

Debt policy of companies in Czech Republic

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Abstract. The attitude of companies towards the use of debt depends on many factors that can be generally called corporate debt policy. This paper deals with the debt policy of companies in Czech Republic, focusing on the factors affecting the appropriate amount of debt and their debt policy in general. The aim of this contribution is to reveal the dominant factors affecting companies in their debt policy decisions and to analyse the possible impact of the selected classifying factors on the firms' responses. The findings of this article are based on the data from the questionnaire survey conducted in 2016 and the subsequent statistical analysis of the responses. The most important factors affecting appropriate amount of debt proved to be financial flexibility and volatility of earnings and cash flows. For deciding on debt policy, the most important factor was insufficiency of internal funds. Statistical analysis revealed several differences in response to debt-policy questions according to the legal form of business, the industrial sector, the company size, and the origin of capital.

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1. INTRODUCTION

Debt financing serves as an important source of finance in case of own capital shortage. Most companies use debt sources to a greater or lesser extent. The attitude of companies towards the use of debt depends on many factors that can be generally called corporate debt policy.

The use of debt sources brings a company several benefits, as the company can consider more investment opportunities that can increase firm's value. At the same time, excessive use of debt may cause serious problems to the company connected with higher risks.

Debt policy of companies has undergone substantial development since the first theories concerning debt financing and capital structure were published in the fifties of the last century. In general, theories of

capital structure can be divided into static and dynamic ones. The basic static theories of the corporate capital structure include the theory of optimal capital structure, based on Miller and Modigliani's (1958) theory on the impact of taxes and the costs of financial distress, and the trade-off theory of capital structure. The most widespread and most respected theory of corporate capital structure is considered to be the theory of optimal capital structure, which is based on the assumption that the use of debt in corporate financing leads to the reduction of the average cost of total capital; but it happens only up to a certain level of debt: when exceeded, the average cost of capital starts rising again. On the other hand, dynamic theories do not seek an optimal capital structure but provide a certain preferential hierarchy of financial resources of a company (the pecking order theory).

This paper deals with the capital structure of companies in Czech Republic, focusing on their debt policy and its determinants. The aim of this contribution is to reveal the dominant factors affecting companies in their debt policy decisions, and to analyse the possible impact of the classifying factor (a legal form of business, industrial sector, company size, the origin of capital) on the responses. The article is focused primarily on the practice in Czech Republic, as the international comparison of the same was already published by the author back in 2016 (Stryckova, 2016).

This contribution uses some of the questions used by (Graham and Harvey, 2001) in the so-called Duke Special Survey on Corporate Financial Policy. Since that time the same questionnaire form has been used in several other investigations all over the world.

The structure of the paper proceeds as follows. First, theoretical background to basic foundations on corporate debt policy will be outlined. The next part will explain the methodology, the data and empirical results will follow. The paper will be concluded in the last section.

The results of this paper should significantly contribute to literature by examining the practice of corporate debt policy in Czech Republic. Novelty of this study lies in the search for empirical data in the area of factors affecting the debt policy of companies in Czech Republic, by means of using specific parts of Graham and Harvey's questionnaire which has never been used in Czech environment before.

2. LITERATURE REVIEW

In general, capital structure is said to be optimum when the marginal real cost (explicit as well as implicit) of each available source of financing is identical. With an optimum debt and equity mix, the cost of capital is minimal and the total value of the firm is maximal (Khan & Jain, 2007).

Since the introduction of the main theories of capital structure, recent developments in this field have focused more on empirical and econometric testing of these theories.

The most famous empirical study was performed by Graham and Harvey (2001). In their study, the authors focused on three areas of corporate finance: capital budgeting, cost of capital, and capital structure. Their questionnaire that was later used by many other authors more or less in the same form for cross-country comparison of the results and other investigations.

Subsequent studies that used the afore-mentioned questionnaire of Graham and Harvey were performed for example by Bancel and Mittoo (2004), Brounen, de Jong and Koedijk (2006), Benetti, Decourt and Terra (2007), Archbold and Laziridis (2010), Kohli and Sharma (2015).

Bancel and Mittoo (2004) examined capital structure policies of 87 CFOs from 16 different European countries and they concluded that most firms determine their optimal capital structure by trading off factors such as the tax advantage of debt, bankruptcy costs, agency costs, and accessibility to external financing.

Brounen, de Jong and Koedijk (2006) in their survey also used the same questions as Graham and Harvey. They concluded that the static trade-off theory received moderate confirmation. According to

their conclusions, financial flexibility was important, but not driven by the pecking-order theory. Several practical considerations were highly relevant. Contrary to the institutional variations, they documented strong resemblances among the four European countries and also with the U.S. when comparing capital structure policies. Their findings were also surprising in comparison with the results of Bancel and Mittoo, who found signalling and agency problems to be important factors in capital structure choice.

Benetti, Decourt and Terra (2007) documented several contrasts in financial policies between countries in developed and emerging markets by comparison of 160 respondent Brazilian firms with the sample gathered by Graham and Harvey. They explain the contrasts by differences in the economic environment, such as the role of the legal, institutional, and macroeconomic frameworks.

Archbold and Laziridis (2010) performed their survey in Greece between 2007 and 2008. They found both the trade-off model and the pecking order hypothesis as relevant for firms in their decisions over capital structure issues, even if this contradicts the standard academic view that those theories are mutually exclusive. They proposed to focus on more simple perspectives of capital structure as they were evidenced by practitioners, rather than more sophisticated theories.

Kohli and Sharma (2015) used some Graham and Harvey's questions in their survey in India. Their results support previous studies in corporate financial behaviour of companies exhibiting differences in their practices due to their size and industry characteristics.

The background of corporate debt policy in the Czech environment hasn't been the subject of deeper theoretical modelling and empirical examination over the years, but the situation has changed recently when studies focused on the Czech environment were performed by several authors.

One of the first experts in the Czech environment who addressed the topic of the corporate capital structure were the Neumaiers (1996). The Neumaiers' model constitutes a new original approach to the optimal level of indebtedness - in terms of a model for determining the relationship between a company's return on common equity and total indebtedness.

Krauseová (1995) analyzed the capital structure of Czech companies in dependence on the external environment, relating mainly to historical development since 1989 and the European recession period. She emphasizes the conservative attitude of companies' towards debt and predominant accumulation of equity. She also points at low use of bonds as a source of financing.

Landa and Martinovičová (2010) analysed the current state and changes in corporate debt policy depending on the industrial sectors in the years 2007 to 2009. In the monitored sectors they confirmed the correctness of the generally presented findings concerning the predominance of the cost of equity over the cost of debt. They also confirmed the assumption of greater use of bank loans by economically underperforming businesses (and vice versa).

Prášilová (2012) has investigated whether certain determinants, namely the proportion of fixed assets, retained earnings, interest rate, return on assets, firm size, the share of tangible assets and firm age have an impact on the corporate capital structure, and observed the degree of this influence. The result of the analysis is finding that the total corporate indebtedness is positively correlated with the firm age and the amount of retained earnings; the negative correlation is represented by return on assets and company size. Her conclusions are in accordance with the results of recent surveys, which recognize the partial effects of both main theoretical approaches, the trade-off theory and the pecking order theory, on the financial decision-making of companies.

Steklá et al. (2015) analyzed the development of the capital structure and capital disparity across the farmers' cooperatives from fourteen regions of the Czech Republic during the financial and economic crisis (2009–2013). They found out that the financial and economic crisis lowered the debt to equity ratio and debt to assets ratio and the profitability ratios as well, and the indicators reported the V-shaped trend.

The impact of the capital structure indicators on the profitability of cooperatives did not prove to be not significant during the period monitored.

Kozubíková et al. (2015) focused on the relationship between personality characteristics and approach to the perception and management of business risks by small and medium-sized enterprises which play an important role in the economic system. Their major finding was that the knowledge of lending criteria, which represented an important element in the management of SME credit risk, was likely to depend on personal characteristics of entrepreneurs.

Ruslan et al. (2015) analyzed the role of companies' financial structure in the transmission of monetary policy in the Czech Republic during 2003-2011. Their results indicated that higher short-term interest rates coincided with lower shares of total debt and long-term debt and higher shares of short-term bank loans and trade credit. They also confirmed that the size, age, collateral and profitability of a firm are important determinants of debt.

Ključnikov and Belás (2016) investigated the influence of approaches of entrepreneurs to the management of the credit risk in the segment of SMEs in the Czech Republic. They concluded that the importance of credit risk significantly increased during the crisis and that the management of smaller companies has inferior or insufficient financial knowledge. Only a small part of SME entrepreneurs is informed enough about the conditions under which commercial banks provide loans.

One of the latest contribution in the area of corporate debt policy and credit risk in the Czech environment was published by Dvorský et al. (2018). They also concluded that small and medium-sized enterprises had a higher perception of the significance of credit risk compared to a pre-crisis era. At the same time, a significant shift in the management of credit risk cannot be expected in these enterprises, as the SMEs' knowledge of credit criteria is quite low.

Mateev, Poutziouris, and Ivanov (2013) investigated the main determinants of SMEs' capital structure using panel data analysis for companies from the Central and Eastern Europe (Czech Republic, Romania, Serbia, Bulgaria, Poland, Hungary, Slovakia). They found that firm leverage was determined not only by the availability of internally generated funds, but also depended on other firm specific characteristics such as liquidity, sales growth, size and assets structure. If cash flow was used as the only explanatory variable in the regressions, the results supported the pecking order theory according to which firms with more available funds use less external sources of financing than other comparable firms. They revealed specifics in business financing typical for transition economies. The small and medium-sized firms in these countries still rely on internally generated funds to support their investment activities and growth, and find it very difficult to obtain external financing. There are significant differences in the way micro, small and medium-sized firms finance their activities. If micro and small firms need external capital they will use mainly short-term bank loans and trade credits. At the same time, banks are the main source of long-term debt for medium-size firms in Central and Eastern Europe, as access to capital markets is, to some extent, limited to larger firms.

3. METHODOLOGY

The study includes the results of an empirical investigation based on a questionnaire focused on the corporate debt policy of the Czech companies. The empirical investigation was conducted in several phases. The first phase involved the determination of the population and the representative sample. The database of companies and institutions MagnusWeb which contains an overview of all registered business entities in the Czech Republic was used as the source of data on the subjects. All economically active business companies in the Czech Republic served as the population of investigation; the sample consisted of 2000 randomly selected companies (using a random number generator).

The next phase included the formation and distribution of the questionnaire. The questionnaire was distributed by students of the Faculty of Economics the CFOs of sample companies across the Czech Republic. Via personal interviews, students managed to get 197 completed questionnaires, of which about 169 were completed properly. The questionnaire contained questions focused on the evaluation of corporate performance from the accounting and financial point of view. In order to disclose the firms' debt policy, it also contained questions focused on corporate debt strategy adopted from the questionnaire that was created by Graham and Harvey in 2001 (questions 12 and 13 in particular; question 12 had 15 subparts, question 13 had 9 subparts). The evaluation of the data was carried out using the methods of descriptive statistics.

The questionnaire also contained demographic information about the sample firms. With respect to the fundamental structure of the Czech companies and the number of publicly traded companies on the capital market, the sample contained primarily non-publicly traded companies, with all legal forms of business, from all business sectors. A limited liability company is statistically the most frequently significant legal form of business in the Czech sample, which corresponds with the population. Statistically, the most frequently significant business sectors in the sample were Manufacturing and Retail and Wholesale. With respect to the total number of employees, there is no statistically significant difference in the frequency of respondent enterprises according to company size. The companies range from very small (micro-sized enterprises) to very large (large-sized enterprises). The distribution of respondents according to company size, measured in conformity with world standards by sales revenue in millions of euros, confirms the presence of relatively small companies operating in the Czech Republic. Statistically, the most frequently significant company size in the sample was with sales revenues of under 25 million EUR. The distribution of respondents according to ownership confirms the low internationalization of the Czech firms. Statistically, the most frequently significant ownership in the sample was ownership by domestic (Czech) capital.

Data was processed by descriptive statistics containing the percentage of scores and mean values. All figures in this study are based on the 95% confidence intervals of the average values of variables.

4. EMPIRICAL RESULTS

The literature asserts that the debt policy of companies can be determined by firm-specific, industry-specific, and country-specific factors (Cwynar, et al., 2015). The search for the most important factors affecting the appropriate amount of debt of companies and other factors affecting a firm's debt policy reflects those factors. Firm-specific factors are represented by the business legal form, company size, and origin of capital. Industry-specific factors are assessed by the industrial sector. Country-specific factors weren't taken into consideration as the survey was conducted only in a single country.

4.1. Factors affecting the debt policy of companies in the Czech Republic

Table 1 and Figure 1 illustrate the survey responses to the question: *"What factors affect how you choose the appropriate amount of debt for your firm?"*

Table 1

Importance of variables: Factors affecting the appropriate amount of debt

Variable	n	Mean	StD	Min*	Max*	Med	Min	Max
a)	169	0.7	1.01	0.6	0.9	0	0	4
b)	167	0.7	1.03	0.5	0.8	0	0	4
c)	168	0.8	1.13	0.6	0.9	0	0	4
d)	167	1.2	1.29	1.0	1.4	1	0	4
e)	168	1.3	1.33	1.1	1.5	1	0	4
f)	168	0.6	1.07	0.4	0.7	0	0	4
g)	168	1.7	1.51	1.5	1.9	2	0	4
h)	169	1.4	1.34	1.2	1.6	1	0	4
i)	167	1.2	1.33	1.0	1.4	1	0	4
j)	168	0.4	0.86	0.2	0.5	0	0	4
k)	168	0.5	0.92	0.4	0.7	0	0	4
l)	168	0.5	0.89	0.3	0.6	0	0	4
m)	165	0.4	0.67	0.3	0.5	0	0	4
n)	166	1.4	1.42	1.2	1.7	1	0	4

Source: Authors' results. * indicates 95% Confidence Interval μ . Responses in Likert Scale 0 – 4.

Note: Variables (Graham and Harvey, 2001):

- a) The tax advantage of interest deductibility.
- b) The potential costs of bankruptcy, near-bankruptcy, or financial distress.
- c) The debt levels of other firms in our industry.
- d) Our credit rating (as assigned by rating agencies).
- e) The transactions costs and fees for issuing debt.
- f) The personal tax cost our investors face when they receive interest income.
- g) Financial flexibility (we restrict debt so we have enough internal funds available to pursue new projects when they come along).
- h) The volatility of our earnings and cash flows.
- i) We limit debt so our customers/suppliers are not worried about our firm going out of business.
- j) We try to have enough debt that we are not an attractive takeover target.
- k) If we issue debt our competitors know that we are very unlikely to reduce our output.
- l) A high debt ratio helps us bargain for concessions from our employees.
- m) To ensure that upper management works hard and efficiently, we issue sufficient debt to make sure that a large portion of our cash flow is committed to interest payments.
- n) We restrict our borrowing so that profits from new/future projects can be captured fully by shareholders and do not have to be paid out as interest to debtholders.

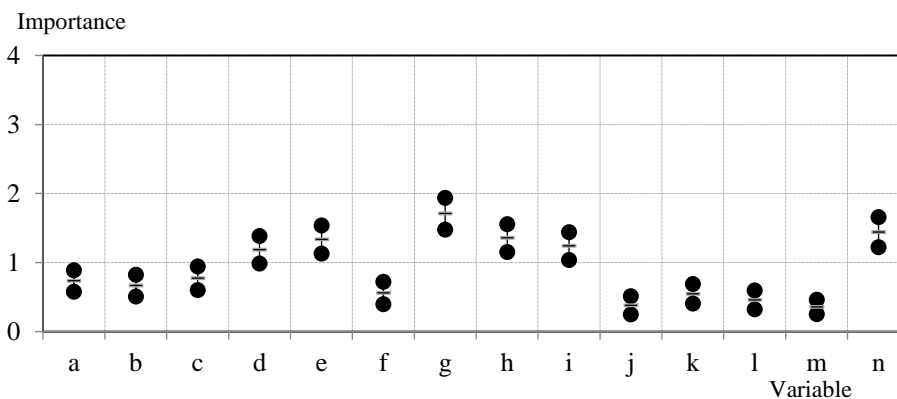


Figure 1. Factors Affecting the Appropriate Amount of Debt

Source: Authors' results

The most important factors affecting the appropriate amount of debt of respondents proved to be: “g) *Financial flexibility*”, followed by “b) *The volatility of our earnings and cash flows*”, and “n) *We restrict our borrowing so that profits from new/future projects can be captured fully by shareholders and do not have to be paid out as interest to debtholders*”. A distinctly low impact was found for the variables: “m) *To ensure that upper management works hard and efficiently, we issue sufficient debt to make sure that a large portion of our cash flow is committed to interest payments*”, “j) *We try to have enough debt that we are not an attractive takeover target*” (0.38), and “l) *A high debt ratio helps us bargain for concessions from our employees*”.

Analysis of variance ANOVA was used to assess the impact of business legal form, industrial sector, company size and origin of capital on the responses. When the value of the significance level α is ≤ 0.05 , the hypothesis that the variable exerts no influence can be rejected. If α is ≥ 0.05 , it is not possible to reject the null effect of a variable.

Table 2

ANOVA: Factors Affecting the Appropriate Amount of Debt

	Legal Form		Industry		Size		Foreign capital	
	F	α	F	α	F	α	F	α
a	0.604	0.547	1.425	0.234	1.076	0.312	0.729	0.395
b	0.957	0.386	12.512	0.0005	1.001	0.317	1.436	0.233
c	2.125	0.127	0.058	0.810	0.8522	0.357	1.610	0.206
d	6.879	0.001	1.709	0.193	3.985	0.048	2.493	0.116
e	2.617	0.076	1.061	0.304	0.980	0.324	3.324	0.070
f	2.455	0.089	0.080	0.774	1.138	0.288	0.897	0.345
g	0.711	0.493	0.257	0.613	1.922	0.167	0.361	0.549
h	4.951	0.008	0.126	0.723	0.292	0.590	0.834	0.363
i	4.538	0.012	0.274	0.603	1.840	0.177	0.132	0.717
j	1.915	0.151	0.562	0.454	0.306	0.581	0.141	0.708
k	2.666	0.073	0.735	0.393	0.110	0.740	0.249	0.619
l	2.500	0.085	1.010	0.316	0.0001	0.992	0.430	0.513
m	1.298	0.276	2.025	0.157	0.391	0.532	0.246	0.621
n	3.085	0.048	0.015	0.903	0.001	0.973	2.942	0.089

Source: Authors' results

The variables, by means of which ANOVA identified the impact of the classifying factor (a legal form of business, industrial sector, company size, the origin of capital) on the composition of responses ($\alpha \leq 0.05$), were further analysed to verify this impact. The Wilcoxon signed-rank test was used for the null hypothesis verification ($H_0: \mu_1 = \mu_2$).

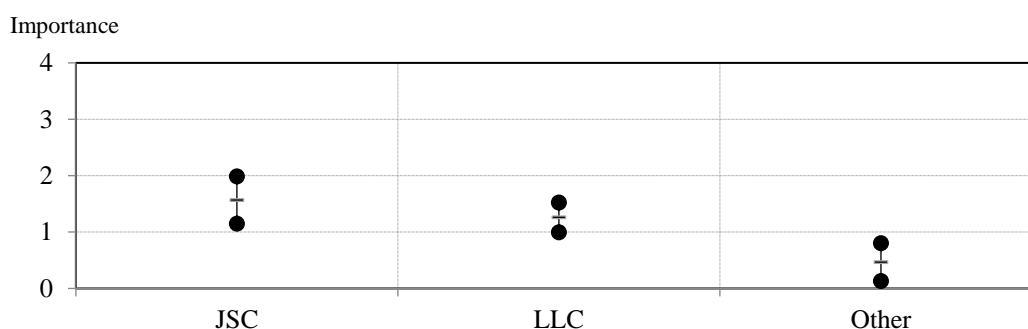


Figure 2. Impact of Legal Form of Business on the Importance of Variable “d”

Source: Authors' results

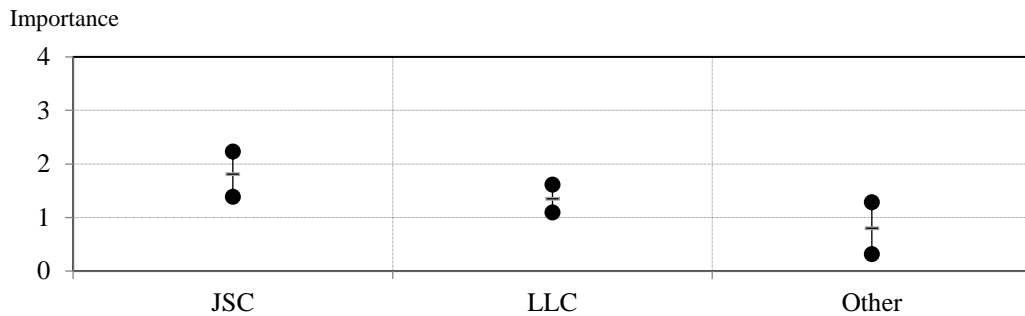


Figure 3. Impact of Legal Form of Business on the Importance of Variable “h”

Source: Authors' results

The average value analysis of the importance of variables “*d) Our credit rating*” and “*h) Volatility of our earnings and cash flows*” according to the legal form of business confirmed ANOVA conclusions. Statistically significant differences were found in the average values of importance between legal forms of a joint-stock company (JSC) and other forms, as was demonstrated by the Wilcoxon signed-rank test of average values ($p\text{-value} \leq 0.0001$). Companies with the legal form of joint-stock company consider credit rating and volatility of earnings and cash flows as more important than limited liability companies.

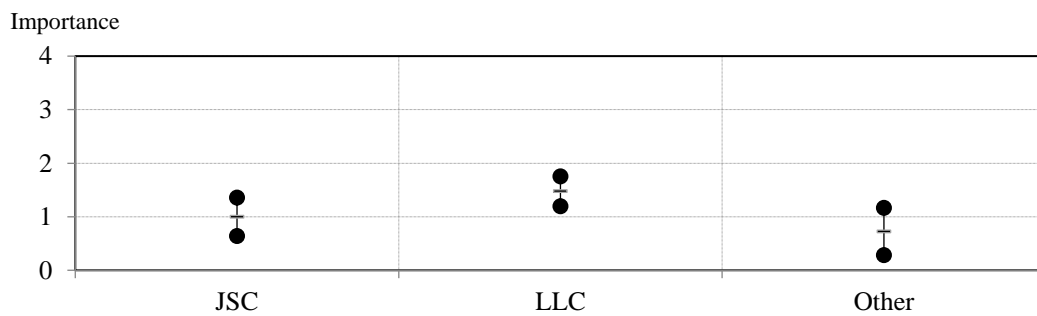


Figure 4. Impact of Legal Form of Business on the Importance of Variable “i”

Source: Authors' results

The average value analysis of the importance of variable “*i) We limit debt so our customers/suppliers are not worried about our firm going out of business*” according to the legal form of business again confirmed the ANOVA conclusion. Statistically significant differences were found in the average values of importance between the legal form of a limited liability company (LLC) and other forms, as demonstrated by the Wilcoxon signed-rank test of average values ($p\text{-value} \leq 0.0008$). It can be concluded that the importance of the factor concerning the limitation of debt because of customers/ suppliers was higher by the limited liability companies.

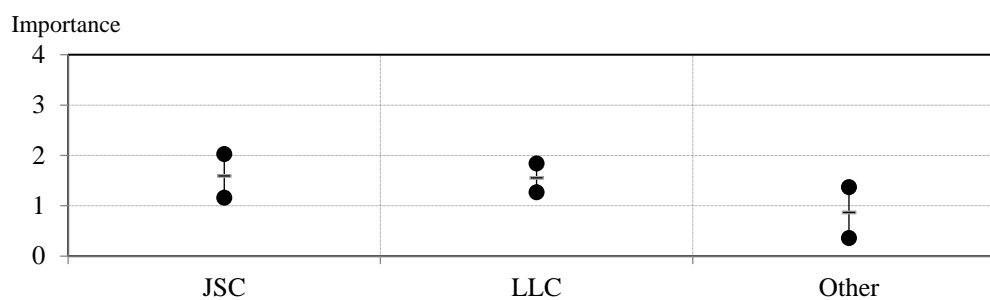


Figure 5. Impact of Legal Form of Business on the Importance of Variable “n”

Source: Authors' results

The average value analysis of the importance of variable “n) *We restrict our borrowing so that profits from new/future projects can be captured fully by shareholders and do not have to be paid out as interest to debtholders*” according to the legal form of business confirmed the ANOVA conclusions. Statistically significant differences were found in the average values of importance between the legal form of a joint-stock company (JSC) and other forms, as demonstrated by the Wilcoxon signed-rank test of average values ($p\text{-value} \leq 0.012$).

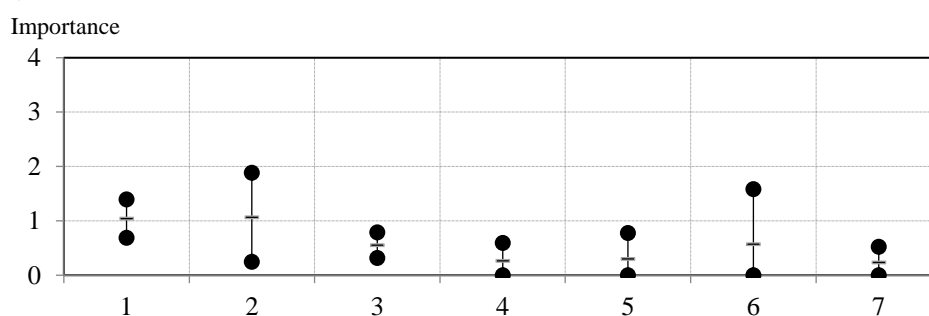


Figure 6. Impact of Industry on the Importance of Variable “b”

Source: Authors' results

Note: Industry: 1-Retail and Wholesale, 2-Mining, Construction, 3-Manufacturing, 4-Transport/Energy, 5-Communications/Media, 6-Bank/Finance/Insurance, 7-Tech (software/biotech/etc)

The average value analysis of the importance of variable “b) *The potential costs of bankruptcy, near-bankruptcy, or financial distress*” according to industrial sector confirmed the ANOVA conclusions. The average value of importance in the sector 1-Retail and Wholesale is statistically more significant than in industries 3-Manufacturing, 4-Transport/Energy and 7-Tech ($p\text{-value}_{\max} \leq 0.02$). The difference in the mean values between industry types 1-Retail and Wholesale and 5-Communications/Media is also statistically important, but the conclusion is on the edge of acceptability ($p\text{-value} \leq 0.048$). Therefore the conservative conclusion of a statistically uncertain relationship is more suitable here. Nevertheless, the factor of potential cost of bankruptcy was the most important for industrial sectors 1-Retail and Wholesale, and 2-Mining, Construction, even if the score was not very high (around 1).

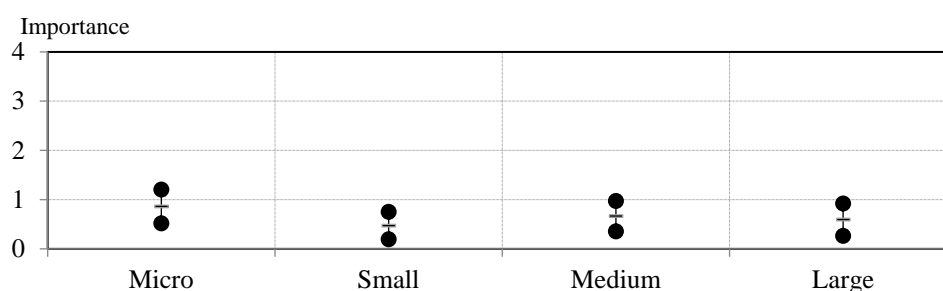


Figure 7. Impact of Company Size on the Importance of Variable "d"

Source: Authors' results

The average value analysis of the importance of variable "d) *Our credit rating*" according to company size didn't confirm the ANOVA conclusions. No statistically significant difference was found between the average values of the importance of variable "d" according to company size ($p\text{-value}_{\min} \leq 0.187$). It is necessary to take into account the fact that ANOVA predicted results at the significance level of 0.048, which is a statistically indefinite conclusion. The value of all average responses falls below 1.

4.2. Other factors affecting a firm's debt policy

Table 3 and Figure 8 illustrate responses to the question: "What other factors affect your firm's debt policy?"

Table 3

Importance of variables: other factors affecting a firm's debt policy

Variable	n	Mean	StD	Min*	Max*	Med	Min	Max
a)	169	2.5	1.49	2.3	2.8	3	0	4
b)	168	0.4	0.84	0.2	0.5	0	0	4
c)	168	1.0	1.19	0.8	1.2	1	0	4
d)	167	0.4	0.74	0.2	0.5	0	0	4
e)	168	0.9	1.22	0.7	1.1	0	0	4
f)	167	0.4	0.82	0.3	0.6	0	0	4
g)	162	0.3	0.67	0.1	0.4	0	0	4
h)	167	0.6	1.01	0.5	0.8	0	0	4

Source: Authors' results. * indicates 95% Confidence Interval μ . Responses in Likert Scale 0 – 4.

Note: Variables (Graham and Harvey, 2001):

- We issue debt when our recent profits (internal funds) are not sufficient to fund our activities.
- Using debt gives investors a better impression of our firm's prospects than issuing stock.
- We issue debt when interest rates are particularly low.
- We use debt when our equity is undervalued by the market.
- We delay issuing debt because of transactions costs and fees.
- We delay retiring debt because of recapitalization costs and fees.
- Changes in the price of our common stock.
- We issue debt when we have accumulated substantial profits.

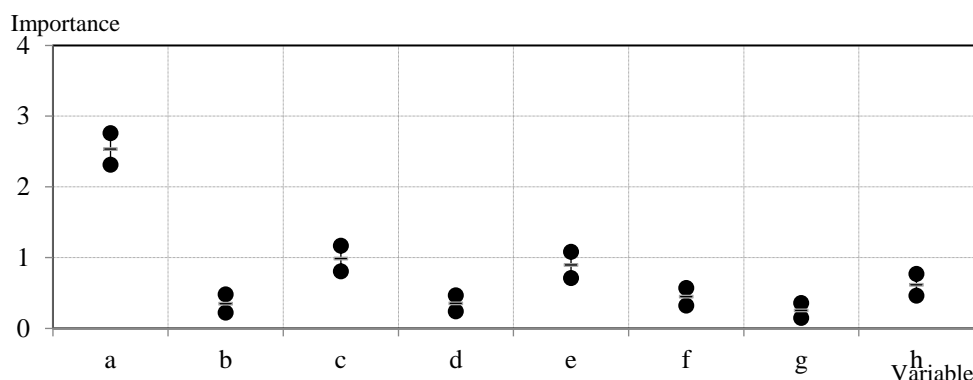


Figure 8. Other Factors Affecting a Firm's Debt Policy

Source: Authors' results

It is evident in figure 8 that the most significant other factor affecting a firm's debt policy is expressed by the statement "a) We issue debt when our recent profits (internal funds) are not sufficient to fund our activities".

The analysis of variance ANOVA was used to assess the impact of business legal form, industrial sector, company size and origin of capital on responses to the question about other factors affecting a firm's debt policy.

Table 4

ANOVA: other factors affecting a firm's debt policy

	Legal Form		Industry		Size		Foreign capital	
	F	CI	F	CI	F	CI	F	CI
a	4.540	0.012	0.099	0.754	0.845	0.359	0.001	0.975
b	1.860	0.159	0.548	0.460	0.582	0.447	0.624	0.431
c	4.420	0.013	0.963	0.328	2.135	0.146	1.198	0.275
d	2.199	0.114	0.154	0.696	2.781	0.097	5.389	0.021
e	0.983	0.376	2.614	0.108	0.002	0.966	0.433	0.511
f	2.396	0.094	0.062	0.804	0.000	0.987	0.842	0.360
g	5.273	0.006	2.682	0.103	2.339	0.128	6.517	0.012
h	2.471	0.088	3.827	0.052	0.028	0.867	0.333	0.565

Source: Authors' results

The variables by means of which ANOVA identified the impact of the classifying factor on the composition of responses ($\alpha \leq 0.05$) were further analysed to verify this impact. The Wilcoxon signed-rank test was also used for the null hypothesis verification ($H_0: \mu_1 = \mu_2$).

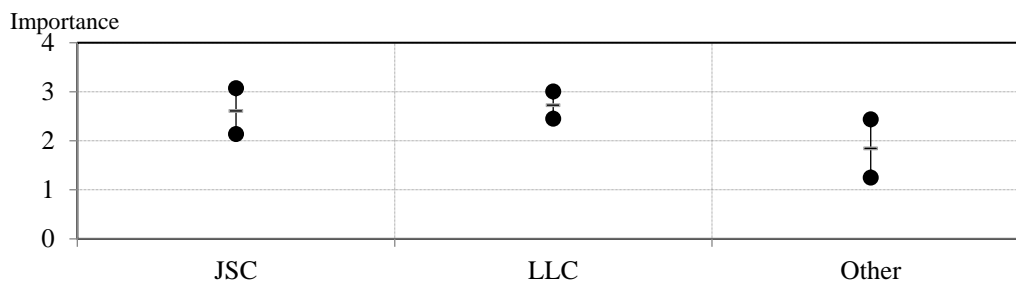


Figure 9. Impact of Legal Form of Business on the Importance of Variable "a"

Source: Authors' results

The average value analysis of the importance of variable “a) *We issue debt when our recent profits are not sufficient to fund our activities*” according to the legal form of business confirmed the ANOVA conclusions. Statistically significant differences were found in the average values of importance between the legal form of limited liability company (LLC) and other forms, as was demonstrated by the Wilcoxon signed-rank test of average values ($p\text{-value} \leq 0.007$). A statistically indefinite relationship was found between the legal form of JSC and others ($p\text{-value} \leq 0.049$). The importance of factor “we issue debt when profits are not sufficient” is considered as very important by both joint-stock and limited liability companies with average scores between 2 and 3.

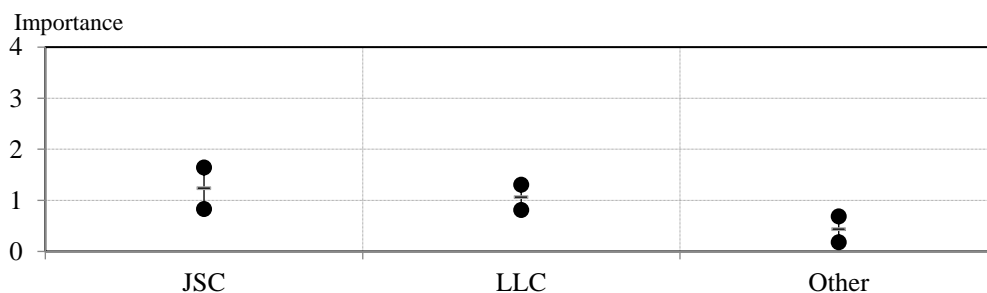


Figure 10. Impact of Legal Form of Business on the Importance of Variable “c”

Source: Authors’ results

The ANOVA conclusions were confirmed; statistically significant differences were found between the average values of the importance of variable “c) *We issue debt when interest rates are particularly low*” for other legal forms of business and the remaining group of companies, comprising joint-stock and limited liability companies ($p\text{-value}_{\max} \leq 0.02$). The moderate importance of factor “we issue debt when interest rates are low” was found by both joint-stock and limited liability companies with average scores between 1 and 2.

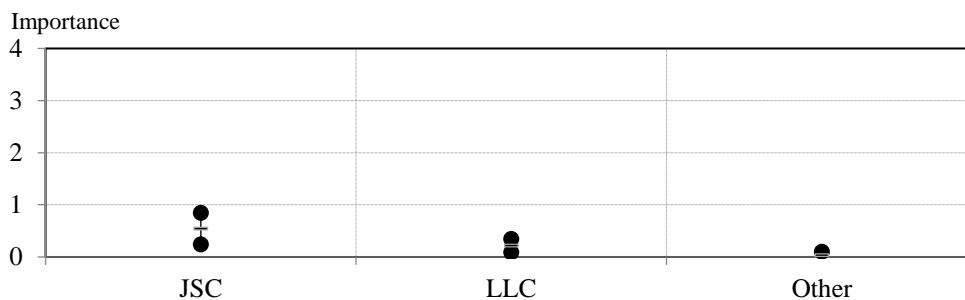


Figure 11. Impact of Legal Form of Business on the Importance of Variable “g”

Source: Authors’ results

The ANOVA conclusions were also confirmed; statistically significant differences were found between the average values of the importance of variable “g) *Changes in the price of our common stock*” for other legal forms of business and joint-stock companies ($p\text{-value}_{\max} \leq 0.002$). The importance of “changes in the price of common stock” was not seen as important by the joint-stock and limited liability companies as the importance of above-mentioned factors c and g (average values of factor g were between 0 and 1).

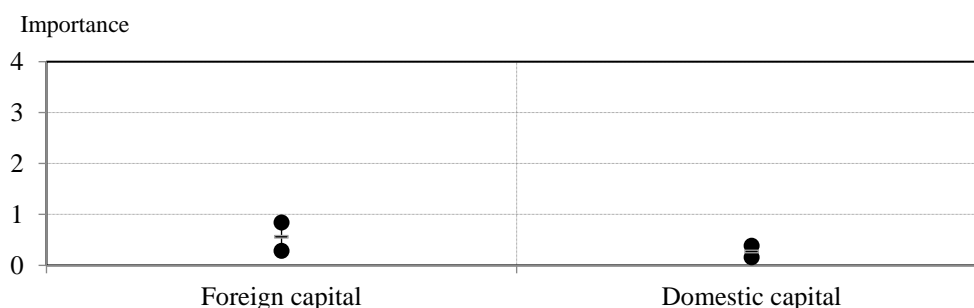


Figure 12. Impact of Capital Origin on the Importance of Variable “d”

Source: Authors' results

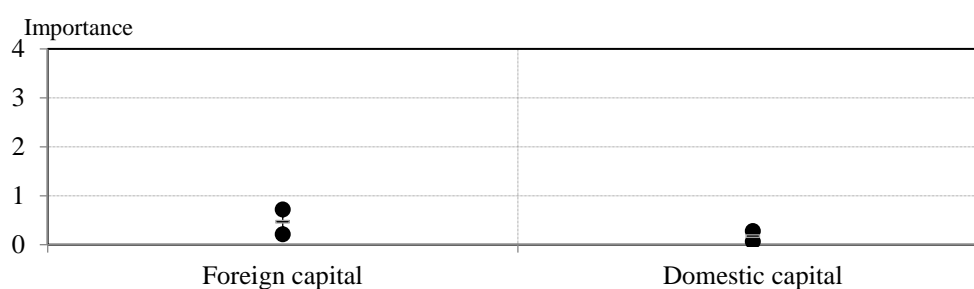


Figure 13. Impact of Capital Origin on the Importance of Variable “g”

Source: Authors' results

The conclusions of ANOVA were confirmed. The average values of importance of variables “d) *We use debt when our equity is undervalued by the market*” and “g) *Changes in the price of our common stock*” are statistically significantly different for companies owned by foreign capital in comparison to companies owned by domestic capital, as demonstrated the Wilcoxon signed-rank test of average values ($p\text{-value} \leq 0.027$, $p\text{-value} \leq 2.2 \times 10^{-16}$ respectively). However, the average scores of the importance of both factors came under 1 by companies owned by domestic and foreign capital.

5. CONCLUSION

The study is based on an empirical investigation in the Czech Republic, and the use of some of the questions from the questionnaire created by Graham and Harvey focused on corporate debt policy.

Statistical analysis revealed several differences in responses to debt-policy questions according to the legal form of business, the industrial sector, the company size and the origin of capital (domestic or foreign). Statistically significant differences were found in the average values of importance of four factors affecting the appropriate amount of debt assessed according to the legal form of business (credit rating, volatility of earnings and cash flows, limitation of debt because of customers/suppliers, and borrowing restrictions based on an effort to avoid interest payments to debtholders), one factor according to the industrial sector (potential costs of bankruptcy), and one factor according to the company size (credit rating). No significant difference was found according to the capital origin in responses to question concerning the appropriate amount of debt; however, this does not apply to the other factors affecting a firm's debt policy, where ANOVA identified two factors (the use debt when equity is undervalued by the market, and the changes in the price of common stock). Other statistically significant differences in the average values of importance of factors affecting firm's debt policy were dependent on the legal form of business (three factors specifically: issue of debt when internal funds are not sufficient to fund activities

of a company, issue of debt when interest rates are particularly low, and the changes in the price of common stock).

This research has shown that the most important factor affecting the choice of the appropriate amount of debt for the sample firms (with an overall rating of 1.71) was financial flexibility. It was slightly more important for small and medium-sized enterprises, from the retail and wholesale business sector, with the legal form of a joint-stock company. As the second most important factor was identified the volatility of a firm's earnings and cash flows (rating 1.36). This factor was more important for SME, firms from manufacturing industries, and firms with the legal form of a JSC. Also moderately important were the transaction costs and fees for issuing debt (rating 1.33). This factor was more important for large-sized companies, companies from the retail and wholesale business sector with the legal form of a joint-stock company.

On the basis of evaluation of average responses, it can be stated that the influence of the other factors which affect the firm's debt policy was perceived by respondents as less important. This can be deduced from the fact that the majority of the factors were evaluated with a mean score of less than 1. For deciding debt policy, the most important factor was an insufficiency of recent profits (internal funds) (rating 2.54), which supports the conclusions of the pecking-order theory (firms do not target a specific debt ratio, but instead use external financing only when internal funds are insufficient). The distribution of answers to this question, according to company size, business sector and legal form, is balanced across all categories.

This research has naturally its limits, especially in the number of surveyed companies; nevertheless it can be regarded as a set of a great magnitude. Potential biases and measurement problems are also often associated with survey data from questionnaires. Despite the limitations this contribution brought an important empirical contribution to literature in the area of the Czech Republic, and to international literature as well, as it provides data for cross-country comparison. Results of this study are at the same time relevant for firm managers and policy makers. In the Czech Republic, government should pay an increased attention to access to external financing of small and medium-sized firms on banking and capital markets. In the future, this research might be expanded to more CEE countries (Poland, Slovakia, Hungary).

REFERENCES

- Archbold, S., & Lazaridis, I. (2010). Capital structure decisions and decision making: survey evidence from the UK and Greece. In: *Seventeenth Annual Conference of the Multinational Finance Society*. Spain: Barcelona.
- Bancel, F., & Mittoo, U. R. (2004). Cross-Country Determinants of Capital Structure Choice: A Survey of European Firms. *Financial Management*, 33(4), 103-132. Available at SSRN: <https://ssrn.com/abstract=594781>
- Benetti, C., & Decourt, R., & Terra, P. (2007). The practice of corporate finance in Brazil and in the USA: comparative survey evidence. *Anais: VII Encontro Brasileiro de Finanças. São Paulo*.
- Brounen, D., de Jong, A., & Koedijk, K. (2006). Capital structure policies in Europe: Survey evidence. *Journal of Banking*. 30(5), 1409-1442.
- Cwynar, A., Cwynar, W., & Dankiewicz, R. (2015). Studies of Firm Capital Structure Determinants in Poland: an Integrative Review. *Financial Internet Quarterly "e-Finance"*, 11(4), 1-22. doi: 10.14636/1734-039X_11_4_001
- Dvorský, J., Schönfeld, J., Kotásková, A., & Petráková, Z. (2018). Evaluation of important credit risk factors in the SME segment. *Journal of International Studies*, 11(3), 204-216. doi:10.14254/2071-8330.2018/11-3/17
- Graham, J. R., & Harvey, C. R. (2001). The theory and practice of corporate finance: evidence from the field. *Journal of Financial Economics*. 60(2-3), 187-243.
- Khan, M. Y. & Jain, P. K. (2007). *Basic Financial Management*. New Delhi: Tata McGraw-Hill Education.

- Ključnikov, A., & Belás, J. (2016). Approaches of Czech Entrepreneurs to Debt Financing and Management of Credit Risk. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 11(2), 343-365. doi: <http://dx.doi.org/10.12775/EQUIL.2016.016>
- Kohli, A. & Sharma, J. K. (2015). Survey of Corporate Financial Behavior of Indian MNCs. *International Journal of Finance & Accounting Studies*. 3(1), 12-27. doi:10.7575/aiac.ijfas.v.3n.1p.12
- Kozubíková, L., Belás, J., Bilan, Y., & Bartoš, P. (2015). Personal characteristics of entrepreneurs in the context of perception and management of business risk in the SME segment, *Economics and Sociology*, 8(1), 41-54. doi: 10.14254/2071- 789X.2015/8-1/4
- Krauseová, J. (1995). Analýza kapitálové struktury českých firem. *Finance a úvěr*. 45(9), 481-491.
- Landa, M., & Martinovičová, D. (2010). Přístupy k hodnocení změn kapitálové struktury průmyslových odvětví. *Acta Universitatis agriculturae et silviculturae Mendelianae Brunensis*. 58(6), 259-267.
- Mateev, M., Poutziouris, P., & Ivanov, K. (2013). On the determinants of SME capital structure in Central and Eastern Europe: A dynamic panel analysis. *Research in International Business and Finance*, 27, 28-51. doi: <https://doi.org/10.1016/j.ribaf.2012.05.002>
- Miller, M. H., & Modigliani, F. (1958). The Cost of Capital, Corporation Finance, and the Theory of Investment. *American Economic Review*, 48(3) 261-297.
- Neumaierová, I., & Neumaier, I. (1996). Úvaha o optimální zadluženosti. *Finance a úvěr*. 46(1), 51-61.
- Prášilová, P. (2012). Determinanty kapitálové struktury českých podniků. *E M. Ekonomie a Management: Economics and Management*. 15(1), 89-104.
- Ruslan, A., Hájková, D., & Kubíková, I. (2015). The Impact of Monetary Policy on Financing of Czech Firms. *Finance a úvěr*. 65(6), 455-476. Available at SSRN: <https://ssrn.com/abstract=2856957>
- Steklá, J., et al. (2015). Evaluation of Capital Structure of Agricultural Cooperatives. *Agris on-line Papers in Economics and Informatics*. 7(3), 37-48.
- Strýčková, L. (2017). The practice of capital structure choice in the Czech Republic: A comparative study based on the global data. *Journal of International Studies*, 10(2), 185-203. doi:10.14254/2071-8330.2017/10-2/14