

St. Petersburg State University  
Graduate School of Management  
Master in Corporate Finance

DIVIDEND POLICY AND OWNERSHIP STRUCTURE  
IN PUBLIC OIL AND GAS COMPANIES

Master's Thesis by the 2<sup>nd</sup> year student  
Concentration – Master in Corporate Finance  
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Saint Petersburg

2016

## ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

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## АННОТАЦИЯ

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Описание цели, задачи и основных результатов	<p>Целью данной работы является выявление характеристик структуры собственности, являющихся детерминантами дивидендной политики нефтегазовых компаний. Для достижения поставленной цели, было проведено исследование зависимости между структурой собственности и дивидендной политикой с использованием выборки, состоящей из данных о 99 компаниях за период с 2010 по 2014 годы. В качестве параметров дивидендной политики использовались: коэффициент дивидендных выплат и дивидендная доходность. В ходе анализа было выявлено, что выборка разделяется на две части исходя из характеристик концентрации собственности. Первая часть включает компании с высокой концентрацией собственности, вторая включает компании с низкой концентрацией собственности. По результатам анализа выборки целиком была выявлена прямая взаимосвязь между долей крупнейшего акционера и разницей в долях первых двух крупнейших акционеров с одной стороны и коэффициентом дивидендных выплат с другой, в тоже время было выявлено обратная взаимосвязь между наличием контролирующего акционера и коэффициентом дивидендных выплат. Дивидендная доходность противоположно взаимосвязана с данными переменными. При анализе выборки с высокой концентрацией собственности были получены аналогичные результаты, как и для выборки целиком, за исключением того факта, что доля трех крупнейших акционеров прямо пропорционально связана с коэффициентом дивидендных выплат, а доля государства обратно пропорционально связана с данным показателем. При анализе выборки с размытой структурой собственности не было обнаружено взаимосвязи между структурой собственности и зависимыми переменными.</p>
Ключевые слова	Дивидендная политика, структура собственности, нефтегазовая отрасль, концентрация собственности

## ABSTRACT

Master student's name	Artem Bannikov
Master thesis title	«Dividend policy and ownership structure in public oil and gas companies»
Faculty	Graduate School of Management
Main field of study	080200 «Management» (specialization: Master in Corporate Finance)
Year	2016
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Description of the goal, tasks and main results	<p>The goal of the master's thesis is to identify the characteristics of ownership structure which are determining a dividend policy of oil and gas companies. In order to reach the goal, the empirical research about the relationship between ownership structure variables and dividend policy was conducted, using the data collected for 99 oil and gas companies from 2010 to 2014. As a proxy for a dividend policy, dividend payout ratio and dividend yield were used. During the analysis, it was found that the sample splits into two parts according to the characteristics of ownership concentration. Thus, the first sample consists of the companies with high ownership concentration, while the second part includes companies with the dispersed ownership.</p> <p>As a result, it was found that for the whole sample the share of the first shareholder and the spread in ownership stakes of the first and second largest shareholders positively relate to a dividend payout ratio, while the presence of controlling shareholder in a company is negatively related to the dependent variable. Besides, these ownership structure variables relate in the opposite way to a dividend yield. Concerning the sample with high ownership concentration, the results are the same as for the whole sample, except the fact that the ownership stake of the three largest shareholders positively relates to a dividend payout ratio, while the share of a state is negatively related. In the sample with dispersed ownership, none of the ownership structure variables are determinants of a dividend policy.</p>
Keywords	Dividend policy, ownership structure, oil and gas industry, ownership concentration

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# INTRODUCTION

In literature, there are a lot of researches, which were provided in order to identify determinants of dividend policy. As a result, the relationship between a payout policy and corporate governance, financial and economic factors of a performance of companies, ownership structure and other factors are studied. However, most of the researches were provided for the specific countries and, consequently, the results are various from one country to another country and do not capture industry specific characteristics across different countries.

This research is mainly concentrated on the analysis of the relationship between a dividend policy and ownership structure of oil and gas companies which operate all over the world. As a result, this research is one of the first which deeply analyses this relationship in terms of a whole industry and, especially, in terms of oil and gas industry.

The format of the research is an empirical study. The problem, which is identified in the research, is the absence of empirically supported factors of an ownership structure of oil and gas companies, which determine dividend payout of these companies. These factors might be used by investors, which try to identify a company, in which they are willing to invest. In this study, the object of the research is public oil and gas companies from different parts of the world, while the subject of the study is a relationship between ownership structure of oil and gas companies on the one hand and dividend payout ratio and dividend yield on another.

Consequently, two models are used in order to conduct the analysis. The first model uses the dividend payout ratio as a dependent variable, while the second model uses the dividend yield as a dependent variable. Both variables are the proxies of a dividend policy.

As a result, a research goal of the master thesis is to identify the characteristics of ownership structure which are determining a dividend policy of oil and gas companies. Meanwhile, the research questions are the following:

- identify features of ownership structure which relate to a dividend policy, using the previous researches;
- determine main characteristics of the ownership structure of oil and gas companies;
- provide an empirical investigation to capture the relationship between payout policy and ownership structure in largest listed oil and gas companies.

The main sources, which are used during the research, are the articles of foreign authors, which were published in the academic journals. Two main sources of the articles are used: EBSCO and Elsevier. During the mini-case analysis of Russian and foreign oil and gas companies, the dividend policies of companies and other public documents are used. During sample collection process, the data was obtained from the Thomson Reuters databases.

The research can be divided into two parts: theoretical and empirical. Thus, the structure of the research includes two chapters. In the first part of the first chapter, the general description of determinants of a dividend policy and main theories are given. After that the information about the relationship between dividend policy and ownership structure is presented. In the last part of the first chapter, several mini-cases are given. In the first part of the second chapter, hypotheses of the analysis are formulated and the methodology of the analysis is presented. Then the description of the data and econometric analysis are provided. After that the discussion of the results is presented.

Concerning the content of the part, in the theoretical part of the research, the review of the main dividend policy theories and identification of the main features of dividend policy are provided. This part consists of the analysis of the previous researches, which are devoted to this field. The main outcomes of the theoretical part are an identification of the main factors of ownership structure, which might relate to a dividend policy, and definition of the potential relationship between the ownership structure and dependent variables.

The practical part includes the case-study and empirical research. The case-study of Russian and foreign oil and gas companies was provided in order to analyse how changes in ownership structure might influence a dividend policy of a company. Besides, the case-study gives an evidence of the relationship between ownership structure and dividend policy, which supports the relevance of the research goal.

The empirical research includes two parts. The first part consists of regression analyses of the relationship between ownership structure and dividend payout ratio, while the second part includes regression analyses of the relationship between ownership structure and dividend yield. Moreover, the hypotheses are tested using regression models. Five hypotheses are formulated in order to identify how the share of the largest, the presence of controlling shareholder in a company, the ownership stake of three largest shareholders, the state ownership, the spread in ownership stakes of the first and second largest shareholders relate to a dividend policy of a company.

It should be noted that the sample is divided into two parts: the first consists of the companies with high ownership concentration, while the second includes companies with the dispersed ownership. Thus, the analysis is provided for each sample to obtain precise results.

As a result, it is found that the share of the largest shareholder, the presence of controlling shareholder in a company, the spread in ownership stakes of the first and second largest shareholders are determinants of dividend policy for the whole sample. While for the sample with high ownership concentration, all variables can be classified as determinants of dividend policy. Concerning the sample with dispersed ownership, it is found that ownership structure does not relate to a dividend policy.

# CHAPTER 1. OWNERSHIP STRUCTURE AND DIVIDEND POLICY: LITERATURE REVIEW

In this chapter main features about dividend policy are provided. All material is obtained from the articles, which are published in the leading journals. In the first part of the chapter, the general description of determinates of a dividend policy and main theories are given. In the following part, information about the relation between dividend policy and ownership structure is presented. In the last part of the chapter, several mini-cases are given. These cases are devoted to the examples of the relation between dividend policy and ownership structure in oil and gas companies.

## 1.1 Determinants of dividend policy

In different journals, a big part of the material is devoted to the dividend policy analysis. Many authors in their articles tried to analyse a relationship between dividends and different factors (Alli et al., 1993; Berezinec et al., 2011 a; Berezinec et al., 2011 b; Borges Forti et al., 2015; Khan, 2006; Chang et al., 2012; etc.). It should be mentioned that researchers analysed different markets and determined which factors relates to a dividend policy in distinct contexts. In this part of the master thesis, some main features about affecting factors of dividend policy are presented in the respect to dividend policy theories.

The dividend policy theories can be divided into two big categories: dividend irrelevance theories and dividend relevance theories. The first group states that the dividend policy is irrelevant for the value of a firm while the second theories follow the opposite opinion. Now let us discuss the theories in more detail.

Dividend irrelevance theory includes the Modigliani and Miller theorem and the residual theory. The Modigliani and Miller theorem is one of the first studies attributed to this field and it stated that in a perfect capital market, dividend policy does not affect firm's value (Miller et al., 1961). In other words, dividend policy does not affect the increase in the company's share price or the price of capital. In their opinion, the company's value is determined by its overall ability to make a profit and risk, moreover, a value of a company is largely dependent on the investment policy, while which part of the profit is paid in the form of dividends and which is reinvested is irrelevant. Modigliani and Miller (1961) introduced some restrictions and showed that if a firm pays high dividends, it must produce a greater number of new shares and that the share value of the company, offered to new investors, should be equal to a number of dividends paid.

The second theory describes the appearance of dividends in the following way: if external financing costs are high, a company prefers to finance its activities by retention of earnings. The

model was firstly suggested by Preinreich (1932). In other words, if a cost of capital is high, a company prefers to use an internal source of financing and, consequently, it will pay fewer dividends. The situation is vice-versa in the case when a cost of capital is low.

Meanwhile, the dividend relevance group includes more theories. It should be mentioned that different sources include different theories, although, in this research bird-in-the-hand, tax clientele, signalling and agency theories are analysed.

The bird-in-the-hand theory was offered by Gordon and Lintner (Gordon, 1963; Lintner, 1962). Gordon and Lintner came to the conclusion that the expected return on equity increases as the decline in the share of profit going to pay in dividends, as investors are more interested in dividend payments than in income from capital gains expected from retained earnings. In other words, according to the theory, one dollar expected dividends worth more than one dollar expected capital gains, since this component is the expected return is riskier than a dividend component.

Tax clientele was described by Litzenberger and Ramaswamy (1979). The theory states that investors in lower tax brackets prefer stocks, which pay higher dividends when compared to the investors in high tax brackets. As a result, this theory connects the dividend policy of a company and taxation.

When Modigliani and Miller put forward the theory of irrelevance of dividends, they proposed, among other conditions, that both investors and managers have the same expectations about the firm's profits and a number of dividends (Miller et al., 1961). In real life, however, investors have conflicting views both on the level of future dividend income and the extent of their inherent uncertainty, while managers are often better informed about future prospects than foreign holders of shares. Thus, an increase in the dividend above the normal level is a signal to investors that the company's management expects a good profit in the future. On the contrary, the reduction of dividends or insignificant increase, compared with the usual increase, is a signal that managers predict a meagre profit in the future (Miller et al., 1985). In other words, investors' reactions to changes in dividend policy do not necessarily indicate that they prefer a dividend reinvestment of profits. Rather, the fact of price changes following the change of dividends simply points to the fact that the announcement of the dividend payment is essential information or signal content. This theory gained a significant support in the literature, in other words, it was shown that the share prices increase in the case of unexpected increase in dividends while share prices decrease in the opposite situations (Asquith et al., 1983; Healy et al., 1988; Michaely et al., 1995).

One of the most contentious issues of dividend payment policy is the question why firms pay dividends and then issue new securities. One of the potential explanation relates the dividend policy and agency costs (Easterbrook, 1984). Between managers and shareholders there is an agency conflict – shareholders, being owners of a company, want managers to act in their best

interests, although, more compelling reasons can appear that make managers to act in their own interests. As a result, the agency conflict of shareholders willing to incur agency costs in order to monitor the actions of managers. However, for corporations it is difficult to take one collective action in this area and, most likely, this control will be too weak. In this situation, the most effective method of control is to create a kind of organization - "guardian", which would monitor the actions of managers on behalf of the bondholders and shareholders. Of course, a board of directors should be responsible for such activities, but board members in the event of a conflict rather take the side of managers than shareholders.

The problem of monitoring of management actions is greatly simplified in the case when a company has to raise capital in large volumes. When a company issues shares or bonds, its operational and financial decisions carefully studied by a whole group of various experts - representatives of investment banks that conduct membership, analysts, rating agencies and brokerage firms and ultimately investors who will buy new securities. Thus, the company's existing investors can influence the managers' actions only by voting or selling its securities, while the new investors are not experiencing the collective impotence of existing investors. They can analyse the behaviour of managers and withdraw from the purchase of securities if their actions are not beneficial to them. The role of dividend policy in the capital market monitoring is unquestionable. At any particular investment policy, the higher the proportion of dividends in profits, the more likely the firm will issue new securities. Continuous payment of dividends, consequently, force firms' subject to frequent checks in the capital market, and the evaluation process mitigates agency problems for existing holders of securities. If the costs associated with the payment of dividends, including the costs associated with the issuance of additional securities, less the cost to monitor, the payment of a large part of the profits as dividends is justified.

Besides, one of the mechanisms of monitoring a performance of managers is to reduce funds available to management and force them to use external financing. As a result, debt holders start to monitor a performance of a firm and its managers. Thus, corporate ownership structure will dictate the monitoring policy and in turn would relates to a dividend policy. Large shareholders in a company have an incentive to monitor management due to the substantial amount that they invested in the company. In an attempt to assure them, management may have high dividend payout (Manneh et al., 2015).

These theories were analysed in different studies and some of them accept different theories. Alli et al. (1993) analysed dividend policy theories and tried to determine which factors affect the payout policy of companies. As a result, it was concluded that most of the theories are relevant in describing dividend policy of the company. In details, tax clientele, transaction costs and agency theories were confirmed and they affect dividend policy of companies while signalling

theory was not confirmed. However, Omar (2016) confirmed a signalling theory using the data which consists of Emerging market companies. This example shows that all these theories might be accepted under different conditions.

Moving from theory to practice it is important to identify the opinion of the managers about factors which are important in identifying dividend policy in different companies. Kent Baker et al. (2000) provided a survey of top managers which were working in United States companies which were listed in the New-York Stock Exchange in order to determine main determinates of dividend policy. It should be mentioned that authors tried to expand the survey, which was provided by Kent Baker et al. (1985). As a result, Kent Baker (2000) obtained research results and compared it with the previous research.

The most important affecting factor, which relates to companies' dividend policy, is the level of current and expected future earnings. It is important to note that similar result was found in the 1985 research. It means that managers believe that earnings are an important factor in dividend policy which can affect the dividend policy. Moreover, during the 14-year time period managers did not change their opinion. The support of this finding can be found in other researches. For example, Shiomo et al. (1997) partly reached the similar result. During the analysis of the data, authors investigated the relationship between dividends and earnings of the firm and found that firms that increase dividends in year zero had a significant increase in earnings in the previous year and year zero. Thus, it can be concluded that the level of current earnings relates to a dividend policy. Moreover, authors found that companies, which increase dividends, have an increase in earnings for the following three years.

The second important factor is pattern or continuity of past dividends. In other words, it means that past dividends influence managers to continue pay dividends to shareholders. An important point is that in both types of researches this factor was ranked similarly. Managers from manufacturing and retail industry put it in the second place, while managers from utility industry put it into the third place.

The third factor is maintaining or increasing the stock price. It should be mentioned that managers' opinion about the importance of this factor changed during 14 years. In 1983, managers put this factor in the fourth place, while in 1997 it was ranked on the third place. However, this affecting factor is controversial due to the differences in the dividend policy theory. For example, one of the most remarkable theory, presented by Miller and Modigliani (1961), was mentioned that the value of the firm is not influenced by its payout policy while the profitability of the firm and the level of risk level are more important factors. Moreover, a value of the firm is more influenced by its investment policy, rather than by its dividend policy. However, due to the bird-

in-the-hand theory dividend payments play a higher role. Litzenberger et al. (1979) stated that the share price is influenced by a dividend policy.

Thus, important determinants of dividend policy are identified and the three main factors are a level of current and expected future earnings, pattern or continuity of past dividends, maintaining or increasing the stock price. It is important to mention that importance of these factors we determined by the managers of investigated firms.

In this part of the research, main dividend policy theories and determinants of dividend policy were studied. In the following part, the more detailed analysis of a relationship between dividend policy and ownership structure is provided.

## 1.2 Ownership structure as a determinant of dividend policy

The big part of the research is devoted to the analysis of the relationship between the ownership structure and dividend policy. In the following part, the analysis of previous researches is provided.

Borges et al. (2015) tried to identify main affecting factors of dividend policy. Authors used the data from Economática, Securities and Exchange Commission and Bm&fbovespa about Brazilian public companies listed in Brazilian Securities, Commodities and Futures Exchange. The sample was collected on the seventeen-year time period from 1995 to 2011. The factors which were analysed can be divided into three categories. The first group is related to the financial characteristics of the company, while the second group is attributed to the general description of the company, like the size and the age. The third group is related to the corporate governance and ownership structure. As a result, the analysis gave the following outcomes. It was found that size, profitability, market value, liquidity, profit growth and the presence of the controlling shareholder is positively related to the propensity of a company to distribute the part of its net income to shareholder, while leverage, capex liquidity and tag along right negatively relates to the possibility to pay dividends to shareholders.

Gupta et al. (2010) examined different factors and identified whether they relate to corporate dividend policy or not. In the article authors analysed seven factors like liquidity, leverage, ownership structure, size, profitability and tax. In order to conduct the analysis, authors used the sample of 150 Indian companies from 16 industries along seven-year time period from 2001 to 2007. As a result, authors concluded that leverage and liquidity are determinants of corporate dividend policy, while the factors of ownership structure are not.

Berezinec et al. (2011 b) tested the hypotheses that the presence of foreign owners, offshore companies, state, Russian financial and non-financial institutes, managers of the companies, which own share of its companies, relate to the size of the dividends in a different way. Authors analysed

the Russian companies which are traded in RTS in a period from 2003 to 2009. As a result, ownership structure factors and controlling factors, like size, profitability and leverage, were used. On the basis of the results of regression analysis, authors obtained following conclusions. First of all, the main dependent factor is payments for ordinary shares. During the analysis, using dividend payout ratio for preferred stocks, there was no relationship between a dividend payout ratio and key stakeholders and, consequently, authors concluded that all policy for these shares was determined when the shares were issued. Secondly, the part of shares owned by the biggest shareholders relates to a dividend policy. All independent factors positively relate to a dividend policy for ordinary shares except the part of the shares owned by the offshore companies. Thirdly, there is a positive relationship between the payout ratio and the presence of a financial institute which owns at least 15 percent of shares.

Also, Berezinec et al., (2011 a) analysed the relationship between dividend policy and ownership concentration. In order to analyse this topic authors used the data set of Russian companies which are traded in RTS in a period from 2003 to 2009. Two groups of independent factors were used, ownership concentration and controlling factors. The results of analysis allowed to make the following conclusions. First of all, financial and economic factors relate to a dividend policy. The size positively related to a dividend policy while the return on assets and leverage relate to a dividend policy in the opposite way. Secondly, part of the ordinary shares owned by the largest shareholder and part of the ordinary shares owned by the second largest shareholder do not relate to a dividend policy, although, the portion of the ordinary shares owned by top three shareholder has a non-linear relationship with the dividend policy. Thirdly, the inverse relationship was found between concentration of ordinary shares in the hands of the biggest shareholder and the size of dividends. Also, the same relationship was found between the preferred shares payout ratio and the part of the shares owned by the biggest shareholder.

Thanatawee (2014) analysed the relationship between ownership structure and dividend policy in China. It should be mentioned that in this country the state ownership is quite widespread. The data set which is analysed by the author consists of 4 500 listed companies in the Shanghai Stock Exchange. The data was collected for the five-year time interval, from 2007 to 2011. Two groups of factors were analysed, ownership structure and control factors. It should be mentioned that the percent of shares owned by the five largest firms is used as a proxy for ownership concentration. Also, return on assets is used as a control factor for profitability while market-to-book is used as a proxy for growth opportunity. Besides, the ratio of retained earnings is devoted to the firm's maturity.

Consequently, the following results were obtained. Companies which characterized by high ownership concentration and where the largest shareholder owns the high part of the shares

pay significantly higher dividends. The same situation for the companies with high government and foreign ownership. Besides, low level of institutional and individual ownership indicates for higher dividends.

Moreover, the firms with higher ownership of the largest shareholder are more likely to pay dividends. Institutional ownership relates to the possibility of paying dividends in an opposite way. However, return on assets, size and ratio of retained earnings to total assets positively related to a probability to pay dividends while market-to-book value and leverage relate negatively.

The ownership of largest shareholder, ownership concentration and state ownership positively relate to a magnitude of dividend payouts while institutional holding and ownership of foreign investor relate in the opposite way. Also, the author found that larger firms with higher profitability and more retained earnings pay higher dividends and firms with higher growth opportunities pay lower dividends.

Gugler (2003) studied the listed Austrian firms in order to find the relationship between dividends and ownership and between dividends and control structure of the firm. Author concluded that state-controlled firms engage in dividend smoothing, have larger target payout ratios and they are most reluctant to cut dividends when cuts are warranted. It should be mentioned that the results are sufficient for firms with good investment opportunities while firms with low growth opportunities smooth dividends and have larger target payout ratios irrespective of who controls the firm. It should be mentioned that these findings support the conclusions made by La Porta et al. (2000)

Chang et al. (2012) tried to determine the factors of dividend policy in Canadian firms. It should be mentioned that the analysis mainly concentrated in the corporate governance, consequently, most of factors are devoted to this field. As a result, the data set includes Canadian firms which are listed in Toronto Stock Exchange. The time period is eight years, from 1997 to 2004. Moreover, all companies paid dividends during this time interval. As it was mentioned above, most of the factors are related to the corporate governance, to be precise, seven out of eleven factors and the rest are control factors. As it can be concluded from regression analysis only board members divided by total assets, CEO option value divided by total cash compensation, investment opportunity and return on assets are significant. Thus, results can be interpreted as following. First of all, firms with larger board favour higher dividend payments. Secondly, the ratio option over cash in CEO's compensation negatively affects dividend payments. Thirdly, if the firm has fewer investment opportunities, it pays higher dividends. Fourthly, firms which have higher return on assets ratio pay higher dividends.

Khan (2006) analysed the relationship between the dividend policy and ownership structure. Consequently, the author used the data set which contains 330 British firms, quoted on

the London Stock Exchange. The time interval contains twelve years, from 1985 to 1997. Authors analysed how sales, net profit, financial leverage and ownership information relate to gross dividends. It should be mentioned that ownership information includes the data about individuals, insurance companies, pension funds, financial institute and largest shareholders. Thus, the author obtained the following key results. The ownership concentration, which is measured as a percent of shares owned by the five largest shareholders, positively relates to the dependent factors. Besides, the growth of the insurance companies' shares leads to the increase in dividends. However, there is a negative relationship between the factor connected to the individuals shareholding and the dependent parameter.

As a result, during the analysis of previous researches it is found that the relationship between a dividend policy and ownership structure exists, although, the choice of the factors, which should be included into the model is important.

### 1.3 Mini-cases of oil and gas companies

In this part of the research, mini-cases, devoted to the analysis of how changes in ownership structure might influence a dividend policy of a company, are presented. It should be mentioned that there are a lot of potential affecting factors of dividend policy and these factors are influencing the payout policy in a complex, although, in this case, some facts which can be in a list of potential factors are presented.

It should be mentioned that the cases are selected in the following way. Two cases are devoted to the analysis of Russian leading state-owned and private companies, Gazprom and Lukoil respectively, and additional two cases about foreign private company Repsol and partly state-owned company Eni. As a result, two partly state-owned companies and two private companies are analysed. These companies are one of the leading oil and gas producers in the world.

#### *1.3.1 Gazprom case*

Gazprom is one of the leading oil and gas companies in the world which operates in a geological exploration, production, transportation, storage, processing and sales of gas, gas condensate and oil, sales of gas as a vehicle fuel as well as generation and marketing of heat and electric power. Gazprom owns one of the largest proved gas reserves in the world. Moreover, Gazprom extracts 12 percent of all gas extracted in the world.<sup>1</sup> All these facts show the size and the role of the company in oil and gas industry.

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<sup>1</sup> Gazprom. About Gazprom. <http://www.gazprom.com/about/> (accessed February 10, 2016).

According to Gazprom's dividend policy the size of the dividends are related to the net income of the company and the calculation of dividends has to follow the three principles<sup>2</sup>:

- calculation of the dividend amount in a transparent way;
- maintenance of balance between short-term (making a profit) and long-term (corporate development) shareholder interests;
- orientation towards higher investment attractiveness and the market capitalization of the company.

Besides, the dividend policy regulates the size of dividend payments and the procedure of its calculation. According to the document, the part of the net income can be distributed as dividends only in the case when the reserve fund is filled. After that, 10 percent of the net income distributes as dividends. Besides, the part of the net income in the interval between 40 and 75 percent is reserved for the investment purposes. The rest part of the net income goes in the equal parts to reserve fund for the investment purposes and to dividend payments. It should be noted that the size of the dividend payment limited in the interval between 17.5 to 33 percent of the net income.

Thus, in order to analyse dividend policy, it is important to observe Gazprom's net income. In the following graph, the net income since 1997 is presented. As it can be seen in all periods the net income is above zero. Consequently, there is a possibility that dividends can be distributed to the shareholders after filling reserve requirements which are described in the previous paragraph. It should be noted that in the time interval since 1997 to 2001 there were a wobbling of the net income. However, since 2001 there was a steady increase in net income till 2011. After that the net income slightly decreased and then dropped in 2013. However, the upward trend can be seen.

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<sup>2</sup> Gazprom. Gazprom dividend policy.

[http://www.gazprom.com/f/posts/08/697893/gazprom\\_dividend\\_policy\\_27.10.10\\_eng.pdf](http://www.gazprom.com/f/posts/08/697893/gazprom_dividend_policy_27.10.10_eng.pdf) (accessed February 10, 2016).

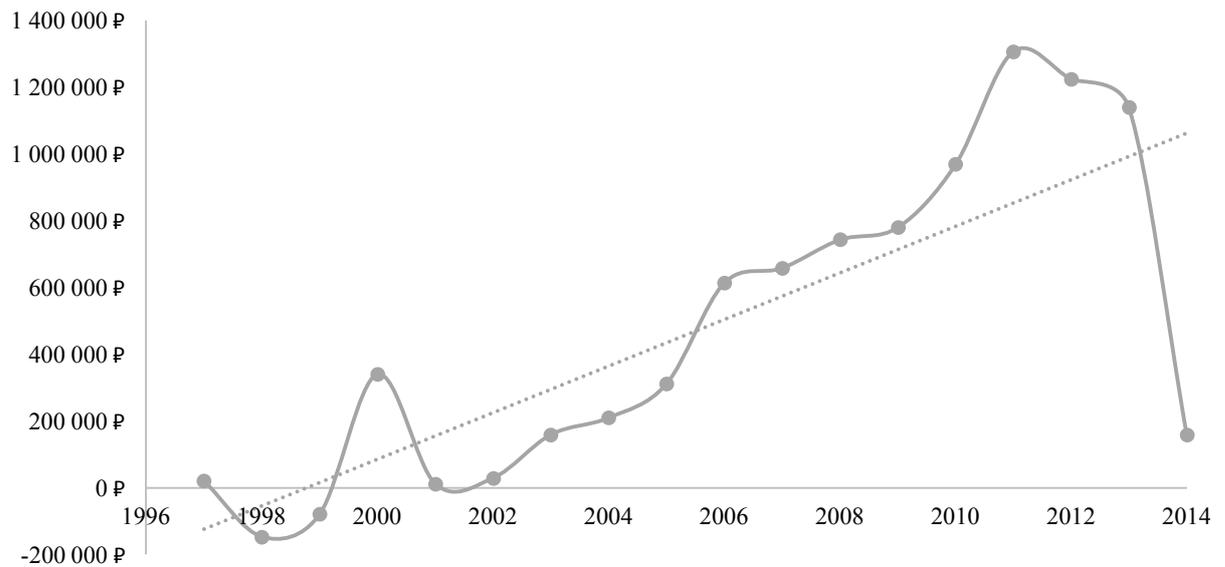


Figure 1. Gazprom's net income since 2002 to 2014 (million Rub).<sup>3</sup>

As it was mentioned in the previous paragraph, since 2000 there was the possibility of dividend payments due to the positive net income, consequently, the data about dividends should be analysed. In the figure below historical dividends per share are presented and it can be concluded that dividends in the time period since 2000 were significantly higher than zero. Moreover, as well as for net income, dividends also have a positive upward trend.

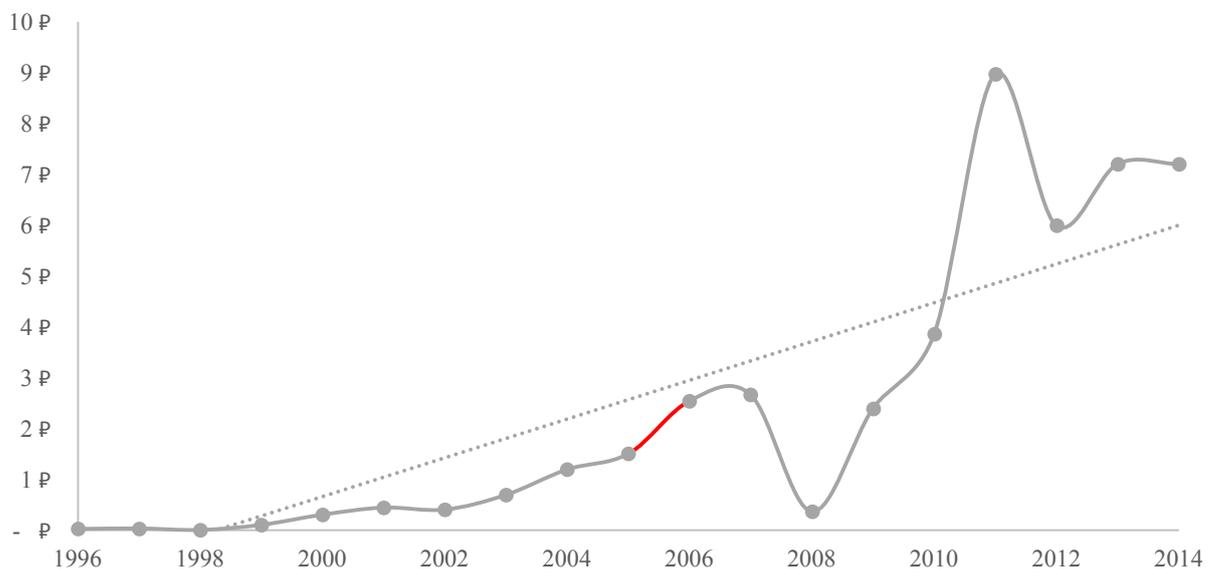


Figure 2. Historical data of dividends per share, Gazprom.<sup>4</sup>

<sup>3</sup> The source of the data: Gazprom. Financial Fact Sheet. <http://www.gazprom.com/investors/info/> (accessed February 10, 2016).

<sup>4</sup> The source of the data: Gazprom. Dividends. <http://www.gazprom.ru/investors/dividends/> (accessed February 10, 2016).

However, it is interesting to analyse the time period since 2005 to 2006, because in this time interval Gazprom experienced a change in the ownership structure. Before 2006 Gazprom's ADR were able to buy only institutional investors with the portfolio of over 100 million United States dollars while in 2006 Gazprom launched a new ADR program which provides the possibility of trading the issuer's receipts only on the over-the-counter market in the United States as well as enables private investors to hold the receipts.<sup>5</sup> Thus, new types of investors were able to buy Gazprom shares.

It should be noted that in this period the dividends increased from 1.5 rubles per share to 2.54 rubles per share and these years are signed in the previous graph with a red line. It cannot be denied that in this time interval the net income increased significantly and a complex of factors might push the increase in dividends, although, one of the potential factors which could influence the dividend payments can be a change in ownership structure, which is described in the previous paragraph. Besides, the dividends kept growing after 2006, except 2008, which can be a sign of a change of a dividend policy of the company.

### *1.3.2 Lukoil case*

Lukoil is one of the biggest vertical integrated companies in the world. The company fully controls the chain from oil extraction to the sale of the petroleum. The company owns about 1 percent of total proved reserves of crude oil and 2 percent of total oil extraction. Moreover, Forbes named Lukoil as the largest private company in Russia.<sup>6</sup>

The dividend policy of the company relies on the following principles. First of all, it should satisfy the balance between the interests of the company and its shareholders. Secondly, dividend policy should support the increase of the investment attractiveness of the company and its capitalization. Thirdly, dividend policy should respect and follow the rights of the shareholders.

Moreover, dividend policy states the circumstances of paying dividends:

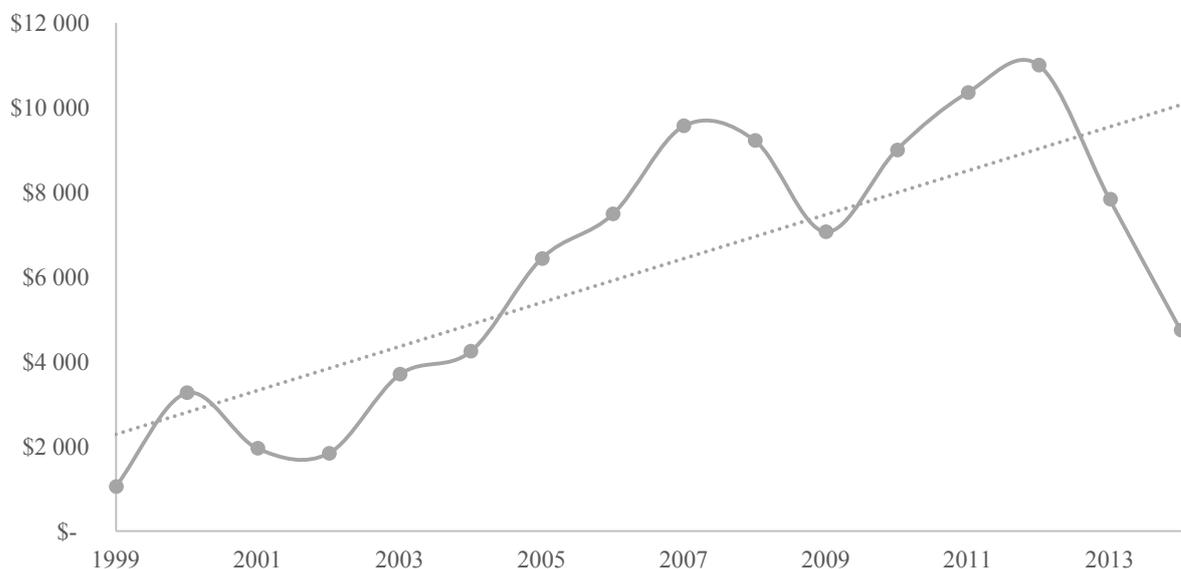
- the net income for the period should be positive;
- there are no limitations according to the section 43 of the federal law "about stock companies";
- the board of directors make a recommendation about the size and the timing of dividend payments;
- the decision of dividend payment which is made by the stockholders meeting.

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<sup>5</sup> Gazprom. Shares. <http://www.gazprom.com/investors/stock/> (accessed February 10, 2016).

<sup>6</sup> Lukoil. About Lukoil. [http://www.lukoil.ru/static\\_6\\_5id\\_29\\_.html](http://www.lukoil.ru/static_6_5id_29_.html) (accessed February 20, 2016).

Also, the dividend policy determines the size of dividend payments. According to the document the size of the payment should be at least 15 percent of the consolidated net income of the Lukoil.<sup>7</sup> As a result, it can be concluded that the key element of Lukoil's dividend policy is a presence of the positive net income.



*Figure 3. Lukoil's net income from 1999 to 2014 ( million Dollars).<sup>8</sup>*

As it can be seen in figure 3, the net income was positive for all years from 1999 to 2014. As a result, due to the company's dividend policy, it can be concluded that Lukoil could distribute the part of the net income in the form of dividend payment.

In figure 4, the historical dividends are presented and it should be noted that Lukoil distributed part of the earnings during the whole time period. Moreover, since 2001 the exponential growth can be seen.

It should be mentioned that the sharp increase in dividend payments started in 2011 and continued till 2014. Of course, in this year was an increase in net income, although, since 2012 net income started to decrease. As a result, one of the possible factors of the increase in dividend payments and a change in dividend policy, can be connected to the change in the ownership structure.

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<sup>7</sup> Lukoil. Dividend policy. [http://www.lukoil.ru/static\\_6\\_5id\\_243\\_.html](http://www.lukoil.ru/static_6_5id_243_.html) (accessed February 20, 2016).

<sup>8</sup> The source of the data: Lukoil. Financial statements. <http://www.lukoil.ru/new/finreports/2015> (accessed February 20, 2016).

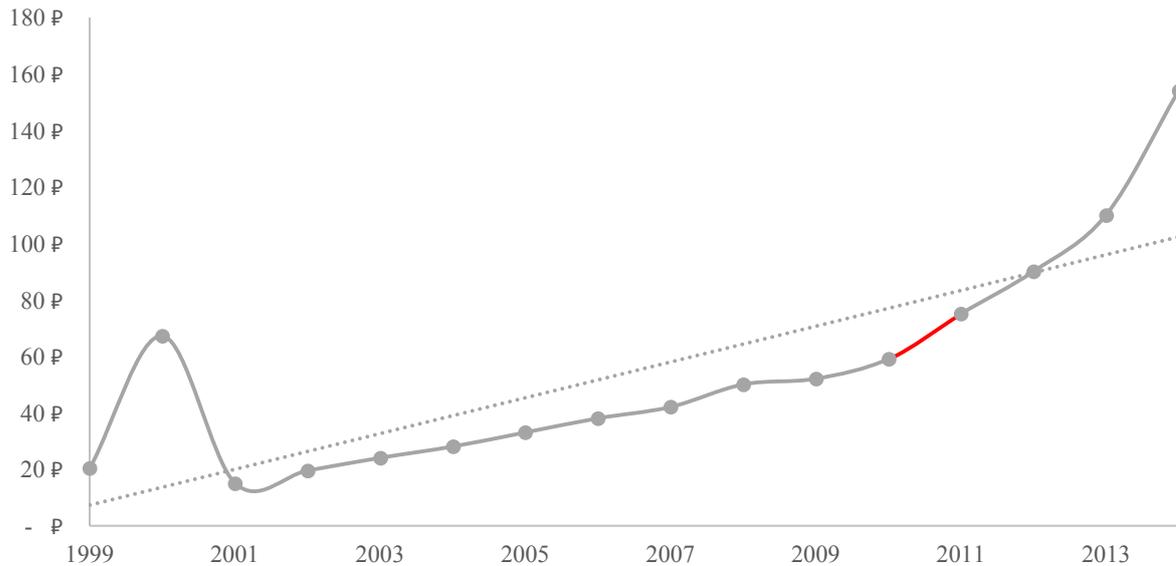


Figure 4. Historical data of dividends per share, Lukoil.<sup>9</sup>

In 2004, the ConocoPhillips, American oil and gas company, bought the part of the Lukoil's shares and the strategic alliance between two companies was agreed.<sup>10</sup> However, in 2010 Lukoil started to buy back its shares from ConocoPhillips and in 2011 this process was finished.<sup>11</sup> After the buy back, the ownership structure changed and existing shareholders gained a higher power and voting rights. As a result, the change in the ownership structure, the exit of ConocoPhillips, might influence the Lukoil's payout policy as a part of other affecting factors.

### 1.3.3 Repsol case

Repsol is one of the leading Spanish oil and gas companies. It operates in more than forty countries and is presented along the entire energy value chain, including exploration, production, refining, marketing and new energy R&D.<sup>12</sup> Repsol's dividend policy mainly relies on the fact that dividends have to be paid when the net income is positive.

As it was mentioned in the previous cases the main purpose of this part is to present how a change in the ownership structure might influence a dividend policy of a company. As a result, it

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<sup>9</sup> The source of the data: Lukoil. Dividend policy. [http://www.lukoil.ru/static\\_6\\_5id\\_243\\_.html](http://www.lukoil.ru/static_6_5id_243_.html) (accessed February 20, 2016).

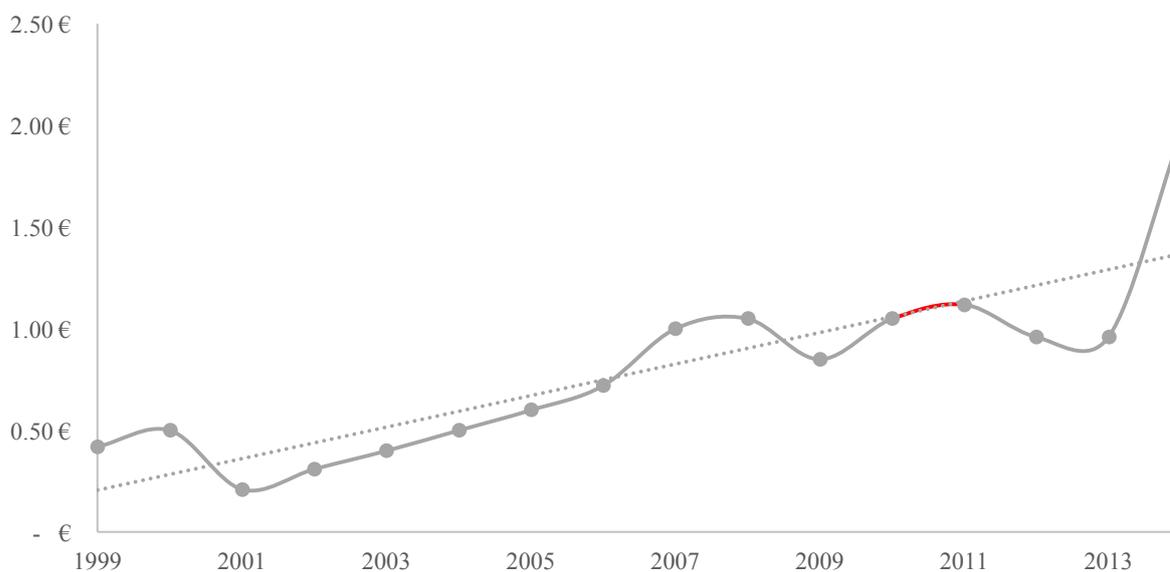
<sup>10</sup> Vedomosti. "Lukoil" vykupit vse svoi akcii u ConocoPhillips. [http://www.vedomosti.ru/business/articles/2010/09/28/lukoil\\_vykupit\\_vse\\_svoi\\_akcii\\_u\\_conocophillips](http://www.vedomosti.ru/business/articles/2010/09/28/lukoil_vykupit_vse_svoi_akcii_u_conocophillips) (accessed February 20, 2016).

<sup>11</sup> Lukoil. History of shareholders' capital. [http://www.lukoil.ru/static\\_6\\_5id\\_244\\_.html](http://www.lukoil.ru/static_6_5id_244_.html) (accessed February 20, 2016).

<sup>12</sup> Repsol. About us. [http://www.repsol.com/us\\_en/about-us/default.aspx](http://www.repsol.com/us_en/about-us/default.aspx) (accessed March 20, 2016).

is interesting to analyse the situation of 2011 when the largest Repsol's shareholder declined its part of ownership from 20.01 percent in 2010 to 10.01 percent 2011.

In the following graph, the historical dividends per share are presented. We can see that from 1999 to 2014 dividends show a more or less steady increase and in 2011 dividends are not significantly increased. Thus, in this step of analysis, it can be concluded that change in the ownership structure did not influence dividend policy.



*Figure 5. Historical data of dividends per share, Repsol.<sup>13</sup>*

However, as it was mentioned above, it is important to analyse the net income of Repsol. As it can be concluded from the following graph, net income was positive along all time periods, although, in 2011 net income dropped significantly relatively to the previous time period. Consequently, it could be predicted that dividends had to drop as well, although, dividends slightly increased in this time period. As a result, it can be concluded that change in ownership structure could be in the line with other factors which influence dividends to be stable in this time period whereas net income dropped. So, it can be concluded that there is an evidence that payout policy changed after the change in ownership structure.

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<sup>13</sup> Repsol. Dividends. [http://www.repsol.com/es\\_en/corporacion/accionistas-inversores/la-accion-de-repsol/retribucion-al-accionista/dividendos/](http://www.repsol.com/es_en/corporacion/accionistas-inversores/la-accion-de-repsol/retribucion-al-accionista/dividendos/) (accessed March 20, 2016).

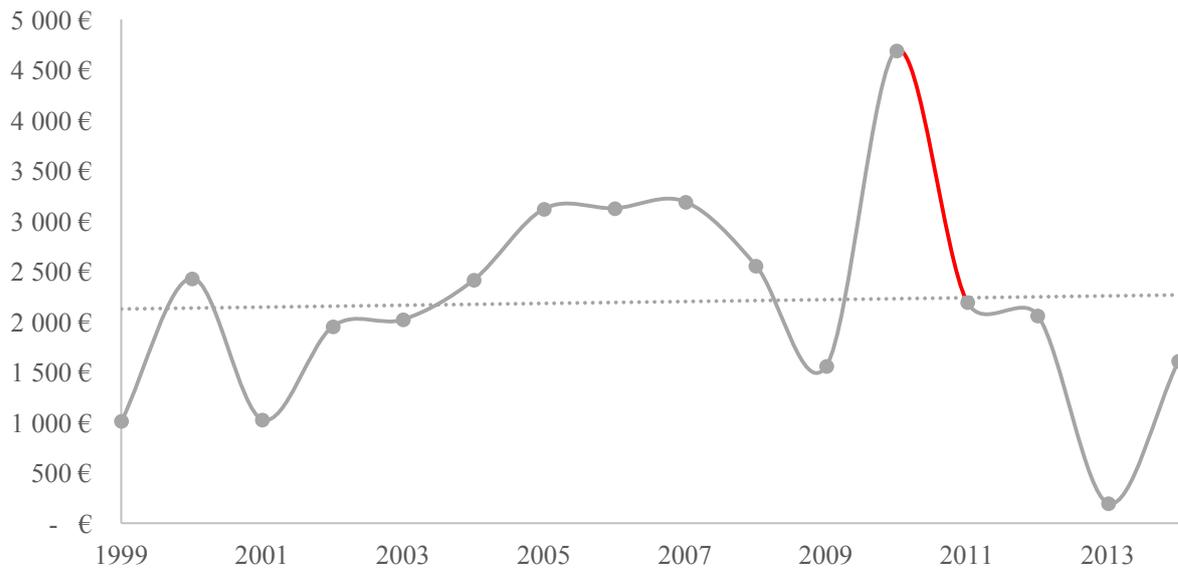


Figure 6. Repsol's net income from 1999 to 2014 (million Euro).<sup>14</sup>

#### 1.3.4 Eni Case

Eni is an oil and gas company which operates in more than eighty countries and headquartered in Italy. Eni engages in oil and natural gas exploration, field development and production, as well as in the supply, trading and shipping of natural gas, liquefied natural gas, electricity, fuels and chemical products.<sup>15</sup>

Before 1995 Eni was fully owned by the government of Italy, although, after the privatization Italian government owned around 30 percent of the shares till 2010 when its share started to decline and in 2011 Italy directly owned about 4 percent of the shares.<sup>16</sup> It should be mentioned that Italy still owns 30 percent of Eni, but not directly, through Italian national promotional institution Cassa Depositi E Prestiti. However, the ownership structure was changed and the effect of this change should be analysed.

Eni's dividend policy is based on a progressive dividend which is entirely paid in cash. The size of the dividend is determined with the respect of the following points. First of all, to ensure

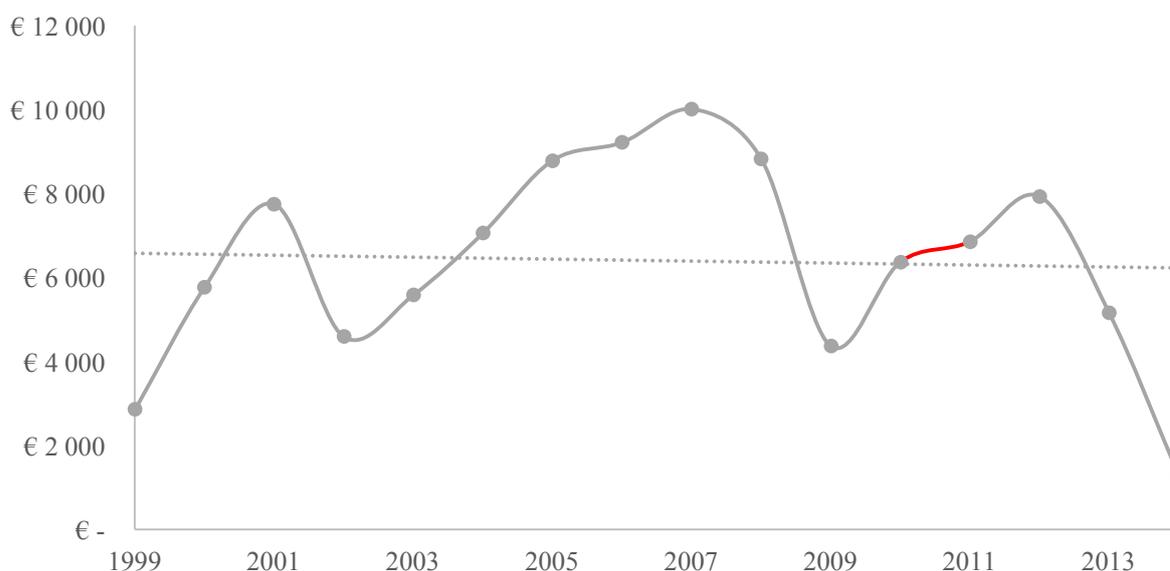
<sup>14</sup> Repsol. Annual Report. [http://www.repsol.com/es\\_en/corporacion/accionistas-inversores/informacion-financiera/informe-anual-consolidado/](http://www.repsol.com/es_en/corporacion/accionistas-inversores/informacion-financiera/informe-anual-consolidado/) (accessed March 20, 2016).

<sup>15</sup> Eni. Company profile. [http://www.eni.com/en\\_IT/company/company-profile/company-profile.shtml](http://www.eni.com/en_IT/company/company-profile/company-profile.shtml) (accessed March 20, 2016).

<sup>16</sup> Eni. Privatization. [http://www.eni.com/en\\_IT/investor-relation/eni-stock-markets/privatization/privatization.shtml](http://www.eni.com/en_IT/investor-relation/eni-stock-markets/privatization/privatization.shtml) (accessed March 20, 2016).

the dividend and investments are covered by the operational cash flow. Secondly, a payout ratio which is sustainable in the long term and in line with profit growth.<sup>17</sup>

As it can be concluded from the following graph, the net income during the sixteen-year time period was always positive. However, in 2007 net income started falling till nowadays, except the period from 2009 to 2012. It should be noted that in 2011 Cassa Depositi E Prestiti owned 26.37 percent part of Eni.

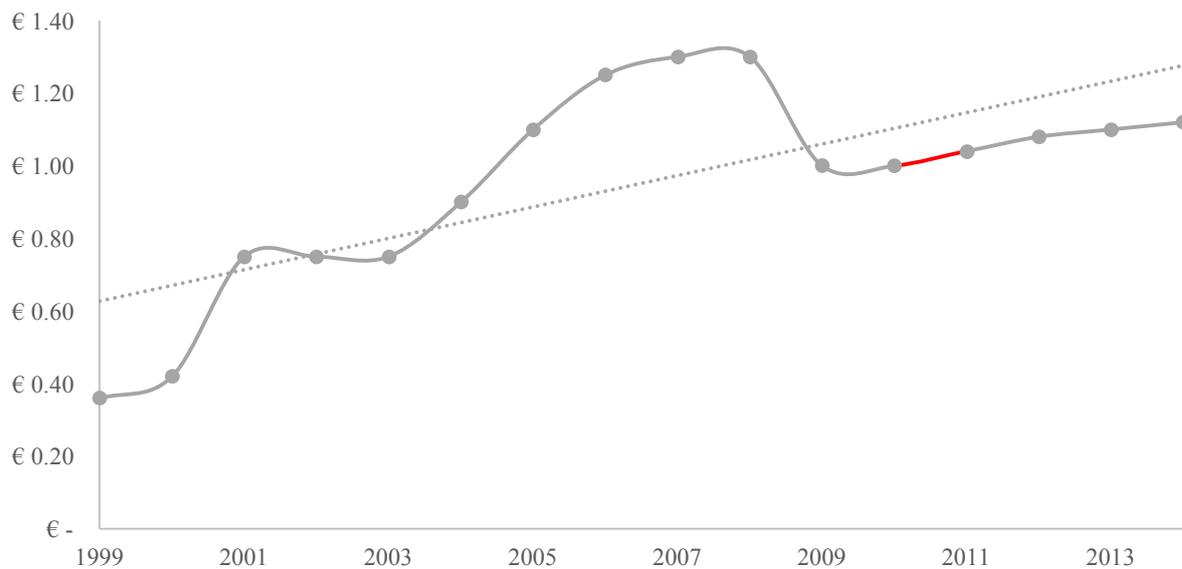


*Figure 7. Eni's net income from 1999 to 2014 (million Euro).<sup>18</sup>*

In the following graph, the historical data of dividends per share is presented. It should be noted that in 2008 dividends dropped significantly partly due to the sudden reduction in net income. However, in 2011 dividends started to slightly increase from year to year till 2014 while in these years net income fluctuated and showed a sharp decrease in 2013 and in 2014. This behaviour of dividends partly might be described by the change of dividend policy of a company. As it was mentioned above, the ownership structure experienced the significant change and new shareholder might force the company to change payout practice and keep dividends growing despite the reduction in earnings.

<sup>17</sup> Eni. Dividend policy. [http://www.eni.com/en\\_IT/investor-relation/investor-tools/investor-faq/eni-stock-exchange-dividends/faq-dividend-policy.shtml](http://www.eni.com/en_IT/investor-relation/investor-tools/investor-faq/eni-stock-exchange-dividends/faq-dividend-policy.shtml) (accessed March 20, 2016).

<sup>18</sup> Eni. Annual report. [http://www.eni.com/en\\_IT/investor-relation/investor-tools/interactive-results/interactive-results.shtml](http://www.eni.com/en_IT/investor-relation/investor-tools/interactive-results/interactive-results.shtml) (accessed March 20, 2016).



*Figure 8. Historical data of dividends per share, Eni.<sup>19</sup>*

As a result, during the analysis of these cases, it can be concluded that changes in ownership structure, like the change of shareholders or buy back of securities, might influence dividend policy of the companies. Of course, there are a lot of factors which influenced the payout policy, although, it cannot be denied that changes in ownership structure were followed by changes in the size of dividends. Consequently, there is the evidence that a relationship between a dividend policy and ownership structure of a company exists. Thus, this fact supports the feasibility of further analysis.

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<sup>19</sup> Eni. Dividend. [http://www.eni.com/en\\_IT/investor-relation/eni-stock-markets/dividend/dividend.shtml](http://www.eni.com/en_IT/investor-relation/eni-stock-markets/dividend/dividend.shtml) (accessed March 20, 2016).

## CHAPTER 2. EMPIRICAL STUDY OF THE RELATIONSHIP OF THE OWNERSHIP STRUCTURE AND DIVIDEND POLICY

This chapter is devoted to the econometric analysis of the relationship between characteristics of the ownership structure of oil and gas companies and dividend policies. In the first part of the chapter, hypotheses of the analysis are formulated and the methodology of the analysis is presented. Then the description of the data and econometric analysis are provided.

### 2.1 Research hypotheses

According to the specific goal of the project, several hypotheses about the relationship between different parameters and the dividend payout policy and dividend yield have to be formulated. Thus, in the following paragraphs, hypotheses are stated and briefly described using the previous researches. It should be mentioned that the research is devoted to the analysis of the relationship between the dividend policy and ownership structure, consequently, research hypotheses are mainly directed to test those relationships.

*Hypothesis 1.1 The share of the largest shareholder is positively related to a dividend payout ratio.*

*Hypothesis 1.2 The share of the largest shareholder is positively related to a dividend yield.*

There are a lot of studies which analysed the relationship between the share of the largest shareholder and dividends paid. The importance of this variable is significant for the ownership structure analysis, due to the fact that shareholder which owns a significant amount of shares may gain benefits at the expense of interests of other shareholders by manipulating company's dividend policy Shleifer et al. (1997). Besides, the power of the first shareholder increases when its share in the company growing. So, the conflict of interest between the biggest shareholder and minority shareholders might appear and in the countries with low minority protection companies pay lower dividends (La Porta et al., 2000).

According to the analysis of the literature, it was found that there is an inverse relationship between the share of largest shareholder and dividend payout (Thanatawee 2014; Berezinec et al., 2011 a; Gugler et al., 2003). However, the analysis of the companies all over the world gave an opposite result (Truong et al., 2007). It was found that there is a positive relationship between the share of largest shareholder and dividend payout.

However, due to the fact that different researches support different opinions about the relationship between the share of dividend payout ratio or dividend yield and the share of the largest shareholder, moreover, different oil and gas companies characterized by various ownership structure, it is better to follow the research provided by Truong et al. (2007) due to the fact that

they studied this relationship for the sample which was created for the whole world. In other words, that analysis does not capture the country specific characteristics.

*Hypothesis 2.1 In companies with a controlling shareholder dividend payout ratio is lower.*

*Hypothesis 2.2 In companies with a controlling shareholder dividend yield is lower.*

In the countries with low shareholder protection, the agency problem between controlling shareholder and other shareholders might rise. It can be explained by the fact that a controlling shareholder might make decisions by himself and, as a result, the controlling shareholder might gain almost full control over the company. Thus, the rights of the minority shareholders might be ignored (La Porta et al., 2000).

According to the literature analysis, it was found that there is no consensus. For example, according to Maury et al. (2002) in the companies where the shareholder with 50 percent of shares plus 1 share is presented, dividend payments are lower, while in another research the opposite effect was found (Berezinec et al., 2011 a). However, in this research it is assumed that if a shareholder owns more than 50 percent of the shares, he or she might gain private benefits and the dividend payments should be lower.

*Hypothesis 3.1 The ownership stake of three largest shareholders is negatively related to dividend payout ratio.*

*Hypothesis 3.2 The ownership stake of three largest shareholders is negatively related to dividend yield.*

The ownership stake of three largest shareholders can be used as a measure of ownership concentration in the company Maury et al. (2002). This hypothesis is widely studied in different researches and most of them concluded the same results. A lot of studies found that there is an inverse relationship between ownership concentration and size of dividend payments (Berezinec et al., 2011 a; Bena et al., 2008; Harada et al., 2011; Khan, 2006; Maury et al., 2002). Thus, this relationship was found in the Russian, British, Finnish and Japanese markets.

*Hypothesis 4.1 The state ownership is positively related to dividend payout ratio.*

*Hypothesis 4.2 The state ownership is positively related to dividend yield.*

This question has not been fully covered in previous researches. There is a few studies which analysed the relationship between the state ownership and dividend payments. However, in some articles, it was found that there is a positive relationship between the state ownership and dividend payments (Bradford et al., 2013; Chen et al., 2009; Thanatawee, 2014). This relationship was explained by the fact that the state-owned firms have a higher ability to raise the capital, comparing to the private companies (Bradford et al., 2013).

*Hypothesis 5.1 The spread in ownership stakes of the first and second largest shareholders positively relates to dividend payout ratio.*

*Hypothesis 5.2 The spread in ownership stakes of the first and second largest shareholders positively relates to dividend yield.*

In some researches, the relationship between the first and second largest shareholders was analysed. Gugler et al. (2003) found that the increase of a share of the second shareholder, thus, a reduction of a spread between the shares of the first and second largest shareholders is positively related to dividend payouts.

## 2.2 Methodology

According to literature review, there are two main alternatives due to the fact that these ratios were used in the articles devoted to this field:

- dividend yield;
- dividend payout ratio.

Dividend yield shows how much company pays in dividends, relatively to its share price. The dividend yield is the widely used ratio (Bradford et al., 2013; Chang et al. 2016; Daren. 2011; etc.) and one of its main advantages is that both parameters, dividends and share price, cannot be negative while for the dividend payout ratio this factor is a crucial disadvantage. However, the most widely used ratio for this specific type of research is dividend payout ratio (Alli et al., 1993; Berezinec et al., 2011 a; Berezinec et al., 2011 b; Thanatawee, 2014; etc.). This variable shows how much money company repays to the shareholder and how much it reinvests out of earnings. As a result, two regression models are created, using the dividend payout ratio and the dividend yield respectively.

In general, the econometric analysis, which studies the relationship between the dividend policy and ownership structure uses the following regression model:

$$Div\_payout_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 Y_{it} + u_{it} \quad (1)$$

$$i = 1, \dots, n; t = 1, \dots, T$$

The dependent variable is  $div\_payout_{it}$  which characterize the dividend payout ratio for the company  $i$  in the moment  $t$ . In the equation (1)  $X_{it}$  is a vector of variables which characterize ownership structure;  $Y_{it}$  is a vector of variables which characterize financial and economic variables;  $u_{it}$  is a random variable. Besides,  $\beta_0$  is an unknown scalar observation;  $\beta_1$  and  $\beta_2$  are the vectors of unknown coefficients.

The second model (2) is aimed to analyse the relationship between a dividend policy and a dividend yield. The dependent variable is  $div\_yield_{it}$  which characterize the dividend yield for the company  $i$  in the moment  $t$ . Other parameters are the same as in the model (1).

$$Div\_yield_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 Y_{it} + u_{it} \quad (2)$$

$$i = 1, \dots, n; t = 1, \dots, T$$

Also, independent variables have to be identified. It should be mentioned that according to the literature review some conclusions about this type of variable should be mentioned. First of all, it was proved that variables which describes the general characteristics of the company like size, profitability, leverage and liquidity should be included into the model due to the fact that in the most of the studies these factors were significant and, consequently, relate to a dependent variable (Berezinec et al., 2011 a; Borges Forti et al., 2015; Chang et al., 2012; Khan, 2006). According to the analysis, the liquidity variable should have a positive sign (Benito et al., 2001; Borges Forti et al., 2015; Gupta et al., 2010; Lintner, 1956). In other words, the greater the profit of the company, the higher the dividend payout ratio or dividend yield. The leverage is negatively related to dividend payout (Acharya et al., 2011; Berezinec et al., 2011 a; Borges Forti et al., 2015; Gupta et al., 2010; Jensen et al., 1992; Thanatawee, 2014). The profitability variable, as well as liquidity variable, positively relates to dependent variable (Berezinec et al., 2011 a; Borges Forti et al., 2015; Brunzell et al., 2014; Chang et al., 2012; Denis et al., 2008; Fama et al., 2001; Gupta et al., 2010; Kania et al., 2005; Myers, 2004; Thanatawee, 2014). It is expectable that more profitable companies pay higher dividends. Also, the size is expected to have a positive sign (Berezinec et al., 2011 a; Borges Forti et al., 2015; Brunzell et al., 2014; Gupta et al., 2010; Moh'd et al., 1995; Renneboog et al., 2011; Thanatawee, 2014). Secondly, one of the purposes of the master thesis is to analyse the effect of ownership factors and it was proved that some variables devoted to this field are significant (Berezinec et al., 2011 a; Borges Forti et al., 2015; Chang et al., 2012; Thanatawee, 2014), consequently, they need to be included into the model. As a result, the list of variables is presented below.

### Summary of variables

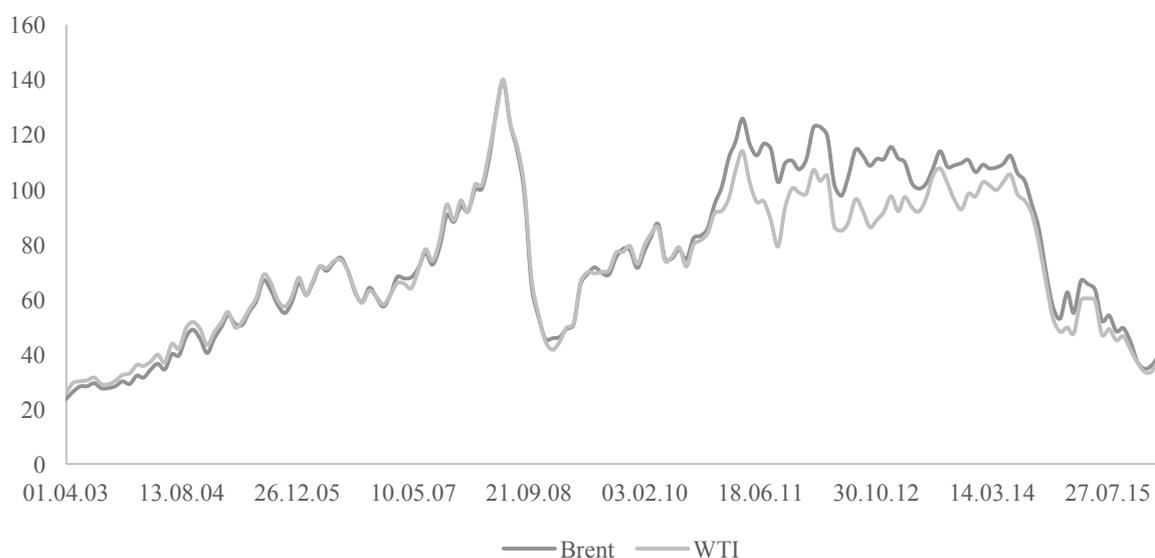
Variable	Description
Dependent variable	
div_payout	Dividend payout ratio. It is calculated as a ratio between dividend per share and earnings per share for the specific company in the specific moment.
div_yield	Dividend yield. It is calculated as a ratio between dividend per share and price per share for the specific company in the specific moment.
Ownership structure variables (independent variables)	
share_1	The share of the largest shareholder of a company.
share_2	The share of the second largest shareholder of a company.
share_3	The share of the third largest shareholder of a company.
controld	Binary variable, that equals 1 if there is a shareholder with a 50 percent portion of shares plus 1 share and 0 otherwise.
share_st	The share of the state in the ownership structure.
conc_3	The ownership stake of the top three shareholders.
spread_1	Difference between the ownership stakes of the first and second largest shareholders.
Control variables (independent variables)	
liq_r	As a liquidity ratio, the current ratio is used. It is calculated as a ratio between current assets and current liabilities for the specific company in the specific moment.
lev_r	The ratio which describes the capital structure of a company. It is calculated as a ratio between debt and equity for the specific company in the specific moment.
pro_r	Return on assets ratio is used as a profitability ratio. It is calculated as a ratio between net income and average total assets for the specific company in the specific moment.
size_r	Natural logarithm of revenue. It is calculated as a natural logarithm of revenue for the specific company in the specific moment.

### 2.3 Data and sample selection

Oil and gas companies from different countries were included in the sample based on specific criteria. First of all, a company should be involved in the oil and gas extraction and then sell products to the customers. In other words, the data set does not include refinery companies

and service companies. Secondly, the data set was collected during the five-year time interval and, consequently, a company had to pay at least one time dividends to its shareholders. This limitation can be described by the fact that one of the main purposes of the research is to determine factors of dividend policy while the absence of dividend payments can be explained by the not developed dividend policy. Thirdly, an oil and gas company can be included in the data set in the case when it was created at list two years before the first year when the data was collected. This restriction can be simply described by the fact that during the first years of the creation of a company, it has to experience high capital expenditures in order to obtain its major assets and to conquer its market share. Besides, during such a short time period companies are not able to form their own dividend policy while it is important for the analysis to obtain the data from the companies which have its own clear dividend policy.

Moreover, for the analysis the time interval is important. The importance of this decision is described by the high volatility of the oil prices during last decades. As it can be seen from figure 9, from 2010 till the first half of 2014 the oil prices, in this case Brent and WTI prices, were relatively stable. In the analysis, the post crises period was taken. It should be mentioned that at the time of data collection process, the last published financial statements were devoted to the 2014 fiscal year. Thus, the end point of the time interval is 2014.



*Figure 9. The Brent and WTI prices.<sup>20</sup>*

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<sup>20</sup> The graph was created using: Investing.com. Brent prices. <http://ru.investing.com/commodities/brent-oil-historical-data> (accessed March 26, 2016). Investing.com. WTI prices. <http://ru.investing.com/commodities/crude-oil-historical-data> (accessed March 26, 2016)

As it was mentioned above, one of the main disadvantages of dividend payout ratio is that earnings per share can be negative while dividends can be paid in this year. Consequently, in this situation dividend payout ratio becomes negative which is meaningless. As a result, this value should be missed.

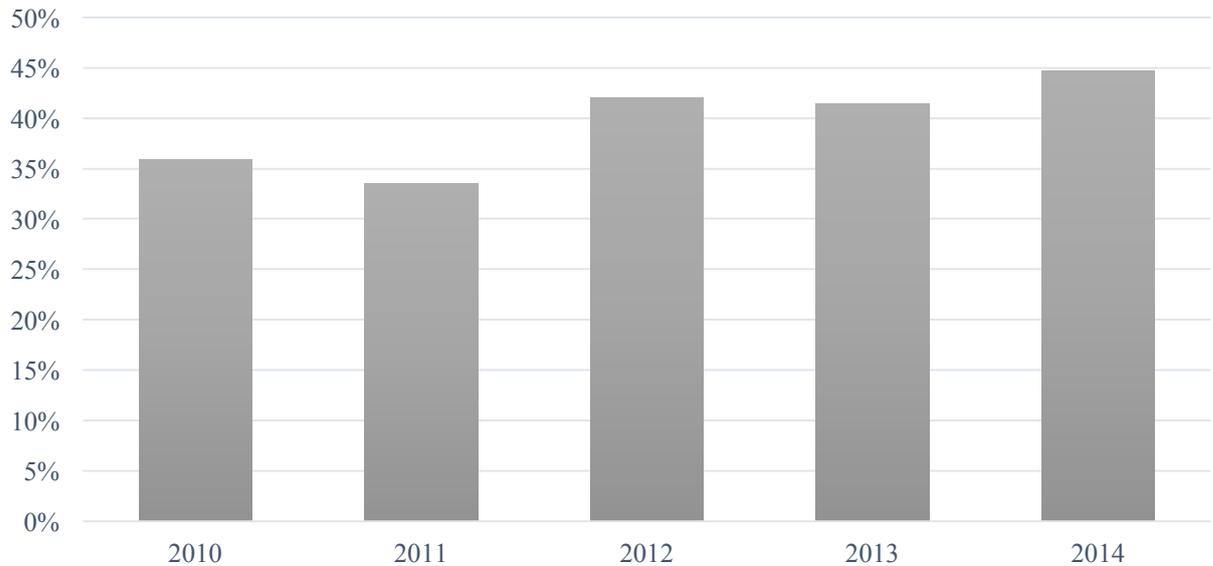
The source of the data is Thomson Reuters database. The information was obtained for 99 companies during the five-year time interval. In the following table, the summary of the variables for the whole sample is presented.

*Table 2*

**Descriptive statistics**

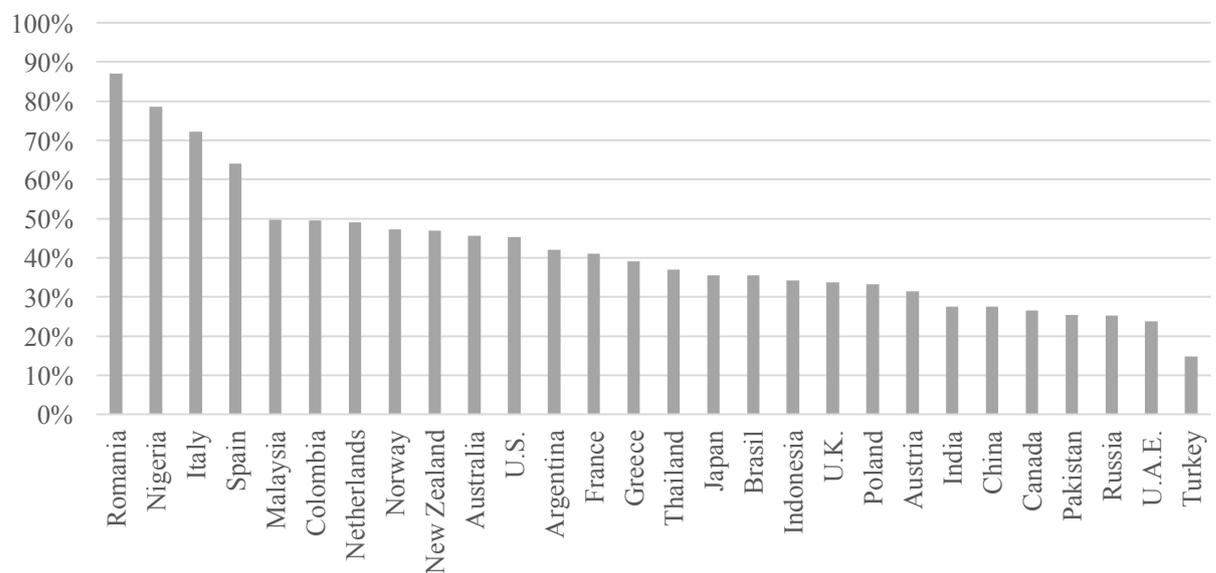
Variable	Mean	Std. Dev.	Min	Max
div_payout	0.3940087	0.6124873	0	4.84
div_yield	0.03	0.03	0	0.6
liq_r	1.664848	1.430729	0.22	9.96
lev_r	0.5352121	0.4921735	0	2.83
pro_r	0.048202	0.0908919	-0.67	0.56
size_r	22.12618	2.892087	0	26.89
share_1	0.2790901	0.2627051	0.0097	0.976
share_2	0.0728311	0.0671176	0.0002	0.3548
share_3	0.0400077	0.0336849	0.0002	0.194
controld	0.2828283	0.4508293	0	1
share_st	0.1552863	0.2814978	0	0.976
conc_3	0.3919289	0.2758905	0.0254	0.9785
spread_1	0.2062592	0.2662043	0	0.9751

As it can be seen from the table above, the mean value of dividend payout ratio equals to 39 percent. In other words, on average, companies from the sample spent 39 percent of its net income on dividend payments. The average dividend yield is 3 percent which can be interpreted as following: on average, companies pay 3 percent of its share price in dividends. Concerning the current ratio, it can be concluded that on average, companies do not experience difficulties with liquidity. Besides, on average oil and gas companies are not heavily debt financed.



*Figure 10. Dynamics of the average dividend payout ratio.*

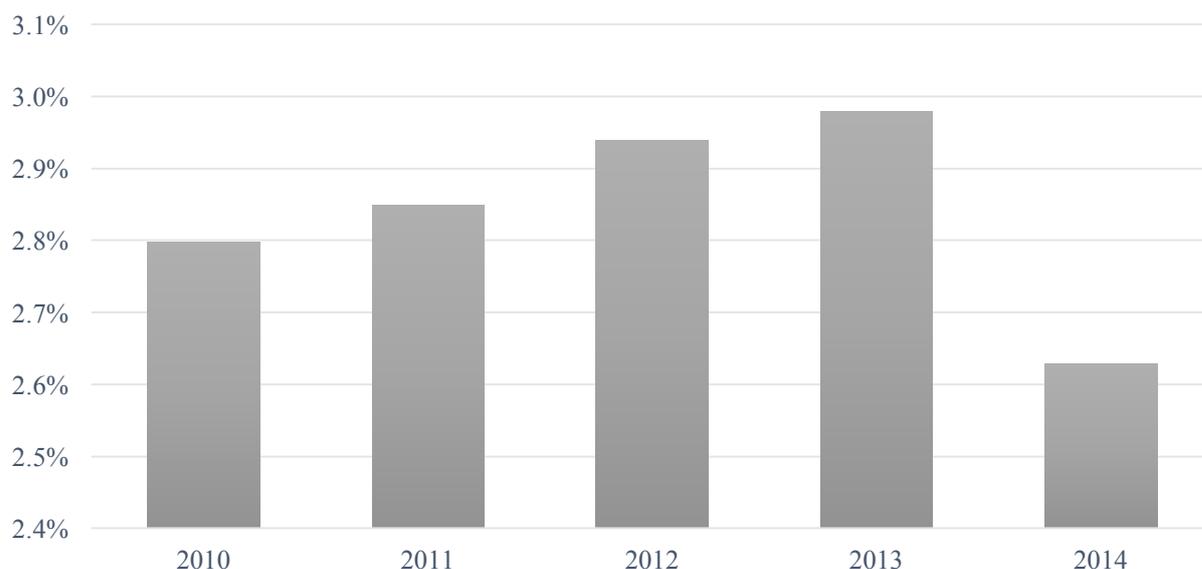
In the figure above, dynamics of the average dividend payout ratios is presented. Thus, in 2010 average dividend payout ratio was 36 percent while in 2011 this value decreased by 2 percent to the 34 percent. However, in 2012 the ratio increased to 42 percent and in 2013 it did not change significantly. In 2014, average dividend payout ratio grew to 45 percent. As a result, it can be concluded that during this time the ratio was increasing. In other words, firms, on average, started to spend greater part of net income in dividends.



*Figure 11. Average dividend payout ratio per country.*

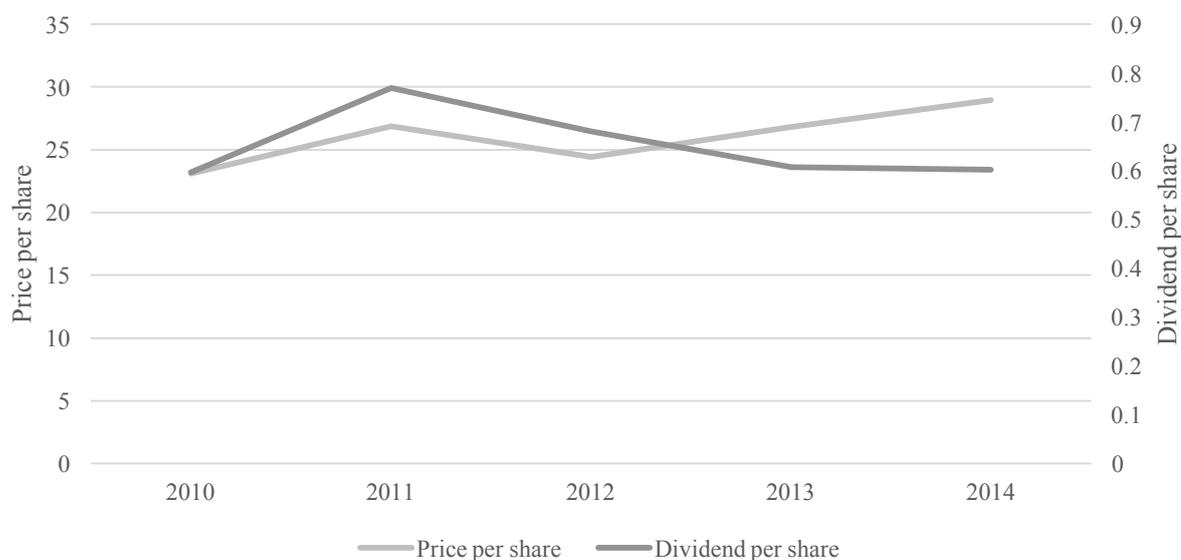
In figure 11 the average dividend payout ratios per country are presented. It should be noted that in figure 11 average dividend payout ratios were calculated for each country which are included into the sample. According to the figure, the largest dividend payout ratio is in Romania,

which equals to 87 percent, while the lowest level is in Turkey. However, in most countries this ratio lies in the interval between 20 and 50 percent.



*Figure 12. The dynamics of average dividend yield.*

In figure 12, the dynamics of average dividend yield is presented. It can be seen that dividend yield was growing in the period from 2010 to 2013, while in 2014 it dropped. So, in 2010 on average companies paid in dividends 2.8 percent of its share price, while in 2014 this value was 2.63 percent. According to figure 13, average dividend per share increased in 2011, while from 2011 to 2014 average dividend per share reduced to the level of 2010. However, the average price per share was increasing during this time interval. Consequently, it can be concluded that the reduction of the average dividend yield is mainly described by the increase in the price per share which is located in the denominator of the ratio.



*Figure 13. The dynamics of average price per share and dividend per share.*

In figure 14, average dividend yield per country is presented. As in figure 11 ratios were calculated for each country which is included in the sample. The highest dividend yield in Italy and it equals to 6.14 percent, while the lowest level of dividend yield is in Turkey and it equals to 1.02 percent.

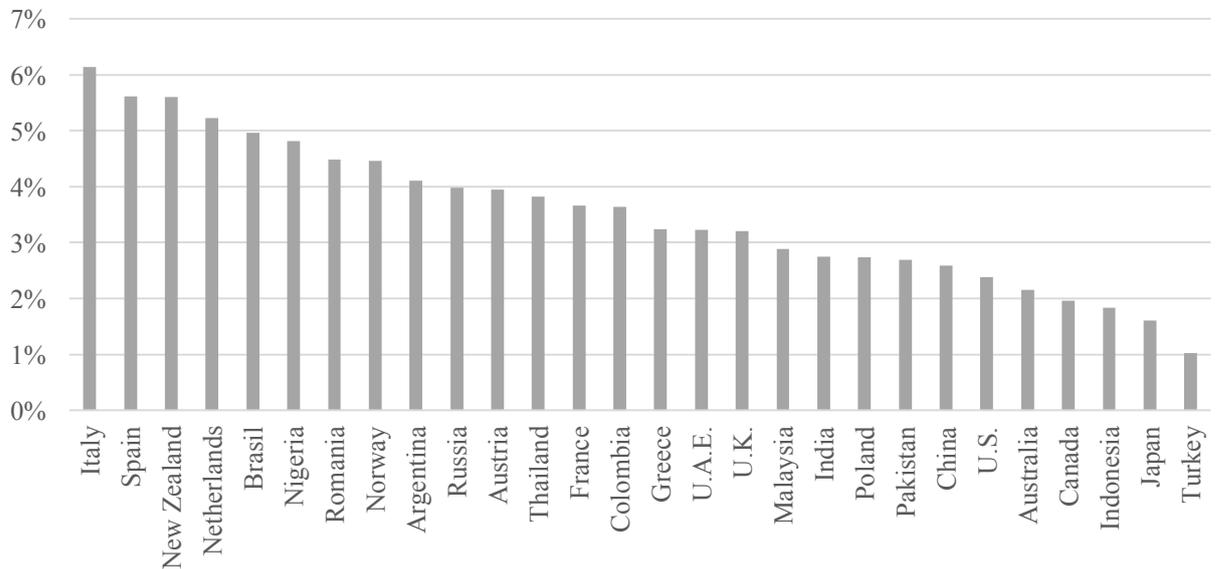


Figure 14. Average dividend yield per country.

In general, the current ratio is a measure of an ability of a company to repay its obligations and the higher the ratio, better abilities of a company to pay its debt. According to the current ratio distribution within countries, it can be seen that in most cases the ratio is higher than 1, which indicates that those liabilities are lower than assets. However, in Greece, Argentina and Nigeria this ratio is lower than one, in other words, the financial situation of companies in these countries are not satisfactory.

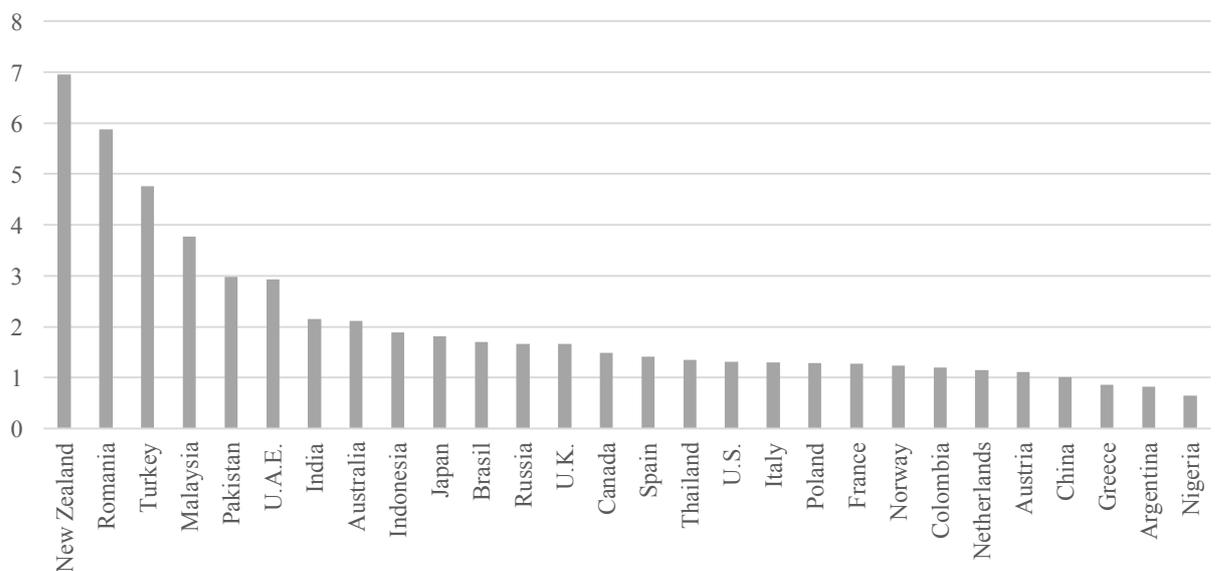
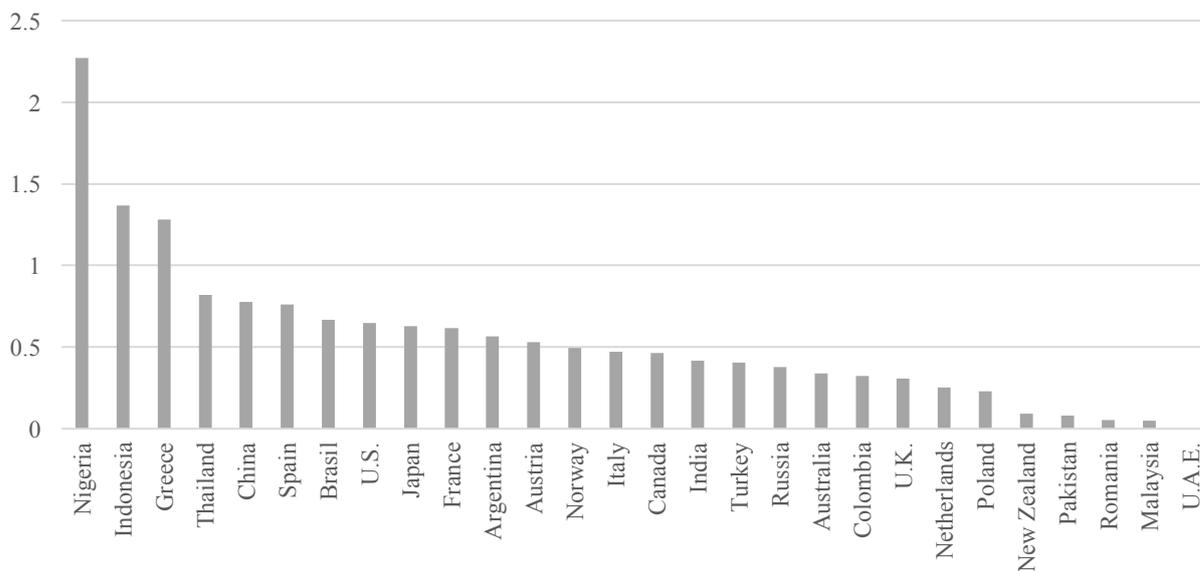


Figure 15. Average current ratio per country.

Concerning the leverage, it can be seen in the graph below that for most of the countries, it does not exceed 0.9, which means that debt is less than equity. However, in the countries like Nigeria and Greece, companies experience the opposite situation. This fact can be partly explained by the unsatisfactory economic conditions in this countries. Besides, the dynamic of the average level of leverage per year shows that during the period from 2010 to 2014, on average, companies increased the leverage by 0.16 which means that companies increased the debt load.



*Figure 16. Average leverage ratio per country.*

The profitability of the companies is another important variable. According to the figure below, the average profitability of companies, despite the short-term increase in 2011, dropped significantly by 2014. In 2010, average profitability was around 6 percent, while by 2014, the ratio dropped to 2.6 percent. Consequently, it can be concluded that difficult situation with oil prices together with other affecting parameters heavily influenced oil and gas companies.

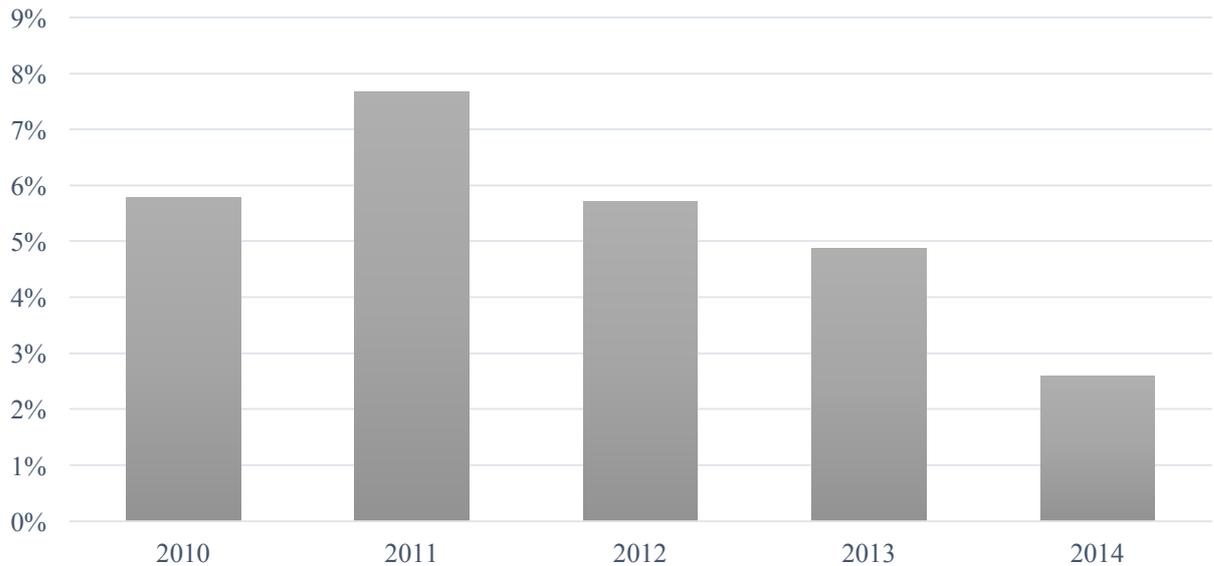


Figure 17. The dynamics of average profitability per year.

In figure 18 average revenues of companies per country are presented. Concerning the size of companies, it can be concluded that countries are extremely various according to the average revenue of its companies.

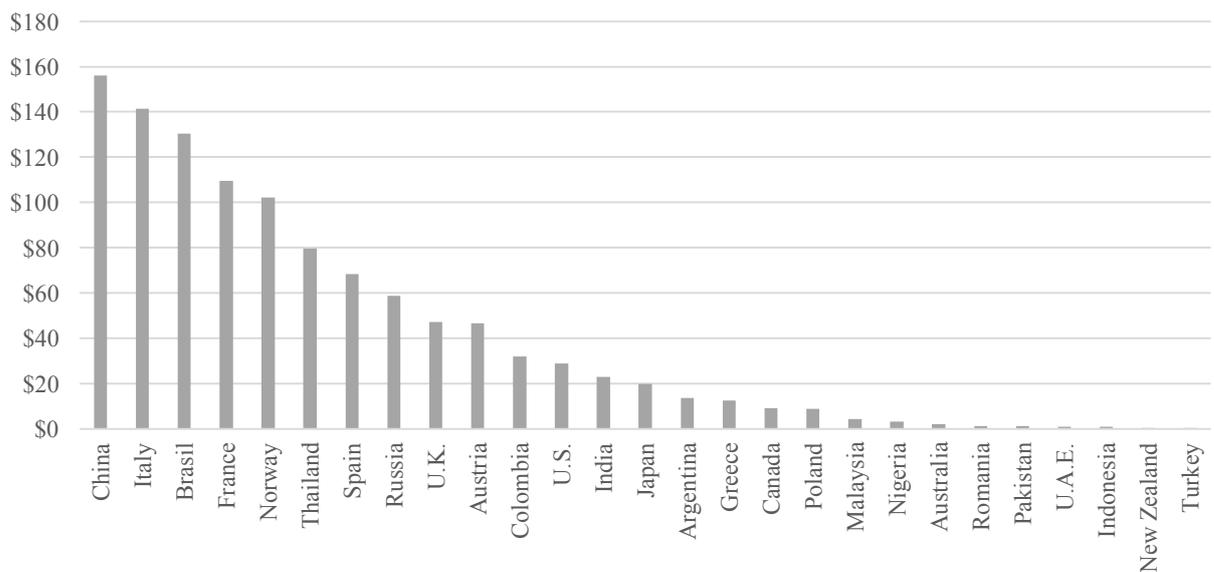


Figure 18. Average revenue of companies per country (billion Dollars).

This research is mainly devoted to the analysis of ownership structure of oil and gas companies. As it was mentioned above, the top shares of top three shareholders are used as variables. In the figure below, the average shares of top three shareholders per country are presented. As it can be seen, Western Europe and North American countries are on the right side of the graph, while others are on the left side. Such distribution is natural due to the fact that western markets are characterised by dispersed ownership, consequently, the shareholders own smaller stakes, comparing to average values in other parts of the world.

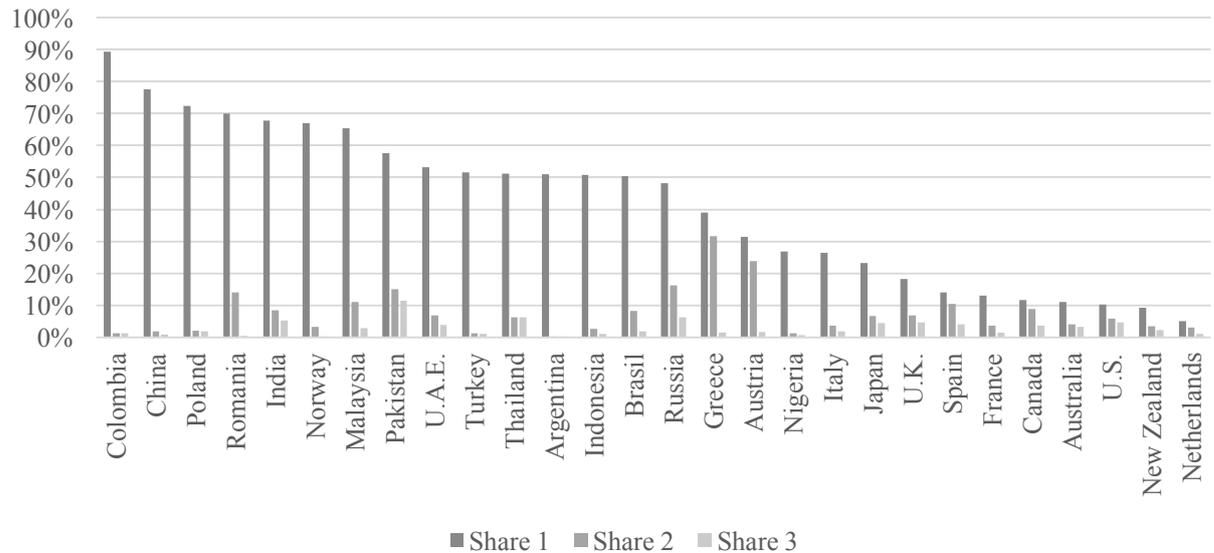
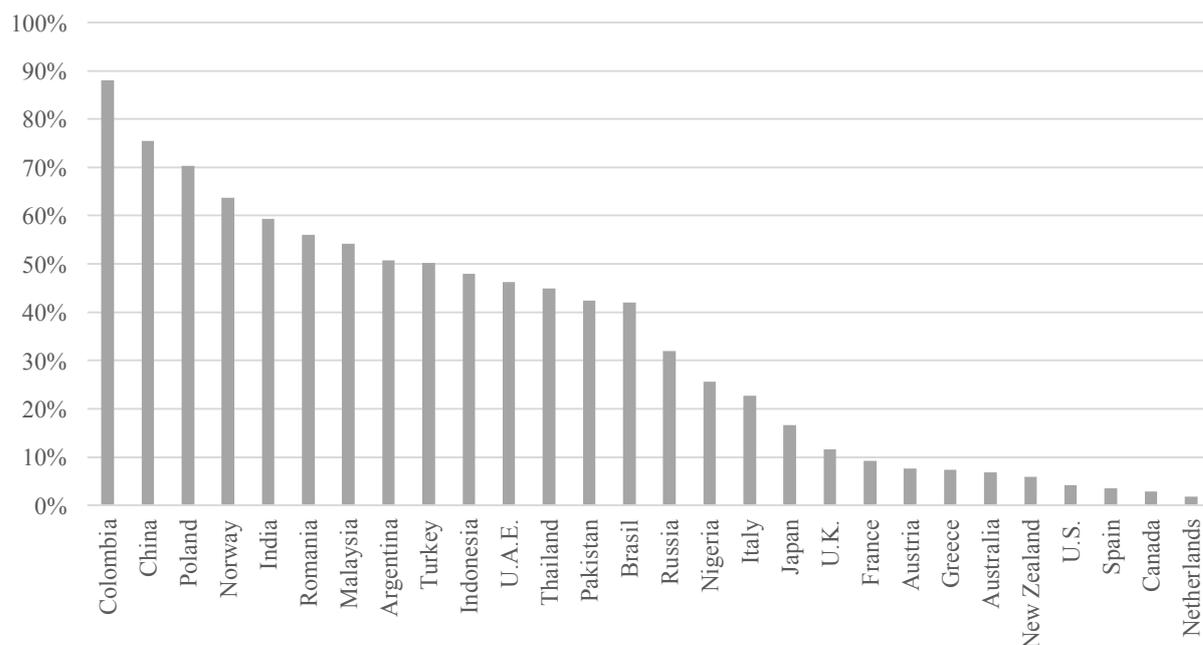


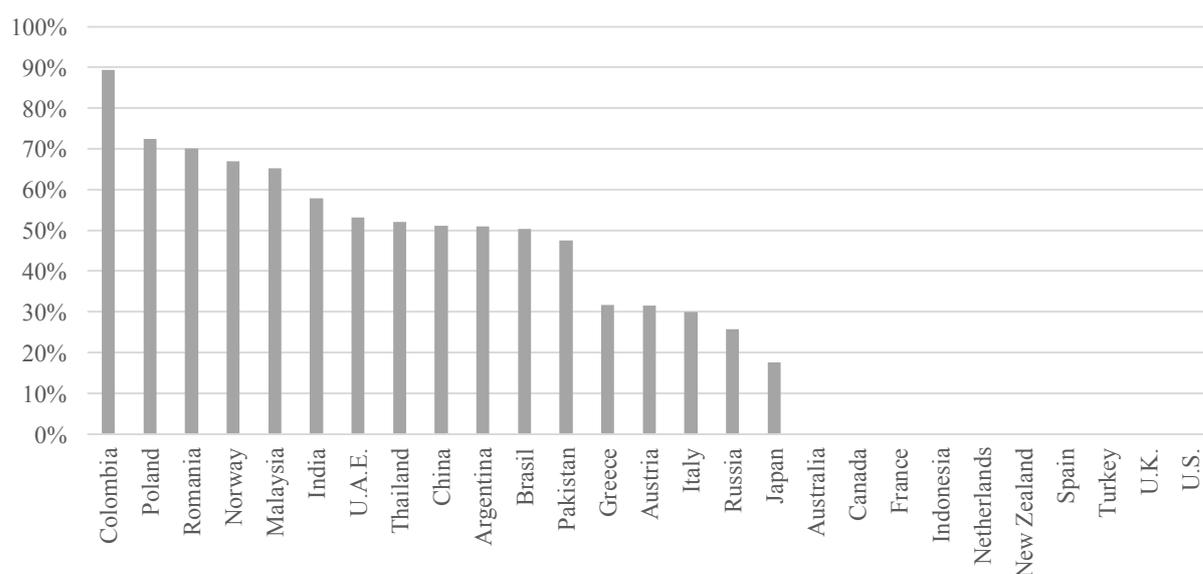
Figure 19. Average share of top three shareholders per country.

In figure 20, average spreads between the shares of the first and second largest shareholders per country are presented. As well as in figure 19, the countries with dispersed ownership are located on the right side of the graph and it is natural due to the fact that in companies with low ownership concentration stakes of the shareholders are lower and the difference between the shares of the first and second largest shareholders is lower. In the case when the ownership concentration is high, the shares of the first shareholder is higher, comparing to the shares of other shareholders. Exceptions can appear. For example, in the case when the first and second largest shareholders own a large stake in a company and, thus, the spread between those shares is comparatively low. In Greece, on average the first largest shareholder owns about 39 percent of a company, while the second largest shareholder owns around 32 percent. As a result, the spread is only 7 percent, but the ownership structure cannot be classified as a disperse.



*Figure 20. Average spread between the shares of the first and second largest shareholders per country.*

In figure 21, average shares of state per country are presented and it can be seen that in most developed countries the share of state equals to zero. Besides, the highest average share of the state is in Colombia, which equals to 90 percent, while the lowest average share of state, except countries with an absence of state ownership, is in Japan and it equals to 18 percent. Moreover, in most of the countries, where the state owns the share of a company, state owns more than 50 percent of the shares and its rational due to the fact that it might want to keep the control over companies.



*Figure 21. Average share of state per country.*

As it was mentioned above, for the analysis it is important to study the effect of ownership variables and the sample includes companies which are highly differentiate due to the different ownership concentration. For example, for United States market is natural low ownership concentration while in Russian market situation is opposite. Consequently, in order to obtain better results, the sample is divided into two parts which are differentiated by the level of ownership concentration.

As it can be seen from the figure below, there are two clusters of the countries due to its average ownership concentration. In the left part of the graph, from Colombia to Argentina, the average ownership concentration is higher than 50 percent, while in the right part of the graph, from Japan to Netherlands, the average ownership concentration is much lower than 50 percent. Thus, the sample is divided according to the principle which is described above. Consequently, the sample with high ownership concentration includes companies from Colombia, Romania, Pakistan, India, china, Malaysia, Poland, Greece, Russia, Norway, United Arabic Emirates, Thailand, Brazil, Austria, Indonesia, Turkey, and Argentina. The second sample includes companies from Japan, Italy, United Kingdom, Nigeria, Spain, Canada, United States, Australia, France, New Zealand and Netherland.

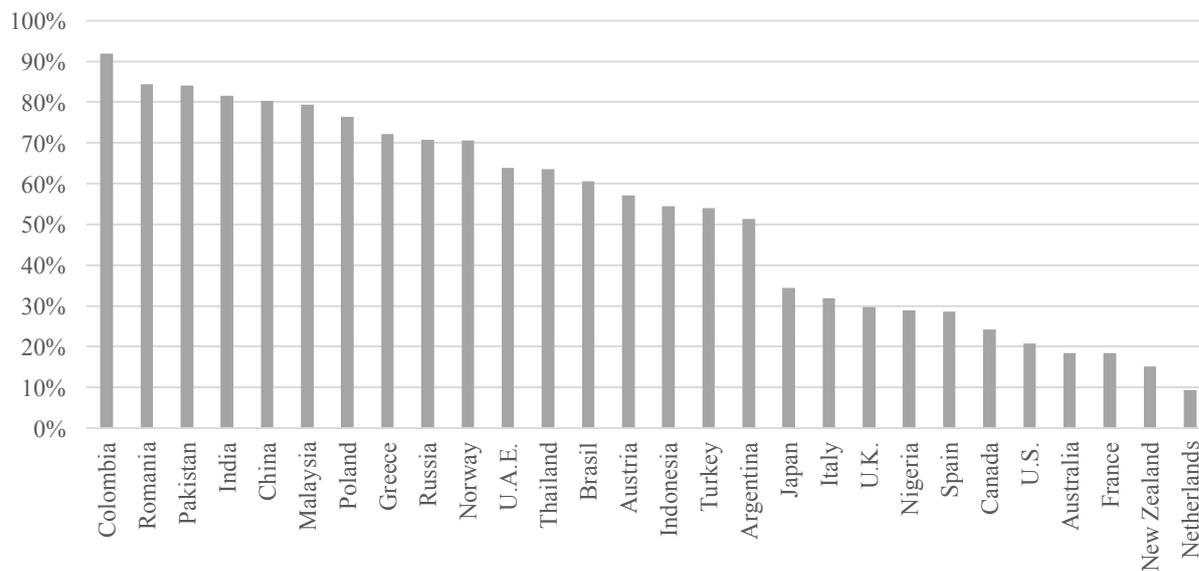


Figure 22. Average ownership concentration in countries.

## 2.4 Results of the regression analysis

As a result, the sample was divided into two parts, consequently, three models have to be made for each dependent variable. The first model is devoted to the whole sample, thus, the hypotheses are checked for the entire sample. The second model is aimed to analyse the oil and gas companies with high ownership concentration. Thus, the third model is dedicated to the companies with a low level of ownership concentration.

It should be mentioned that for each model three regressions are made. The first regression is aimed to analyse the control variables, consequently, only liquidity variable, leverage variable, profitability variable and size are included into the model. The second and the third regressions include both control variables and additional variables. It should be noted that there is a high relationship between shares of first owner and spread, consequently, these variables have to be diversified into different regressions. It should be mentioned that both variables control and share of state are included into the both models. However, there is a high correlation of the variable conc\_3 with the variable share of the first shareholder, while with the variable spread, the level of correlation is lower (correlation matrix is presented in appendix 1). Thus, the variable conc\_3 is included into the model with spread. The correlation matrix with a dividend payout ratio as a depended variable is presented in appendix 1, while the correlation matrix with a dividend yield as a depended variable is presented in appendix 2.

First of all, the regression results with dividend payout ratio as a depended variable are presented. In the following table, the regression results for the whole sample are presented.

*Table 3*

**Regression results for the whole sample**

Variables	1	2	3
share_1		0.712*	
share_2		-0.697	
share_3		-1.019	
controld		-0.499**	-0.481**
share_st		-0.109	-0.095
conc_3			-0.078
spread_1			0.771*
liq_r	0.053**	0.058**	0.058**
lev_r	0.079	0.079	0.082
pro_r	0.381*	0.401*	0.404*
size_r	0.005	0.005	0.007
cons	0.128	0.166	0.106
R <sup>2</sup>	0.0114	0.0375	0.0284
P-value	0.0934	0.0821	0.0873

Significance with the certain level of confidence interval: \*, \*\*, \*\*\* respectively 10%; 5%; 1%.

As it can be seen from the regression results table, all models are significant with 10 percent confidence interval, although, the  $R^2$  for all models are relatively low. Only two control variables are significant in all models, however, all of them have expected signs.

Concerning other variables, it can be seen that variable share of the first shareholder is significant with 10 percent confidence interval in the second regression, while the spread is significant with 10 percent confidence interval in the third regression. Variable control is significant with 5 percent confidence interval in second and the third models.

As a result, the conclusions about the hypothesis testing can be presented. The first hypothesis for a dividend payout ratio states that the share of the largest shareholder is positively related to a dividend payout ratio, consequently, the sign of the variable should be positive. According to the regression results, this hypothesis should be accepted. There is a positive relationship between the share of the largest shareholder and dividend payout ratio. In other words, the increase of the share of the largest shareholder results in higher dividend payments. The second hypothesis for a dividend payout ratio states that in companies with a controlling shareholder dividend payout ratio is lower, thus, the sign of the coefficient should be minus. Due to the results of the second and the third regressions, there are negative signs, consequently, the second hypothesis is accepted. The fifth hypothesis for a dividend payout ratio states that the spread in ownership stakes of first and second largest shareholders positively relates to dividend payout ratio, thus, the sign should be plus. Consequently, the fifth hypothesis should be accepted because there is a positive relationship between the spread and dividend payout.

As it was mentioned above, the whole sample is divided into two parts. Thus, in the following table the regression results for the sample with high ownership concentration and dividend payout ratio as a depended variable are presented.

As it can be seen from the regression result table for the sample with companies with high ownership concentration, two out of three regressions are significant with 5 percent confidence interval. However, in significant regressions none of the control variables are significant. It should be mentioned that  $R^2$  for the regressions are relatively low, even comparing to the previous results.

**Regression results for the sample with high ownership concentration**

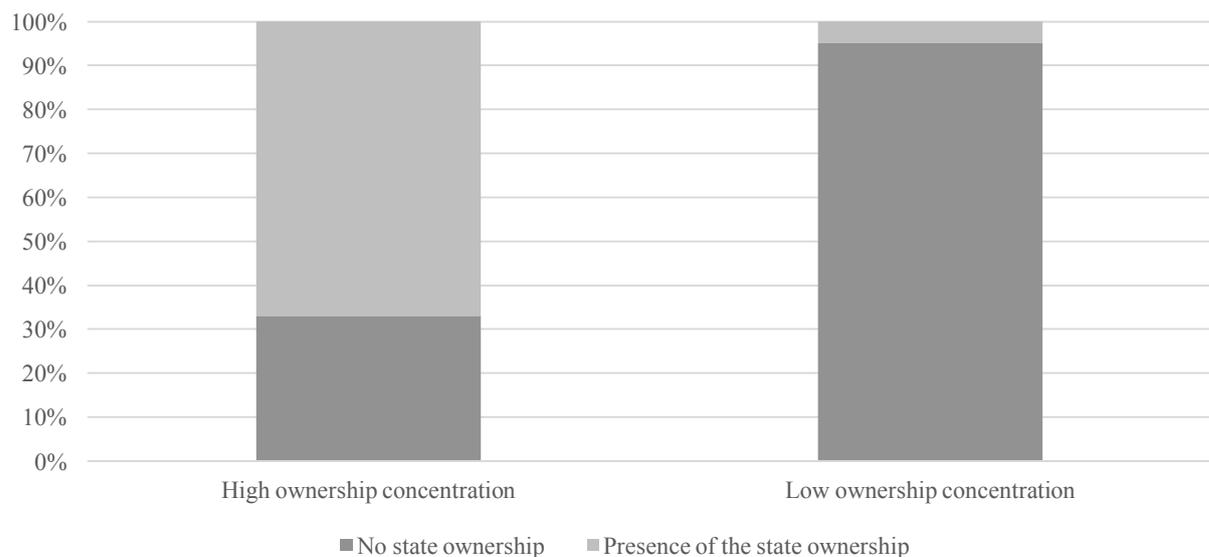
Variables	1	2	3
share_1		3.204***	
share_2		-0.590	
share_3		2.220	
controld		-1.140***	-1.156***
share_st		-1.645***	-1.662***
conc_3			1.394**
spread_1			1.864***
liq_r	0.029	0.028	0.025
lev_r	-0.210**	-0.154	-0.152
pro_r	-0.261	0.008	0.028
size_r	0.076	0.083	0.082
cons	-1.314	-1.845	-1.818
R <sup>2</sup>	0.0024	0.0139	0.0189
P-value	0.2814	0.0187	0.0112

Significance with the certain level of confidence interval: \*, \*\*, \*\*\* respectively 10%; 5%; 1%.

Concerning ownership variables, it can be seen that most of them are statistically significant. Variables share of the first largest shareholder, the presence of shareholder who owns more than 50 percent of shares, the share of state and spread between the first and second largest shareholders are statistically significant with 1 percent confidence interval while the variable ownership concentration is statistically significant with 5 percent confidence interval.

As a result, conclusions about the hypotheses testing can be presented. The first hypothesis for a dividend payout ratio is formulated as following: the share of the largest shareholder is positively related to a dividend payout ratio. According to the results, this hypothesis should be accepted due to the fact that there is a positive relationship between the share of the largest shareholder and dividend payments. The second hypothesis for a dividend payout ratio states that in companies with a controlling shareholder dividend payout ratio is lower, consequently, the sign of a variable should be minus. This hypothesis should be accepted due to the same relationship between the control variable and dividend payout ratio. The third hypothesis for a dividend payout ratio describes the relationship between the ownership concentration and dividend payout ratio. It states that the ownership stake of three largest shareholders is negatively related to dividend payout

ratio. This hypothesis should not be accepted according to the inverse relationship between the concentration variable and dividend payout ratio. The next hypothesis for a dividend payout ratio is important to this sample due to the fact that the state ownership is widely presented in the sample with high ownership concentration comparing to the sample with low ownership concentration. As it can be seen in figure 23, in the sample with high ownership concentration state owns a stake in 67 percent of the companies, while in the sample with low ownership concentration state owns a part of the shares only in 5 percent of the companies. The hypothesis states that the state ownership is positively related to dividend payout ratio and it should not be accepted. According to the results table, regression two and three showed that share\_st coefficients have a negative sign which means that increase of state's share related negatively to dividend payout ratio. The hypothesis five for a dividend payout ratio dedicated to the spread variable. It states that the spread in ownership stakes of first and second largest shareholders positively relates to dividend payout ratio. Due to the regression results, the coefficient of spread variable is positive which means that increase of the spread between the shares of the first and the second shareholders results in higher dividend payout ratio and vice-versa. Consequently, the fifth hypothesis is accepted.



*Figure 23. The presence of state in ownership structure.*

The third model is devoted to the analysis of the sample which includes the companies with low ownership concentration. As well as in the previous models, the dividend payout ratio is used as a depended variable. Comparing to the previous models, in this part of the analysis the variable control, which indicates a presence of the shareholder who owns more than 50 percent of the share, is excluded. It can be explained by the fact that in all companies, the value of this variable is zero. Thus, it is irrational to include it into the sample. As a result, in the following table regression results are presented.

**Regression results for the sample with low ownership concentration**

Variables	1	2	3
share_1		0.460	
share_2		-0.581	
share_3		-3.229	
controld	-	-	-
share_st		0.536	0.590
conc_3			-0.632
spread_1			1.092
liq_r	0.083**	0.084**	0.084**
lev_r	-0.244**	-0.244**	-0.251**
pro_r	0.578**	0.501*	0.517*
size_r	0.004	-0.003	-0.001
cons	0.062	0.318	0.227
R <sup>2</sup>	0.0236	0.0758	0.0587
P-value	0.0310	0.0961	0.0862

Significance with the certain level of confidence interval: \*, \*\*, \*\*\* respectively 10%; 5%; 1%.

The results of the regression analysis of the sample with companies which have low ownership concentration are presented in table 5. As it can be seen, all regressions are statistically significant. The first regression is statistically significant with 5 percent confidence interval while the second and the third are significant with 10 percent confidence interval. R<sup>2</sup> for the regressions, comparing to the previous models, are high, except the first regression.

All control variables are statistically significant, except size. Besides, the signs of the coefficients are coincided with predicted ones. Concerning the ownership structure variables, it was found that none of the variables are statistically significant even with 10 percent confidence intervals. Thus, it can be concluded that hypothesis cannot be accepted or not accepted.

However, it can be concluded that the relationship between ownership structure and dividend payout ratio is not clear in the companies with low ownership concentration, while liquidity, profitability and leverage relate to the dividend payout.

Secondly, the regression results with a dividend yield as a depended variable are presented. In table 6 the regression results for the whole sample are provided. As it can be seen from the table below, all regressions are statistically significant with 1 percent confidence interval. Comparing

to the previous models,  $R^2$  of the regressions are not so high. Besides, three out of four control variables are statistically significant and all coefficients have expected signs.

*Table 6*

**Regression results for the whole sample**

Variable	1	2	3
share_1		-0.046*	
share_2		0.083**	
share_3		-0.125*	
controld		0.016	0.018*
share_st		0.017	0.019
conc_3			-0.000
spread_1			-0.050**
liq_r	0.003**	0.003*	0.003**
lev_r	0.002	0.003	0.004
pro_r	0.064***	0.064***	0.066***
size_r	0.002**	0.001***	0.002*
cons	-0.021	-0.005	-0.014
$R^2$	0.0335	0.0562	0.0429
P-value	0.0000	0.0001	0.0001

Significance with the certain level of confidence interval: \*, \*\*, \*\*\* respectively 10%; 5%; 1%.

Concerning independent variables, it can be seen that most of them are statistically significant and conclusions about hypotheses testing can be made. The first hypothesis for a dividend yield states that the share of the largest shareholder is positively related to a dividend yield and it can be seen that the coefficient for the share of the first largest shareholder is negative and significant with 10 percent confidence interval. Due to the fact that the share of the first largest shareholder relates in the opposite way as hypothesis states it can be concluded that the first hypothesis should not be accepted. The second hypothesis for a dividend yield is devoted to the control variable. It states that in companies with a controlling shareholder dividend yield ratio is lower. According to the regression results, the control variable positively relates to the dividend yield, consequently, the second hypothesis should not be accepted. In other words, in the companies with controlling shareholder dividend yield is higher. The third hypothesis for a dividend yield describes the relationship between the dividend yield and ownership concentration variable and it assumes that there is a negative relationship between variables. According to the result, the ownership concentration coefficient is not significant, thus, the conclusion about

hypothesis testing cannot be made. The same situation for the hypothesis four for a dividend yield which describes the relationship between dividend yield and state ownership variable. The coefficient of state ownership variable, consequently, no conclusions about hypothesis can be made. The fifth hypothesis for a dividend yield states that the spread in ownership stakes of first and second largest shareholders positively relates to dividend yield, thus, it is assumed that the sign of the spread coefficient should be positive. However, the coefficient is negative and significant with 5 percent confidence interval and it should be concluded that the hypothesis should not be accepted.

*Table 7*

**Regression results for the sample with high ownership concentration**

Variable	1	2	3
share_1		-0.059**	
share_2		0.065*	
share_3		-0.129*	
controld		0.018*	0.021*
share_st		0.010	0.010
conc_3			-0.017
spread_1			-0.050**
liq_r	0.001	-0.000	0.001
lev_r	0.001	0.001	0.000
pro_r	0.079	0.099*	0.078
size_r	0.003***	0.003*	0.003**
cons	-0.045	-0.017	-0.033
R <sup>2</sup>	0.0670	0.1333	0.1084
P-value	0.0357	0.0121	0.0267

Significance with the certain level of confidence interval: \*, \*\*, \*\*\* respectively 10%; 5%; 1%.

In table 7 the regression results for the sample with high ownership concentration are presented. As it can be concluded, all regression models are significant with 5 percent confidence interval, although, the R<sup>2</sup> of the regressions are relatively low. Concerning control variables, only size variable is significant in all models, while the profitability variable is significant only in one model. However, they have an expected sign.

The regression results are quite similar comparing to the regression results for the whole sample. It can be seen that variables share of the first largest shareholder, control and spread are statistically significant, while variables share of state and ownership concentration are not

significant. As a result, the conclusions about hypotheses testing for the sample with high ownership concentration are the same as in the model with the whole sample, consequently, the first, second and fifth hypotheses should not be accepted.

Table 8

**Regression results for the sample with low ownership concentration**

Variable	1	2	3
share_1		-0.044	
share_2		0.150	
share_3		-0.311	
controld	-	-	-
share_st		0.035	0.039
conc_3			-0.019
spread_1			-0.023
liq_r	0.005**	0.004**	0.004**
lev_r	0.006	0.006	0.007
pro_r	0.067***	0.060***	0.065***
size_r	0.001	0.001	0.001
cons	-0.015	0.008	-0.003
R <sup>2</sup>	0.0289	0.0487	0.0338
P-value	0.0003	0.0077	0.0052

Significance with the certain level of confidence interval: \*; \*\*; \*\*\* respectively 10%; 5%; 1%.

In table 8 the regression results for the sample with low ownership concentration are provided. All regressions are significant with 1 percent confidence interval and all R<sup>2</sup> are relatively low. In all regressions, only two control variables are significant and have expected signs.

Concerning the ownership variable, none of them is significant even with 10 percent confidence interval. As a result, the conclusions about acceptance or not acceptance of the hypotheses cannot be made.

In table 9, the summary of the hypotheses testing is presented. It can be seen that in most cases the findings of acceptance or not acceptance of the hypotheses for different dependent variables are completely opposite. So, the relationships between the different dependent variables and ownership structure variables in most of the cases are opposite. Thus, it is important to analyse the dependent variables in details.

**Summary of the hypotheses testing**

Hypotheses	Whole sample	High ownership concentration	Low ownership concentration
H 1.1	Accepted	Accepted	-
H 1.2	Not accepted	Not accepted	-
H 2.1	Accepted	Accepted	-
H 2.2	Not accepted	Not accepted	-
H 3.1	-	Not accepted	-
H 3.2	-	-	-
H 4.1	-	Not accepted	-
H 4.2	-	-	-
H 5.1	Accepted	Accepted	-
H 5.2	Not accepted	Not accepted	-

In figure 24, the dynamics of average dividend yield and dividend payout ratio are presented. It can be seen that average dividend payout ratio is reducing during the observable time interval, while average dividend yield is increasing from 2010 to 2013 and drops only in 2014. Thus, it can be concluded that average dividend yield and dividend payout ratio are not following the same trend, besides, during most part of the observable time period they follow the opposite trends. Consequently, the opposite trends of the variables describe the results in hypotheses testing.

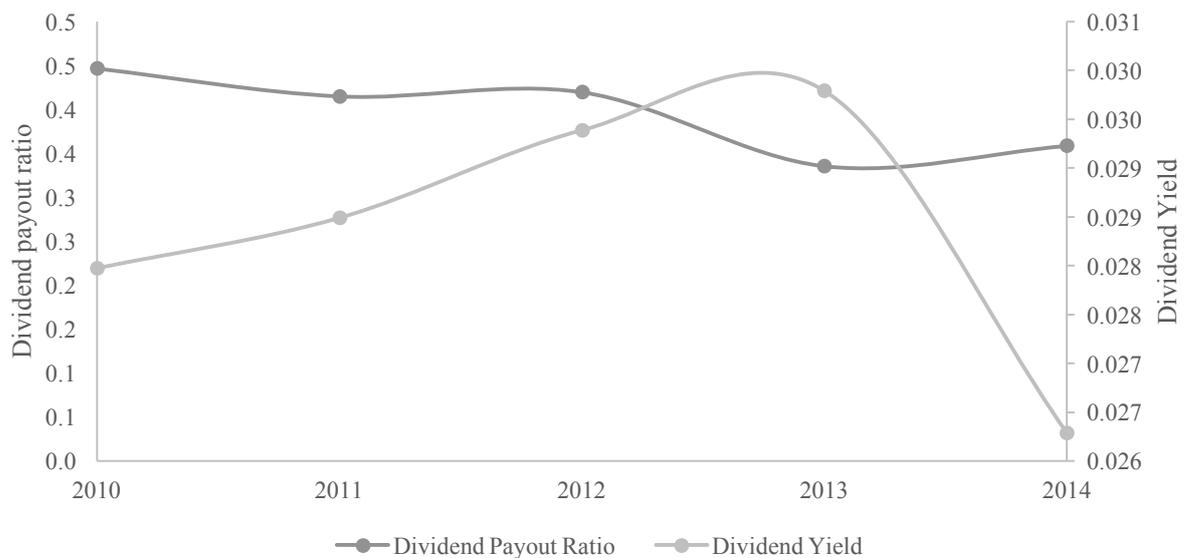
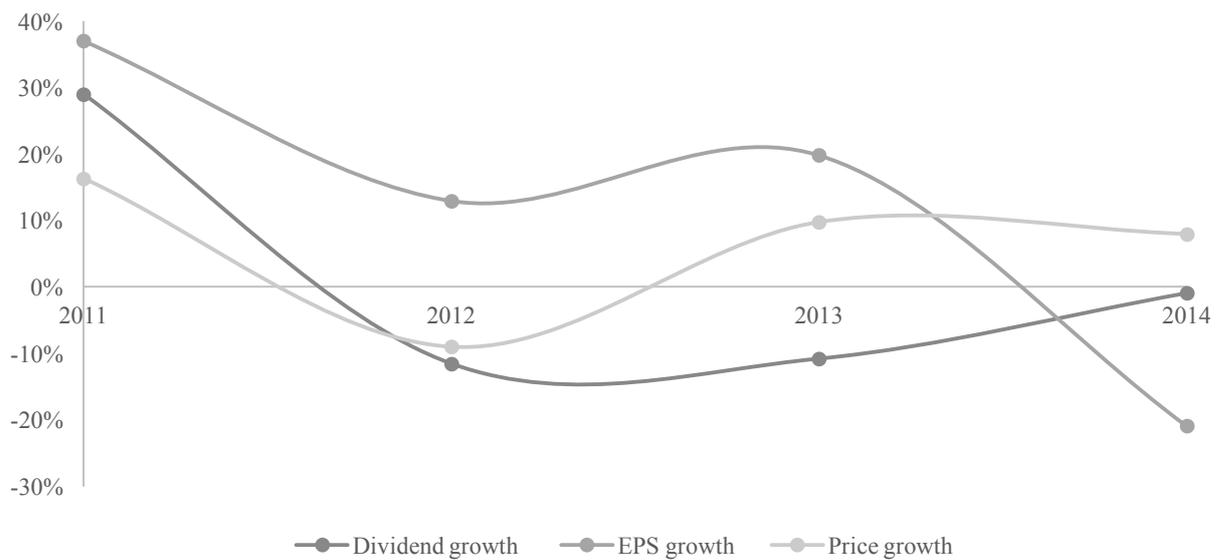


Figure 24. The dynamics of average dividend payout ratio and dividend yield.

In figure 25, dynamics of average growth of dividends, earnings per share and price per share are presented. It can be seen that average growth of dividends was positive in the first year, while in the rest years average dividends were reducing. As a result, a numerator in both dividend payout ratio and dividend yield was reducing. Concerning earnings per share, it can be seen that it was increasing in most time periods, except the last year, thus, the dividend payout ratio reducing during the observable time period. However, price per share did not follow the same trend. It increased in 2011, then dropped in 2012, and in last two years it increased again. Consequently, the complex effect of the changes on average dividends and prices per share resulted in the situation that dividend yield was increasing during the most time periods.



*Figure 25. The dynamics of average growth of dividends, earnings per share and price per share.*

## 2.5 Discussion

As a result, it is important to summarize the findings which were obtained during the regression analysis and hypotheses testing. As it was mentioned in previous parts, there are two important features of the regression analysis which should be taken into account. First of all, two different regression models were used in order to study the relationship between the independent variables and dividend payout ratio and between the independent variables and dividend yield. Secondly, the sample was split into two additional samples according to the ownership concentration principle. The first sample includes the companies with high ownership concentration and the second sample includes companies with low ownership concentration.

Concerning the whole sample, it can be concluded that the share of the largest shareholder, the presence of controlling shareholder in a company, the spread in ownership stakes of the first and second largest shareholders are determinants of dividend policy. However, the relationships between these ownership structure variables and dividend payout ratio and dividend yield are different.

The share of the largest shareholder positively relates to the dividend payout ratio and this result is supported by the research of Truong et al. (2007). The following result can be explained by the fact that the first largest shareholders may extract benefits from the ownership using higher dividend payments relatively to the net income. Besides, the average share of the first shareholder is quite high and it equals to 28 percent, while the shares of the second and third shareholders much lower, thus, the first shareholder has a high voting power and he or she can influence a decision about the size of dividend payments. However, the share of the largest shareholder negatively relates to the dividend yield and this fact can be explained by the inverse trends of the dividend payout ratio and dividend yield. One of the valuation methods of a share price is a dividend discount model, which indicates the relationship between the size of dividends and share price. As a result, if a company pays higher dividends, the share price increases as well. So, in the case of the increase of dividends, the price per share might increase higher, comparing to the dividend growth, consequently, dividend yield will be reduced.

In companies with a controlling shareholder dividend payout ratio is lower and it can be explained by the fact that in the case when the share of the first largest shareholder reaches the level of 50 percent plus 1 share or higher, he or she starts to extract benefits of the control of a company not using dividend payments (La Porta et al., 2000). Besides, in the case when the shareholder owns a controlling stake in the company, he or she is interested in the long-term growth of the company, consequently, the shareholder prefers to reinvest money in the company, instead of paying dividends. As it was mentioned above, there is an inverse relationship between

the dividend payout ratio and dividend yield, thus, in companies with a controlling shareholder dividend yield is higher. As a result, in the case of the reduction of a dividend, the price per share might decrease in a greater amount, comparing to the dividend growth, consequently, the dividend yield will be increased.

The spread in ownership stakes of the first and second largest shareholders positively relates to dividend payout ratio. This result can be described by the fact that the average spread between the shares of the first and second largest stakeholders equals to approximately 21 percent, thus, the power of the first shareholder is high and the first largest shareholders may extract benefits from the ownership using higher dividend payments relatively to the net income. It should be mentioned that on average, the share of the first largest stakeholder does not exceed 50 percent plus 1 share, thus, this result does not contradict with previous conclusions. Moreover, as it can be predicted, the spread in ownership stakes of the first and second largest shareholders negatively relates to dividend yield and this fact supports the findings above.

While for the sample with high ownership concentration, it can be concluded that the share of the largest shareholder, the presence of controlling shareholder in a company and the spread in ownership stakes of the first and second largest shareholders are determinants of dividend yield. However, in the case of high ownership concentration, all variables can be classified as determinants of dividend payout ratio.

Regarding the share of the largest shareholder, the presence of controlling shareholder in a company and the spread in ownership stakes of the first and second largest shareholders it was found that the relationship between these variables and dividend policy is the same as in the whole sample.

In the case of high ownership concentration, the ownership stake of three largest shareholders is positively related to dividend payout ratio. This finding supports the research of Thanatawee (2013, 2014), but it is opposite to the results of Berezinec et al. (2011 a), Khan (2006), Harada et al. (2011), Maury et al. (2002) and Bena et al. (2008), although, this result does not contradict with the previous conclusions. The ownership stake of three largest shareholders is mainly depended on the ownership stake of the first largest shareholder according to its higher share, comparing to the stakes of other two shareholders, and the increase in the share of the first largest shareholder results in higher ownership concentration.

Besides, a state ownership is negatively related to a dividend payout ratio. This finding contradicts with previous researches (Chen et al., 2009; Bradford et al., 2013; Thanatawee, 2014). However, it was mentioned that most of the previous studies were devoted to the analysis of Chinese market, while this research includes other markets as well. Thus, this fact might describe the difference in the results. Besides, it can be explained by the fact that states are interested in a

long-term successful performance of a company to obtain a stable gain in the future and it is important to reinvest money in order to keep the growth of a firm, moreover, they extract benefits of the ownership not only by receiving dividend payments, but also using a taxation. As a result, even if an oil and gas company does not pay a dividend, a government receives taxes.

However, for the sample with low ownership concentration, none of the hypotheses can be accepted or not accepted. Partly it can be explained by the fact that in this companies the ownership is dispersed and there are no significant peculiarities of the variables.

Concerning the control variables, the analysis of the results should be presented. Liquidity variable positively relates to a dividend policy in the whole sample and in the sample with dispersed ownership. This finding can be explained by the fact that if a company has a higher liquidity, it can direct a higher portion of the money to dividend payments. Leverage is negatively related to a dividend policy only in the sample with low ownership concentration. Consequently, if a company has lower debt, it should pay lower interest payments and, as a result, it has a higher portion of the money, which can be distributed to the shareholders. Profitability is positively related to a dividend policy in the whole sample and in the sample with low ownership concentration. This result is natural due to the fact that if a company is more profitable, it has a higher net income which can be distributed in dividend payments. Size is positively related to a dividend yield in the whole sample and in the sample with high ownership concentration, thus, the bigger a company, the higher dividend payout.

It should be mentioned that most of the control variables are not significant in the sample with high ownership concentration, thus, it can be concluded that ownership structure variables are more important as determinants of dividend policy for the companies with high ownership concentration.

As a result, it can be concluded that in the companies with low ownership concentration, the dividend policy is mainly related to factors of the financial performance of companies and ownership structure variables do not relate to payout policy. However, in the companies with high ownership concentration, ownership structure variables are mainly related to a dividend policy of companies.

Concerning the managerial implication of the research, it can be concluded that it can be used by the investors from different parts of the world who are interested in acquiring oil and gas stocks in order to receive dividends instead of capital gain. So, they can analyse the ownership structure of oil and gas companies, using this research, and compare results with each other to identify the suitable stock.

## CONCLUSION

As a result of the provided research, it can be concluded that the main goal of the research, which is formulated in the following way: to identify the characteristics of ownership structure which are determining a dividend policy of oil and gas companies, was achieved. The achievement of the formulated goal was followed by the accomplishment of the all formulated objectives.

In the theoretical part of the research the main theories of dividend policy, which are divided into two main groups: dividend irrelevance theories and dividend relevance theories, were studied. Besides, the researches devoted to the analysis of the determinants of dividend policy were examined and, using these findings, the main factors of the ownership structure were outlined.

In the practical part, the case-study was provided and it was confirmed that changes in ownership structure might influence a dividend policy of oil and gas companies. Moreover, the empirical research was realised. Using variables, which were identified during the literature review, the relationships between ownership structure variables and dividend policy were determined.

As a result, it was found that the share of the largest shareholder, the presence of controlling shareholder in a company, the spread in ownership stakes of the first and second largest shareholders are determinants of dividend policy for the whole sample and for the sample with high ownership concentration. It should be mentioned that the share of the largest shareholder and spread in ownership stakes positively relate to dividend payout ratio, but these variables are negatively related to the dividend yield. Concerning the presence of controlling shareholder in a company, it was determined that it negatively relates to the dividend payout ratio, while it positively relates to dividend yield.

Besides, it was found that the ownership stake of three largest shareholders and state ownership are determinates of dividend policy in the sample with high ownership concentration. The ownership stake of three largest shareholders positively relates to a dividend payout ratio, while the share of state is negatively related.

Moreover, concerning the sample with dispersed ownership, it is found that ownership structure does not relate to a dividend policy of a company. Consequently, it can be concluded that in the companies with high ownership concentration, ownership structure variables are determinates of a dividend policy, while in the companies with low ownership concentration, the dividend policy is mainly related to factors of the financial performance of companies.

As a result, the overall conclusion of the research is that ownership structure variables are determinants of a dividend policy of oil and gas companies and most of them relate to a dividend payout ratio and dividend yield, which are used as proxies of dividend policy.

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## APPENDIX

### Appendix 1. Correlation matrix 1

	div_payout	liq_r	lev_r	pro_r	size_r	share_1	share_2	share_3	share_st	conc_3	spread_1
div_payout	1	0.1046**	0.0621	-0.0085	-0.0271	-0.05	-0.076*	-0.1505***	-0.0119	-0.085*	-0.0298
liq_r	0.1046**	1	-0.2782***	0.1232***	-0.2147***	0.1047**	-0.0053	-0.0662	0.0865*	0.0903**	0.1046**
lev_r	0.0621	-0.2782***	1	-0.2598***	0.0135	-0.0168	-0.027	-0.0681	-0.1603***	-0.0309	-0.0098
pro_r	-0.0085	0.1232***	-0.2598***	1	-0.0143	0.1333***	-0.0212	-0.0294	0.1285***	0.1182***	0.1369***
size_r	-0.0271	-0.2147***	0.0135	-0.0143	1	0.1572***	-0.0221	-0.2319***	0.3258***	0.116***	0.1607***
share_1	-0.05	0.1047**	-0.0168	0.1333***	0.1572***	1	0.0753*	-0.1918***	0.8263***	0.9471***	0.9679***
share_2	-0.076*	-0.0053	-0.027	-0.0212	-0.0221	0.0753*	1	0.4873***	-0.043	0.3744***	-0.1779***
share_3	-0.1505***	-0.0662	-0.0681	-0.0294	-0.2319***	-0.1918***	0.4873***	1	-0.2607***	0.058	-0.3122***
share_st	-0.0119	0.0865*	-0.1603***	0.1285***	0.3258***	0.8263***	-0.043	-0.2607***	1	0.7445***	0.8262***
conc_3	-0.085*	0.0903**	-0.0309	0.1182***	0.116***	0.9471***	0.3744***	0.058	0.7445***	1	0.8402***
spread_1	-0.0298	0.1046**	-0.0098	0.1369***	0.1607***	0.9679***	-0.1779***	-0.3122***	0.8262***	0.8402***	1

Significance with the certain level of confidence interval: \*, \*\*, \*\*\* respectively 10%; 5%; 1%.

## Appendix 2. Correlation matrix 2

	div_yield	liq_r	lev_r	pro_r	size_r	share_1	share_2	share_3	share_st	conc_3	spread_1
div_yield	1	0.0781*	-0.0189	0.1414***	0.0762*	0.0514	0.0374	-0.1284**	0.0879**	0.0423	0.0413
liq_r	0.0781*	1	-0.2782**	0.1232***	-0.2147**	0.1047**	-0.0053	-0.0662	0.0865**	0.0903**	0.1046***
lev_r	-0.0189	-0.2782**	1	-0.2598**	0.0135	-0.0168	-0.027	-0.0681	-0.1603**	-0.0309	-0.0098
pro_r	0.1414***	0.1232***	-0.2598**	1	-0.0143	0.1333***	-0.0212	-0.0294	0.1285***	0.1182***	0.1369***
size_r	0.0762*	-0.2147**	0.0135	-0.0143	1	0.1572***	-0.0221	-0.2319**	0.3258***	0.116***	0.1607***
share_1	0.0514	0.1047**	-0.0168	0.1333***	0.1572***	1	0.0753*	-0.1918**	0.8263***	0.9471***	0.9679***
share_2	0.0374	-0.0053	-0.027	-0.0212	-0.0221	0.0753*	1	0.4873***	-0.043	0.3744***	-0.1779**
share_3	-0.1284***	-0.0662	-0.0681	-0.0294	-0.2319**	-0.1918**	0.4873***	1	-0.2607**	0.058	-0.3122**
share_st	0.0879**	0.0865**	-0.1603**	0.1285***	0.3258***	0.8263***	-0.043	-0.2607**	1	0.7445***	0.8262***
conc_3	0.0423	0.0903**	-0.0309	0.1182***	0.116***	0.9471***	0.3744***	0.058	0.7445***	1	0.8402***
spread_1	0.0413	0.1046***	-0.0098	0.1369***	0.1607***	0.9679***	-0.1779**	-0.3122**	0.8262***	0.8402***	1

Significance with the certain level of confidence interval: \*, \*\*, \*\*\* respectively 10%; 5%; 1%.

Appendix 3. Regression results with a dividend payout ratio as a dependent variable.

Variable	Whole sample			High ownership concentration			Low ownership concentration		
	1	2	3	4	5	6	7	8	9
share_1		0.712*			3.204***			0.460	
share_2		-0.697			-0.590			-0.581	
share_3		-1.019			2.220			-3.229	
controld		-0.499**	-0.481**		-1.140***	-1.156***	-	-	-
share_st		-0.109	-0.095		-1.645***	-1.662***		0.536	0.590
conc_3			-0.078			1.394**			-0.632
spread_1			0.771*			1.864***			1.092
liq_r	0.053**	0.058**	0.058**	0.029	0.028	0.025	0.083**	0.084**	0.084**
lev_r	0.079	0.079	0.082	-0.210**	-0.154	-0.152	-0.244**	-0.244**	-0.251**
pro_r	0.381*	0.401*	0.404*	-0.261	0.008	0.028	0.578**	0.501*	0.517*
size_r	0.005	0.005	0.007	0.076	0.083	0.082	0.004	-0.003	-0.001
cons	0.128	0.166	0.106	-1.314	-1.845	-1.818	0.062	0.318	0.227
R2	0.0114	0.0375	0.0284	0.0024	0.0139	0.0189	0.0236	0.0758	0.0587
P-value	0.0934	0.0821	0.0873	0.2814	0.0187	0.0112	0.0310	0.0961	0.0862

Significance with the certain level of confidence interval: \*, \*\*, \*\*\* respectively 10%; 5%; 1%.

Appendix 4. Regression results with a dividend yield as a dependent variable.

Variable	Whole sample			High ownership concentration			Low ownership concentration		
	1	2	3	4	5	6	7	8	9
share_1		-0.046*			-0.059**			-0.044	
share_2		0.083**			0.065*			0.150	
share_3		-0.125*			-0.129*			-0.311	
controld		0.016	0.018*		0.018*	0.021*	-	-	-
share_st		0.017	0.019		0.010	0.010		0.035	0.039
conc_3			-0.000			-0.017			-0.019
spread_1			-0.050**			-0.050**			-0.023
liq_r	0.003**	0.003*	0.003**	0.001	-0.000	0.001	0.005**	0.004**	0.004**
lev_r	0.002	0.003	0.004	0.001	0.001	0.000	0.006	0.006	0.007
pro_r	0.064***	0.064***	0.066***	0.079	0.099*	0.078	0.067***	0.060***	0.065***
size_r	0.002**	0.001***	0.002*	0.003***	0.003*	0.003**	0.001	0.001	0.001
cons	-0.021	-0.005	-0.014	-0.045	-0.017	-0.033	-0.015	0.008	-0.003
R2	0.0335	0.0562	0.0429	0.0670	0.1333	0.1084	0.0289	0.0487	0.0338
P-value	0.0000	0.0001	0.0001	0.0357	0.0121	0.0267	0.0003	0.0077	0.0052

Significance with the certain level of confidence interval: \*, \*\*, \*\*\* respectively 10%; 5%; 1%.