late 1990s, it has consistently and systematically developed its network abroad (Oil and Capital, 2017).

Alexey Goncharenko highlights several of Lukoil's competitive advantages. First, it is a wide ramified network. In Europe, only companies like BP, Shell and just a few others can boast of such a network. Secondly, the company's network operates under a single strong brand, which is very important for consumers who are accustomed to the image of this brand, the type of stations, and a certain level of service. Thirdly, LUKOIL has ready-made solutions for various station formats - from small (usually) urban-format stations to large route complexes. With the available tools, the company can develop very actively and quickly enough, attaching new assets and adapting them to their standards (Oil and Capital, 2017).

Today, PJSC Lukoil carries out the entire chain of the production cycle – from oil and gas production to the production of a wide range of high-quality oil products, gas processing and petrochemical products, sold wholesale and retail in 18 countries (LUKOIL, n.d.).

3.2.2 Rosneft

OJSC Oil Company Rosneft was established in 1995, becoming the legal successor of the state enterprise under the same name. Today it is one of the largest vertically integrated oil and gas corporations on a global scale by turnover and it is included in the list of strategic enterprises of Russia. The main shareholders are: Rosneftegaz, which owns 40,40% of Rosneft shares, being 100% owned by the state, 19.75% of shares are owned by BP Russian Investments Limited, QH Oil Investments LLC owes 18,46%, 10,70% owes National Settlement Depository, and others (Rosneft, 2021b). Current shareholders break-down indicates that Rosneft is still considered as a governmentally owned company and obeys primarily to the state which could be controversial considering the preferences of private investors.

Rosneft accounts for 40% of Russian oil extraction and about 35% of its total refining in Russia (Rosneft, 2021a). The activities of PJSC Rosneft include the entire technological chain of oil and gas production from prospecting and development of hydrocarbon deposits to the sale to end customers of oil, gas, and their refined products in Russia and abroad. The company owns 18 large refineries located in Russia and abroad. Its sales network is deployed in 59 regions of Russia as well as embrace the Indian market as a shareholder of Nayara Energy. Among the priority tasks of the Rosneft are to ensure stable production at mature fields in Western Siberia, the extension of its own segment of oilfield services, and the development of offshore fields (Rosneft, 2021c).

Rosneft conducts exploration and production in the main oil and gas provinces of Russia, which include Eastern and Western Siberia, the Volga region, the Urals, the Far East, Krasnodar Territory, the Timan-Pechora region, as well as offshore shelves, including the Arctic. The diversified investment portfolio of the company, along with the main Russian assets, includes assets of promising oil and gas companies from near and far abroad. In the sphere of Rosneft business interests – the resource potential of the regions of the international oil and gas business, such as Venezuela, Ecuador, Brazil, Norway, the United Arab Emirates, Algeria, Turkmenistan, and other fields (Rosneft, 2021c). Rosneft has enough resources to explore new oil fields in the new regions as well as to integrate its operational capabilities with local oil and gas producers. In relation to newer oil fields, Rosneft describes new projects and promising export volumes in the Asia-Pacific region, in recent years continuing to constantly increase its presence there. The company is leading in the exploration of the Russian Arctic shelf, the world's largest source of undiscovered hydrocarbon reserves. Its discovery of a giant ultra-light oil field in the Kara Sea, the reserves of which are comparable to the entire current resource base of Saudi Arabia, became one of the most notable events in 2014 in the global oil and gas industry (Rosneft, 2020).

Using the most modern technologies and constantly improving the technological base, Rosneft successfully demonstrates steady growth in oil and gas production. The company is a member of the largest Russian oil and gas project with direct foreign investment called Sakhalin-1. Within its framework, the company is developing the Arkutun-Dagi field on the Sakhalin shelf. In 2015, it began producing oil there using the world's largest offshore drilling platform, Berkut (Rosneft, 2021c). In 2015th, Rosneft

acquired a 100% stake in ZAO Novokuibyshevskaya Petrochemical Company, which contributes to the further integration of its oil and gas production capacities and refining resources, allowing to significantly increase the volume of petrochemical products with high added value (Rosneft, 2019).

3.2.3 Gazprom

Public Joint-Stock Company Gazprom is a global energy company engaged in field development, production, transportation, processing, marketing of hydrocarbons and its derivatives, as well as the sale of heat and electricity (Gazprom, 2019).

The history of the company dates back to 1993, from the moment of the transformation of the state concern Gazprom into RJSC (since 1998 - OJSC, since 2015 - PJSC) with its subsequent privatization (Gazprom, n.d.). The first commercial gas deliveries were undertaken in 1999 via the Yamal - Europe transnational export gas pipeline laid through the territories of Russia, Belarus, Poland, and Germany (Gazprom, n.d.). In 2003, the eastern direction of gas supplies via the Blue Stream from Russia to Turkey was opened (Gazprom, n.d.). In 2005, the foundation was laid for the development of the company's oil business by gaining control over a 75.679% stake in Sibneft. At the same time, a norm was established by law, according to which the state must own at least 50% plus one share (Gazprom, n.d.). The implementation of the strategy in the energy sector approved by the company's board of directors previously made Gazprom the largest electricity producer in the Russian Federation as well as the number one company in terms of profit and assets under management (Gazprom, n.d.). In 2011, commercial supplies of liquefied gas began via the Nord Stream, which runs along the bottom of the Baltic Sea (Gazprom, n.d.). And in the same year, the company becomes the world leader in terms of net profit – \$ 44.56 billion according to Forbes (Russia Today (RT), 2012). In 2015, a memorandum was signed between Gazprom and CNPC on the route for Russian gas supplies to China from the Far East via the Power of Siberia - 2 gas pipeline (Gazprom, n.d.). Listed above examples are indicating that among the priority areas of Gazprom activity are the development and implementation of new projects for the production and export of liquefied natural gas along with constant expansion and enlargement of its asset base, which significantly strengthens its position in the rapidly developing world LNG market.

The strategic goal of Gazprom, while respecting the interests of all its shareholders and improving corporate governance, is to become a global vertically integrated energy company, taking a leading position in the global energy market by increasing the efficiency of its activities, developing new markets, transport routes, creating products with high added value within the framework of highly effective scientific and technical projects (Gazprom, n.d.).

Today, Gazprom accounts for 12% of the world and 68% of Russian gas production. Its gas reserves account for 71% of the all-Russian and 16% of the world's natural gas reserves. The company owns the largest gas transportation infrastructure with a total length of 175.2 thousand km of gas pipelines, which supply gas to more than 30 countries of the near and far abroad. Gazprom owns large assets of energy generating companies, with a total installed capacity of 16% of the total installed capacity of the Russian energy system. In addition, it ranks first in the world in terms of heat production (Gazprom, 2019).

Despite the constant energy prices movements, the company continues to demonstrate a high level of implementation of production programs and large-scale projects, strengthening its resource base and increasing production capacity year to year. Thus, in 2008, the Gazprom group's net assets were equal to 4,7 trillion ₺, whereas in 2012, after the US housing crisis, the company showed 7,8 trillion ₺ in net assets which proves previously mentioned statement (OAO Gazprom, 2009); (OAO Gazprom, 2013).

3.3 Explanation of selected financial ratios

Financial ratios are the relative indicators of the financial condition of the company, allowing to assess its financial position from different points of view. Financial ratios – an extensive system of financial indicators characterizing the ratio of the main results of the financial activities of the company with itself or with other financial criteria such as assets or capital used.

According to the financial statements: balance sheet, income statement and cash flow statement, financial ratios are calculated. They make it possible to expand the

informational content of the entire financial statements of the company. Financial ratios play a major role in the financial analysis of the enterprise. The analysis of the coefficients involves the study of the relationship between the accounts of different financial statements and different accounts of the same statement, in other words, an indicator links one balance sheet account to another, or the balance sheet account is compared to the income statement's account (Alarussi, 2021 p.117).

Financial ratios allow the administration of the company, shareholders, investors, lenders to assess the financial position of the company in dynamics. The mechanism for calculating financial ratios is quite simple: information is selected from the annual financial statements that are used to calculate a set of ratios for different periods, which are then compared with each other and/or with industry standards to assess the financial position and operating results of the company. When comparing, the financial ratios of the company are compared with industry standards or with the average performance of other comparable companies in a similar industry and studied for at least two consecutive years.

Financial ratios are used to assess liquidity; business activity; financial stability; profitability.

Financial ratios are used by:

- financial managers to obtain information on the effectiveness of management decisions.
- lenders to assess credit risk.
- investors to form hypotheses about future profits and dividends.

Financial ratios measure many aspects of a business but are usually not used in isolation from financial statements. Financial ratios have traditionally been an integral part of the analysis of financial statements.

Financial ratios allow to compare:

- companies;

- industries;
- different periods of activity of the same company;
- the results of the company with the industry average.

To assess the current state of the company, a set of coefficients is used, which are compared with the standards or with the average performance of other comparable companies. Coefficients outside the recommended range indicate the company's “weak spots”. Ratios for firms in different industries that face different risks, capital requirements, and different levels of competition commonly are not being compared due to inequality

To describe various aspects of financial condition, financial ratios are grouped into (Brealey, Myers and Allen, 2017 pp.732–748; Berk and Demarzo, 2017 pp.69–79):

1. Accounting Rates of Return - these ratios show the effectiveness of cash management in the company.
 - a. Return on Equity (ROE) – this is a general ratio that indicates what return can company generate based on the invested capital by equity holders. The main purpose of this ratio is to indicate whether the company’s return is sufficient for the investors. The equation for this ratio is:

$$\text{Return on Equity} = \frac{\text{Net income}}{\text{Average shareholders' equity}}$$

Where:

- Net income is the profit that is left after covering all operational expenses and taxes.
- Average shareholders’ equity is capital provided by shareholders. It is considered best practice to calculate ROE based on average equity over a period because of the mismatch between the income statement and the balance sheet (Chandra, 2019 pp.37–39).

The data is taken from the Balance Sheet and Income Statement.

- b. Return on Invested Capital (ROIC) - is used to assess a company's performance in terms of return on invested capital. It allows investors to assess how effectively the company is transforming the capital invested in it into profit. The equation for this ratio is:

$$\text{Return on Invested Capital} = \frac{\text{EBIT} * (1 - \text{tax rate})}{\text{Book Value of Equity} + \text{Net Debt}}$$

Where:

- EBIT – is an abbreviation for Earnings Before Interest and Tax expenses.
- The tax rate is calculated as Tax expense divided by Pre-tax income.
- Net Debt is calculated as Total Debt - Cash & Cash equivalence (C&CE).

The data is taken from the Balance Sheet and Income Statement.

Accounting rates of returns are relevant for this analysis because companies in the comparison are mature, have similar operational scales, and limited growth potential which allows to reliably evaluate their performance.

2. Liquidity Ratios - financial indicators that determine the company's ability to pay off current liabilities at the expense of selling existing current assets. The purpose of these ratios is to evaluate how solvent the company stays in case it converts its assets into cash to cover its liabilities.
- a. Current Ratio - shows the company's ability to pay off current (short-term) liabilities at the expense of only current assets. The equation for this ratio is:

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

The needed data is taken from the Balance Sheet.

- b. Quick ratio – has a similar meaning as the Current ratio but with particular differences. This indicator shows whether the company will be able to pay off its short-term liabilities at the expense of the most liquid assets: cash, account receivables, short-term financial investments. The equation for this ratio is:

$$\text{Quick ratio} = \frac{\text{C\&CE} + \text{Acc. Rec.} + \text{Short-term financial assets}}{\text{Current liabilities}}$$

Where:

- C&CE is Cash & Cash equivalence.
- Acc. Rec. is Account Receivables.

The needed data is taken from the Balance Sheet.

3. Leverage Ratios - a group of ratios that show what part of profit or cash flow is absorbed by interest and (or) other fixed costs. Based on these ratios, it is possible to assess the company's creditworthiness.
- a. Debt to Capital Ratio – a financial indicator showing the relative ratio of equity capital and borrowed funds used to finance the current operations of the company. It reveals the usage of debt in percentage term out of the equity capital available thereby evaluating interest expense overhang or underhung on debt. The equation for this ratio is:

$$\text{Debt to Capital} = \frac{\text{Total debt}}{\text{Total debt} + \text{Shareholders' equity}}$$

Where:

- Total debt is all the funds borrowed, therefore short-term and long-term debt, to keep the business operating.
- Shareholders' equity is capital supplied to the company only by its controlling entity – shareholders.

The needed data is taken from the Balance Sheet.

- b. Interest coverage ratio – it characterizes the degree of protection of creditors from non-payment of interest on a loan provided and shows how many times during the reporting period the company has earned funds to pay interest on loans and borrowings. This ratio indicates how do interest payments affect the EBIT and what is the margin of safety in case of an unexpected shortfall. The equation for this ratio is:

$$\text{Interest coverage} = \frac{\text{EBIT}}{\text{Interest expense}}$$

Where:

- EBIT – is an abbreviation for Earnings Before Interest and Tax expenses.
- Interest expense refers to payment on short-term and long-term borrowings and other amortization of premiums or discounts associated with it.

The needed data is taken from the Income Statement.

It is important to consider leverage ratios because oil and gas type of business is capital intensive, so the debt has to be monitored because in the case when a company carries too much debt at some point in time it could worsen the future credit rating, thus the company will face more expensive interest payments on loans and pressure from investors due to increased default risk (Dothan, 2006

pp.147–162). Nonetheless, debt is acceptable from investors to a certain degree since interest on debt is lower than on equity. This occurs because debt repayments are paid in the first place and have fixed terms whereas equity holders can only enjoy retained earnings that are left after all expense deductions.

4. Valuation Ratios – financial coefficients that are needed to price the opportunity of having equity shares as an investor.

- a. Price to Cash Flow – is a ratio that compares a company’s worth to the cash flow it generates. Alternatively, this metric measures how much an equity holder is willing to pay for the cash flow generated by the company. The equation for this ratio is:

$$\text{Price to Cash Flow} = \frac{\text{Market Capitalization}}{\text{Operating Cash Flow}}$$

Where:

- Market Capitalization is the number of outstanding shares multiplied by the share price. The share price is averaged 1 month after the annual report release date
- Operating Cash Flow is the amount of actual cash generated by the company in a certain period less non-cash expenses such as amortization and depreciation.

The needed data is taken from the Cash Flow statement and Investing.com – stock trading platform.

- b. Dividend yield ratio – reflects the return on equity investment expressed only in dividends received and ignores capital appreciation. The equation for this ratio is:

$$\textit{Dividend yield} = \frac{\textit{Annual dividends per share}}{\textit{Price per share}}$$

Where:

- Price per share is taken as average for the whole year.

The needed data is taken from the Notes to Balance Sheet statement and Investing.com – stock trading platform.

4 RESULTS

4.1 Accounting Rates of Return

In this subsection, the author is going to evaluate how efficiently companies generate returns on capital provided to them from different holders.

4.1.1 Return on Equity

In Figure 3, the Return on Equity ratio of 3 companies is shown for the 5-year period from 2015th to 2019th year. The input data is presented in Appendices in Table 3 and Table 4.

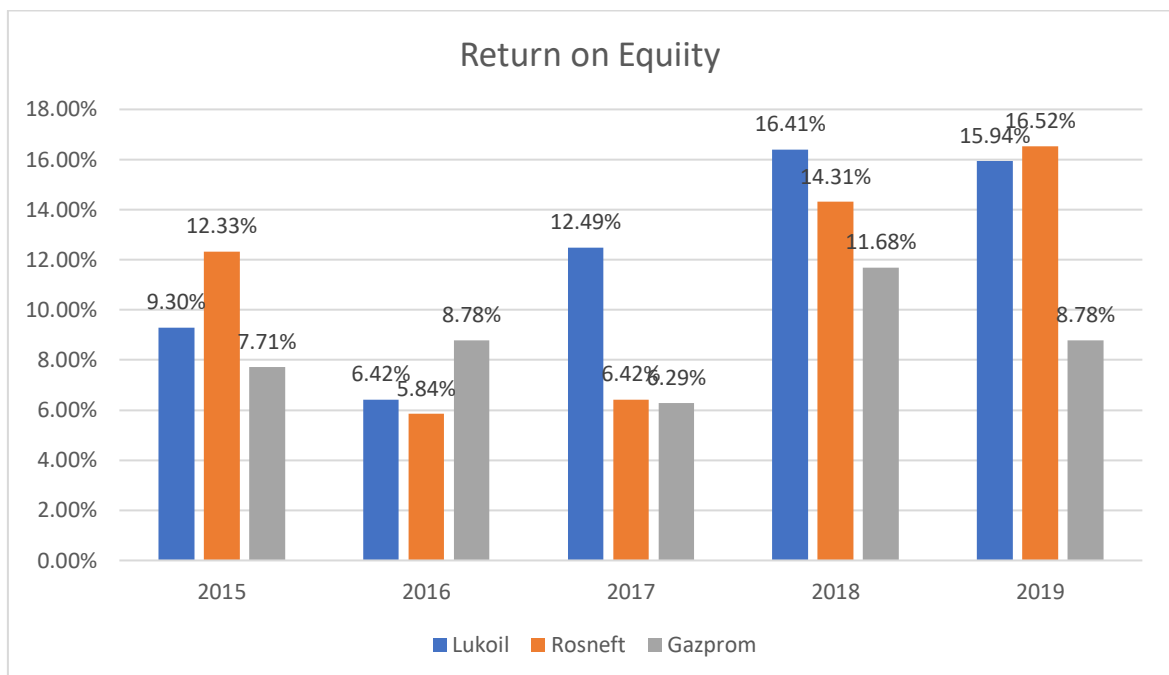


Figure 3. Return on Equity

The average results for 5 years are the following: Lukoil – 12,11%; Rosneft – 11,08%; Gazprom – 8,65%. These results show how much return companies can generate on provided capital from equity holders and reveals its efficiency in investment decisions.

By definition, the main goal of any business is to generate profit, ideally, show constant growth in terms of net income. Acknowledging this, it would be reasonable to give more insight into the ROE ratio. As it is a fraction, changes in numerator and

denominator affect the result. In the case of proportional growth in both, the ratio will stay constant, therefore it is necessary to examine the rate of change. In other words, by how much will net income increase, if equity capital is increased by 1%? This rate will provide an efficiency measure of companies' exploitation of newer equity capital. So, by calculating an increase in equity capital from 2015th to 2019th year in hand with an increase in net income, it would be possible to estimate its rate of change. The results are the following: Lukoil – 5,2%; Rosneft – 1,79%; Gazprom – 1,59%. Clearly, Lukoil has the best rate implying that it is able to provide 119,89% of initial net income for only a 23,05% increase in equity.

Overall, it is possible to claim that all 3 companies are efficient and provide sufficient rates (above 0%) of return in equity. Since there is no specified benchmark for this ratio, it would be appropriate to compare obtained results to an overall Russian equity market growth. The RTSI index is a capital-weighted composite index calculated based on prices of the most liquid Russian stocks of the largest and dynamically developing Russian issuers presented on the Moscow Exchange (Bloomberg, n.d.). On the 5th of January 2015th, its opening value was \$785,8 and \$1554,72 on the 3d of January 2020th, therefore the average annual growth rate for RTSI was 19,57% (Moscow Exchange, n.d.). Based on this information it is possible to assume that companies are underperforming in comparison to an overall equity market.

4.1.2 Return on Invested Capital

In Figure 4, the Return on Invested Capital ratio of 3 companies is shown for the 5-year period from 2015th to 2019th year. The input data is presented in Appendices in Table 5 and Table 6.

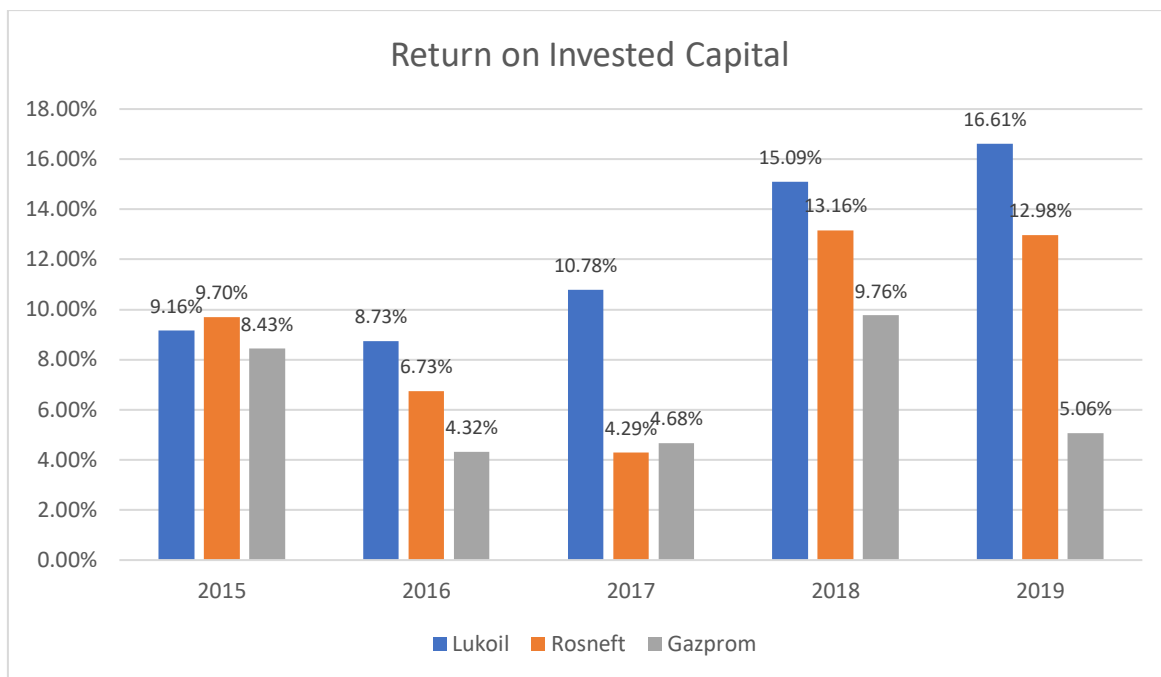


Figure 4. Return on Invested Capital

Figure 4 reveals how efficient the companies are in their core business operations. This ratio is similar to ROE but has a key difference: the calculation of this ratio includes capital from both debt and equity holders excluding interest payments. This is a pure metric that assesses the efficiency of the company in allocating all its capital. In comparison to ROE, ROIC cannot be compared to any other market return due to the fact it is an operational metric, therefore it will be appropriate to analyse ROIC between selected companies only. The average results for ROIC: Lukoil – 12,07%; Rosneft – 9,37%; Gazprom – 6,45%. The outperforming company with steady growth in ROIC turned to be Lukoil, therefore it is possible to claim that it uses its capital most effectively.

4.2 Liquidity ratios

In this subsection, the author is going to analyse the companies' ability to repay their liabilities relying on their assets if they all fall due immediately – check their liquidity.

4.2.1 Current ratio

In Figure 5, the Current ratio of 3 companies is shown for the 5-year period from 2015th to 2019th year. The input data is presented in Appendices in Table 7 and Table 8.

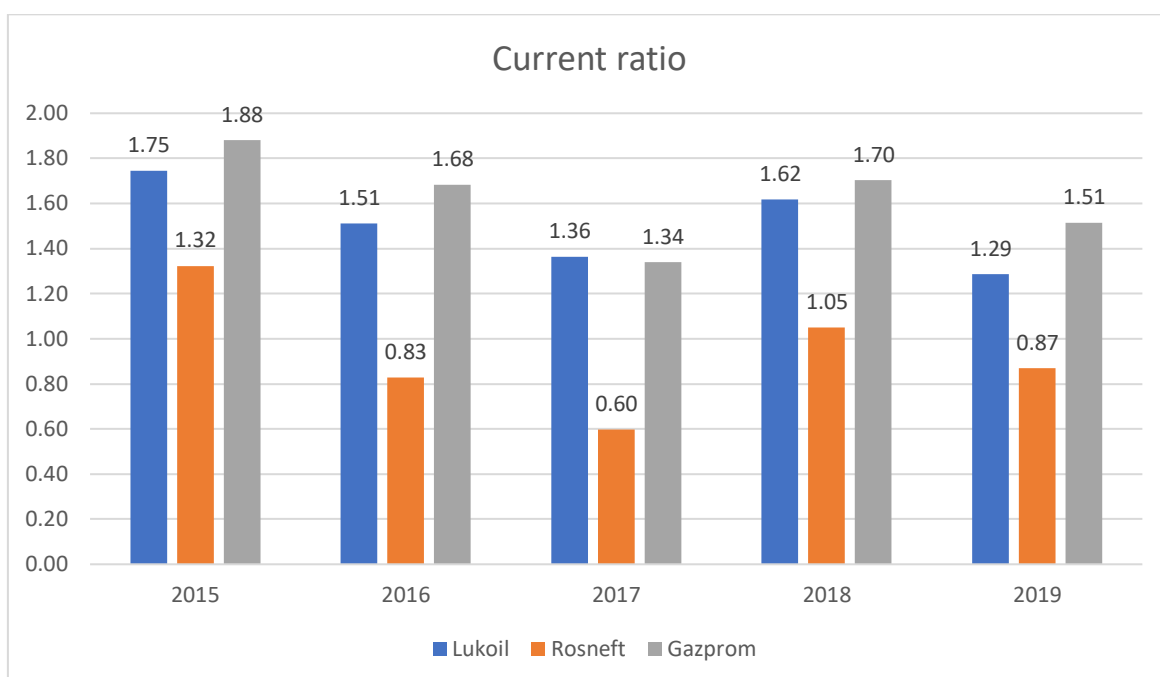


Figure 5. Current ratio

Lukoil and Gazprom resulted with 1,51 and 1,62 Current ratios on average which indicates their ability to cover their liabilities relying on current assets solely whereas Rosneft resulted in 0,93 on average which represents a negative working capital and the possibility of liquidity shortfalls.

To understand obtained results better it would be a good idea to compare them to an American oil and gas integrated companies' benchmark. The average Current ratio from 2009 to 2014 was 1,17 which is less in comparison to Lukoil and Gazprom - this again highlights their high level of liquidity (Iskakov, 2015 pp. 340–341). Rosneft's 0,93 average is lower than the 1,17 American benchmark and lower than competitors' averages. Moreover, there is no certain trend for Rosneft in the analysed period to claim that the company is improving or deteriorating its liquidity.

4.2.2 Quick ratio

In Figure 6, the Quick ratio of 3 companies is shown for the 5-year period from 2015th to 2019th year. The input data is presented in Appendices in Table 9 and Table 8.

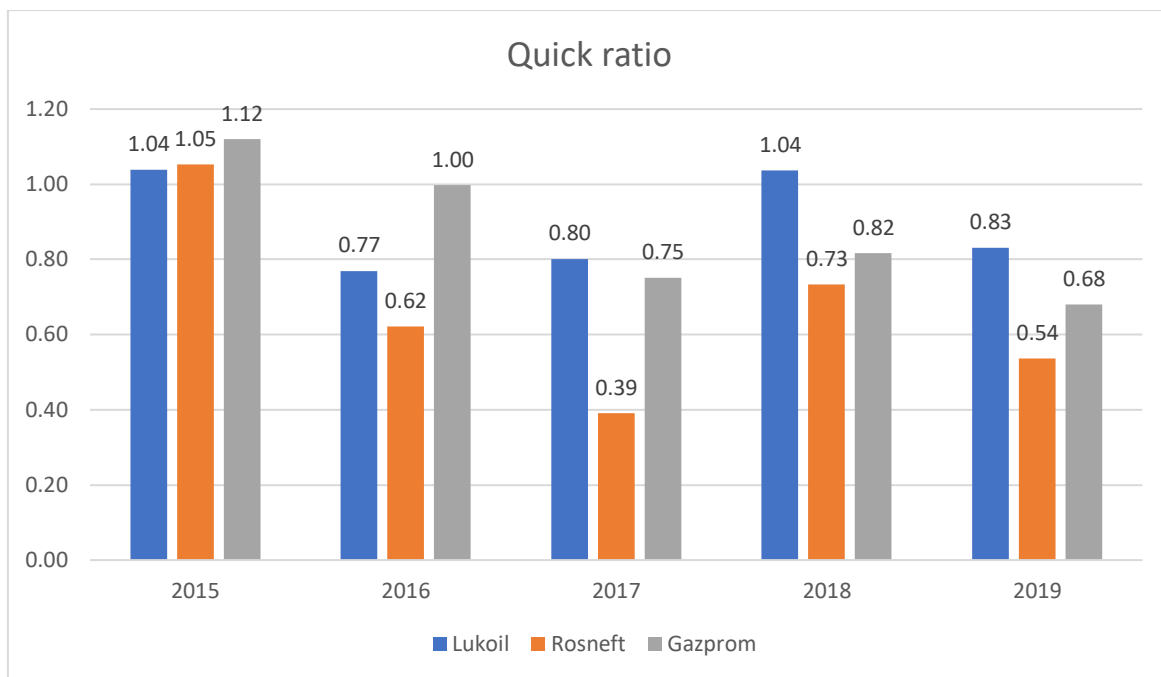


Figure 6. Quick ratio

As mentioned earlier, the Current ratio and Quick ratio have a common denominator but varying numerators. In the Quick ratio, the numerator consists only of the most liquid assets in the company that are easily and quickly converted into cash, meanwhile, the Current ratio considers all current assets. The results expectedly drop below 1 and averaged to: 0,90 – Lukoil; 0,67 – Rosneft; 0,87 – Gazprom. This leads to 2 assumptions. The first is that companies rely on their inventories and prepayments quite heavily. Since those items were excluded from the calculation of the Quick ratio, the difference in Current and Quick ratios represents the degree of inventory dependence. The differences in the Current ratio from Quick are the following: 68,11% – Lukoil; 40,08% – Rosneft; 86,09 % – Gazprom. This phenomenon could be explained by the fact that these companies are capital-intensive and operate in the entire supply chain, thus exploiting capital to explore, produce, and distribute their products. The second assumption is that analysed companies don't have too much cash on their hands that has not been employed, thus funds are primarily invested into core businesses that are striving to reach higher returns than the risk-free rate.

To evaluate Quick ratio results further, a comparison to an American oil and gas industry benchmark is needed. The benchmark from 2009th to 2014th year was 0,74, therefore Lukoil and Gazprom are considered outperforming, while Rosneft has a

slightly lower ratio making it the weakest company in terms of liquidity in the current analysis (Iskakov, 2015 pp. 340–341).

4.3 Leverage ratios

At the beginning of this subsection, the author will start from the overall picture – examine how much debt out of total funds available is used to run the business.

4.3.1 Debt to Capital

In Figure 7, the Debt to Capital ratio of 3 companies is shown for the 5-year period from 2015th to 2019th year. The input data is presented in Appendices in Table 10 and Table 11.

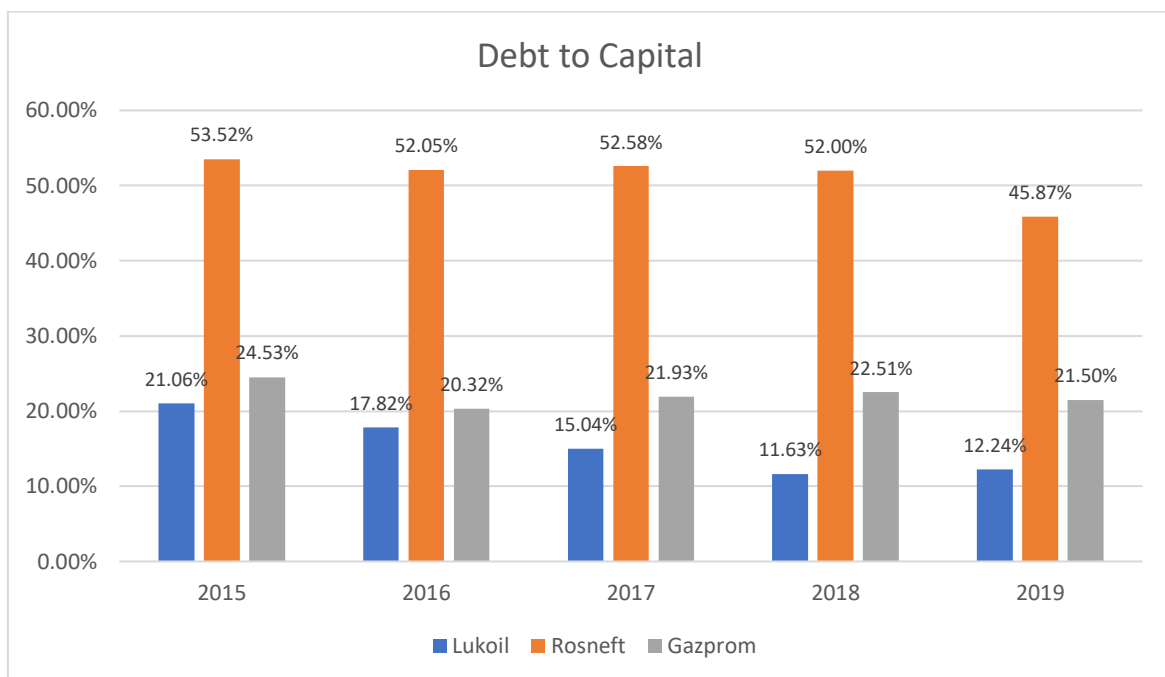


Figure 7. Debt to Capital ratio

In the Figure above it is clearly visible the outsider of this comparison – Rosneft. For 4 years out of 5 presented, the debt was prevailing and amounted to more than 50% out of total capital used. This indicates that the company has a financial strain and in case of unexpected circumstances may not meet its obligations on loans. Moreover, such an overhang in debt appears undesirable for equity holders because a vast part of operating profit is eaten up by interest expense. There was a slight decrease in the 2019th year, but

45% still lays far away from its competitors. Unfortunately, there is no defined benchmark for oil and gas companies in Russia for this specific ratio, therefore each company utilizes its own capital structure, and, from the author's point of view, it is appropriate to build an assumption based on comparison within the closest competitors analyzed in this study.

The other 2 companies – Lukoil and Gazprom have shown decent results and indicated their defended position over Rosneft. Their capital structures are less dependent on debt; thus, they have lower interest expenses thereby higher profit after interest. Another advantage of having more equity exploit is that any future expansion of the business is cheaper to implement because of the bank's willingness to lend funds under a lower interest due to low Debt to Capital ratio rate in comparison to the required rate on equity.

4.3.2 Interest coverage

In Figure 8, the Interest coverage ratio of 3 companies is shown for the 5-year period from 2015th to 2019th year. The input data is presented in Appendices in Table 12 and Table 13.

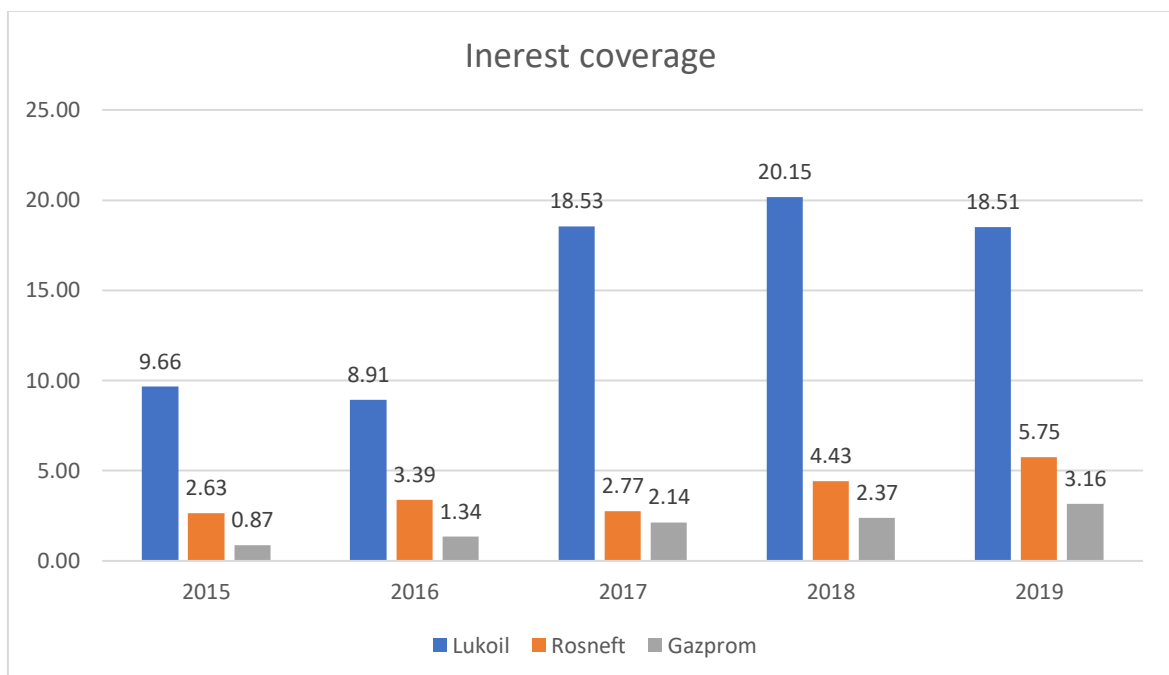


Figure 8. Interest coverage ratio

As a follow-up after the Debt to Capital ratios, it is necessary to check how the indebtedness influence companies' ability to pay their interest expense. Rosneft had the highest indebtedness, but it turned out that the amount of interest coverages is larger compared to Gazprom with lower indebtedness. Despite that, it is possible to define an upward sloping trend which indicates that the company is performing better with time. From the 2015th to 2019th year the Interest coverage ability increased by 2,2 times. Thereby, this means that the company is getting rid of debt gradually and thus increasing its profit after interest.

The Gazprom resulted unpredictably and had more controversies. Nonetheless, the 2015th year was an alarming year because the ratio was below 1, which indicated that the company was not able to meet its interest expenses by relying on its EBIT solely. In the 2016th and subsequent years result improved: while Debt to Capital was fluctuating, the Interest Coverage ratio increased consequently up to 3,16 in the 2019th year.

However, the absolute leader in this comparison is Lukoil. It has tremendously higher Interest coverage multiples throughout the 5-year period in comparison to others. This indicates excellent financial stability in terms of debt security and readiness to pay the interest expense even in unforeseeable financial downshifts. It is possible to claim that Lukoil has the highest Interest coverage ratio and lowest Debt to Capital which results in the most optimal capital structure for the current analysis. Equity holders are positive about relatively low-interest expense which leads to higher profit after interest and taxes for the year consequently, meanwhile, debt holders are positive about secure repayments on debt.

The claim that Lukoil has the most optimal capital structure could be argued greatly and it is objective. To define optimal capital structure WACC (Weighted Average Cost of Capital) formula is needed with inputs such as Cost of Capital and Cost of Equity, but these calculations are not part of this work, therefore the claim is based only on the analysis of 2 leverage ratios.

4.4 Valuation ratios

In this subsection, the author is going to evaluate the value companies generate for their investors.

4.4.1 Price to Cash Flow

In Figure 9, the Price to Cash Flow ratio of 3 companies is shown for the 5-year period from 2015th to 2019th year. The input data is presented in Appendices in Table 14 and Table 15.

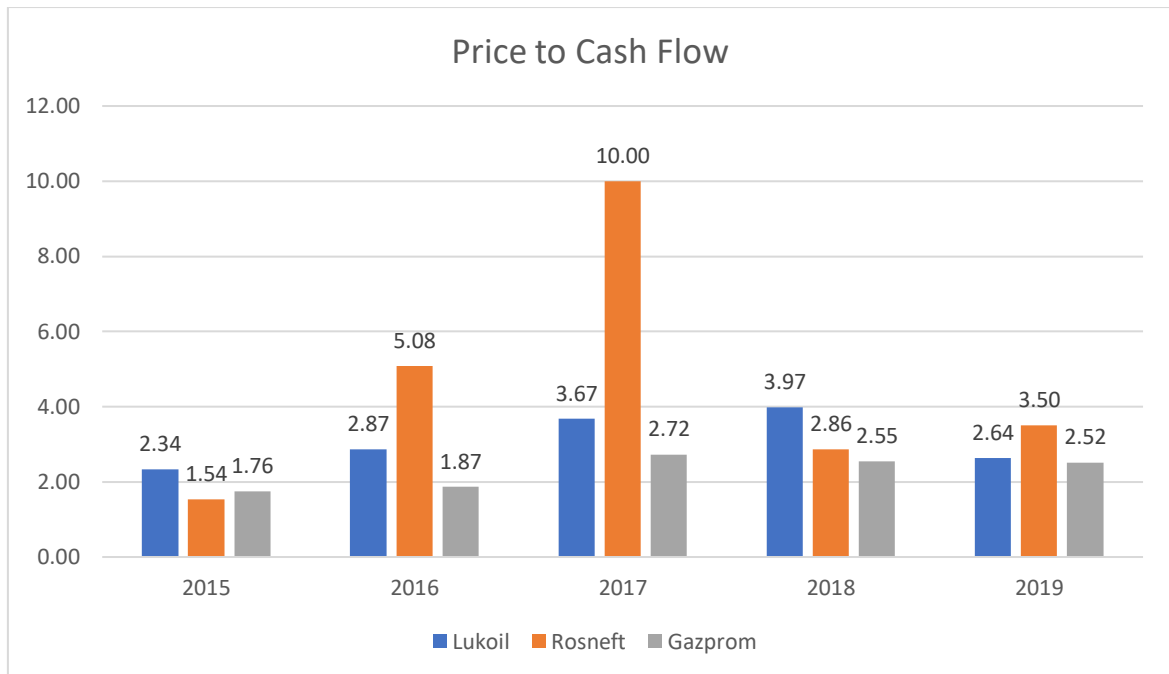


Figure 9. Price to Cash Flow

This is a vital metric to measure how efficient the company is in terms of generating cash on capital provided by the shareholders. On one hand, the shortcoming of this ratio is market price input, which is subject to volatility, thus, to minimise the volatility effect, only 1-month averaged price after the public release of the annual report is considered to factor in realistic shareholders' reactions and expectations. From another hand, in comparison to the static Price to Earnings (P/E) ratio, the advantage of this ratio is that it excludes non-cash expenses such as amortisation and depreciation which greatly influence the final profit for the year.

The results appeared to be substantially low. In fact, referring to Zacks Ranking, in 2014th year the average Price to Cash Flow (P/CF) for the stocks in the S&P 500 was 14.05 (Zacks, 2014) implying that companies in current comparison are undervalued. Shareholders who are willing to invest in S&P 500 stocks are ready to pay 14\$ for 1\$ generated by the company on average, whereas Russian oil and gas companies are sold at 3,33P for 1P invested. Rosneft had an explicit increase in ratios in the 2016th and 2017th years. While the number of shares stayed the same, the explanation for such increases is cash shortfalls. Considering the results for the period of 5 years, it is possible to claim that it was an unexpected upraise. Meanwhile, Lukoil and Gazprom resulted in 3,10 and 2,28 on average consequently indicating that Gazprom is the most undervalued company.

4.4.2 Dividend yield

In Figure 10, the Dividend yield ratio of 3 companies is shown for the 5-year period from 2015th to 2019th year. The input data is presented in Appendices in Table 16 and Table 17.

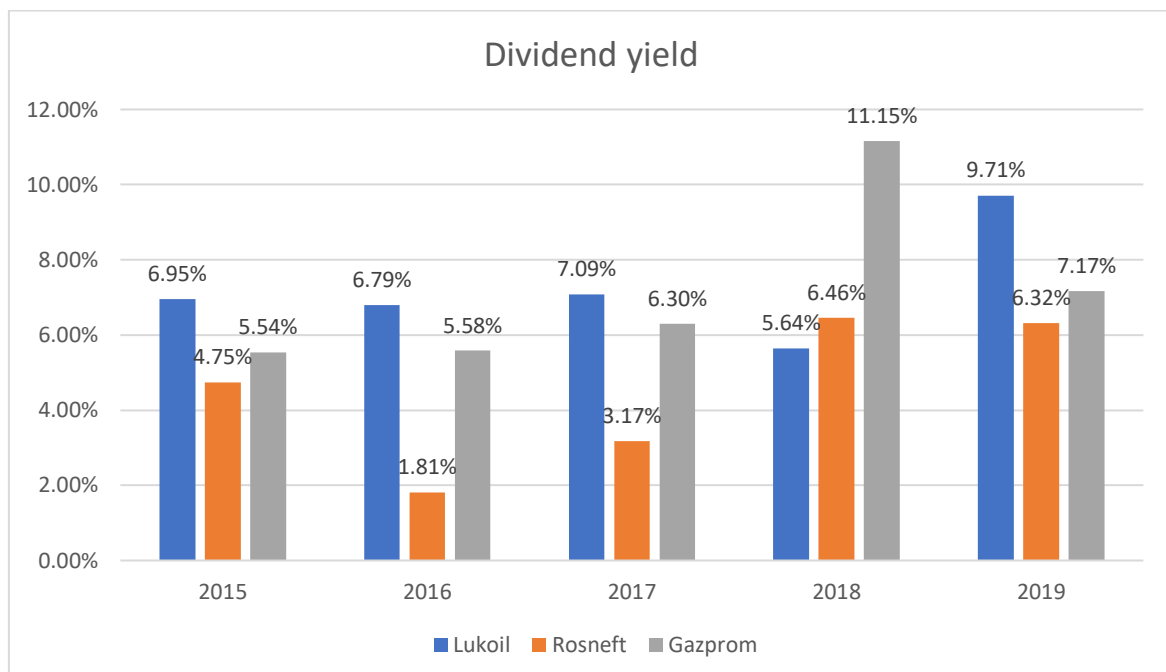


Figure 10. Dividend yield

While it is crucial to keep an eye on how the business is managing its cash flows, it is no less important to aggregate what is received in return for being a shareholder of the

company – to measure the dividend yield. This ratio plays a central role in the analysis eventually since shareholders of the company have 2 prime income sources – capital appreciation and dividend pay-outs.

Overall, each of the 3 companies has sufficient (above 0%) dividend yields. If Lukoil and Gazprom were stable in their pay-outs and averaged to 7,24% and 7,15% consequently, Rosneft behaved volatilyly with a consistent moderate increase starting from the 2016th year.

As long as the current analysis is focusing on dividend yields that ignore capital appreciation, it would be appropriate to compare the obtained results to similar statical returns, for instance, Russian Central Bank interest rates on deposits for the same time period. These rates could be assumed to be a benchmark for shareholders due to their simplicity and reliability to obtain.

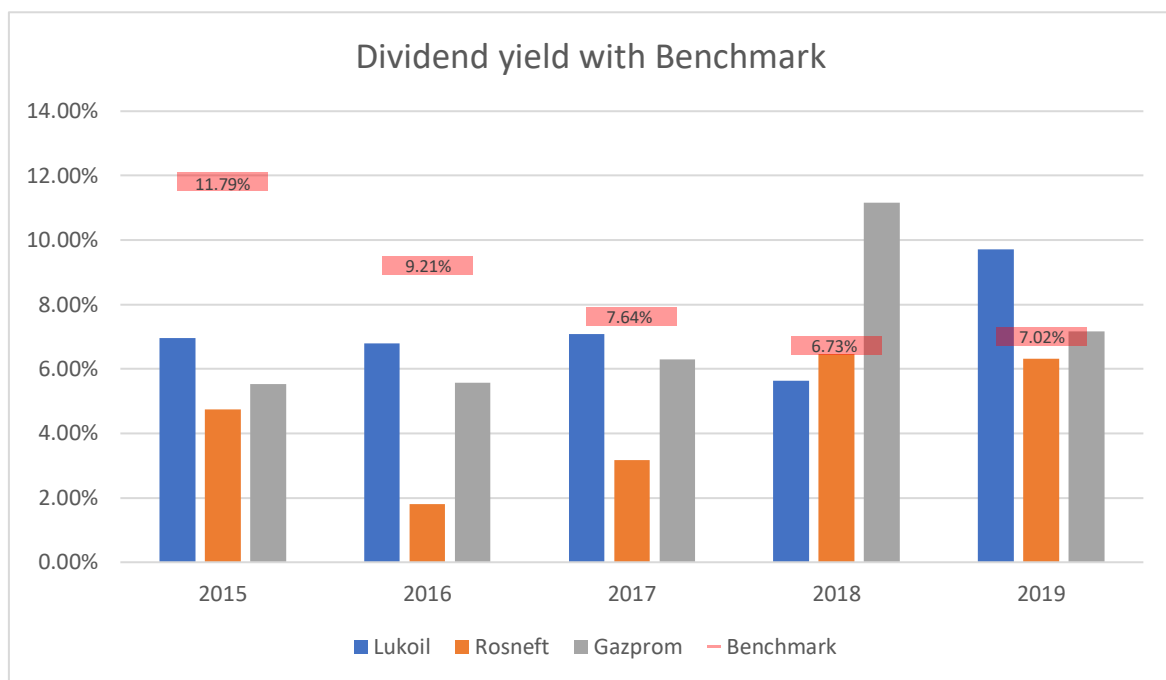


Figure 11. Dividend yield with Benchmark

Figure 11 is imposing Russian Central Bank interest rates on deposits (Bank of Russia, 2021) as a Benchmark in the histogram. It is distinctly visible that in 3 out 5 years none of the companies reached the Benchmark level. In 2018th, only Gazprom managed to score above 6,73%, in 2019th Gazprom and Lukoil exceeded the Benchmark average. Therefore, from investors’ point of view, the opportunity cost is too low or even

negative to buy and hold riskier ordinary shares of companies in comparison to save and guaranteed returns on deposits from banks.

5 DISCUSSION AND CONCLUSION

5.1 Discussion

As long as the ratio calculation is complete, it is feasible to evaluate the obtained results and answer the research questions posed at the beginning of the research. To do so, the author is going to assess the outcome numerically and verbally. The numerical approach implies score appropriation in accordance with the place each company has taken in each ratio. Therefore, in the case of the Return on Equity ratio, the highest return will score 3 points, the next lower return 2 points and the lowest return will receive only 1 point. To avoid over or underweighting, ratios are being equally weighed and only averaged results are considered. Alternatively, to enhance numerical scoring, afterwards, there will be verbal comments upon each company's overall performance.

Below is Table 2 that contains the scoring of companies in each ratio and its total score. The input data is presented in Appendices in Table 18.

Table 2. Summary table

		Company name		
		Lukoil	Rosneft	Gazprom
Ratios	ROE	3	2	1
	ROIC	3	2	1
	Current	2	1	3
	Quick	3	1	2
	D/C	3	1	2
	Int. Cov.	3	2	1
	P/CF	2	1	3
	Div. Yield	3	1	2
Total score		22	11	15

According to the total score, Lukoil has the most stable financial position due to the fact that it has the highest returns on capital and equity, one of the highest liquidities, the lowest debt leverage and ultimately the highest dividend yield. Only in the Current and Price to Cashflows ratios, Lukoil scored lower than Gazprom, nonetheless, considering the leverage ratio group, both companies scored 5.

The less financially stable company turned out to be Gazprom. The returns on capital and equity were the lowest, whereas liquidity of assets was on the same level as Lukoil's. Debt leverage is high, but valuation ratios appeared decent – same scoring as Lukoil. Moreover, Gazprom generates the cheapest cash flow in relation to price per share to operational cash flow.

And ultimately, Rosneft had the worst results since it has the worst liquidity in hand with the lowest valuation score. The indebtedness was on the same level as in Gazprom and only returns on capital and equity were reasonable – lower than Lukoil's and higher than Gazprom's.

It is still unclear which ratios are the most influential since all the were equally weighted. Stable financial position is a broad term, it is important to define it in a more precise way. By stable financial position, it is meant that the company has a margin of safety and is prepared to face unfavourable circumstances, therefore the emphasis is made on liquidity and debt ratios primarily. Subsequently, the emphasis is transferred to profitability and valuation since it is not enough to have fewer loans and easily convertible assets, it is non less crucial to generate cash and create value. Thus, following this logic, Lukoil has deservedly taken 1st place, Gazprom – 2nd and Rosneft – 3rd in terms of overall financial stability.

Considering what was analysed earlier, it is possible to make some critical evaluation. The ratio analysis has been conducted in full and results were presented accordingly. It is possible to employ the same methodology in other industries and derive conclusions. Despite that, there is a place of uncertainty. Since the ratio analysis is focusing on past data, there is a time lag in information relevance. The company creates annual reports only after 3-5 months after the fiscal year. Moreover, the data from such reports is generalised and there is no possibility to “disclose” it. It makes previous assumptions weak because financial stability is better defined based on the most current data. It is crucial to consider ongoing projects and have short-term planning of the company on hand to be able to gauge fairly on future prospective. Thus, the ratio analysis is only one part of financial stability analysis and to make comprehensive and holistic assumptions internal data of the company is needed.

5.2 Conclusion

After conducting the research, the following conclusions were made:

- Lukoil is the most financially stable company.
- Lukoil has the highest return on capital and equity.
- Lukoil and Gazprom have the highest liquidity.
- Lukoil has the lowest debt leverage.
- Gazprom generates the cheapest cash flow.
- Lukoil has the highest dividend yields.

From the author standpoint, the overall research and results could be considered valid and reliable because the methods that were used revealed answers to stated questions. If other researchers were to follow described methods, they would end up with similar results. The research aimed to analyse the financial performance of three oil and gas companies to identify the most financially stable company and it was achieved by completing a financial ratio analysis. The result section was build based on the data retrieved from annual reports of companies which allowed to build strong discussion and conclusions afterwards. This research could be used as a reference in the Russian oil and gas industry as well in ratio analysis in the same industry in other countries. The further objective could be obtained by providing this research to investors who are interested in the Russian oil and gas industry.

The companies analysed in the current research have faced the COVID-19 pandemic in the 2021st year. Such contingency should have affected the companies' main line of business. Since Lukoil had the most stable financial position, there is a high likelihood that it resolved arisen shortcomings due to pandemic less harmfully in comparison to Rosneft and Gazprom. It would be an interesting topic to continue in future research and test how current findings align with reality.

Ending up with the evaluation of the current research, there were limitations associated with ratio analysis that affect the reliability of the findings. The first major limitation is that only past data is taken into account. On one hand, the period of 5 years is a decent time span to analyse and define trends. From another hand, it is irrelevant to build

assumptions based on past data because the annual report is available only after 3-5 months from the end of the fiscal year, so it does not factor in any up-to-date information and future prospects. The second limitation is that ratio analysis does not consider external factors, in this case, unforeseen COVID-19 pandemic.

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APPENDICES

Table 3. Net income in billion RUB

	2015	2016	2017	2018	2019
Lukoil	291,14	206,79	418,81	619,17	640,18
Rosneft	355,00	181,00	222,00	549,00	708,00
Gazprom	787,06	951,64	714,30	1456,27	1202,89

Table 4. Average shareholder's Equity in billion RUB

	2015	2016	2017	2018	2019
Lukoil	3129,92	3221,67	3351,92	3774,26	4015,46
Rosneft	2879,00	3097,50	3460,50	3836,00	4285,00
Gazprom	10203,07	10842,06	11361,81	12464,55	13702,42

Table 5. EBIT*(1-tax rate) in billion RUB

	2015	2016	2017	2018	2019
Lukoil	350,39	319,36	406,25	620,05	664,68
Rosneft	547,93	410,98	469,18	1001,58	1053,69
Gazprom	1068,94	562,96	655,85	1592,93	873,77

Table 6. Book Value of Equity + Net Debt in billion RUB

	2015	2016	2017	2018	2019
Lukoil	3824,92	3658,10	3768,92	4107,96	4002,56
Rosneft	5650,00	6104,00	10928,00	7612,00	8117,00
Gazprom	12672,71	13027,43	14026,60	16314,41	17272,68

Table 7. Current assets in billion RUB

	2015	2016	2017	2018	2019
Lukoil	1213,65	1255,64	1308,11	1478,48	1554,19
Rosneft	2404,00	2300,00	2292,00	3022,00	2396,00
Gazprom	3993,72	3234,35	3469,27	4212,23	3828,15

Table 8. Current liabilities in billion RUB

	2015	2016	2017	2018	2019
Lukoil	695,17	830,69	958,85	914,56	1207,68
Rosneft	1817,00	2773,00	3836,00	2874,00	2755,00
Gazprom	2124,70	1921,81	2589,52	2473,70	2527,48

Table 9. Cash + Account Receivables + Marketable Securities in billion RUB

	2015	2016	2017	2018	2019
Lukoil	721,52	639,20	768,22	948,80	1002,79
Rosneft	1912,00	1722,00	1501,00	2107,00	1479,00
Gazprom	2378,65	1916,20	1944,50	2018,77	1718,12

Table 10. Total Debt in billion RUB

	2015	2016	2017	2018	2019
Lukoil	859,71	698,59	616,36	535,05	553,23
Rosneft	3323,00	3585,00	4012,00	4391,00	3828,00
Gazprom	3442,22	2829,62	3266,52	3863,82	3863,90

Table 11. Total Shareholders' Equity in billion RUB

	2015	2016	2017	2018	2019
Lukoil	3222,47	3220,88	3482,95	4065,56	3965,36
Rosneft	2886,00	3302,00	3619,00	4053,00	4517,00
Gazprom	10589,59	11094,53	11629,09	13300,01	14104,88

Table 12. EBIT in billion RUB

	2015	2016	2017	2018	2019
Lukoil	465,73	419,14	506,52	771,72	821,10
Rosneft	708,00	655,00	624,00	1284,00	1305,00
Gazprom	1228,30	725,58	870,62	1930,03	1119,86

Table 13. Interest Expense in billion RUB

	2015	2016	2017	2018	2019
Lukoil	48,22	47,03	27,33	38,30	44,36
Rosneft	269,00	193,00	225,00	290,00	227,00
Gazprom	1409,09	543,37	407,04	813,04	354,84

Table 14. Market Capitalization in billion RUB

	2015	2016	2017	2018	2019
Lukoil	1986,52	2159,69	2785,17	4000,24	3036,09
Rosneft	3379,28	3450,60	3369,32	4301,20	3879,50
Gazprom	3565,46	2934,38	3230,14	4118,11	4301,10

Table 15. Operating Cash Flow in billion RUB

	2015	2016	2017	2018	2019
Lukoil	848,97	752,25	758,49	1006,65	1151,84
Rosneft	2195,00	679,00	337,00	1502,00	1110,00
Gazprom	2030,93	1571,32	1187,02	1617,38	1709,38

Table 16. Annual dividend yield in RUB

	2015	2016	2017	2018	2019
Lukoil	177,00	195,00	215,00	250,00	542,00
Rosneft	11,75	5,98	10,48	25,91	26,67
Gazprom	7,89	8,04	8,04	16,61	15,24

Table 17. Averaged share price in RUB

	2015	2016	2017	2018	2019
Lukoil	2547,00	2872,30	3033,80	4432,80	5581,00
Rosneft	247,58	330,49	330,49	401,32	421,94
Gazprom	142,43	144,05	127,67	148,95	212,68

Table 18. Averaged ratios

	ROE	ROIC	Current	Quick	D/C	Int. Cov.	P/CF	Div. Yeild
Lukoil	12,11 %	12,07 %	1,51	0,90	15,56 %	15,15	3,10	7,24 %
Rosneft	11,08 %	9,37 %	0,93	0,67	51,20 %	3,80	4,60	4,50 %
Gazprom	8,65 %	6,45 %	1,62	0,87	22,16 %	1,98	2,28	7,15 %