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Determinants of Dividend Payments of Russian Companies

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Abstract

The Russian stock market is one of the leaders in terms of dividend yield among developed and developing countries. Against this background, it is appropriate to study the determinants that affect the decisions on the implementation of payments and their amount. The literature on this topic in emerging markets in general and specifically in Russia has a number of gaps and contradictions that determine the scientific novelty of the work – the analysis in regard to the impact on the probability of payments and on dividend yield is carried out simultaneously; contradictory determinants are examined. In emerging markets, the relationship between dividends and the age of members of the Board of Directors and the personal income tax rate on dividends is taken into account, and specifically in Russia – their relationship to the number of members of the Board of Directors, the ownership stake of the CEO and institutional shareholders, the company's life cycle stage (LC), the dual role of the chairman of the Board of Directors and executive director. The study is conducted on the 2012–2019 data for a sample of 40 companies listed on the Moscow Exchange. The method incorporates two regression models – a linear one with random effects and a probit model. As a result of the analysis, the manifestation of the agency effect in the Russian market was confirmed by a significant positive dependence of the probability of payments on the dual role of the chairman of the Board of Directors and the executive director, the portion of shares held by the CEO, a significant negative relationship with the number of members of the Board of Directors and liquidity. The agency and behavioral effects are confirmed by a significant positive relationship between the probability of payments and the age of the members of the Board of Directors and a significant negative relationship with profitability. The influence of client effects is confirmed by a significant positive relationship between profitability and the personal income tax rate on dividends, as well as between the probability of payments and the share of institutions in ownership. It is also confirmed that companies that are mature in terms of the life cycle stage are more likely to pay dividends and do it more often. In general, there is a more significant influence of non-financial variables on the probability of payments and of financial variables on profitability.

The results of the study can be used by private investors, banks, investment funds and brokerage companies to form expectations for companies' dividend yield and the probability of payments with regard to the specifics of the Russian market.

Keywords: dividends, dividend policy, dividend yield, stock market, agency theory, behavioral theory, business life cycle, life cycle theory, client theory, Russian markets, developing markets.

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Introduction

A company's dividend payouts are one of the main factors of its attractiveness in the stock market. Investors receive revenue from share ownership in two ways: by means of dividends or by capital gains due to business growth.

In the Russian market investors are more interested in the companies where they will earn on dividends (*value stock*) than in the companies whose shares are traded in order to earn on growth (*growth stock*). Leadership of the Russian companies in dividend yield in developed and emerging markets confirms this fact and proves the attractiveness of the Russian market.

Analysis of the determinants of dividend payments in the Russian market is conducted simultaneously in two areas: the influence on dividend yield and on probability of payments. The research studies determinants that include the average age of the board of directors (BD), personal income tax rate on dividends, number of BD members, ownership stake of the CEO and institutional shareholders, life cycle (LC) stage of the company, dual role of the BD chairman and the executive director (simultaneous performance of the BD chairman and the executive director functions by the same person). The research object are Russian companies listed on the Moscow Exchange and the research subject are the determinants of their dividend payments.

We used the *Bloomberg* database, a range of news providers (Vedomosti, RBC, Kommersant) and other open-access Internet resources as data sources in our research.

Theoretical Aspects of Dividend Payments

Theories of Dividend Payment Motives

The study of the motives and determinants of a company's dividend payments stems from the 1960s, the time of emergence of the ***dividend irrelevance theory*** originated by F. Modigliani and M. Miller [1]. The fundamental idea of this theory is that in perfect capital markets dividends do not influence the evaluation of the company stock value or its intrinsic value. Before this theory emerged, the dominant view was that the larger the dividends paid out by a company, the higher its value [2]. However, the key supposition of the theory on the perfect nature of the capital market is difficult to accomplish. Ultimately, other theories describing the motives for dividend payments have emerged. Each of them attempted to offer the approach closest to the real market. Let us consider the theories applied in our subsequent research.

The agency theory is based on the presence of a conflict of interests between the company shareholders and its management [3]. Agency costs decrease company value, so the management has to balance its financing policy in order to minimize them [4].

The life cycle theory (LC) asserts that the companies mature in terms of their LC stage with fewer investment opportunities are most disposed to pay out dividends. The firms at earlier LC stages have more attractive investment opportunities and a very limited capital value [5].

One of the ways to calculate the parameters that may be used to study the influence of the LC on dividend payments is Tobin's Q ratio.

Another way to calculate the parameters of a company's LC for the purpose of studying its influence on dividend payments is the approach proposed by Victoria Dickinson [6]. It consists in defining the LC stage on the basis of characteristics of a company's three cash flows: operating, financing and investment. Depending on the positive or negative sign of each, the company is assigned to one of the four LC stages (Table 1): start-up, growth, maturity, decline – on the basis of unique sets made of three signs.

Table 1. Cash flow signs for defining the LC stage

Cash flow	Start-up stage	Growth stage	Maturity stage	Decline stage
Operating	–	+	+	–
Financing	+	+	–	+/–
Investment	–	–	–	+

Source: [6].

The client theory of dividend payment motives indicates that the possible reason for dividend payments by a company is the difference in taxation between various groups of investors [7–9]. The situations when taxation of profit from dividends and profit from capital gains is different may also serve as an example of the client theory [7; 10; 11]. Another interesting example of the client theory is the influence of personal income taxation on dividend payments. Some researchers in their papers confirm a positive relationship between the growth of the tax rate on personal income and dividend yield [12; 13].

All the above theories are classic theories. The literature also defines ***behavioral theories*** of dividend payment motives. These theories indicate that there is a relationship between the behavioral aspects of the corporate management and the corporate dividend policy, and in the first instance, the management's attitude to risk and management overconfidence [14–18].

Methodology of Empirical Analysis of Dividend Payment

Determinants in the Russian Market

Putting Forward Research Hypotheses

This paper seeks to reveal the key determinants of the dividend policy of Russian companies. In order to achieve this goal, we initially put forth a range of hypotheses structured by determinants' groups based on their affiliation with a specific theory of dividend payment motives.

Group 1. Determinants resulting from the study of the agency theory of dividend payment motives:

1.1. Dual role of the BD chairman and the executive director has a statistically significant positive influence on the probability of dividend payments by Russian companies and their profitability.

1.2. Probability of dividend payments and their profitability in Russian companies show a negative relationship with the number of BD members.

1.3. The stake of shares owned by the CEO has a positive influence on dividend yield and probability of payout.

1.4. Liquidity has a negative influence on dividend yield in the Russian market.

Group 2. A determinant at the junction of the agency and behavioral theory of dividend payment motives.

2.1. The average age of BD members has a positive influence on the probability of dividend payments and their profitability in Russian companies.

Group 3. Determinants resulting from the study of the client theory of dividend payment motives.

3.1. The personal income tax rate on dividends in Russia has a positive influence on dividend yield.

3.2. The share of institutions in ownership has a positive influence on the probability of dividend payments and their profitability.

Group 4. Determinants resulting from the study of the business LC theory:

4.1. In the Russian market, the maturity stage of the LC has a positive influence on dividend yield and probability of dividend payments.

4.2. A company's investment opportunities have a negative influence on its dividend yield and probability of payments in the Russian market.

Data Sample

For the analysis, we selected 40 Russian public companies listed on the Moscow Exchange. There were three selection criteria: 1) dividend payments; 2) economy sector; 3) data availability. A company should have paid dividends at least once within the research period in order to be selected for the sample. We eliminated from our list the companies from the financial and housing and utilities sector because the regulation of their operations is highly specific. We also eliminated several companies from the sample based on the criterion of information availability because approximately 70% of information about them was not presented in the database.

The interval of 2012–2019 was selected as the time period for the research in order to include the period of the 2014–2015 economic crisis. The data was collected from open information sources, mainly *Bloomberg*, analytical Internet resources, and annual reports of the companies in question.

In this paper we use two dependent variables for the empirical research: probability of dividend payments and dividend yield. Probability of payment is presented as a dummy variable where "1" means that company paid dividends in a certain year, "0" – no payments. The dividend yield is calculated as a ratio of the annual paid dividend per share to the company share price. We use the average annual dividend yield because all other indicators are calculated by year.

Independent (explanatory) variables analyzed in empirical models are divided into financial and non-financial ones.

Financial variables used in the research comprise the following: financial leverage (ratio of debt to equity); market capitalization (total value of a company's outstanding shares); return on assets (ratio of net income to total assets on the balance sheet); ratio of capital investment to a company's operating cash flow (this variable is used in relative terms in order to mitigate companies' significant size differences); the current liquidity ratio (ratio of current assets to current liabilities); Tobin's Q ratio (ratio of a company's market value in the form of capitalization to the replacement asset value or, otherwise speaking, a company's intrinsic value); LC stage (the indicator is a dummy variable where "1" means that the company is at the maturity LC stage, while "0" stands for any other stage).

In order for the model to account for the fact that a company's decision on dividend payout based on the reports from the preceding full reporting year, some financial variables were added in specifications with a one-year lag. This category comprises the financial leverage, liquidity and return on assets variables.

Non-financial variables used in the research comprise the average age of BD members; CEO ownership stake; industry (metallurgical and oil and gas industries; the indicators are added to the model as dummy variables where "1" stands for a company's affiliation with a certain industry and "0" – the fact that the company is unrelated to it); dual role of the BD chairman and the executive director (this parameter is a dummy variable where "1" means that the two roles are fulfilled by the same person, and "0" – that it is not); the number of BD members; share of institutions in ownership; share of free-float.

The following non-financial macroeconomic indicators are analyzed in empirical models: personal income tax rate on dividends as a dummy variable where "1" is the rate of 13%, and "0" – the rate of 9% (the rate was increased in 2015); ratio of the total market capitalization of all Russian companies to its GDP or the Buffet indicator; time factors

represented by the dummy variables for each year in order to account for the effects of various business cycles (i.e., dummy variable for 2014 takes on the value of "1" if the data describes 2014 and "0" – otherwise).

Description of Econometric Models

In order to determine the methodology of study of the relationship between dividend payment probability and dividend yield, on one hand, and the determinants selected for analysis, on the other, it is necessary to pay attention to data characteristics. In our case, panel data was used because the indicators have been collected over several time periods (years).

The model also has to take into account the type of the dependent variable. When we analyze the dependence of dividend yield on a series of determinants, we typically use the linear model. This regression will be built in three versions: the pooled, fixed effects and random effects models.

We subsequently conducted a series of tests to choose the model most suitable for our data. We applied the Hausman test to choose between fixed effects and random effects regressions, the Wald test – to choose between the pooled regression and the fixed effects model and the Breusch-Pagan test – to verify random effects and choose between the pooled regression and the random effects model.

The equation of the linear regression model, which is used in this research to study the influence of a range of financial and non-financial determinants on ***dividend yield,*** is created by means of primary specification testing in order to detect the best set of parameters from the point of view of the regression's explanatory power, and is as follows:

$$Dividend\ Yield_t = \alpha_0 + \alpha_1 Board\ Average\ Age_t + \\ + \alpha_2 Metals\ and\ Mining_t + \alpha_3 Oil\ and\ Gas_t + \alpha_4 Dividend\ Tax_t + \alpha_5 Executive\ Chairman_t + \alpha_6 Debt\ to\ Equity_{t-1} + \\ + \alpha_7 QTobin_t + \alpha_8 ROA_{t-1} + \alpha_9 Year14_t + \alpha_{10} Year15_t + \\ + \alpha_{11} log\ (Market\ Cap)_t + \alpha_{12} CAPEX\ to\ CFO_t + \varepsilon_t. \quad (1)$$

In this model, the ***independent variables*** are as follows: the board members' average age; dummy variable of the personal income tax rate on dividends (dividend tax); dummy indicator of dual role of the BD chairman and the executive director (executive chairman); Tobin's Q.

The ***control variables*** are the following indicators: financial leverage with a 1-year lag (*debt to equity previous*); return on assets with a 1-year lag (*ROA previous*); years of economic crisis (*year*14, *year*15); market capitalization logarithm (log(*market cap*)); ratio of capital investment to operating cash flow (*CAPEX to CFO*); dummy indicator of the metallurgical (*metals and mining*) and oil and gas industries.

The second dependent variable in this research is the ***probability of dividend payments***. For the purposes of econometric analysis, this parameter is expressed as a dummy variable where "1" means that the company paid dividends and "0" – that there was no dividend payments that year. ***Binary choice models*** are applied in the cases when dummy variable is used as the independent variable. There are two types of such regressions: logistic and probit ones. These two types do not differ significantly and, as a rule, they are built in order to choose the most suitable one according to the descriptive power by means of the Akaike criterion and pseudo R^2.

By means of primary testing of specifications for the subsequent study of the dependence of the dividend payment probability on a series of financial and non-financial determinants, we composed the following equation of the binary choice regression model:

$$Probability\ of\ dividend\ payment_t = \alpha_0 + \alpha_1 Board\ Average\ Age_t + \alpha_2 Metals\ and\ Mining_t + \alpha_3 Executive\ Chairman_t + \alpha_4 Debt\ to\ Equity_{t-1} + \alpha_5 Maturity_t + + \alpha_6 Percent\ of\ Shares\ Held\ by\ Insitutions_t + \alpha_8 Board\ Size_t + \alpha_9 ROA_{t-1} + \alpha_{10} Current\ Ratio_{t-1} + \alpha_{11} RU\ Market\ Cap\ to\ GDP_t + \alpha_{12} Percent\ of\ Shares\ Held\ by\ CEO_t + \alpha_{13} log(Free\ Float\ Share)_t + \varepsilon_t. \quad (2)$$

In this model we will analyze the following determinants as ***independent variables***: BD average age (*board members' average age*); the dummy indicator of the dual role of BD chairman and executive director (*executive chairman*); dummy indicator of the maturity LC stage (*maturity*); number of BD members (*board size*); shares owned by institutions (*percent of shares held by institutions*); CEO ownership stake (*percent of shares held by CEO*).

In the regression model we use the following indicators as ***control variables***: financial leverage with a 1-year lag (*debt to equity previous*); return on assets with a 1-year lag (*ROA previous*); dummy indicator of the metallurgical industry (*metals and mining*); current liquidity ratio with a 1-year lag (*current ratio previous*); ratio of the RF total market capitalization to GDP (*RU market cap to GDP*); share of free float stock (*free float*).

Results of Empirical Study

Diagnostics and Interpretation of the Results of the Random Effects Linear Regression

In order to choose the best linear regression of panel data in terms of descriptive power, we built three types of this model: pooled regression, fixed effects and random effects models. Then we performed the econometric tests required to choose the best model.

In order to compare the pooled regression and the random effects model, the Breusch-Pagan test was performed for random effects. As a result of the test, the *P-value* of the Breusch-Pagan statistic turned out to be statistically significant, which is indicative of random effects in the tested data and means that in this case the choice of the random effects model is correct.

The comparison of the pooled regression and the fixed effects model by applying the Wald test demonstrated that the fixed effects model could be used in this study and that it surpassed the simple regression (significance of *F*-statistic has been achieved for *P-value*).

The Hausman test was conducted in order to compare the fixed effects and the random effects models. The diagnos-

tics revealed the insignificance of the Hausman statistic in regard to *P-value*. Thus, it is necessary to choose the random effects model for analysis.

According to the results of the performed tests for model type comparison, we constructed a panel regression with random effects. This model was tested for multicollinearity. On the basis of the obtained VIF values (all indicators are less than 5), one may conclude that there is no multicollinearity problem in it, and that parameter estimates are rather stable. The Wald statistic of the obtained regression indicates that the regression is generally significant since this indicator is rather high (Wald chi2 = 222).

We also decided to apply the robust estimator method to ensure an efficient and quick elimination of outliers in order to improve the model when building the regression model with random effects. Since the Hausman test is not suitable for robust type models, we once again conducted similar diagnostics that has been used for robust estimator regressions – the Sargan-Hansen test. Its result is virtually similar to that of the Hausman test for the model without robustness. The test also confirmed the need to use the random effects model.

Let us continue to the interpretation of the results of the obtained linear regression model with random effects (Table 2).

Table 2. Results of the random effects regression

Variable	Sign	Coefficient	*P-value*
Board members' average age	–	–0.16*	0.067
Dividend tax	+	3.45***	0.000
Executive chairman	+	0.74	0.341
Q Tobin	–	–1.68**	0.030
Debt to equity previous	–	–0.06**	0.050
ROA previous	+	0.11***	0.006
Log (*Market Cap*)	+	0.68	0.111
Oil and gas	–	–2.10*	0.098
Metals and mining	+	2.91***	0.008
CAPEX to CFO	–	–0.46**	0.029
*Year*14	+	3.01***	0.000
*Year*15	–	–1.28**	0.022
*Wald chi*2		222.13	

p-value: *** – 1%; ** – 5%; * – 10%.

The variable of the personal income tax rate on dividends turned out to be ***statistically significant and exerts a positive influence*** on dividend yield. This conclusion corelates with the results of previous studies in developed markets: when the ***personal income tax rate on dividends*** is increased, according to the agency theory, companies are more prone to raise dividend yield in order to satisfy the investors' yield requirements that increased as a result of the tax rate growth [12; 13].

Among the ***control variables*** the indicators of the metallurgical industry, return on assets and dummy 2014 exerted the expected positive influence that is correlated with scientific literature. The ***metallurgical industry*** indicator across the data sample has a generally higher dividend yield than the mean value for all industries. A dispute may be caused by the effect obtained for ***2014,*** which marked the beginning of the new economic crisis of 2014–2015 that probably should have had a negative effect on dividends. However, a potential explanation of the positive influence may lie in the fact that the decision on the amount of dividend payments is made by companies based on the financial reports for the previous reporting year. In 2013 the Russian economy was at its peak in terms of GDP growth.

The average board age and investment opportunities (Tobin's Q) turned out to be the variables that are ***statistically significant and exert a negative influence*** on dividend yield. The result related to the ***corporate investment opportunities*** variable is consistent with earlier studies in developed and emerging markets within the context of an inverse dependence. This conclusion stems from the fact that with greater investment opportunities companies are more prone to funnel larger cash flows to them than to pay dividends [19; 20].

Dependence of dividend yield on the ***average board age variable*** had not been studied before, but we revealed a positive relationship between the probability of payout and age of BD members in the developed market, which may be due to greater conservatism of older BD members who are prone to insist on payouts instead of investing the cash flow in risky projects [21]. ***A negative dependence of dividend yield*** on this parameter may also be due to the conservatism of older BD members on the issue of payment amounts. The ***control variables*** that demonstrated a ***negative*** relationship are the ***ratio of capital investment to operating cash flow, 2015, financial leverage*** and ***oil and gas industry***. These results correlate with the expectations and conclusions of the previous studies. The negative dependence of dividend yield on the oil and gas variable may be explained by a smaller average dividend yield of companies from this industry in comparison to other companies from the sample of enterprises selected for analysis (in the oil and gas industry the average yield in 2012–2019 amounted to 4.1%, while the total for all industries equaled 5.3%). The variable of ***dual role of the BD chairman and the executive director*** (*executive chairman*) turned out to be ***insignificant*** in the dividend yield model.

Diagnostics and Interpretation of the Results of the Binary Choice Model

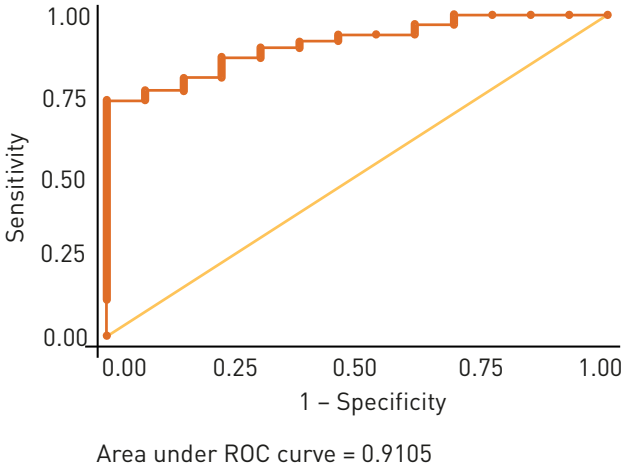
Two versions of the binary choice model were constructed: a logistic regression and probit regression. According to the Akaike criterion, the models differ insignificantly, therefore for further data analysis we chose the probit regression, whose pseudo-R^2 is slightly greater than that of the logistic model.

The obtained model was examined for validity by means of a series of special tests. First, we verified the model's explanatory power by pseudo-R^2. The acceptable values of this indicator are within the 0.3–0.4 interval [22]. The value of our probit regression is 0.41, which is indicative of its good explanatory power.

We then verified the model by means of the Hosmer-Lemeshow test statistic. As a result of the conducted diagnostics, the Hosmer-Lemeshow statistic turned out to be sufficiently large in terms of the *P-value* (0.99). For this reason, we may assert that it is correct to choose this model type for the available data.

The last stage of diagnostics of the obtained binary choice model is the analysis of the *ROC*-curve for regression sensitivity. After plotting the *ROC*-curve (Figure 1), the area under it equals 91%, which is indicative of excellent model sensitivity (90–100% interval) [23].

Figure 1. ROC-curve of the binary choice model



Source: Author's calculations.

In addition, we applied the clustering method in the construction of this model to improve its explanatory power – companies served as clusters in our case. When comparing models with and without clustering, we made the conclusion in regard to the higher quality of the logistic regression with clusters.

Let us get on to interpret the results of the obtained model (Table 3).

Table 3. Results of the binary choice model – probit

Variable	Sign	Coefficient	P-value
Shares CEO holds, %	+	5.82*	0.096
Board members' average age	+	0.15**	0.035
Executive chairman	+	1.11*	0.087
Shares held by institutions, %	+	0.02**	0.037
Debt to equity previous	–	–0.05***	0.002
ROA previous	+	0.05**	0.031
Current ratio previous	–	–0.69**	0.029
Metals and mining	+	2.64***	0.000
Maturity	+	1.27**	0.021
Russian market cap to GDP	–	–0.04**	0.011
Board size	–	–0.25***	0.008
Pseudo R^2		0.3958	

p-value: *** – 1%; ** – 5%; * – 10%.

Among the studied independent variables, the board members' average age, dual role of BD chairman and executive director, ownership stake of the CEO and institutions and the maturity life cycle stage are the ***statistically significant variables that produce a positive influence*** on the decision regarding dividend payments.

A positive influence of the ***average board age*** correlates with the result of analysis in papers dedicated to developed markets and is explained by the conservatism of older directors. For this reason, they are prone to insist on dividend payments instead of using the whole cash flow for risky investments [21]. In emerging markets this determinant has not been studied in terms of influence on the probability of payments.

The result concerning the variable of ***dual role of the BD chairman and the executive director*** correlates with the majority of previous scientific papers in terms of the positive relationship between the dual role of the CEO and dividend payments when various measuring methods are applied [24; 25]. Since we have not discovered any research that examines the same specific determinant, we initially presumed the likelihood of a similar relationship between those parameters and dividends. The positive dependence may be due to a decline in the efficiency of the BD's monitoring function, which, in turn, causes an increase in agency costs. Therefore, in order to enhance monitoring efficiency and limit the cash flow available to them, company investors are prone to demand dividend payout [25].

The result obtained for the variable of the LC's maturity stage is also comparable with the earlier studies of dividend payment determinants. The positive dependence is due to the fact that mature companies have fewer investment opportunities for investing the cash flow and are more inclined to dividend payouts [5; 26; 27].

The positive relationship of the probability of dividend payments with the ***CEO ownership stake*** determinant is more consistent with the conclusions obtained in emerging markets. This result is due to the fact that the CEO, being a shareholder of his/her company, bears financial risks for which he/she wishes to be compensated by dividend payments [28].

We also determined a positive dependence of the probability of payments on the determinant of the ***stake of institutional shareholders***. This phenomenon is due to the agency theory effect – in the sample of companies used for this analysis, firms with a significant share of corporate owners meet the criterion of the zero-rate income tax on dividends. Such companies will try to satisfy the need for dividends of their shareholders with a special tax treatment by paying them out [7; 8].

The ***control variables*** of ***return on assets*** and ***metallurgical industry*** showed a positive relationship. This aligns with the conclusions of previous studies and general expectations. In the data sample used for analysis, metallurgical companies paid dividends in almost all periods.

The ***current liquidity ratio*** turned out to be a ***statistically significant variable that produces a negative impact*** on the decision regarding dividend payouts. This is consistent with the results of some studies, especially in emerging markets [29; 30]. Among the cited reasons are the striving of more liquid companies to use debt financing as an instrument to mitigate agency conflict as well as the generally more conservative policy of such firms concerning distribution or retaining of the cash flow, which may be related to a larger debt.

We revealed a negative dependence of the probability of dividend payments on the ***number of the BD members*** variable. This conclusion is aligned with the results of some previous studies, mainly in emerging capital markets, and is due to the fact that the probability of communication problems and intensification of the conflict of interests grows along with the number of BD members. This causes a rise in agency costs and a decrease in dividend payments [31].

The conclusion of the negative dependence of payment probability on the ***financial leverage control variable*** is consistent with the results obtained by other researchers earlier. When this indicator grows, the corporate debt load increases as, consequently, does the risk. This leads the company to retain the cash flow and not to use it for dividend payouts in order to maintain its business solvency. In addition, the negative relationship of the ***Buffet indicator control variable*** is aligned with the logic of this indicator and earlier studies: the higher the indicator, the more overestimated is the stock market and, consequently, the companies' need to send out signals using dividends.

Comparison of Results and Conclusions from Empirical Analysis

Summarizing the conducted empirical analysis using two statistically significant regression models – a linear one with random effects and a probit regression, we made general conclusions in regard to the confirmation of the advanced hypotheses that have been structured according to the key theories of dividend payment motives studied in the paper and united in groups.

Group 1. Determinants resulting from the study of the agency theory of dividend payment motives:

1.1. The hypothesis of a positive influence of the ***dual role of the BD chairman and the executive director*** variable is partially confirmed. The statistically significant positive relationship with the probability of payments has been revealed, significance has not been achieved in the dividend yield model. We may conclude that the agency effect of this dual role is present in the Russian market.

1.2. The hypothesis of the negative dependence of dividend payments on the ***number of BD members*** is partially confirmed. We revealed a statistically significant negative influence on the probability of payments, the relationship with dividend yield is insignificant.

1.3. The hypothesis of a positive influence of the ***ownership stake of the CEO*** is partially confirmed. We revealed a statistically significant positive relationship with the probability of payments, the relationship with dividend yield is insignificant.

1.4. The hypothesis of a negative relationship between ***liquidity*** and dividend payments is confirmed partially. We revealed a statistically significant negative relationship between the probability of payments and the current liquidity ratio, while the determinant showed no significance for dividend yield.

Group 2. A determinant on the junction of the agency and behavioral theories of dividend payment motives:

2.1. The hypothesis of a positive influence of the ***board members' average age*** is partially confirmed and partially rejected. A positive influence of this determinant on the probability of payments has been proven and a negative relationship with dividend yield has been revealed.

Group 3. Determinants resulting from study of the client theory of dividend payment motives:

3.1. The hypothesis of a positive relationship between dividend yield and the ***personal income tax rate on dividends*** is confirmed. As a result of the constructed dividend yield model, we revealed a strong statistically significant positive dependence on this determinant. This leads to a conclusion about a significant client effect that defines the dividend yield of Russian firms.

3.2. The hypothesis of a positive relationship between dividends and the ***ownership stake of institutions*** is partially confirmed. A statistically significant positive relationship with a probability of payments has been detected, while no significant relationship with dividend yield has been revealed.

Group 4. Determinants resulting from study of the business LC theory:

4.1–4.2. The hypotheses are confirmed. Within this theory we studied two determinants – the ***LC's maturity stage*** according to Victoria Dickinson's method, as well as the ***Tobin's Q ratio***. Both parameters demonstrated identical levels of influence on payments – firms with worse investment opportunities (maturity stage) are more inclined to use the cash flow for dividends and vice versa. However, the significance of variables in various models differed. In the dividend yield regression Tobin's Q proved significant, while in the probability of payments model the maturity stage defined according to Victoria Dickinson's method was significant. The results are consistent with previous studies in both markets.

Summing up, we may confirm the presence of the agency, client and business LC theory effects in the Russian market. In addition, the obtained specifications of two models show the influence on dividend yield exerted to a greater extent by determinants of financial nature, and the influence on probability of payments – by non-financial determinants.

Conclusion

The Russian stock market is the leader in dividend yields among emerging countries. For this reason and owing to the generally risky nature of emerging markets, the aspect of dividend payments and yield is of special importance for investors in Russian companies. In order to understand the nature of dividend policy of Russian companies and to have an opportunity to competently form an investment portfolio with regard to dividends, it is necessary to understand which determinants define this policy and in which area.

The study of determinants of dividend payments relies on the theories of dividend payment motives – classic (agency, client, signaling, LC) and behavioral ones. Based on the analysis of the theoretical framework, we generated research hypotheses grouped on the basis of key theories of dividend payment motives.

We subsequently present the methodology of using empirical models to study the determinants of dividend payments in the Russian market. We use two types of regressions in this paper – the linear regression with random effects and the probit model of binary choice.

As a result of empirical analysis, all hypotheses are confirmed completely or partially in terms of probability of payments or dividend yield.

Presence of the ***agency effect*** in the decisions of Russian companies about dividend payments is confirmed by a significant positive dependence on the indicators of dual role of the BD chairman and the executive director and CEO's ownership stake, as well as by a significant negative relationship with the indicators of the number of BD members and company liquidity. This is consistent with conclusions of previous studies in emerging markets.

The simultaneous presence of both ***agency*** and ***behavioral effect*** is confirmed by a positive dependence of the probability of payments on the board members' average age and a negative dependence of dividend yield on this determinant in Russian companies.

The influence of ***client effects*** in the Russian market is confirmed by a statistically significant positive relationship with the personal income tax rate on dividends and the ownership stake of institutions.

Finally, the ***business LC*** theory is also confirmed by a significant positive relationship the dividend yield and the investment opportunities defined by Tobin's Q obtained using a sample of Russian companies.

In general, as a result of the research we managed to confirm the presence of the effects related to the agency, client, behavioral and business LC theories in the Russian market. There is also a significant influence of non-financial variables on the probability of dividend payments and a greater influence of financial indicators on profitability. The majority of conclusions on determinants studied in the papers dedicated to emerging markets and covered by this research are confirmed for the Russian market.

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