

Influence of management on debt corporate policy

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ABSTRACT

The author considers features of influence of finance solutions of management of the Russian public companies on debt policy. In a research are included indicators of internal growth and dividend payments by means of which it is possible to estimate corporate financial policy. Internal growth is the indicator of regulation of debt strategy, the including mechanism of precautionary motive. The dependence of the share price on the market value of assets defines installation of communication between the economic interests of shareholders and finance solutions of management. The indicator of dividend payments allows to estimate influence of external negative effects (shocks) on behavior of investors at profit assessment. Increase in dividend payments is connected with their financing from an external source. Management works in logic of precautionary motive, keeping a part of profit for further debt repayment before creditors. The management of the Russian companies not only influences the share price, but also regulates the level of a debt load. The company can use dividend payments on reinvestment of assets (as an investment resource). The author shows as the Russian public companies, solve a problem of adverse selection, switching to cheaper financing sources. The value of a debt is connected with the level of investment into the company. Pledge (property providing) is a guarantee for creditors. As, getting access to debt financing, the company provides to the creditor the complete information about property, thereby, reducing the risks connected with attraction of a debt. The Russian public companies react to changes of debt increase in value of size of assets that will be approved with recapitalization of the company (change of the capital structure due to debt increase and its use for dividend payouts to shareholders).

KEYWORDS:

debt policy, management contribution, precautionary motive, capital structure, external negative effects, recapitalization of the company, financing source, dividend payments.

FOR CITATION:

Lutsenko S.I. (2020). Influence of management on debt corporate policy. *Strategic Decisions and Risk Management*, 11(3), 316-323. DOI: 10.17747/2618-947X-2020-3-316-323.

1. INTRODUCTION

Government authorities should implement social and economic politics that in particular create an increase of direct investment flow and is oriented on accomplishment of availability of landing by means of long-term money. This should be performed for the purpose of countering the threat of economic instability, as it is mentioned in RF Presidential Decree called “On the national security of Russian Federation”¹, This Decree discusses State actions in support of Russian companies at obtaining long-term loans in the domestic market by applying government guarantees since some Russian companies are limited in access to foreign funding sources due to sanctions on Russia imposed by European Union and USA (to be exact, by sectoral sanction in EU on some branches of Russian economics, such as energy industries).

Raising funds from external sources (including bank loans) is a common practice to supplement missing financial resources by Russian companies².

According to Law Concerning Investment Activity in the RSFSR³ investors’ own capital along with their intercompany reserves, borrowed finances, and attracted funds (financial

resources obtained from sale of shares are the sources of support for investing activities).

In accordance with paragraph 3.2 of Resolution of State Statistical Committee (Goskomstat)⁴ direct investments reflect investor’s long-term economic interest in the business of the management unit, that is an enterprise of the direct investment. Direct investments include the initial investment operation as well as all the following operations between the direct investor and the enterprise, including operations to attract borrowed funds and provide lending resources.

Some authors [Dathan, Davydenko, 2020] mention that an increase in the number of debt offers is associated with a lower cost of debt and more attractive offers for the borrower (refinancing of existing debt on better terms).

In this study of the debt policy impact assessment, the author includes indicators of the management decisions influence (proxy-variable that is an internal growth) and dividend payments as key characteristics in regression (specification).

It is worth mentioning that Russian companies may experience a *ctemporary gap in financial flows*, associated with an income acquisition and pay-out of distributed profit as dividends to shareholders. This determines that

¹ Decree of the President of Russian Federation No. 683., dated December 31, 2015, called “On the National Security Strategy of the Russian Federation. URL: <http://www.kremlin.ru/acts/bank/40391/page/5>.

² Resolution of the Sixth Arbitration Court of Appeal dated July 02, .2020 in case No. A73-3888 / 2011 // Consultant Plus.. URL: <https://clck.ru/RvyuJ>.

³ Law of the RSFSR No. 1488-1 dated June 26, 1991, called "On investment Activity in the RSFSR" // Consultant Plus. URL: <https://clck.ru/RvyuW>.

⁴ Resolution of the State Statistic Committee (Goskomstat) of the Russian Federation No. 204 dated October 28, 2002 called “On Approval of Methodological Provisions for the Organization of Statistical Monitoring of the Movement of Foreign Investments in Accordance with the Guidelines for the Balance of Payments” // Consultant Plus. URL: <https://clck.ru/Rvz4W>.

attracting borrowed capital to exercise dividends payout duty is economically appropriate.

The author points out that dividends payout may be implemented by debt capital (bank loans in particular) in conditions of scarcity of funds. The legitimacy of this situation is confirmed by judicial practice, since net profit⁵ usually serves as a source of dividends. However, as it was mentioned earlier, a bank loan can be used as a practical matter in case of a temporary gap in financial flows associated with income.

Some of the researchers discuss the influence of standard company factors (asset size, tangibility, commercial viability (profitability) of assets, financial flow from operating business) on the capital structure [Frank, Goyal, 2003; Lemmon et al., 2008].

Other studies describe the influence of debt capital on enterprise behavior, on decisions regarding the capital structure above all [Faulkender, Petersen, 2006; Graham, Leary, 2011; Gibbons, 2020].

Some authors/A number of authors examine the connection between debt, the main characteristics (factors) of the company (such as asset tangibility, profitability, company size) and the stock market [Israeli et al., 2017].

However, researchers do not consider a situation when the company's financial policy changes in response to a management decision or to changes in external effects on capital markets. The author has tried to fill this gap.

The author expands the focus of this research inserting *вклад shock and management's contribution to the company's value* in addition to the basic factors. The use of these two factors will allow us to evaluate the debt policy of companies taking into account the preventive motive (choosing financial source according to its price). These two notions were never discussed together by researchers. The operation or contribution of management to the company is defined by a proxy variable or a substitute variable that depends on management's operation. And the operation of the management is an indicator of internal growth. The shock or the impact of external negative subsequences on the company is determined by the proxy variable that is dividend payments. These indicators allow us to analyze the debt corporate policy of Russian public companies, as well as the mechanism of the preventive motive (choosing a financial type according to the price of capital).

Company's financial situation is an objective key factor that affects the prosperity of shareholders first of all. The more balanced the structure is (according to its market factors) the higher is the market value of the company⁶.

Such a balance depends on margin between company assets and its liabilities to third parties.

It should be emphasized that market value is a value of a company on the stock exchange based on the influence of supply, demand, liquidity, and shock⁷. A shock is understood as an external negative effect that the company cannot control, (such as market fluctuations, price-gouging, financial crisis).

According to the European Court of Human Rights⁸, the share price mostly depends on the management policy.

At the same time, the risk of shares depreciation is associated with management failures. Thus, managers must act in the company's best interests, and thus of the shareholders, since the economic interests of the latter coincide with the interests of the company in the long term.

The increase in the value of the company's assets (including undistributed net profits) establishes a direct correlation with an increase in the value of a share.

The European Court of Human Rights in another resolution⁹ concludes that, *the price of a share depends on the business value (market value of assets)*. This is a criterion for establishing a link between the interests of shareholders and such management decisions that can lead to negative consequences (damage) for the company.

The point made by the European Court supports the choice of factors (the contribution of management and shock) when assessing debt policy, since a managerial decision affects the share price. And the share price affects shareholder prosperity.

The property interest of a shareholder (his prosperity) lies in maintaining a normal financial situation with profit increase of a commercial organization. That can be achieved by making management decisions aimed at maximizing the assets of this commercial organisation¹⁰.

2. RESEARCH METHODOLOGY AND SAMPLING DESCRIPTION

To assess the impact of management decisions and external shocks on corporate debt policy, we selected 24 public Russian companies from 10 economic sectors: agriculture (production, processing and sale of agricultural products), oil and gas complex (oil and gas industry), food industry (production and processing of poultry meat, pork and compound feed), ferrous and non-ferrous metallurgy, mechanical engineering (manufacturing of parts and accessories for cars and engines), electric-power engineering, construction (execution of general construction works), trade (retail trade in food and non-food products), transport (piping, sea transport), telecommunications (communication services). Public Russian companies with a total income of over RUB 10 billion¹¹ were chosen for the research. The selection condition was reporting in

⁵ Resolution of the Eleventh Arbitration Court of Appeal dated February 6, 2014 in case No. A55-20960 / 2013 // Consultant Plus. URL: <https://clck.ru/Rvz8z>.

⁶ Determination of the Judicial Collegium for Economic Disputes of the Supreme Court of the Russian Federation dated August 19, 2019, in case No. A43-1397 / 2017 // Consultant Plus. URL: <https://clck.ru/RvzAe>.

⁷ Resolution of the Arbitration Court of the Ural District dated March 3, 2018 in case No. A76-30243 / 2016 // Consultant Plus. URL: <https://clck.ru/RvzCn>.

⁸ Resolution of the European Court of Human Rights dated July 31, 2014. OAO Oil Company "Yukos" v. The Russian Federation. URL: <https://clck.ru/RvzK7>.

⁹ Resolution of the European Court of Human Rights dated July 7, 2020, Albert and Others v. Hungary // URL: <https://clck.ru/RvzQn>.

¹⁰ Resolution of the Fifteenth Arbitration Court of Appeal dated March 26, 2020 in case No. A53-33668 / 2019 // Consultant Plus. URL: <https://clck.ru/RvzVj>.

¹¹ Order of the Federal Tax Service of Russia dated May 16, 2007 No. MM-3-06 / 308 @ // Consultant Plus. URL: <https://clck.ru/DELZD>.

accordance with international financial reporting standards. The company's shares were supposed to be present on the stock market. Information on organizations was obtained from annual financial statements, Issuer's Reports, as well as data available on corporate websites. The sampling period is 2016–2019. The number of observations for each company varies (for some companies it is 2017–2019, for others - 2016–2019), therefore the data is unbalanced. Econometric calculations were performed with the statistical package Stata.

3. DESCRIPTION OF VARIABLES

The long-term debt as a dependent variable (explained variable) was used for evaluation of the specification (regression). This factor is used as an indicator of corporate debt policy, and also allows to assess the company's policy taking into account the precautionary motive. Following the logic of the precautionary motive [Opler et al., 1999], companies seek to conserve financial reserves for subsequent investment in projects or regulation of capital structures.

The author of this work used not a joint debt, but a long-term debt since it can be a source of investment financing, and also reflects the economic interest of the investor in the future.

Internal growth, level of dividend payments, investments, company size, return on assets and tangibility of assets were chosen as independent (explanatory) variables.

Long-term debt (Long_Debt) is defined as the ratio of long-term liabilities to total assets.

Internal growth indicator (g) allows us to eliminate external influences (erroneous market estimates, macroeconomic factors) on the company. It represents the inside of the growth in company value and allows us to assess the real contribution of management to market capitalization [Daniel, Titman, 2006]. This indicator is calculated by the following formula:

$$g_{i,t} = \log\left(\frac{ME_{i,t}}{ME_{i,t-3}}\right) - \log(r_{i,t-3t}),$$

where ME is market capitalization and, r is the logarithm of the average stock return. The Russian stock market is unstable, therefore the long-term period is considered to be three years and more. Management decisions should be made primarily for the purpose of maximizing the business value.

The level of dividend payouts (*Dividend*) is defined as the ratio of the amount of paid dividends to the total amount of assets. This factor influences investors behavior. Besides, it is a guideline for choosing a funding source considering the costs of adjusting the capital structure and the impact of external negative effects.

Investments (*Invest*) are calculated as the ratio of the value of fixed asset acquisition and intangible assets to the total value of assets.

The size of the company (*Ln_Assets*) is defined as the natural logarithm of the total assets. It characterizes the property security of the company when turning to debt

financing.

Return on assets (*ROA*) is defined as the ratio of profit after tax (net income) to total assets (in%).

Asset tangibility (*PPE/A*) is calculated as the ratio of fixed assets to total assets. This factor is associated with information asymmetry and allows to choose a source of funding considering its cost.

All independent variables are lagged. The lag equals one year.

Descriptive statistics are presented in Table 1. In general, for each ruble of total assets there are 31 kopecks of long-term liabilities (in the form of credits and loans among others). The average profitability is 4.2%. Each ruble of total assets accounts for an average of 7.5 kopecks investment. The average value of dividend payouts is 3.2 kopecks for 1 ruble of assets. Finally, the management's contribution to the company's value is on average 16.7 kopecks for 1 ruble of total assets.

4. EVALUATION AND ANALYSIS OF THE MODEL

The specification (regression) considering the impact of management policy and external negative consequences on corporate debt policy looks like:

$$\text{Long_Debt}_t = a_0 + a_1(g)_{t-1} + a_2(\text{Dividend})_{t-1} + a_3(\text{Invest})_{t-1} + a_4(\text{Ln_Assets})_{t-1} + a_5(\text{ROA})_{t-1} + a_6(\text{PPE/A})_{t-1} + \varepsilon_t,$$

where t is the time period for the company, a_0 is the free term of the regression equation, $a_1, a_2, a_3, a_4, a_5, a_6$ are regression coefficients, ε is an error of the regression equation.

To improve the accuracy, the regression (specification) was tested for the hypothesis of insignificance of the regression as a whole, autocorrelation of residuals, and the presence of multicollinearity (robustness of the model).

To test the hypothesis about the insignificance of the regression in general or the hypotheses about zero values of the coefficients for the explanatory variables g , *Dividend*, *Invest*, *Ln_Assets*, *ROA*, *PPE/A* we used Wald's criterion, based on statistics $Wald = qF$, where F is the usual F -statistic for hypothesis testing, and q is the number of linear constraints on the model parameters ($q = 6$). The Wald test statistic has an asymptotic chi-square distribution with q degrees of freedom. Based on the asymptotic distribution, the observed significance level corresponds to the observed value of 10.29 (Prob> chi2 = 0.000). The hypothesis of zero values of the coefficients for the explanatory variables is rejected. The results obtained allow us to talk about high statistical significance of the coefficient estimates.

The autocorrelation test of residuals was performed using the Dickey - Fuller test with a constant, and a trend, and taking into account the transition to the first differences. Diagnostics indicate stationarity of time series (significance level (MacKinnon approximate p -value for $z(t)$) for explanatory variables is less than 5% significance level). Critical evaluations and test statistics reject the null hypothesis (the test statistic exceeds the critical value at a 5%

significance level). It is necessary to accept the hypothesis that the specification is correct. Between management decisions, external market influences and debt corporate policy there is a long-term bond.

A test was carried out for the presence of a relationship between the independent variables (multicollinearity - VIF (Variance Inflation Factor)).

The model has multicollinearity, if for one of the independent variables the value of the VIF coefficient is > 10. In our case, the highest value is well below 10 (VIF = 1.89), the average VIF value for all parameters is 1.48. There is no multicollinearity in the model (the hypothesis of multicollinearity is rejected).

A qualitative prediction can be made using the presented regression.

The results of testing the regression model are presented in Table 2.

The hypothesis of zero values of the coefficients for the explanatory variables is rejected. In this case, the results indicate a high statistical significance of the estimates of the coefficients (independent variables), since the value in brackets (0.000) is less than the 5% significance level.

All independent variables are significant at the 5% significance level.

The results show that management is committed to reducing the level of risk, acting according to a precautionary motive, keeping part of the profit for the further performance of debt obligations (positive relationship between domestic growth and debt policy and negative between profitability and long-term debt). Thus, management not only influences the share price, but also regulates the level of debt, taking into account external negative signals in the market [Lutsenko, 2019].

The increase in debt offers is associated with a lower cost of debt and leads to an increase in the amount of investment, according to some researchers [Dathan, Davydenko, 2020]. Positive relationship between investments and debt policy of Russian public companies shows us this result.

This conclusion equals results obtained by [Dathan, Davydenko, 2020]. The thing is, that a lower price of debt leads to an increase in investment to the company. It is worth mentioning that companies tend to act with a predictive motive, by switching to a cheaper funding source.

Unlike [Dathan, Davydenko, 2020], the author of this paper includes two additional factors during the research: internal growth (management contribution to the company) and shock (dividend payments) to assess corporate debt policy, as it was mentioned earlier. Besides, these two factors allow us to consider the behavior of Russian companies with a perspective of predictive motive (policy of choosing financing source according to the price of capital).

Dividends are an indicator of the impact of external negative effects (shocks), and force the company to adjust its capital structure using undistributed net profits [Leary, Roberts, 2005].

Russian public companies benefit from increased debt. They use it to payout shareholders (a positive connection between dividend payments and debt policy). Under negative shocks, the management of organizations seeks to adjust the capital structure by debt financing.

Organizations can redistribute their own funds (through dividend payments), and direct it to reinvest the assets (they accumulate finances for further investment in projects with high net present value). The company can use dividends as investment resources (positive connection between dividends and long-term debt factor).

Table 1
Descriptive statistics

Variable	Average value	Standard deviation	Minimum value	Maximum value
Long-term debt	0.309	0.175	0.00	1.00
Internal growth (management's contribution to the company's value)	0.167	0.306	-0.49	1.42
Dividend payouts	0.032	0.043	0.00	0.22
Investments	0.075	0.040	0.00	0.20
Company size	12.864	1.705	9.30	16.90
Return on assets (profitability)	4.192	12.607	-58.50	28.00
Asset tangibility	0.480	0.251	0.02	0.86

Table 2

Model considering the impact of management decisions and external market influences (shocks) on debt financial policy

Независимые переменные	Коэффициент	<i>t</i> -статистика	Уровень значимости <i>t</i> -статистики
<i>g</i>	0.126	2.35	0.021
<i>Dividend</i>	1.156	2.96	0.004
<i>Invest</i>	1.108	2.21	0.030
<i>Ln_Assets</i>	0.024	2.42	0.018
<i>ROA</i>	-0.008	-6.09	0.000
<i>PPE/A</i>	-0.199	-2.50	0.015
Константа	-0.015	-0.11	0.911

Примечание. Количество наблюдений – 86; $R^2 = 46.86\%$; *F*-статистика = 10.29 (0,000).

Russian public companies use a cheaper source (such as income) to fund investments. This is how they tend to deal with unfavorable selection problems. This is an example of a negative connection between return on assets and debt policy.

Under conditions of financial limitations, companies seek to alleviate the lack of funds and choose long-term finances that are secured by property (negative connection between tangible assets and long-term debt).

Since property security is a guarantee for lenders in debt financing, the borrowers receive easy access to debt capital by providing full information about their tangible assets to a potential investor [Harris, Raviv, 1991]. This is how they reduce the risks associated with raising finance.

Moderate increase of assets is a response of Russian public companies to debt increases. It is consistent with company recapitalization (a positive relationship between company size and long-term debt) and Gibbons' logic [Gibbons, 2020]. In this case, we are talking about changing the structure of the company's capital by increasing debt that will allow them to payout shareholders.

organizations and shareholders. When choosing a source of investment financing, the managerial decision is made considering source price. Dividends can be used as an investment resource. Debt financing can serve as a source of dividend payouts to shareholders, which is consistent with the company's recapitalization. Management influences not only the value of the company, but also coordinates the level of its risk (the price of capital), taking into account negative signals (shocks) from the markets.

5. CONCLUSION

In conclusion, it should be mentioned that the inclusion of such factors as internal growth and dividends in the specification (regression) allows us to assess the real contribution of management and negative shocks to corporate debt policy. The management, driven by precautionary motive (taking into account the cost of financing), seeks to make an informed decision to the benefit of their

REFERENCES

1. Lutsenko S.I. (2019). Mekhanizm vliyaniya makroekonomicheskikh i upravlencheskikh faktorov na finansovye resheniya kompanii [The mechanism of influence of macroeconomic and governance factors on company finance solutions]. *Finansovyy menedzhment [Financial Management]*, 1, 3-13.
2. Daniel K., Titman S. (2006). Market reactions to tangible and intangible information. *The Journal of Finance*, 61, 1605-1643.
3. Dathan M., Davydenko S. (2020). Debt issuance in the era of passive investment. *University of Toronto. Working Paper*, 1-58.
4. Faulkender M., Petersen M. (2006). Does the source of capital affect capital structure? *Review of Financial Studies*, 19, 45-79.
5. Frank M., Goyal V. (2003). Testing the pecking order theory of capital structure. *Journal of Financial Economics*, 67, 217-248.
6. Gibbons B. (2020). Passive debt ownership and corporate financial policy. *Pennsylvania State University. Working Paper*, 1-47.
7. Graham. J., Leary M. (2011). A review of empirical capital structure research and directions for the future. *Annual Review of Financial Economics*, 3, 309-345.
8. Harris M., Raviv A. (1991). The theory of capital structure. *Journal of Finance*, 46, 297-355.
9. Israeli D., Lee C., Sridharan S. (2017). Is there a dark side to exchange traded funds? An information perspective. *Review of Accounting Studies*, 22, 1048-1083.
10. Leary M., Roberts M. (2005). Do firms rebalance their capital structures? *The Journal of Finance*, 60, 2575-2619.
11. Lemmon M., Roberts M., Zender J. (2008). Back to the beginning: Persistence and the cross-section of corporate capital structure. *Journal of Finance*, 63, 1575-1608.
12. Opler T., Pinkowitz L., Stulz R., Williamson R. (1999). The determinants and implications of corporate cash holdings. *Journal of Financial Economics*, 52, 3-46.

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