CAPITAL STRUCTURE AND CORPORATE GOVERNANCE: EVIDENCE FROM EASTERN EUROPEAN LISTED COMPANIES

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Abstract: The goal of this paper is to investigate the relationship between corporate governance quality and capital structure of a firm. Survey sample consists of 799 listed companies in 9 Eastern European countries. OLS regression is done with book and market leverage as dependent variables and a corporate governance index constructed by the authors serves as the main explanatory variable. Other control variables, mostly positions and ratios from financial statements, are also used. The regression models with market leverage as dependent variable have larger explanatory power than models with book leverage. The results of the survey reveal negative relation between corporate governance index and market leverage, which means the higher level of corporate governance, the lower level of debt. Other existing empirical findings from other countries show various conclusions – some similar, some – contrary to this survey, and some have inconclusive results.

Key words: corporate governance, debt, book leverage, market leverage, Eastern Europe

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Introduction

In recent decades, corporate governance issues become more and more important and discussed in stock valuation. It is said better corporate governance can add to firm's market value. Also, level of leverage may significantly influence the view how the equity-holders see company's value and riskiness. A company’s capital structure is the proportional combination of equity and debt that is used to finance its business activities. It is possible to choose a particular level of debt in the capital structure at which company’s value is maximized and the financing cost (WACC – weighted average cost of capital) is minimized. Because debt limits managerial flexibility (Jensen, 1986), a particular focus of the research has been on the importance of managerial objectives in financing decisions. (Morellec, 2010). Thus, corporate governance is viewed as a broad discipline that influences profitability and value of companies, and an instrument to obstruct agency conflicts. Because corporate governance is designed to align the managers’ interest with shareholders’, a well-functioning corporate governance system would make the manager move leverage toward the shareholders’ desired

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level rather than toward their own desired level (Liao, 2015). Firms with weak governance may render their companies safe by adopting more conservative investment policies (e.g., John et al. 2008; John, 2010).

There are various studies seeking the interrelation between corporate governance and capital structure. Nevertheless, only few of them include the broad spectrum of corporate governance issues, e.g. Jiraporn et. al base their study on corporate governance standards of Institutional Shareholder Services which include 51 factors divided in 8 corporate governance categories: audit, board of directors, charter (bylaws), director education, executive and director compensation, ownership, progressive practices, and state of incorporation (Jiraporn, 2012).

Board independence is viewed as a crucial factor for effective monitoring of management (Liao, 2015). Thus, for good corporate governance, the separation between CEO and board chairman and a high proportion of independent directors are recommended.

Morellec, Nikolov, and Schurhoff (2012) find that, on average, managerial delta is positively associated with the manager’s private benefits of control, concluding that the entrenchment effect outweighs the incentive effect. The empirical evidence also shows inverse relationship between leverage use and governance quality (Jiraporn et.al. 2012) – firms with weaker governance are significantly more leveraged.

Institutional and cultural specificities may affect financing policy and capital structure so dramatically that systematic differences across countries might exist (Gaud, 2010). This explains different and sometimes contrary results of various studies using different geographical samples. Country-specific factors may have explanatory power similar to or even greater than that of the company’s industry affiliation in determining a company’s capital structure. Tradition, tax policy, and regulation may largely explain the different degrees of leverage in the two countries. (Fan, Titman, and Twite, 2004). Companies in developed markets typically use more long-term debt compared to companies operating in emerging markets. Internationally, factors that explain most capital structure differences are institutional and legal system, size, liquidity and activity of capital markets, and overall economic environment.

Motivation for this study was driven by the fact that, so far, there are no such broad studies about the relationship between corporate governance quality and capital structure in Eastern European countries.

Literature Review

A broad scientific discussion regarding the capital structure began with Modigliani-Miller (MM) theory in late 50-ties. Although many of the assumptions of Modigliani and Miller are empirically unrealistic, their theory provides the basis for thinking about and analyse capital structure as such. MM theory uses the concept of arbitrage and argues that, taking into account the assumptions (MM theory assumptions: homogenous expectations; no taxes; no transaction costs; no
bankruptcy costs; perfect information; financing at risk-free rate; no agency costs and independent financing decision (Modigliani, Miller, 1958)), the total market value of a firm is independent of its capital structure, but only in no-tax case (MM Preposition I without taxes (MM Proposition I: The market value of a company is not affected by the capital structure of the company (if no-tax assumption holds))). Here, managers cannot create company’s value by simply changing its capital structure, as the value is solely determined by its cash flows.

According to MM Preposition II without taxes (The cost of equity is a linear function of the company’s debt-to-equity ratio (MM Proposition II without taxes, it states that higher financial leverage raises the cost of equity)), the cost of equity increases to offset the increased use of comparatively cheaper debt (due to having the prior claim to assets and income) in order to maintain a constant WACC. Adding leverage does increase the risk faced by the shareholders (holders of equity). In such a case, shareholders seek compensation by requiring a higher return for this extra risk. Basically, shareholders bear two types of risk – business risk concerning business operations, and financial risk related to the degree of financial leverage.

Tax regimes may affect capital structure via the tax shield, and add to company value (MM Proposition I with taxes) and decrease cost of equity (MM Proposition II with taxes) (Modigliani & Miller, 1963). However, Miller (1977) shows that once personal taxes are taken into account, depending on the tax rates involved, debt may add little value, if any, to the firm.

In practice, the value of a levered company is affected by other important factors, such as cost of financial distress and asymmetric information, and agency costs. These issues give basis for the research developed in other theories – agency, static trade-off and pecking order theories.

Since the early 70-ties, agency theory has been developed. It posits that agency costs influence capital structure decisions. Additional risk related with increase in debt (and thus bankruptcy risk) is to be assumed to motivate managers to reduce the agency costs and increase efficiency. According to agency theory, because leverage imposes constraints on managerial discretion, managers might be motivated to adopt sub-optimal leverage (Jiraporn et.al. 2012). Managers issue less debt and restructure less frequently than is optimal for shareholders. The greater the severity of agency conflicts, the lower is the manager’s desired leverage level, and the slower it moves toward the shareholders’ desired level (Ryoonhee, 2011).

Michael Jensen’s free cash flow hypothesis states that higher level of debt disciplines firm managers to manage the company efficiently so it can make enough interest and principal payments to the debtholders. Additionally, the company’s free cash flow (According to M. Jensen, free cash flow is cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital) is reduced. That diminishes management’s opportunities to misuse cash (Jensen, 1986). This effect appears to be even stronger in the emerging markets (Harvey, Lins, Rooper, 2004). From the
other side, the level of debt becomes a governance device due to informational asymmetries and divergences in the utility functions of stakeholders (Gaud, 2007). Harvey et al. (2004) find that actively monitored debt (syndicate loans) benefits firms with high expected managerial agency costs (John, 2010). Providers of both debt and equity capital demand higher returns from companies with higher asymmetry in information because they have a greater likelihood of agency costs. Companies with comparatively high asymmetry in information are those with complex products like high-tech companies, companies with little transparency in financial accounting information, or companies with lower levels of institutional ownership.

According to agency theory, key characteristics of the firm that represent agency costs affect leverage and managerial compensation in opposite directions (Ryoonhee, 2011).

The traditional view of the optimal capital structure is that a firm should increase the portion of debt until its WACC is minimized, and therefore its enterprise value is maximized. However, there is a trade-off between the incremental tax benefits and increasing bankruptcy risks (Duff, Phelps, 2016). The static trade-off theory is related to determining optimal capital structure, and its main idea is that there is a point beyond which effects of increasing financial leverage are offset by the value reducing effects. At the point of optimal capital structure, the value of the company is maximized. The value enhancing effect is the effect from tax deductibility of interest. The value reducing effects are costs of financial distress or bankruptcy; agency costs of debt, and asymmetric information.

The static trade-off theory is contrary to Modigliani and Miller Proposition I and II without tax of no optimal capital structure. Nevertheless, the optimum level varies for each firm depending on its business risk, taxation policy, and corporate governance.

The optimal financing policy consists in making adjustments toward the target debt level provided that deviation costs exceed adjustment costs (Gaud, 2007). According to the static trade-off theory, a firm maximizes the wealth of its shareholders when its capital structure reaches the optimal level via a trade-off of tax benefits against financial distress costs of debt. Any deviation from optimal leverage should be removed quickly (Liao, 2015).

Pecking order theory, developed by Myers and Majluf (1984), suggests that the financing choice of managers depends on information content preference, from lowest (most preferable) to highest (least preferable). Accordingly, managers prefer internal financing the most, then debt, then equity. The second criterion that influences issuance of equity is stock value – managers tend to issue equity when they believe the stock is overvalued and vice versa.

A study of micro, small and medium-sized companies in Central and Eastern Europe has found strong evidence in favour of the pecking order theory. However, the theory works better for larger companies more often having enough internal capital to fund their investment projects (Mateev, Poutziouris, Ivanov, 2013).
Results of the research of Gaud, et.al. (2007) indicate that neither a simple pecking order model nor a simple trade-off model is sufficient in understanding financial policy; they also highlight that agency and timing issues impact upon capital structure. They document that the financing process is complex and dynamic. In terms of debt ratios, they find that firms constrain themselves to an upper barrier only (Gaud, 2007).

The remainder of the article is organized as follows. In Section 3, sample selection and methodology is presented. Section 4 introduces the results concerning descriptive statistics and correlations. Section 5 presents the OLS regression results of data analysis. Finally, Sections 6 and 7 contain concluding remarks and discussion respectively.

Methodology

The original sample includes cross-sectional data from listed companies from Eastern-European countries (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovak Republic) in 2016. Before trimming the survey sample consisted of 1,676 firms. Data from several sources of information were used the financial data came mainly from Thomson Reuters database but unfortunately they do not have enough data regarding corporate governance in the companies from the selected countries. Some financial figures were missing as well. Thus, the authors manually gathered the corporate governance (CG) information from individual homepages of each company. Use longer time frame was also considered, but due to limited availability of CG data it was not possible. Financial institutions and companies were excluded from the sample as due to their work specifics and special regulation their leverage cannot be interpreted in the same way as for firms operating in other industries. Also, firms lacking data for the survey were excluded (data were not available neither on Thomson Reuters database, nor individual homepage). After trimming, the survey sample comprises data from 799 firm observations.

The dependent variable in the survey is leverage, measured by book leverage (BL, i.e., the book value of total liabilities to value of total assets at the end of the current fiscal year) and market leverage (ML, i.e., the book value of total liabilities to market value of assets at the end of the current fiscal year. We calculate market value of assets by book value of assets minus book value of equity plus market value of common equity plus preferred stock if such exists). The independent variable is corporate governance, measured by CG index. As was already mentioned, gathering corporate governance data was very time and labour intensive. For most companies the information was not offered by Thomson Reuters platform. Thus, the information had to be found in individual homepages of the selected companies. Data items were limited to such variables as whether CEO-chairman separation (CEO_SEP) exists (dummy variable: if separation exists, a company gets 1, if not – 0); number of board members; and number of independent board members (N_IND).
In order to measure corporate governance, the idea applied in other surveys (see, for example, Briano-Turrent and Poletti-Hughes, 2017; John 2010; Chung et. al., 2010; Brown and Caylor 2006; Gompers et al. 2003) was used, and the authors of this article constructed their own simplified corporate governance index (CG index):

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CG \text{ index} = 0.5 \times \text{CEO chairman separation variable} + 0.5 \times \text{proportion of independent Board members}
\]

Based on existing empirical research regarding capital structure, some control variables were used in this survey:
- natural logarithm of assets (LN_A) as a proxy for firm size;
- fixed assets ratio (FAR); book value of property plant and equipment to assets is used to proxy for tangible assets;
- EBIT ratio (EBIT) for profitability and operating performance (earnings before interest and tax to total revenue). In order to avoid highly extreme values due to negligible amount of revenue and existing (positive or negative) profit, EBIT ratio values greater than ±10 were excluded;
- in order to correct leverage measures for cash, variable of cash to total assets (C/A) was added in the set of explanatory variables. It is the ratio of natural logarithm of cash and cash equivalents to total assets;
- as an explanatory variable to proxy for non-debt tax shield, the ratio of depreciation and amortization (D&A) to book value of total assets (DA/A) was included. According to Jiraporn et.al. 2012, firms with lower non-debt tax shield are expected to have lower levels of debt;
- dividend payout ratio (DPR), as dividends often influence firm’s leverage choice;
- research and development expenses (R&D), if these expenses are missing, the item is recorded as 0;
- price-to-earnings ratio (P/E), calculated by stock price divided by earnings per share.

**Descriptive statistics and Correlations**
Table 1 shows the descriptive statistics (number and share of firms in the sample and mean values of the selected ratios) of industry distribution by the sample. Both leverage ratios and the CG index by industry were analysed. The healthcare industry has the lowest level of book and market leverage, and it represents 5% of the total sample, while industrials and consumer non-cyclicals have the highest levels of market and book leverage respectively. Concerning governance index, the technology sector has the strongest governance and consumer non-cyclicals – the weakest as measured by the CG index.
Table 1. Sample Descriptive Statistics by Industry

| Industry                | N   | % of sample | Market leverage | Book leverage | CG index |
|-------------------------|-----|-------------|-----------------|---------------|----------|
| Basic Materials         | 108 | 13.5        | 0.537           | 0.237         | 0.695    |
| Consumer Cyclicals      | 195 | 24.4        | 0.464           | 0.319         | 0.709    |
| Consumer Non-Cyclicals  | 97  | 12.1        | 0.495           | 0.322         | 0.609    |
| Energy                  | 37  | 4.6         | 0.500           | 0.219         | 0.616    |
| Healthcare              | 40  | 5.0         | 0.317           | 0.155         | 0.717    |
| Industrials             | 210 | 26.3        | 0.568           | 0.233         | 0.677    |
| Technology              | 61  | 7.6         | 0.397           | 0.227         | 0.834    |
| Telecommunications Services | 15 | 1.9         | 0.468           | 0.232         | 0.728    |
| Utilities               | 36  | 4.5         | 0.511           | 0.200         | 0.777    |
| Total                   | 799 | 100.0       | 0.496           | 0.284         | 0.699    |

Table 2 presents number and share of firms in the sample and mean values of selected ratios by country. The authors find the lowest market and book leverage ratios in Czech Republic and Latvia, while the highest – in Slovak Republic and Hungary respectively. The strongest governance scores are found in Poland and Estonia; the weakest – in Bulgaria and Romania. This partially may be explained by the fact that Polish and Estonian listed companies have the highest level of CEO-chairman separation variable, while many Bulgarian and Romanian firms still operate under one-tier management system, thus not having separate management and supervisory boards. For example, Nedelchev mentions that although the country legislation has provided a choice between a one-tier and a two-tier system of governance, in practice, the one-tier system is preferred by state-owned companies and listed companies. The two-tier system – by foreign-owned companies and by financial intermediaries (Nedelchev, 2017).

Table 2. Sample Descriptive Statistics by Country

| Country                | N   | % of sample | Market leverage | Book leverage | CG index |
|-------------------------|-----|-------------|-----------------|---------------|----------|
| Bulgaria                | 152 | 19.0        | 0.556           | 0.240         | 0.289    |
| Czech Republic          | 10  | 1.3         | 0.393           | 0.191         | 0.723    |
| Estonia                 | 14  | 1.8         | 0.439           | 0.206         | 0.875    |
| Hungary                 | 28  | 3.5         | 0.524           | 0.405         | 0.557    |
| Latvia                  | 26  | 3.3         | 0.550           | 0.176         | 0.755    |
| Lithuania               | 25  | 3.1         | 0.477           | 0.230         | 0.682    |
| Poland                  | 428 | 53.6        | 0.460           | 0.281         | 0.905    |
| Romania                 | 103 | 12.9        | 0.534           | 0.223         | 0.451    |
| Slovak Republic         | 13  | 1.6         | 0.682           | 0.365         | 0.684    |
| Total                   | 799 | 100.0       | 0.496           | 0.284         | 0.699    |
Table 3 summarizes descriptive statistics of the total sample – mean values; standard deviation; minimum, maximum values; and we also split the sample observations by quartiles. On average, companies have 4-5 board members and most of them are independent. Also, about 2/3 of the sample companies have separate CEO and Board Chairman. The average book leverage or book debt ratio for the sample is 4.3% while average market leverage or market debt ratio is 49.62%. On average, the sample companies have 27.6 million euros in assets. Average proportion of fixed assets comprises 35.7% of total assets. Mean profitability in terms of EBIT ratio is 16.4% (the sample results were adjusted for this ratio and minimum and maximum values for this ratio were set ±10).

| Variable                  | Mean  | St.dev. | Min. | 25 | 50  | 75 | Max  |
|---------------------------|-------|---------|------|----|-----|----|------|
| Board size                | 4.36  | 2.561   | 0.00 | 3.00 | 5.00 | 6.00 | 18.00 |
| N_IND                     | 3.96  | 2.486   | 0.00 | 2.00 | 5.00 | 5.00 | 16.00 |
| CEO separat.              | .633  | .4822   | 0.00 | 0.00 | 1.00 | 1.00 | 1.00  |
| CG index                  | .69873| .39675  | 0.00 | .3333 | 1.00 | 1.00 | 1.00  |
| Book leverage             | .54304| 8.0649  | 0.00 | .02665 | .15767 | .30296 | 227.251 |
| Market leverage           | .49624| 2.8751  | 0.00 | .25593 | .49055 | .72625 | 1.000  |
| Ln(Assets)                | 17.135| 2.193   | 7.372| 15.829 | 17.201 | 18.449 | 23.876 |
| Fixed assets ratio        | .35726| .56009  | 0.00 | 0.00 | .03767 | .6223 | 6.337 |
| EBIT ratio                | -.164 | 1.601   | -10.00| 0.00 | .0564 | .139 | 10.00 |
| D&A/Assets                | .03554| .0479   | 0.00 | .00909 | .02561 | .04605 | .676  |
| Payout ratio              | .20824| 2.0545  | -7.988| 0.00 | 0.00 | 0.00 | 50.757 |
| C/A                       | -3.811| 1.967   | -12.377| -4.761 | -3.521 | -2.460 | 0.000 |
| R&D (Mil. EUR)            | 13.729| 27.636  | 0.00 | 55.435 | 761.286 | 8.595 | 113.926 |
| P/E ratio                 | -23.9 | 1.426.9 | -36.631.6 | 0.9 | 8.5 | 16.8 | 13.528.8 |

Table 4 shows the Pearson correlation matrix for the dataset variables. It reveals that CEO separation highly correlates with number of independent board members which reveals that companies that evaluate high corporate governance standards try to comply with at least several of them. The data in the table also reveal that both book and market leverage have low level of correlation with the other selected variables in the sample.
Table 4. Pearson Correlation Matrix for the key variables in the sample (N=799)

|        | B_size | N_IND | CEO_SEP | BL | ML | CG index | Ln_A | FAR | EBIT | DA/A | DPR |
|--------|--------|-------|---------|----|----|----------|------|-----|------|------|-----|
| B_size | 1      |       |         |    |    |          |      |     |      |      |     |
| N_IND  | .942* | 1     |         |    |    |          |      |     |      |      |     |
| CEO_SEP| .441* | .569* | 1       |    |    |          |      |     |      |      |     |
| BL     | .004  | .011  | .025    | 1  |    |          |      |     |      |      |     |
| ML     | -.164 | -.160 | -.151   | .081*| 1  |          |      |     |      |      |     |
| CG index| .581*| .705* | .949*   | .024| -.172 | 1     |      |     |      |      |     |
| Ln_A   | .461* | .428* | .246*   | -.097*| .011| .288*   | 1    |     |      |      |     |
| FAR    | .276* | .257**| .135**  | -.015| -.016| .157**  | .348**| 1   |      |      |     |
| EBIT   | .047  | .019  | -.071** | -.005| -.057| -.063   | .142**| .025| 1    |      |     |
| DA/A   | .078  | .095**| .056    | -.002| -.022| .068    | -.056| .274*| -.061| 1    |     |
| DPR    | .113* | .103**| -.010   | -.005| -.035| .011    | .123**| .093*| -.020| -.028| 1    |
| C/A    | .113* | .111**| .115**  | .055 | -.223*| .113*   | -.019| -.200| -.021| .045*| .051 |
| R&D    | .083* | .082* | .045    | -.004| .057 | .047    | .103**| .038 | .013 | .012 | .010 |
| P/E    | .058  | .076* | .060    | .000 | .054 | .083*   | .125**| .026| -.014| .003 | .048 |

*, Correlation is significant at the 0.05 level (2-tailed) **. Correlation is significant at the 0.01 level (2-tailed).

Abbreviations: B_size – board size; N_IND – number of independent board members; CEO_SEP – CEO separation; BL – book leverage; ML – market leverage; CG index – corporate governance index; Ln_A – natural logarithm of total assets; FAR – fixed assets ratio; EBIT – EBIT ratio; DA/A – depreciation and amortisation to total assets ratio; DPR – dividend payout ratio; C/A – cash and cash equivalents to total assets ratio; R&D – research and development expense; P/E – stock price to earnings per share ratio.

Regression Results

Next, regression of leverage ratios – book and market leverage – on a set of explanatory variables was accomplished. In table 5, the CG index serves as the main explanatory variable together with other selected control variables. The regression models with book leverage as dependent variable have little explanatory power and CG index coefficient value is not significantly different from zero. In Model 2, the natural logarithm of assets variable is significant. Nevertheless, testing the significance of the regression as a whole, the F test values indicate that we cannot reject the null hypothesis of model variables being jointly equal to zero at 0.05 probability level.

At the same time, regression models with market leverage as dependent variable have larger explanatory power. In all of them CG index value is significantly different from zero and the coefficients are negative, indicating that the higher level of corporate governance, the lower will market leverage be. According to F-test values, we can reject the null hypothesis regarding all independent variables being jointly equal to zero. Natural logarithm of assets in models 5 and 6 has positive influence on market leverage, while EBIT ratio in models 5 and 6, and cash to assets ratio in model 7 affect market leverage negatively.
Table 5. OLS Regression Results with Book Leverage and Market Leverage as Dependent Variables (N=799), Unstandardized Coefficients

| Model | 1                  | 2                | 3                  | 4                  | 5                | 6                | 7                | 8                  |
|-------|--------------------|------------------|--------------------|--------------------|------------------|------------------|------------------|--------------------|
| (Y)   | Depend. variable - |                  |                    |                    | Depend. variable - |                    |                    |                    |
|       | book leverage      |                  |                    |                    | market leverage   |                    |                    |                    |
| Const | .201 (.578)        | 8.591 (2.552)    | 1.184 (.886)       | .256 (.621)        | .400 (.083)       | .405 (.086)       | .290 (.087)       | .583 (.020)        |
| CG index | .490 (.720) | 1.041 (.771)    | .419 (.748)        | .552 (.743)        | -.145 (.027)      | -.143 (.027)      | -.122 (.026)      | -.124 (.025)       |
| Ln_A  | -.468 (.151)       |                 |                    |                    |                  | .012 (.005)       | .011 (.005)       |                    |
| FAR   | -.229 (.545)       | -.276 (.544)     | -.005 (.019)       | -.001 (.020)       | -.006 (.020)      |                  |                    |                    |
| EBIT  | -.010 (.185)       | -.014 (.006)     | -.018 (.006)       |                    |                  |                  |                    |                    |
| DA/A  | .200 (6.275)       | -.013 (.141)     | -.006 (.005)       | -.006 (.005)       | -.004 (.005)      |                  |                    |                    |
| DPR   | .014 (.141)        | -.013 (.141)     | -.006 (.005)       | -.006 (.005)       | -.004 (.005)      |                  |                    |                    |
| C/A   | .198 (.148)        | .218 (.149)      |                    |                    |                  | -.029 (.005)      |                  |                    |
| R&D   | 5.986 (53.84)      | -9.172 (53.91)   | -7.053 (53.93)     |                    | -.2608 (1.829)    |                  |                    |                    |
| P/E   | .000 (.000)        | .000 (.000)      | .000 (.000)        | .000 (.000)        |                  |                  |                    |                    |
| R     | .024 (.001)        | .0125 (.004)     | .061 (.006)        | .031 (.008)        | .204 (.035)       | .213 (.037)       | .297 (.078)       | .172 (.028)        |
| Adj. R² | -.001 (.000) | -.006 (.000)     | -.008 (.000)       | .035 (.035)        | .534 (.053)       | 8.41 (0.003)      | 24.132 (0.10)     |
| F     | .463 (.497)        | 1.391 (.0188)    | .365 (.939)        | .110 (.998)        | .6855 (.000)      | 5.341 (0.000)     | 8.41 (0.000)      | 24.132 (0.000)     |

Discussion

Modigliani and Miller in 50-ties raised the question regarding optimum leverage level and its effect on firm value. Today, this theory has been developed further and one of the aspects is to investigate leverage relation with corporate governance standards. Many other theories are interrelated with this issue, such as agency theory, pecking order theory and static trade-off theory. Nevertheless, no theory completely and conclusively reveals the evidence regarding the research problem. As in most countries loan repayments and interest are tax-deductible, many companies are seeking for optimal proportion of debt and equity financing. This paper investigates how corporate governance affects firm's capital structure in the listed companies of Eastern European countries. Using regression analysis, we find that corporate governance affects market leverage ratio negatively in the selected sample of 799 listed companies in Eastern Europe. It means that higher level of corporate governance gives lower level of debt.
The results of other recent empirical studies reveal various outcomes. Companies with poor level of governance are significantly more leveraged (Jiraporn et al., 2012). Liao et al. find that managerial incentive compensation can discourage moving towards optimal level of debt by management, and they call it entrenchment effect (Liao et al., 2015). At the same time, a study of listed non-financial firms in Pakistani finds positive relationship between managerial ownership and capital structure (i.e., board size has a significant impact on debt-to-equity ratio in positive direction) (Naseem et al., 2017).

There are studies finding inconclusive relationship between capital structure and corporate governance (see Goel and Sapra, 2015). Authors of a study about institutional quality on capital structure in firms from developing countries conclude that institutional quality has positive effects on debt ratios (Latin American and Eastern European sample containing data from two Eastern European countries – Poland and Turkey) (Matemilola et al., 2019).

This study expands the literature on corporate governance and capital structure.

Conclusions

The conclusion is that there may be other, probably country and firm specific factors, that may also influence the corporate governance and capital structure, and thus the relation between these two issues. Making great efforts to achieve good corporate governance is very important, but it is not the only solution for the problem of optimal proportion of debt and equity.

The greatest limitation for this study was corporate governance data availability for a longer time period, and the quality and quantity of the available financial data. Thus, for deeper studies of corporate governance in Eastern European countries, there is a great need for high quality data availability about boards of directors and management, their independency, executive compensation and share ownership, etc. There is great space for improvement of data quality requirements for listed companies.

Also, further studies are needed in the area of corporate governance and capital structure in Eastern European countries to increase availability of empirical results in this area.

References

Briano-Turrent G., Poletti-Hughes J., (2017), Corporate Governance Compliance of Family and non-Family Listed Firms in Emerging Markets: Evidence from Latin America, Journal of Family Business Strategy, 8/4, 237-247.
Booth L., Aivazian V., Demirgüç-Kunt A., Maksimovic V., (2001), Capital Structure in Developing Countries, Journal of Finance, 56, 87–130.
Brown L., Caylor M., (2006), Corporate Governance and Firm Valuation, Journal of Accounting and Public Policy, 25, 409–434.
Chung K., Elder J., Kim J. C., (2010), Corporate Governance and Liquidity, Journal of Financial and Quantitative Analysis, 45, 265–291
Fan J. P. H., Titman S., Twite G. J., (2004), An International Comparison of Capital Structure and Debt Maturity Choices, European Finance Association 2003 Annual Conference Paper No. 769.

Gaud P., Hoesli M., Vender A., (2007), Debt-Equity Choice in Europe, International Review of Financial Analysis, 16, 201-222.

Goel M., Sapra R., (2015), Impact of Corporate Governance Mechanisms on Capital Structure of Firms, International Journal of Multidisciplinary Approach and Studies, 02/4, 54–60.

Gompers P., Ishii J., Metrick A., (2003), Corporate Governance and Equity Prices, Quarterly Journal of Economics, 118, 107–155.

Harvey C. R., Lins K.V., Roper A.H., (2004), The Effect of Capital Structure When Expected Agency Costs Are Extreme, Journal of Financial Economics, 74/1, 3–30.

Jensen M. C., (1986), Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers, American Economic Review, 76/2, 323–329.

Jiraporn P., Kim J.C., Kim Y. S., Kitsabunnarat P., (2012), Capital Structure and Corporate Governance Quality: Evidence from the Institutional Shareholder Services (ISS), International Review of Economics and Finance, 22, 208-221.

John K., Litov L., (2010), Managerial Entrenchment and Capital Structure: New Evidence, Journal of Empirical Leal Studies, 7/4, 693-742.

Liao L., Mukherjee T., Wang W., (2015), Corporate Governance and capital Structure Dynamics: An Empirical Study, The Journal of Financial Research, 38/2, 169–191.

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, 27/1, 28-51.

Matemilola B. T. M., Bany-Ariffin A. N., Azman-Saini W. N. W., Nassir A. M., (2019), Impact of institutional quality on the capital structure of firms in developing countries, Emerging Markets Review, 39, 175-209.

Modigliani F., Miller M. H., (1958), The Cost of Capital, Corporation Finance, and the Theory of Investment, American Economic Review, 48/3, 261–297.

Morellec E., Nikolov B., Schurhoff N., (2012), Corporate Governance and Capital Structure Dynamics, Journal of Finance, 67, 803–48.

Myers S., Majluf N. S., (1984), Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have, Journal of Financial Economics, 13, 187–221.

Naseem M. A., Zhang H., Malik F., Rehman R., (2017), Capital Structure and Corporate Governance, The Journal of Developing Areas, 51/1, 33–47.

Nedelchev M., (2017), Overview of Corporate Governance in Bulgaria, Entrepreneurship, V/2, 70-76.

Rajan R. G., Zingales L., (1995), What do we know about capital structure? Some evidence from international data, Journal of Finance, 50, 1421–1460.

STRUKTURA KAPITAŁOWA I ŁAD KORPORACYJNY: PRZYKŁADY SPÓŁEK DZIAŁAJĄCYCH NA WSCHODZIE EUROPY

Streszczenie: Celem tego artykułu jest zbadanie związku między jakością ładu korporacyjnego a strukturą kapitałową firmy. Próbka ankietowa składa się z 799 spółek giełdowych w 9 krajach Europy Wschodniej. Regresja OLS odbywa się przy użyciu dźwigni księgowej i rynkowej jako zmiennych zależnych, a wskaźnik ładu korporacyjnego

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opracowany przez autorów służy jako główna zmienna objaśniająca. Wykorzystywane są również inne zmienne kontrolne, głównie pozycje i wskaźniki ze sprawozdań finansowych. Modele regresji z dźwignią rynkową jako zmienną zależną mają większą moc wyjaśniającą niż modele z dźwignią księgową. Wyniki badania wskazują na negatywny związek między wskaźnikiem ładu korporacyjnego a dźwignią rynkową, co oznacza wyższy poziom ładu korporacyjnego, niższy poziom zadłużenia. Inne istniejące ustalenia empiryczne z innych krajów pokazują różne wnioski - niektóre podobne, niektóre - w przeciwieństwie do tego badania, a niektóre nie przynoszą jednoznacznych wyników.

Słowa kluczowe: ład korporacyjny, dług, dźwignia księgowa, dźwignia rynkowa, Europa Wschodnia

资本结构与企业管治：来自东欧上市公司的证据

摘要:本文的目的是研究公司的公司治理质量与资本结构之间的关系。调查样本包括9个东欧国家的799家上市公司。OLS回归是以账面和市场杠杆作为因变量来完成的，而作者构建的公司治理指数是主要的解释变量。也使用其他控制变量，主要是财务报表中的头寸和比率。以市场杠杆作为因变量的回归模型比具有账面杠杆的模型具有更大的解释力。调查结果显示公司治理指数与市场杠杆之间存在负相关关系，这意味着公司治理水平越高，债务水平越低。来自其他国家的其他现有经验发现也显示出各种结论，有些与本次调查相反，有些与之相反，有些结论没有定论。

关键词：公司治理, 债务, 账面杠杆, 市场杠杆, 东欧