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CORPORATE OWNERSHIP STRUCTURE AND ITS RELATION TO FIRM PERFORMANCE: CASE OF BALTIC STATES

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FOREWORD

This double degree Master's Thesis in the field of corporate governance is intended to provide new insights and empirical findings in corporate ownership structure relations with firm performance. This study adds value into the research of Baltic capital markets and could be extended to analyze the ownership structure and firm performance in similar post-soviet economies. I am grateful to my supervisors prof. Valdonė Darškuvienė (Vytautas Magnus University) and prof. Karine Cerrada Cristia (Louvain School of Management) for their guidance and consultations selecting the topic and proceeding with the research as well as the professional insights along the academic way. I also appreciate the acceptance to this double degree program, which provided beyond price experience in academic as well as cultural fields. Special thanks to both universities for this opportunity. Finally, the biggest gratitude is dedicated to my family, which always supported me.

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ABSTRACT

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The main goal of this research is to assess the relationship of corporate ownership structure - block, managerial and institutional ownership to firm performance in Baltic listed companies. First chapter is dedicated to explore previous theoretical and empirical studies to present main issues of corporate ownership and its relation to firm performance. Second chapter describes the regulatory framework of corporate governance in EU, the development of corporate ownership structure in Baltic markets and empirical research methodology. The last chapter presents the results of the analysis. The main findings include a significant positive relationship between block ownership and firm performance. Companies with controlling shareholder have higher Tobin's Q. The involvement of the largest shareholder in the Board improves the Tobin's Q as well. The managerial ownership was found to have no significant relationship to firm performance while the existence of institutional investors in the company impact positively the firm performance.

SANTRAUKA

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Darbo tikslas – įvertinti įmonių nuosavybės struktūros, būtent blokinės, vadybinės ir institucinės nuosavybės ryšį su įmonės veiklos rezultatais listinguojomose įmonėse Baltijos šalyse. Pirmame skyriuje analizuojami ankstesni teoriniai ir empiriniai tyrimai, norint pateikti pagrindines problemas įmonių nuosavybės ir jos ryšio su įmonės veiklos rezultatais srityje. Antrajame darbo skyriuje pateikiama korporatyvinio valdymo reguliavimo sistema Europos Sąjungoje bei Baltijos Šalyse, įmonių nuosavybės vystymosi tendencijos Baltijos šalyse bei empirinio tyrimo metodologija. Paskutiniame skyriuje pateikiami empirinio tyrimo rezultatai. Darbe atskleista, jog blokinė nuosavybė, įvertinta kaip didžiausio akcininko akcijų dalis, turi teigiamos reikšmingos įtakos įmonės rinkos vertei išreikštai Tobin's Q rodikliu. Įmonėje esant kontroliniam akcininkui Tobin's Q vertė yra aukštesnė. Taip pat didžiausio akcininko dalyvavimas įmonės Valdyboje turi teigiamo poveikio veiklos rezultatams. Vadybinė nuosavybė neturi reikšmingos įtakos Tobin's Q vertei, kai tuo tarpu institucinių investuotojų buvimas įmonėje turi reikšmingos teigiamos įtakos įmonės rinkos vertei.

INTRODUCTION

In past decades there has been an exponential number of research focusing on corporate governance issues and how to make the controlling of the company more efficient and increase firm performance. To enhance corporate governance, corporate ownership can be considered as an internal monitoring mechanism that would help to align interest of managers with those of shareholders (Jensen, Meckling, 1976; Connelly et al., 2010; Berglöf, Claessens, 2006).

Various researchers have analyzed the impact of how different types of corporate ownership might affect the performance of the company. First of all, significant block ownership could result into goal alignment effect as majority shareholders would have a “voice” and monitor actions of monitor management via their voting rights (Gelter, 2009). Though too high stake might end up in minority shareholder expropriation issues and extraction of private benefits. Therefore, one of the main aspects if blockholdings can enhance firm performance is the identity of largest shareholder (Konijn et al., 2011). Finally, empirical research provided contradicting results showing positive blockholdings impact to firm performance (Kaserer, Moldenhauer, 2007) or concentrated and block ownership might have no significant influence on firm performance (Demsetz, Lehn, 1985).

Further on, managerial ownership has been considered either to increase alignment of manager and shareholder interest (Jensen, Meckling, 1976) thus enhancing firm performance or either to entrench management and increase the threat of private benefit exploitation (Morck et al. 1988) leading to worse firm value. Empirical studies support both hypothesis with evidence for positive but non-monotonic effect on firm performance (Florackis, et al. 2009; McConnell, Servaes, 1990; Morck et al. 1988) or either no significant relationship with firm value (Demsetz, Villalonga, 2001; Himmelberg et al. 1999).

Lastly, with increasing stake of institutional investors as owners of corporate equity, their involvement becomes significant internal governance mechanism. The degree of engagement depends on the type of institutional investor, whether it is pressure sensitive or resistant, independent or constrained by business relationships etc. (Brickley et al. 1988, Pound, 1988). The relevance to corporate governance and performance also support empirical findings by E. Elyasiani and J. Jia (2010), J. McConnell and H. Servaes (1990) as well. Ultimately, the variations in the above-mentioned findings propose that corporate ownership structure can be an important variable in the corporate value creation process therefore a further investigation and level of application in Baltic States is needed.

In case of Baltic countries, Lithuania, Latvia and Estonia, lack of deep analysis in corporate governance and corporate ownership as governance tool has been recognized. Corporate

governance topic is relatively new in this region. For comparison, the first document counted as corporate governance code has been introduced in United Kingdom in 1992, Belgium in 1998 while Baltic countries put in practice first harmonized code only in 2007. The research in Baltic countries is fragmented, usually taking specific approach (legal, managerial or financial), focused on legal regulation of corporate governance practices (Bivainis, 2000) or evaluation of corporate governance code effectiveness (Juozaitienė et al., 2008). Additionally, P. Vazniokas and V. Darškuvienė (2011) tried to take a systematic approach by creating a model to evaluate corporate governance systems. In like manner, research in corporate ownership structure was mainly limited to analysis of privatization effects after announcing independence (Starkus, 2001; Solnyškinienė, 2004). Main focus has been the development of corporate structure itself with only a theoretical grasp on corporate ownership as independent governance mechanism and its impact to firm performance. Thus, as most of the research in corporate governance and corporate ownership structure in Baltic States has been only fragmental, deeper analysis and empirical evidence into the relationship between corporate ownership structure and firm market performance is needed.

Therefore, the **main research problem** can be formulated as a question – what is the impact of corporate ownership structure, specifically blockholdings, managerial and institutional ownership, to firm performance in Baltic listed companies?

Research object – corporate ownership relationship to firm performance.

Research goal – to assess the relationship of corporate ownership structure, specifically block, managerial and institutional ownership to firm performance in listed companies of Baltic States.

Objectives:

- Describe theoretical frameworks that define corporate governance and its relation to corporate ownership structures;
- Present a detailed analysis of previous empirical research of corporate ownership issues and relation of different types of corporate ownership to firm performance;
- Present corporate governance system and corporate ownership structure of Baltic listed companies;
- Based on previous research findings, construct the research methodology to test the relationship between specific corporate ownership types – blockholdings, managerial and institutional – and firm performance in listed companies of Baltic States;
- Apply statistical analysis method to identify the relation of blockholdings, managerial and institutional ownership relationship to firm performance;

- Analyze, summarize the results of corporate ownership structure relation to firm performance empirical research, compare it to the previous empirical evidence and provide the recommendations for further analysis.

The first chapter of the work is dedicated to explore theoretical and empirical evidence from previous research to present in depth view of main issues arising from different types of corporate ownership and its relation to company financial and market performance. The first subchapter analyzes theoretical frameworks, which try to explain main problems of corporate governance in different market environment and corporate ownership trends. Later subchapters are focused on critical literature review of blockholder and majority versus minority shareholder issues, managerial ownership and entrenchment problem as well as institutional and family ownership matters and their relationship with firm performance.

The second chapter of this paper is intended to present regulatory framework of corporate governance in European Union and specific legislations in Baltic States, historical development and structure of corporate ownership in Baltic listed companies as well as detailed presentation of empirical research methodology, which is used to test the impact of corporate ownership structure to firm performance.

The last third chapter presents the results of corporate ownership structure impact on firm performance. Detailed analysis of the relationship of blockholdings, managerial and institutional ownership influence is presented. Moreover, the results of the research in Baltic States are compared with the previous empirical studies and recommendations for future research areas are provided.

To achieve the theoretical objectives of this paper, the literature review of corporate governance theoretical frameworks and previous researches of corporate ownership issues is performed. The literature includes academic articles from Ebsco, Emerald, Science Direct, and SSRN databases, Wiley Online Library. Further for empirical research, the regression analysis is being employed to perform thorough investigation of block, managerial and institutional ownership impact to firm performance. The ownership data have been collected from annual reports of Baltic listed companies via OMX Nasdaq Baltic stock exchange website and financial data has been extracted from Bloomberg database.

This paper comprises of introduction, theoretical analysis, methodology of research, research analysis and conclusions. The main material is represented in 79 pages, including 4 figures and 13 tables. The literature list consists of 115 references. Also 11 annexes are provided.

KEY WORDS: corporate ownership structure, block ownership, managerial ownership, institutional ownership, corporate governance, firm performance, Tobin's Q, regression analysis, ordinary least square, Baltic States.

I. THEORETICAL ANALYSIS OF CORPORATE OWNERSHIP STRUCTURE AND ITS RELATION TO FIRM PERFORMANCE

This first chapter of the work is dedicated to explore theoretical and empirical evidence from previous research to present in depth view of main issues arising from different types of corporate ownership and its relation to company financial and market performance. The first subchapter analyzes theoretical frameworks, which try to explain main problems of corporate governance in different market environment and corporate ownership trends. Later subchapters are focused on critical literature review of blockholder and majority versus minority shareholder issues, managerial ownership and entrenchment problem as well as institutional and family ownership matters and their relationship with firm performance.

1.1. Theoretical frameworks of corporate governance

Ownership has becoming increasingly influential form of corporate governance (Connelly et al. 2010). To begin analyzing its effects, it is necessary to first define main theories that have shaped the research in corporate governance field and find how corporate ownership is linked to these theories. Five main theoretical streams are analyzed further.

Agency theory. Arising from economic discipline, agency theory has been developed by C. Ross (1973) and M. Jensen, W. Meckling (1976) that first defined the agency problem. Mainly, agency theory is the relationship between a principal - the shareholders, and the agents - company managers. Principals are delegating decision-making power to agents who should act on behalf of the principals. The problem arises, as managers, being egoistic utility maximizers, would not always act under the best interest of shareholders, putting their own goals first. Thus it implies the principals to develop some control mechanisms to align the interests of both parties. In this case the agency costs appear, which are the sum of the cost of monitoring management (the agent), bonding the agent to the principal and residual losses (Jensen, Meckling, 1976). The theory explains the agency relationship evolving from ownership and control separation in the dispersed ownership structures (US, UK) as well as the agency conflict between controlling and minority shareholders in concentrated ownership structures (Continental Europe) (Gelter, 2009; Turnbull, 2000). However, the theory gained considerable amount of criticism of focusing on narrow governance view to only analyzing the relationship between two parties – shareholders and managers - excluding all other interdependencies in organizational environment (Aguilera et al. 2008). As well other shortfall is inability to explain corporate governance organization in different institutional contexts (Aguilera,

Jackson, 2003).

Stewardship theory. J. Davis, F. Schoorman, L. Donaldson (1997) were the first who made the distinction of stewardship theory, which originated from psychology and sociology. Main idea is that managers act as stewards to maximize the wealth of the shareholders through firm performance. In this way stewards maximize their own utility function, as they are self-motivated to achieve high performance, to show their commitment and be recognized by their peers and bosses. Stewards integrate their goals as part of the organization and are satisfied as company's success is achieved (Abdullah, Valentine, 2009). Theory suggests that there is goal alignment between owners and managers, therefore it would explain the relationship in concentrated ownership structures (Christopher, 2010). This theory is specifically viable in those cultures where owners and managers are the same people, e.g. in family owned business (Davis, Schoorman, Donaldson, 1997).

Resource dependency theory. As the agency theory fails to involve other interdependencies of complex organizational environment to the context of analysis, the resource dependency theory is referring to the quality and effectiveness of the managers who are responsible to strategically managing the resources of the company to succeed in the complex environment (Christopher, 2010). Managers, and specifically Board of Directors (Board of Directors), are liable to provide the access to resources and ensure this linkage. A. Hillman, A. Canella and R. Paetzold (2000) argue that members of the Board bring necessary resources themselves, like information, contacts with buyers or suppliers, legal consultancy, and in this way secure the successful performance of the company. Additionally, the theory argues that appointment of independent parties to the BoD can be used as a mean of access to resources (Abdullah, Valentine, 2009). Hence, resource dependency theory has different reflection depending on the corporate ownership structure, as company might be limited to attract the most talented and capable people to the management. E.g. family-owned companies often restrict managerial positions to family members, in this way leading the organization to potential competitive disadvantage (Giovannini, 2010).

Transaction cost theory. Another theory trying to explain the corporate governance issues has evolved from work of R. Cyert and J. March (1963) and later analyzed by O. Williamson (1996). Relating disciplines of law, economics and organization has formed transaction cost theory. It is based under assumption that organizations have become so big that can replace the market and determine the allocation of resources themselves. The organization is viewed as a combination of different views and objectives. The main unit of analysis being a transaction, it brings the conclusion that the ways companies are organized impact its control over transactions. It is assumed that managers are acting opportunistically while organizing transactions thus they need to be controlled. The theory mainly tackles the same problem of realigning the goals of management to shareholder's, as in agency theory, but only adopting different taxonomy and different point of view

of the way the problems are observed (Solomon, 2010).

Stakeholder theory. In stakeholder theory, the stakeholder is “any group or individual who can affect or is affected by the achievement of the organization’s objectives” (Freeman, 1994). The latter management-based theory, introduced by E. Freeman (1994), has brought a wider concept of multiple stakeholder and multiple objectives as opposed to principal-agent relationship in agency theory. Hence, the theory analyzes the divergence of interests between agents and wider range of stakeholders. The supporters of the theory (Blair, 1995, Clarkson, 1995, Turnbull, 2000) stated that main goal of management and Board of Directors should be maximizing the total wealth creation by the company. This could be achieved by promoting ownership-like incentives to different stakeholders (e.g. employees) to enhance their “voice” and align their interests with the outside shareholders. On the contrary, the stronger shareholder influence, particularly in concentrated ownership structures, can lead to higher risk of expropriation for stakeholders (Gelter, 2009).

As a result, none of the above mentioned theories are able to grasp all dimensions of wider scale of influential forces in corporate governance area. Therefore J. Christopher (2010) has developed a multi-theory approach by including economic-based agency theory and management-based stewardship, resource dependency and stakeholder theories. The model tries to ensure the inclusion of all relevant determinants of good governance in the organizations (annex 2). Each theory is considered as inter-related and complementary to the others as the shortcomings of one can be explained by another theory. The main goal of the framework is to analyze the internal and external forces that shape to the organization and place it in one of the four quadrants that are represented by unique characteristics of each theory on the axes. The determination of specific “location” of the organization in this framework should enable the companies to tailor the most suitable governance frameworks.

During the decades, scholars managed to develop few theoretical frameworks that tried to explain the complex interdependencies and relations between corporate governance structures. Agency theory defines goal divergence between companies’ management (agents) and shareholders (principals) together with the need to control this relationship with occurrence of agency costs in dispersed ownership structures. Stewardship theory opposes with identification to full goal alignment between agents and principals with high trust culture, which is acute in concentrated ownership structures. Further, resource dependency theory raised the importance of strategic management of resources through competent Board of Directors by recognizing the complexity of interdependencies in the corporate environment. Transaction cost theory complements agency theory by different perspective to the same agent-principal problem. Finally, stakeholder theory tries to grasp the widest range of relationships into the concept by the approach of agent – multiple stakeholder goal alignment. This theory supports ownership-like incentives to the critical

stakeholders as a mean to tackle the main issue. As all theories confront shortcomings to explain all influential forces in the reality, the last approach of multi-theory model should be the best example of how the different theories should be discussed not to oppose one another but with a purpose to complement each other, find a common ground and rationale to increasing complexity in corporate environment.

1.2. Review in empirical research in corporate ownership structure issues and its relationship to firm performance

There has been a wide range of mechanisms put in place to govern and control the actions of managers, though the main focus to consider actualizing this power was through Board of Directors. B. Connelly et al. (2010) has promoted a new approach to look to corporate ownership as a tool of corporate governance. It has already been argued previously by D. Dalton et al. (2003) that the corporate ownership structure play a key role in determining the extent at which interests of managers and owners will be aligned. Depending on different types of ownership, shareholders can employ different strategies to affect the outcomes of managerial decisions and corporate performance. E.g. block holdings provide owners the power to influence management, thus it provides them a “voice”, while shareholders can divest from the company if they are unhappy with management decisions – “exit” strategy (Connelly et al., 2010; Edmans, 2014). Additionally, recent changes in corporate ownership structures led to an increase of activism by institutional investors, which owning a reasonable part of the shares became most active shareholders in corporate history with confronting the management and trying to influence the composition of the Board (Dai, 2007). Hence, we can see that depending on corporate ownership structure, shareholders are able to employ different corporate governance strategies.

Further on, K. Desender et al. (2013) had distinguished the differences between dispersed and concentrated ownership in terms of monitoring management. The analysis of Continental European companies showed that in concentrated ownership structures, the share concentration and board composition can be considered as substitutes, as in case of dispersed ownership – board independence and audit services are complementary corporate governance tools. Thus in concentrated ownership structures, the role of the Board of Directors and reliance for monitoring purposes becomes low as shareholders have both incentives and abilities to hold management accountable. (Desender et al., 2013). However, it should be stated that in this case, the Board of Directors could become in reality a non-functioning institution, yet the different controlling owners can still have different degree of incentives and power to directly control the management, thus influencing the Board’s monitoring function.

Additionally, F. Berglöf and S. Claessens (2006) have identified that in transition and emerging economies, that tend to have weaker legal systems, internal control mechanisms are stronger than external ones (stock market, reputation) in terms of monitoring. Moreover, by applying path dependence theory in the context of corporate governance, corporate ownership structure existing in any point in time is likely to depend on the one which existed in previous times. Then initial ownership structure, which provided control to certain corporate players (managers, controlling shareholders), will lead to higher likelihood that country would have rules favoring those specific players (Bebchuk, Roe, 1999). In this context, controlling or dominant shareholders of different identity serve as internal monitoring mechanism themselves, thus it is relevant to explore different corporate ownership structures, degree of their influence to management decisions and corporate performance.

B. Connelly et al. (2010) have distinguished insider and outsider corporate ownership types. These dominating ownership forms have been examined in the research literature of the extent as a governance role each ownership type plays. The insider ownership consists of executive, Board and non-executive ownership. The two first ones also are known in the literature as managerial ownership. The outside ownership has been divided to block ownership, agent (institutional investors) and private equity ownership. Block owners have been considered only from the perspective of holding a reasonable percentage of shares not evaluating the different types of owners (individuals, institutions, state, corporations etc.) as block holders. Thus, as this division is founded in research literature, the following chapters of empirical research analysis will focus on following corporate ownership structure – block ownership, managerial ownership, institutional ownership and family ownership. Research in each type of ownership is discussed separately in the relation with corporate efficiency, performance and firm value as the main goal of good corporate governance practices is to increase value to shareholders.

1.2.1. Block ownership and majority vs. minority issues

C. Holderness (2009) found that majority of firms worldwide have an inside or outside blockholders. Even in the countries like UK or US, that are typically considered having dispersed ownership structures, the ownership concentration exists. M. Gelter (2009) stated that most publicly traded medium-sized British firms have at least one blockholder with at least 10 % of shares. 67 % of US firms have at least two block owners with 5 % of shares each (Rossetto, Stagliano, 2012), while in Continental Europe the concentration of ownership is much higher as 34 % of the companies have at least two investors with largest then 10% stakes in the company (Leaven and Levine, 2008).

These evidences show that shareholders view the necessity to hold concentrated ownership in the companies. The main incentives of doing so can be named as the shared benefits of concentrated control and expropriation for private benefits. First, holding sufficient voting rights, block shareholders get the direct power to influence management to act under their interests (Connelly et al., 2010; La Porta, Lopez-De-Silanes, Shleifer, 1999; Shleifer and Vishny, 1986). The inside blockholders usually also serve as directors on the Board thus having a direct connection to management. They have incentive to increase firm cash flows and corporate performance that cumulates for all shareholders (Holderness, 2003). It also should be noted, that as the blockholding stake increases, the owners become more interested in wealth-creating activities (Connelly et al., 2010) and the percentage stake itself determines their ability to intervene (Edmans, 2014). Thus according the agency theory, block ownership serves as a corporate governance tool – an internal mechanism to govern and monitor management, which helps to decrease agency costs and align the cash flow and control rights (Setia-Atmaja, 2009; Shleifer, Vishny, 1997).

On the other hand, controlling blockholders in the company can use their power to expropriate company's cash flows for private benefits and not share it with minority shareholders (Connelly et al., 2010; La Porta et al., 1999). This situation is another type of agency problem evolving in concentrated ownership structures where the conflict is that controlling shareholders are not representing the interests of minority shareholders. Additionally, this conflict typically arises in the countries with weaker legal system that fail to protect the rights of minority shareholders (La Porta et al., 1999; Shleifer, Vishny, 1997). E.g. as the most important shareholder's legal right is to vote, in many countries it is still required to show up in general meeting to exercise this right. Thus it practically guarantees the non-voting of minority investors (Shleifer, Vishny, 1997).

Another example explaining the block ownership challenges is mechanism called pyramid structure (Aluchna, 2013). Creation these ownership networks helps the ultimate owners to keep the control over management and distribute profits over the portfolio companies (Cuervo-Cazzura, 2006). Nevertheless, this tool may lead to unequal treatment of minority shareholders as the controlling holders realize private benefits via related party transactions or dividend payout (La Porta et al., 2000; Shleifer, Vishny, 1997; Zattoni, 1999). Johnson et al. (2000) created a term "tunneling" to describe the transfer of firm resources for private benefits of controlling shareholder, namely excessive executive compensation, asset sales, personal loan guarantees etc.

Additionally, having greater block ownership in the company can raise an over-monitoring problem. Large shareholder may keep managers from making costly investments thus preventing the company from growth and profitable investment opportunities (Konijn, Kräussl, Lucas, 2011). Consequently, these practices raise a conflict whether blockholders' ability to control and monitor management equipoise the doubts of block shareholders creating wealth for themselves and

challenging company's long-term operations.

In the settings of this discussion, researchers have raised another question whether one large block shareholder or few smaller blockholders are better for firm value. First, L. Laeven and R. Levine (2006) already noted the differences in their work stating that one-third of publicly listed European companies have multiple block owners and the market value of these companies differ from widely-held firms and firms with one large owner. According to work of S. Konijn et al. (2011), dispersion of blockholders is harmful as then the ability of small shareholders to challenge the large shareholder is limited. Having one large shareholder reduces agency costs in the company where as dispersed block ownership incur free riders problem as smaller owners would not involve in monitoring thus benefiting from the monitoring of others. Using the concentration ratio - Herfindahl index, authors proved that dispersion of blockholdings is negatively correlated with firm value measured by Tobin's Q. These findings are in line with other theories that block ownership has to be sufficiently big to challenge the decisions of large shareholder (Bloch and Hege, 2001; Bennedsen and Wolfenzon, 2000).

Contrary to the above findings, B. Maury, A. Pajuste (2005) stated that contestability of controlling shareholder can limit the expropriation of minority shareholders' interest. Authors found positive relationship between more equal distribution of voting rights and firm value, which is also strongly effected by the identity of the block owner. Multiple smaller block owners with sufficient blockholdings, can form coalitions to defend their interests (Starkus, 2001). Moreover, the model of A. Edmans and G. Manso (2011) promotes the dispersed blockholdings as the threat of exit – block owners voting “by their feet” - disciplines the managers. Smaller shareholders induce more information into the share price through trading thus increasing managerial efforts. Therefore, the optimal number of blockholders can be increased up to the point when exit strategy is still effective corporate governance mechanism. This model implies the non-monotonic relationship between firm value and number of blockholders. In like manner, S. Rossetto and S. Stagliano (2012) complement previous findings and prove that in US firms, the largest blockholder limits the agency problems within the firm while the number of block owners effects positively share price volatility.

All together, previous research has contradicting findings. One authors support one large blockholder structure as it manages agency problems more effectively by providing the shareholder “the voice”, other state that dispersed block ownership can benefit the protection of minority rights by challenging controlling shareholder or employing the exit strategy – voting “with their feet”.

After discussing block ownership issues in relation to corporate governance, the impact of blockholdings to firm performance need to be analyzed. The pioneers in the field, H. Demsetz and K. Lehn (1985) analyzed the relationship between firm value and insider ownership together including the block ownership as one of the variables. The analysis of 511 U.S. firms covering a

period of 5 years from 1976–1980 showed no significant relationship between concentrated ownership of Top5 shareholders and firm return on equity. Later C. Holderness and D. Sheehan (1988) analyzed 114 NYSE and AMEX listed corporations with majority shareholders and found no significant difference in terms of corporate-control transactions, accounting returns and Tobin's Q between widely-held and majority-owned companies. Although, the authors stressed that differences appear depending on the identity of majority shareholder: if the majority owner is individual, the firm tend to underperform in accounting returns and Tobin's Q ratio where as with corporate blockholder is not. Similarly, J. McConnell and H. Servaes (1990) and H. Mehran (1995) have also not found significant relation between outside blockholdings and firm performance measured by Tobin's Q for market value measures and return of assets for accounting measures. However, the early researchers analyzing block ownership have mainly concentrated examining the outside blockholdings of large stake while the majority of the firms have few smaller blockholders. Also these studies have not taken into account the possible endogeneity of block ownership structure and firm performance.

The studies, executed after a decade, have also shown similar or negative results though taking a bit different approach to the research. H. Demsetz and B. Villalonga (2001) made adjustments to its research method and differently from others, one of the first ones considered corporate ownership as endogenous variable. Nevertheless they concluded that there was no significant relationship between ownership structure and firm performance in US companies. According to the authors, even though dispersed ownership cause agency problems and costs, it also provide advantages, which offset those problems. Likewise, S. Konijn et al. (2011) found negative correlation of total block ownership with firm value in US companies.

On the other hand, the research findings are opposing as other researchers have found the relationship meaningful. The study of 136 non-financial Finish companies in the period of 1993 – 2000, have showed that multiple blockholders can have positive influence of firm performance, although the valuation also strongly depends on the stake of blockholding as well as identity of the blockholder (Maury and Pajuste, 2005). Evidence from Chinese listed companies proved that concentrated ownership has a positive effect on company's efficiency, though the relationship is U-shaped (Lin et al., 2009). N. Boone et al. (2011) have analyzed New Zealand companies in period of 2002 to 2007 with multiple regression models to test the relation of firm performance and the identity of block owner. The authors not only found the positive, although decreasing, association of block ownership to firm performance, but also they identified that companies with the largest shareholder being a financial institution outperform their peers.

Comparatively, looking to the research in Continental Europe, K. Gugler and J. Weigand (2003) have proved that in German listed companies, the large shareholders effect accounting return

on assets exogenously and separately as the large blockholdings are inherent in German corporate governance system. C. Kaserer and B. Moldenhauer (2007) using the data of 648 German firms in years of 1998 and 2003, found the positive influence of outside blockholdings and concentrated insider ownership to firm market performance (market-to-book value, market stock returns) and accounting performance (return on assets). Authors also counted for possible endogeneity of ownership and used two stages least square regression approach. The summary of main results of block ownership empirical research is shown in annex 3.

Overall, all the above analyzed research findings have contradicting conclusions. Some authors have not identified any significant relationship between concentrated, block ownership and different firm performance measures; others proved the significance of the connection. In addition, most of the studies have been done in developed countries therefore the equivalent research should be performed in smaller markets. The results can significantly differ depending on historical ownership structures – widely held or concentrated ownership dominance and differences of corporate governance systems as research in Germany provided mainly positive results comparing to negative ones from US researchers. Nevertheless, the studies indicate that block ownership and specifically the identity of largest shareholder might be an important variable in the corporate value creation process therefore a further investigation is needed.

1.2.2. Managerial ownership issues and its impact to firm performance

As majority of corporate governance research is still based on agency theory, in this same governance framework managerial ownership is considered as feasible inside governance mechanism which helps to align interests of managers and shareholders (Jensen & Meckling, 1976). Hence, having a higher stake in the company, managers and inside directors would be more inclined to pursue long-term profitability goals and use corporate resources more efficiently. Theoretically, having a manager as the only shareholder would perfectly align both interest and the company would incur zero agency costs. Therefore, J. Ang, R. Cole and J. Lin (2000) tested about 1700 small companies and empirically proved that increasing managerial ownership stake in the company agency costs are reduced.

On the other hand, too high share by managers increases their personal power with voting rights thus can induce their entrenchment in the firm. As entrenched, managers could assign perquisites for their personal benefits like protecting themselves from takeover thus expropriate the wealth from other shareholders and in this way lead to worse performance of the firm (Morck, Shleifer, Vishny, 1988). Additionally, having sufficient influence managers can ensure appealing salary or other compensation for themselves (Rose, 2005).

Moreover, managerial entrenchment can lead even to managerial hegemony issue. Managerial hegemony is a situation when the executive managers in the company are superior to Board of Directors and the strategic decision-making is mainly controlled by them. There is a gap between theoretical monitoring role of board members and actual confirmation of management action without any resistance in reality. The actions of board members are restricted and they are like “ornaments on a corporate Christmas tree” (according to M. L. Mace (1971) from Bohdanowicz (2014)). This particular problem holds true in companies with high share owned by companies’ managers (Bohdanowicz, 2014). Therefore, too large stake owned specifically by executives of the company may lead to negative firm performance and abuse of shareholders interests.

Moving on to look for empirical evidence of the actual managerial ownership influence to corporate governance and firm performance, there have been found contradicting results from various time periods and sample countries. The first initiators of analysis in this field were R. Morck, A. Shleifer and R. Vishny (1988) and together with other researchers (McConnell, Servaes, 1990; Wright, Ferris, Sarin, Awasthi, 1996; Kaserer, Moldenhauer, 2007; Florackis, Kostakis, Ozkan, 2009) have found a positive managerial ownership influence on firm performance. R. Morck et al. (1988) have analyzed 371 US Fortune 500 companies in year 1980 and found non-monotonic relationship between ownership by all Board members and firm value measured by Tobin’s Q. Piece-wise linear (OLS) regression showed that managerial ownership up to 5 % had positive influence to firm value, between 5-25 % the relation was negative and above 25 % insider ownership again increased firm value. Nevertheless, the relation did not hold robust if firm performance was measured by accounting profit. Also the results may be doubtful as authors did not account for probable ownership endogeneity and did not use panel data.

Later on, J. McConnell and H. Servaes (1990) supported R. Morck et al. (1988) findings of non-monotonic managerial ownership relation to firm performance. Researchers extended the sample to 1,173 US firms for 1976 and 1,093 firms for 1986 and estimated the quadratic model by including insider ownership and its square. The results revealed that insider ownership effected positively Tobin’s Q up to 50 % ownership threshold in 1976 and up to 38 % in 1986. Any increase beyond this limit would result in worse firm performance. These findings hold robust as the authors used the same control variables as R. Morck et al. (1988) (R&D, advertising and capital expenditure) though neither count for endogeneity of ownership structure. Additionally, P. Wright et al. (1996) supported previous findings with analysis of the US companies in years 1986 and 1992 and stated that low level of insider ownership increases corporate risk taking (measured by Tobin’s Q) while high levels would impact the risk taking negatively. Although, this relationship stands significant only for companies with growth perspectives.

Similarly, a study of large sample of UK firms between 2000 and 2004 by C. Florackis et al. (2009) have also recognized non linear managerial ownership influence to firm performance. The relationship hold positive up to 15 % of managerial ownership stake and then slopes downwards. On contrary to R. Morck et al. (1988) and J. McConnell and H. Servaes (1990), C. Florackis and colleagues used semi-parametric estimation approach and found the results valid with performance measured by accounting profitability ratios as well. The other empirical research from Continental Europe (Kaserer, Moldenhauer, 2007) have focused on 648 German companies in years 2003 and 1998 and confirmed linear relationship to be significant and positive from managerial ownership to performance independently from which performance measure to be used. Still the most supportive results were with stock price performance as opposite to market-to-book ratio or return on assets. Also the relation was significant while counting for endogeneity by applying two-stage least squares (2SLS) regression approach.

As there has been research proving the significant relationship of firm performance to insider ownership likewise there are studies (Demsetz, Lehn, 1985; Demsetz, Villalonga, 2001; Himmelberg, Hubbard, Palia, 1999) showing no significant connection. First, H. Demsetz and K. Lehn (1985) have tested 511 US firms in period of 1976– 1980 and by applying OLS have not found significant correlation between concentrated ownership stake and accounting return of equity. Even though this research have not tested specifically managerial ownership, it became as a foundation to later research (Demsetz, Villalonga, 2001; Himmelberg et al., 1999). C. Himmelberg et al. (1999) following former studies (Demsetz, Lehn, 1985; Morck et al., 1988) have extended the number of variables in the regression model. They were the first ones to use panel data of years 1982-1992 to control for unobserved firm heterogeneity effect, which actually determine a large fraction of managerial ownership. Thus controlling for unobserved firm characteristics and firm fixed effects, or using instrumental variables to tackle endogeneity, authors found no significant effect of insider ownership on firm performance. Subsequent relevant research of H. Demsetz and B. Villalonga (2001) used the sample as in primary H. Demsetz and K. Lehn (1985) research although to be the first ones applying two-stage least squares (2SLS) approach to count for endogeneity of ownership structure. Likewise, authors did not validate any significant relationship of insider ownership on firm performance.

As it was already stressed in above-mentioned research, endogeneity of ownership structure has been a relevant issue causing different research results Supporting previous research (Demsetz,Villalonga, 2001; Himmelberg et al, 1999), K. Gugler and J. Weigand (2003) also confirmed that for US companies the endogeneity for insider ownership holds true. They used instrumental variable regression with a sample of 491 listed US corporations in time period of 1989 to 1997. There have been other studies (Loderer, Martin, 1997; Cho, 1998) that tried to investigate

the loop of causality between independent and dependent variables. Foremost, by formulating simultaneous equation model of 2SLS approach, C. Loderer and K. Martin (1997) found that not the insider ownership (by director's) influence firm performance but the causality is opposite and Tobin's Q effect negatively managerial ownership stake even counting for endogeneity of later measure. This study is supported by other research of M. Cho (1998) based on 326 US companies in year 1991. M. Cho (1998) have challenged previous point of view to causality and constructed a 3-equation model with insider ownership, firm performance (Tobin's Q) and investment determining each other simultaneously with other control variables. The 2SLS regression results demonstrated that investments effect firm value, which in turns effect ownership and not visa versa.

Altogether, the initial research in this field has originated from analysis in developed capital markets as UK or US. Therefore, latest studies have replicated the research methods and expanded to test if the previous findings are applicable in other parts of the world. E.g. A. Drakos and F. Bekiris (2010) have analyzed managerial ownership relation to firm value measured by Tobin's Q in period of 2000 – 2004. After testing 146 Greek companies, authors found that higher managerial stake in the company leads to higher corporate value. Although this relation is argued to be consistent mainly because of extremely high managerial ownership in Greek listed companies. Still the findings correspond with the research of R. Morck et al. (1988) performed in mature capital markets. On the contrary, a study of Danish companies by C. Rose (2005) have founds the opposite causality of firm performance effecting managerial ownership stake. Author argues that even widely used two-stage least squares (2SLS) regression analysis does not fully capture endogeneity issue, therefore three-stage least squares regression is more efficient estimation method. The findings concur with the opposite causality effect found by C. Loderer, K. Martin (1997) and M. Cho (1998) in mature US capital market. Finally, P. Mandaci and G. Gumus (2010) even found negative influence of managerial ownership to firm performance. There has been no research found to test these effects in Baltic countries. All main results of above analyzed research are provided in annex 4.

To sum up, agency theory supports managerial ownership, as an internal monitoring mechanism for corporate governance, and states that increase of the stake would lead to increase of firm performance. Nevertheless, too high share by insiders may lead to entrenchment problems which decrease the efficiency of monitoring, help the managers extract private benefits and result in worse corporate performance. Empirical findings provide contradicting results. Some studies found a non-monotonic significant relationship between managerial ownership and firm performance. Small levels of insider ownership (in some studies <5 – 15 %, other <40-50%) correspond to efficient monitoring and goal alignment effect while high levels would bring entrenchment problems and decrease firm value. Other studies provide proof of linear relationship. Some studies

find no relationship at all. Finally the replicated studies not from developed capital markets have even more variations in the results.

Differences across these studies could be because of different measures and samples used. Some authors tested market performance with Tobin's Q other financial performance with accounting returns. Samples varied between few hundreds of companies to a thousand. Moreover, estimation techniques (OLS, piece-wise, 2SLS, instrumental variables, 3SLS) and whether and how authors count for endogeneity of ownership has high impact to the comparability of the results. Lastly, managerial ownership and firm performance relationship can deeply vary depending on corporate governance system in the country the firm is listed.

1.2.3. Institutional ownership and its role in firm performance enhancement

In the recent decades institutional investors such as banks, mutual, pension funds, investment companies or investment advisors have become a major and dominating type of shareholders in developed countries such as US or UK (Connelly et al., 2010; Gelter, 2009). E.g. in US institutional investors accounted to control 60 % of total equity outstanding in 2003 (Charfeddine, Elmarzougui, 2010). Nevertheless their significant role is growing in transition and developing economies as well (Ferreira, Matos, 2008).

Institutional investors are the agent owners who are pooling the funds of individual investors and invest in the public firms as representatives of this fractioned ownership. By concentrating the bargaining power and voting rights to one entity, these agent owners have an ability to overcome obstacles to corporate governance that some other shareholders are not able to. Still, different types of institutional investors have different incentives to govern and monitor management. Depending on their investment horizon, long-term investors are more keen to involve in governance decisions while short-term investor might free ride on the monitoring of others concentrating only on investment return (Connelly et al., 2010).

Furthermore, J. Brickley et al. (1988) categorized institutional investors' governance role according to their tolerance against pressure from management. First, pressure-sensitive institutional investors as banks, insurance companies, second, pressure-indeterminate institutional investors as corporate pension funds, institutions with less than 1 percent of company stocks and, third, pressure-resistant institutional investors such as public pension funds and mutual funds. Various authors concluded (Brickley et al., 1988; Edwards and Hubbard, 2000; Tihanyi et al., 2003) that only pressure-insensitive institutional investors are active monitors and are able to influence the decision-making of management. On the other hand, pressure-sensitive institutions are not able to act as good governors because they do not want to lose their business relationships. However,

empirical research of UK pension funds showed that only a small fraction of these pressure-resistant institutional investors are engaged in active ownership behavior while the majority are mainly concentrated on investment performance and not involving in corporate governance issues. This is mainly because pension funds are run in a distance from investee companies and delegate all fund management to fund managers, thus the interest divergence might emerge (Tilba, McNulty, 2013).

Correspondingly, the other relevant classification of institutional investors was distinguished by J. Pound (1988). Author proposed three different hypotheses that explain the connection between institutional ownership and firm performance. First, institutional investors have advantage against other types of shareholders to perform monitoring more efficiently because of their greater expertise - efficient-monitoring hypothesis. This implication leads to better firm performance. Second, institutions may be cooperating with management and not perform monitoring role to gain mutual benefits - strategic-alignment hypothesis. Third, institutional investors could be prone to cooperate with management to protect other business relationship with the company - conflict-of-interest hypothesis. The later two statements would lead to institutional ownership negatively effecting firm valuation. Given these points, the impacts of institutional ownership, as governance tool can be miscellaneous as pressure-resistant institutional investors would correspond the efficient-monitor hypothesis and pressure-indeterminate with pressure-sensitive institutional investors would conform to strategic-alignment and conflict-of-interest hypotheses.

Moving forward to empirical research findings, the results are conflicting. In early research, A. Agrawal and C. Knoeber (1996) have concluded that there is no significant relation between institutional ownership and firm performance in US companies by using ordinary least squares and simultaneous equation models. On the contrary, J. McConnell and H. Servaes (1990) found significant positive relationship between institutional ownership and firm performance in US companies taking a sample in years 1976 and 1986. Ordinary least squares regression showed that institutional ownership could be an efficient and separate monitoring agent. In addition, having institutional investors among shareholders also increases the threshold of insider ownership in the company at which entrenchment effect surpasses the alignment effect. P. Wright et al. (1996) supported J. McConnell and H. Servaes (1990) findings but only for companies with growth opportunities. Researchers proved that institutional ownership increases growth-oriented corporate risk taking (measured also by Tobin's Q) thus giving prerequisites for firm value creation. The findings of J. McConnell and H. Servaes (1990) and P. Wright et al. (1996) correspond with the J. Pound's (1988) efficient-monitor hypothesis.

On the contrary, L. Charfeddine and A. Elmarzougui (2010) found negative association of institutional ownership to firm performance in French companies, threatening ownership

endogenously and using (2SLS) least squares regression analysis. Thus they concluded that institutional investors do not involve in active monitoring and do not contribute to better firm performance measured by Tobin's Q. Likewise, B. Seifert et al. (2005) have not found consistent effect of insider, blockholding or institutional ownership to firm performance through out different countries (US, UK, Germany and Japan). Authors concluded that the effect strongly determined by local laws and governance system within the countries. Nevertheless the control variables like sales, leverage or capital expenditure show much more consistency across the countries. Leverage influences negatively the firm performance while capital expenditure or sales growth indicate a positive effect.

Taking one step further from the research focusing only on the affect of institutional ownership stake on firm performance, E. Elyasiani and J. Jia (2010) have showed that in US companies, not only the stake itself but the stability of institutional ownership has positive impact on firm performance. This relation holds robust for both pressure-sensitive and insensitive institutional owners with higher influence on the later group. The significance of this relation is due to the fact that long-term institutional investors are more willing to get to know the company and involve in active monitoring. Additionally, M. Ferreira and P. Matos (2008) have analyzed the institutional ownership from one more angle. The findings show that companies with higher ownership of foreign and independent institutional investors have better firm valuation, operating performance and capital expenditure. Because of less business relations with investee companies, foreign institutional investors are more involved in monitoring worldwide. These findings correspond with opposite conflict-of-interest hypothesis by J. Pound (1988) that less business relations lead to better performance. The summary of analyzed research is provided in annex 5.

To sum up, institutional investors have emerged to be majority owners in dispersed ownership structures while gaining a significant role in concentrated ownership structures as well. Empirical evidence show, that these agent owners can be a powerful governance instrument but the level of engagement in monitoring varies between different groups of institutional investors. Pressure-resistant institutional investors are considered to monitor most efficiently thus increasing firm value. On the contrary, pressure-sensitive institutional investors are constrained of conflict-of-interest and might engage in cooperation with management thus not performing monitoring role and consequently diminishing the firm performance. On top of that, no matter the type of institutional investor, the ownership stability itself provides positive effect to firm performance as long-term investment horizon increases the engagement and involvement in supervision of firm activities.

1.2.4. Family ownership and relation to firm performance

The last type of ownership analyzed in this paper is family ownership. A lot of companies that have been founded and controlled by family members have gone public seeking for external capital and growth opportunities. Still majority of founders have wanted to keep the control of the companies. Therefore new type of agency problem between family and non-family shareholders emerged. First, usually the managers are related to shareholders or are the same family members. Hence they have incentives to align and represent the interest of shareholders consequently increasing the performance of the company with this corporate governance structure (Agrawal, Knoeber, 2012; Desender et al., 2013). On the other hand, the managers might not have the necessary competences and skills to control the company as they were picked from the closed family circle. This leads to shareholders favoring and trusting the management and reducing the reliance on the Board for monitoring function (Desender et al., 2013), which is why the managers might pursue their own interests in company's expense. Therefore the incentives emerge for corporate performance to suffer (Agrawal, Knoeber, 2012).

The empirical evidence showed (Villalonga and Amit, 2006), that the traditional agency conflict between managers and shareholders in non-family controlled companies is more costly than between family and other shareholders in companies with founders as CEOs. Though the conflict is more acute between controlling and minority shareholders in descendants as CEO in family firms than owner-manager confrontation in non-family companies.

Other center of research in family ownership has been the take over of CEO position. The main question is if the firm performance differs in the companies that choose CEO from the founding family members and the ones who favor an outsider. First, in the theoretical framework developed by M. Burkart, F. Panunzi and A. Shleifer (2003) it is stated that the decision whether to hire a professional manager or keep CEO position in the family is greatly determined by the strength of minority shareholders' protection. Namely, in legal systems with strong protection of minority shareholders like in Anglo-Saxon model, the optimal choice for the founder would be to hire professional manager and sell all shares in the market. The market itself would constrain the managerial discretion and perform monitoring function. In systems with medium protection of minority shareholders, the founder family should still hire a professional manager but keep the controlling stake in the company and execute the monitoring function himself. Lastly, in the case of the weakest legal systems, founders should keep the control and ownership in the family as more severe agency problems are implied in the system. Given these points, it can be strongly stated that theoretically separation of ownership and control already indicates the superior corporate governance system.

Moving to the empirical research, numerous researchers (Anderson, Reeb, 2003; Andres, 2008; Isakov, Weisskopf, 2009; Pindado et al., 2008; Villalonga, Amit, 2006) have confirmed that firm ownership has significant positive effect of firm performance (the summary is presented in annex 6). One of the early studies of S&P 500 companies in the period 1992 – 1999 by R. Anderson and D. Reeb (2003) have shown that family firms perform at least as good as non-family firms. By applying two-way fixed effect regression model, authors found greater profitability measured with ROA, though the market performance with Tobin's Q have showed no difference. According to authors, the significantly greater profitability arises from the firms in which the family members serve as CEOs. The founder descendant serving as CEO seems not to make a difference to market performance. The main supporting argument for these results is that family members are considered as stewards of the company who know the business and seek for the best financial results.

Further on, the researches B. Villalonga and R. Amit (2006) have presented the analysis of similar set of firms - US Fortune-500 companies that have been in the list at least for a year in the period of 1994 – 2000. By employing OLS regression model, they have shown that family ownership creates value if founder of the company also serves as CEO or as a Chairman together with non-family CEO. Contrary to R. Anderson and D. Reeb (2003) the research showed that descendants serving as CEOs actually destroy firm value measured by Tobin's Q. Nevertheless, the relative importance of the family firms in this investigation can be argued as the sample companies from US are one of the biggest ones in the world, are mainly old and the US market itself has strong investors protection system thus making more difficult for the families to maintain the control.

Looking to the research done in Continental Europe, the study of 275 listed German companies (Andres, 2008) from 1998–2004 also found the significantly higher profitability in family firms than in widely held companies or other companies with controlling shareholders. Similarly, the study of 178 Swiss companies in period of 2003 to 2007 revealed that family firms have a 1.19 higher Tobin's Q and a 3% higher return on assets than non-family firms (Isakov, Weisskopf, 2009). However, the effect for both cases is present only under a condition that founding family members are involved in the management positions or as Supervisory Board members. Though D. Isakov and J. Weisskopf's (2009) research did not find any significant difference in performance between founder-CEO and descendant-CEO governed firms.

Correspondingly, the extensive research of 779 Western European companies in period of 2000 – 2006 by J. Pindado, I. Requejo and C. Torre (2008) has also confirmed that family ownership has positive impact on firm value. Interestingly, young family firms outperform the old family companies and non-family firms as well, possibly because of entrepreneurial skills brought to the company. This research indeed verifies that independently from the legal system and

protection of minority shareholders' rights in the sample countries (common-law countries (United Kingdom), French-civil-law countries (France, Greece, Netherlands, and Spain), German-civil-law countries (Germany and Switzerland) and Scandinavian countries (Finland and Sweden) the relationship is still significant. Thus these findings oppose the theoretical framework of M. Burkart et al. (2003) stating that the optimal family ownership stake and CEO succession depends on legal protection of minority shareholders in the country.

Moving on to analyze specifically the aspects of relationship between family ownership and firm performance, the main question arise whether the relation is linear and is there any control and monitoring problems with it. R. Anderson and D. Reeb (2003) have found that relation between level of family ownership and both, accounting and market-based, performance is non-linear - it increases in the beginning and then decreases. This means that as the percentage share of family control gets higher, the probability of entrenchment problems and poorer performance increases. The same conclusions were derived in the analysis of Western European countries (Pindado et al., 2008). These findings concur with the conclusions of B. Maury and A. Pajuste (2005) who stated that unequal voting and equity rights by largest shareholder in Finnish companies decrease firm value and the effect is particularly strong in family controlled companies. Additionally, the use of other control mechanisms like voting agreements, multiple share classes, pyramid structures or cross-holdings also diminishes firm value, particularly in founder as CEO firms (Villalonga, Amit, 2006). All these statements correspond with theoretical implications (Agrawal, Knoeber, 2012; Desender et al., 2013) that sufficient level of family control contributes to solving manager-owner agency conflict, nevertheless too big stake of family ownership brings minority shareholder expropriation problem.

As already implied in corporate governance theory, the monitoring mechanisms are one of the tools to align the interests of different shareholders and reduce the risk of the company to be used for private benefits. Analysis of Swiss companies concluded that family controlled companies having a second blockholder are more profitable in terms of 5% higher return on assets and a 1.27 higher Tobin's Q (Isakov, Weisskopf, 2009). B. Maury and A. Pajuste (2005) found that the main incentives of other shareholders to monitor or conspire with the controlling family is the identity of the shareholder - higher voting share of other family would reduce firm value, while higher voting share by a non-family owner would increase firm value. Therefore, it is reasonable to consider the second blockholder or other outside owners to be able to contest and monitor the controlling family and diminish the probability of family manipulations.

To summarize, numerous research (Anderson, Reeb, 2003; Andres, 2008; Isakov, Weisskopf, 2009; Pindado et al., 2008; Villalonga, Amit, 2006) have acknowledged the positive relationship between family ownership and firm performance. Some authors found greater corporate

performance in family firms only when the founder serves as CEO, others have even stated that descendant's governance in family firms diminishes the firm value. Still the main condition for greater profitability and market performance to occur is the founding family has to be active either in management positions or as Chairman of the Board. If the family was holding only an investor's position, the company would not have a superior performance over non-family firms. The relationship of family ownership and firm performance is non-linear, meaning the greater stake of family shares could bring controlling - minority shareholder agency problems. Therefore, the existence of other non-family blockholder could be considered as a good monitoring tool to reduce the risk of private benefit expropriation by family owners.

II. METHODOLOGY FOR EMPIRICAL RESEARCH OF CORPORATE OWNERSHIP STRUCTURE RELATIONSHIP TO FIRM PERFORMANCE IN BALTIC STATES

The second chapter of this paper is intended to present regulatory framework of corporate governance in European Union and specific legislations in Baltic States, historical development and structure of corporate ownership in Baltic listed companies as well as detailed presentation of empirical research methodology, which will be used later on to test the impact of corporate ownership structure to firm performance.

2.1. Legal framework of corporate governance

The discussion of legal corporate governance regulatory framework is relevant for further analysis of corporate governance system and the historical development of corporate ownership structure in Baltic countries. The regulatory environment in corporate governance field constitutes of various legal documents in hard and soft law, which have different binding power towards the regulations of corporate governance practices on company level. First, hard law refers to the European Union (EU) directives that have legal binding power and have to be transposed to national law of each Member State to be applicable for all citizens but leaving local regulatory authorities the choice of form and methods of application. Second, the soft law has no binding force and is composed of EU recommendations as well as corporate governance codes that are adopted on national level in each Member State separately and are applicable under “comply-or-explain” rules. Furthermore, EU Commission develops an action plan, which comprises of future initiatives in corporate governance field and company law. Additionally, each country has other regulatory norms related to corporate governance, which are spread through out national legislations thus have to be analyzed for each country individually. All the above-mentioned documents will be discussed in the following.

2.1.1. Corporate governance regulation in the EU

Four main EU directives are discussed further as they are considered to be relevant and related to the field of corporate governance and corporate ownership structure. The first is the *Directive 2004/25/EC of the European Parliament and of the Council of 21 April 2004 on takeover bids*. The full implementation of Directive into the national law of Member States was due until 2006. The main goals of this Directive is to develop common rules for improvement of the

efficiency of takeover market in Continental Europe as well as increase the protection of minority shareholders in the case of takeover. The main changes introduced constituted of a mandatory bid rule, a squeeze-out/sell-out rule, a board neutrality rule and a breakthrough rule. The first two were intended to increase the protection of minority shareholders where as the later two were to facilitate the takeovers.

Mandatory bid rule. The mandatory bid rule forces the new investor to make a full takeover bid for all remaining shares after he would acquire a blockholding that provides direct or indirect control of the company (Art. 5, p. 1). This rule provides minority shareholders a right to sell their shares in the change of company's control. Additionally, the equal treatment principle ensures the minority shareholders to get the same price as it was offered to selling blockholder (Art. 5, p. 4) thus increasing the price of the takeover as usually blockholdings are sold with a premium for control. The threshold for mandatory bid in Western European countries have been observed to be around 30% of shares blockholding. Mandatory bid rule reinforces the concentrated ownership and reduces the probability of takeover bids (Köhler, 2009).

Squeeze-out/sell-out rule. The squeeze-out rule lets the bidder who took over a large part of the capital to acquire the remaining shares for a fair price (Art. 15, p. 2). It reduces a problem of minority shareholders withstanding from the selling and enforcing the bidder to acquire the whole company for better control and efficiency gains. The sell-out rule is placed from the perspective of the minority shareholders who gain a right to sell their shares to a blockholder after he reaches a specific sell-out threshold (Art. 16, p. 1). It reduces the likelihood of the blockholder not acquiring remaining shares it increases the total price of the takeover. EU Member states can set a squeeze-out/sell-out threshold in between of 90 % to 95 % of shares (Art. 15, p. 1). As the squeeze-out rule intends to ease the takeovers, the sell-out rule protects the right of minority shareholders not to be expropriated by the blockholder and tries to reduce the likelihood of the takeover. All together, both rules lead to the full acquisition of the companies as the bidder reaches the 90 % - 95 % threshold (Köhler, 2009).

Board neutrality rule. Board neutrality rule forces the Board of Directors of the target company to withstand from any anti-takeover action before getting the authorization from the general meeting of shareholders (Art. 9, p. 1). The post-bid defense actions would involve for example share buyback that would reduce the available number of shares for takeover. Without the authorization the Board can only look for another bidder. The application of this rule should increase the likelihood of hostile takeover as the management of the target company would be able to raise less obstacles. As the bidders use hostile takeovers for acquiring inefficient companies, the board neutrality rule should decrease the application of anti-takeover mechanisms that prevent from value-creating acquisitions and harm shareholders. Nevertheless in concentrated ownership

structures, the effectiveness of this rule is equivocal as the blockholders have the direct control to decide on post-bid defenses and it might even increase the entrenchment of controlling shareholders (EU Commission, 2007).

Breakthrough rule. As the board neutrality rule, the breakthrough rule also aims to ease the hostile takeovers, though it focuses on eliminating pre-bid defenses like voting restrictions (EU Commission, 2007). As under this rule all shares have one voting right, the bidder can ignore current controlling blockholder and try to acquire the minority shares to gain the control. It would also pay with the lower price as no controlling premium applies.

The EU Commission recognized shortcomings of this takeover Directives though noted that disclosure of takeover defense mechanisms might increase the awareness of investors and push the management to reduce their entrenchment (EU Commission, 2007).

The next *Transparency Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004* (amended by directive 2007/14/EC) have focused on harmonization of transparency in European Union capital markets. The Directive seeks to protect minority shareholders by setting minimum transparency requirements namely publication of financial information as well as acquisition and disposal of shareholdings, notification of proportion of voting rights when it exceeds 5, 10, 15, 20, 25, 30, 50 and 75 % (Art. 9, p. 1). Transparency Directive intended to improve the monitoring of large shareholders for regulatory institutions and minority shareholders to decrease the likelihood of private benefits expropriation.

Moving forward, *Shareholder Directive 2007/36/EC of the European Parliament and of the Council of 11 July 2007* have gradually increased the rights of shareholders to get relevant company information before the General Meeting and improved the rights to vote from a distance. It mainly affected the blockholders who exercise de facto control of the company leaning on the absence of minority shareholders in the voting. In the concentrated ownership structures the influence of Shareholder Directive can be ambiguous as financially comfortable blockholders can seek to increase their holdings to gain de jure control thus the Directive would encourage even higher concentration of shares. On the other hand, financially constrained blockholders would not be able to purchase more shares thus would consider divesting, which would lead to more dispersed ownership (Köhler, 2009).

M. Köhler (2009) provided a summary (Table 1) of the effect of all these EU Directives on takeover activity, investor protection and corporate ownership structure.

Table 1

Effect of EU Directives on takeover activity, investor protection and ownership structure

	Concentrated ownership structure		
	Blockholder-based system		
	Impact on takeover activity	Impact on investor protection	Impact on ownership structure
<u>Transparency Directive</u>	Fewer M&As	Better protection	More dispersion
<u>Shareholder Directive</u>	Fewer M&As	Better protection	Ambiguous
<u>Takeover Directive</u>			
<i>Mandatory bid rule</i>	Less trade in controlling blocks	Better protection	More concentration
<i>Squeeze-out rule</i>	More M&As	Better protection	More dispersion
<i>Sell-out rule</i>	Fewer M&As	Better protection	More dispersion
<i>Breakthrough rule</i>	More M&As	Ambiguous	Ambiguous
<i>Board neutrality rule</i>	Ambiguous	Ambiguous	Ambiguous

Source: M. Köhler (2009) p. 32

The table shows that both Transparency and Shareholder Directives decrease the takeover activities while increase the protection of investors. By monitoring more the large shareholders, Transparency Directive intends to support more dispersed ownership. On the other hand, Takeover Directive has miscellaneous implications depending on the rules applied. In sum, all Directives aim to improve the corporate governance issues, provide more awareness and protection to investors to make more informed decisions.

The last directive relevant to corporate governance field is *Accounting Directive 2006/46/EC of the European Parliament and of the Council of 14 June 2006*. This legislation amended few previous Directives applicable to annual company accounts. The main improvements of the Directive are targeting to enhance the trust in financial statements and annual reports of EU companies, namely, enhancement of Board Members collective responsibility, increased transparency of related party transactions and off-balance sheet arrangements, and most importantly introducing the disclosure of corporate governance practices in separate area in annual reports. Member States should have complied with this Directive by transposing regulations into the national law by September 2008.

In sum, all these four EU Directives tackle specific issues related to corporate governance – transparency, information accessibility to investors, protection of investor's rights etc. Nevertheless, these legal acts do not form a comprehensive regulatory framework. Hence, the other soft law legal acts such as EU Recommendations and EU Commission Action plan complement the regulations in corporate governance field. Three EU Recommendations focus on Director's remuneration policy and role of supervisory Board, namely, Commission Recommendation 2004/913/EC of 14 December 2004 fostering an appropriate regime for the remuneration of directors of listed companies, Commission Recommendation 2005/162/EC of 15 February 2005 on the role of nonexecutive or supervisory directors of listed companies and on the committees of the (supervisory) board and Commission Recommendation 2009/385/EC of 30 April 2009 complementing Recommendations 2004/913/EC and 2005/162/EC as regards the regime for the remuneration of directors of listed companies. All these three recommendations have been later taken into account but not fully implemented while forming corporate governance codes in Baltic States.

The last EU initiative providing guidance and strategic plan for future legislative and non-legislative documents in corporate governance and company law has been the EU Commission Action Plan (COM/2012/0740 final) with its final version adopted in 2012. The Action Plan focuses on improving transparency between companies and investors, initiatives to encourage long-term shareholder engagement and improving the framework for cross-border operation of companies. (European Commission, 2015).

In conclusion, EU institutions have put in place some major Directives and Recommendations that have been unequally adopted by Member States. All regulations do not comprise comprehensive framework thus other international organizations and national regulators in each Member State have additionally put in place non binding codes of best practice to enhance corporate governance. They are discussed in the further subchapters.

2.1.2. International principles of good corporate governance

Increasing relevance of corporate governance issues led international organization to create and introduce principles of good corporate governance. These principles provide the guidance to policy makers, regulators and market participants how to improve legal, institutional and regulatory framework in corporate governance. It also provides practical examples for stock exchanges, investors and companies how to develop the process of good corporate governance (Jesover, Kirkpatrick, 2005).

According to A. Pacala (2012), there have been three major papers published after 1990s in which principles of corporate governance are described:

- The UK Cadbury Report (1992);
- OECD Principles of Corporate Governance (1998 and revised version in 2004);
- The Sarbanes-Oxley Law in the U.S. (2002).

The author summarized main areas of those principles (Pacala, 2012):

1. Ensuring the rights of all shareholders and their fair treatment. All rights have to be respected and the guidance of exercising them should be provided through transparent and efficient communication of information;

2. The interest and rights of other stakeholders, which are established by the law, have to be respected and recognized;

3. The Board of Directors has to be competent and able to assess and control the performance of management. There has to be appropriate level of independence and commitment to fulfill responsibilities;

4. Integrity and ethical behavior should be ensured by a code of conduct for executives and managers;

5. Companies should implement procedures for periodical reporting of its duties, responsibilities, and financial information to provide its shareholders with transparency, clear and useful information.

All these principles represent shareholder equality, structures of management monitoring, accountability to shareholders and transparency. The above-mentioned papers served as the basis for all the countries worldwide to develop codes of corporate governance in their own countries for listed companies. To provide better insight of which areas these corporate governance principles cover, the mostly used OECD principles are described in annex 7.

2.1.3. Corporate governance regulation in Baltic States

To improve corporate governance in separate countries, the regulatory or supervisory institutions have been implementing principles of good corporate governance practices via corporate governance codes. In the Baltic States, the stock exchanges of each country were the initiators to adopted corporate governance codes to help listed companies enhance the level of corporate governance. The disclosure of (non)compliance to governance code has been one of the listing requirements. According to the index of codes by European Corporate Governance Institute (2015), National Stock Exchange of Lithuania was the first institution in Baltics to implement Corporate Governance Code for listed companies in 2003. After OMHEX, Northern Europe's

largest securities market operator (current NASDAQ OMX) acquired controlling shares of all Lithuania, Latvia and Estonia stock exchanges in 2004, the governance codes were put in place in Latvia and Estonia as well (Nasdaq OMX Baltic, 2015, History). In December 2005, Riga Stock Exchange (Latvia) presented principles of corporate governance where as Tallinn Stock Exchange (Estonia) presented code for their listed companies only in 2006 (European Corporate Governance Institute, 2015). Hence, the recommendations of the codes and disclosure of compliance have been in place in all three States since 2007.

Nevertheless, even more changes came along with the integration of Tallinn, Riga and Vilnius stock exchanges into Nasdaq OMX Group by creating a single Nasdaq OMX Baltic market in 2008. In 6th of August, 2009 Nasdaq OMX Baltic exchanges launched a joint non-profit organization, Baltic Institute of Corporate Governance (Nasdaq OMX Baltic, 2015a). As a result, the codes of Nasdaq OMX Vilnius and Nasdaq OMX Riga have been revised and came into force starting with the financial year of 2010. Therefore, Nasdaq OMX Group have not tremendous work trying to improve corporate governance practices in Baltic region.

Further on, all three codes are applicable under comply-or-explain rules meaning companies need to adopt suggested governance practices or explain the chosen alternative approach. The main goals of the codes are to provide principles for transparent management, improvement of governance framework, disclosure of information of companies' activities, management quality, boost confidence for domestic and foreign investors as well as other stakeholders.

The table in annex 8 represents the areas under which the Baltic governance codes are providing recommendations. The principles in all Baltic States are similar. All of them start with the basic description of what is the code for, what is the goal of the company. All codes state that the main goal of the company is to ensure shareholders value creation in a manner of equal treatment of the shareholders and fair representation of their rights. Clearly the "agency theory" has done huge impact for developing these codes as the main focus in all codes is only into relationship between management bodies and shareholders. Good governance codes cover duties, obligations, rights and responsibilities of different governance bodies (board of directors, council) as well as remuneration policies. Interestingly, only in the code for Lithuanian companies, there is separate principle for respecting the rights of other stakeholders. Additionally all codes provide recommendations for transparent information disclosure and procedures for external control (auditor selection). Still, the Estonian corporate governance code is represented in most detail, though does not cover all relevant topics, mentioned in other Baltic States' codes.

In conclusion, the comprehensive framework of corporate governance in EU and Baltic States constitutes of hard law and soft law acts. Hard law represents EU Directives directly

applicable into national law, soft law corresponds EU Recommendations, EU Commission action Plan, OECD governance principles and national governance codes. All of the abode mentioned initiatives tackle specific issues like transparency, information accessibility, disclosure, investors protection, shareholder voting rights empowerment etc. in order to enhance corporate governance practices in listed companies.

As the corporate governance is tightly related to corporate ownership structures, the later subchapter presents shortly the system of corporate governance in Baltic countries as well as the analysis of privatization influence to historical corporate ownership development in the region and current ownership trends.

2.2. Corporate governance environment and ownership structure in Baltic States

The historical development of corporate governance in Baltic States has begun after all three countries – Lithuania, Latvia and Estonia – have reclaimed their independence in 1990. One of the major factors influencing the current governance system and ownership structure is privatization. In later subchapters the main historical aspects of privatization are presented as well as current corporate governance environment and ownership structure in all three Baltic States.

2.2.1. Privatization and corporate governance system in Baltic countries

In general, all three Baltic States – Lithuania, Latvia, and Estonia - have been considered as one homogenous unit. All countries are small economies, with similar geographic position and natural resources. Nevertheless, the inclusion into Soviet Union for 50 year have left heritage of the same life style, mentality and culture. In 1991 mass privatization of state property has been launched to transform the whole economic system from planned economy to capitalism. Despite the evident commonalities, all Baltic countries have gone through different privatization and transformation processes, mainly because of religion differences, history and political preferences, structure of industry and trade (Ginevičius, Tvaronavičienė, 2003).

Privatization and governance environment in Lithuania. Privatization in Lithuania was performed in two stages relating to the legislations that were used in each stage. The first stage of privatization was regulated by the Law on Initial Privatization of State Property (1991, Nr. 10-261) released in 1991 and covered the period of 1991 – 1995. The main goal in this stage has been to change the form of ownership from the state-owned to privately owned for as many companies as possible by employing voucher system. Employees were allowed to privatize up to 50 % of the

stake in the companies (Bivainis, 2000). Still, the stage is characterized as spontaneous privatization focusing on the quantity of privatized companies but not the quality and effectiveness of privatization. After the first stage of privatization the ownership structure in Lithuanian companies was the following: in privatized companies (70,9% of total companies) 52 % were owned by individuals and corporations, 48 % were still owned by the state and 7,4 % were transferred to employee ownership. Moreover, foreign investors had interest only into big and monopolistic companies, thus until the end on 1995 only 4 companies where privatized by foreign investors (Solnyškinienė, 2004).

On the other hand, the second stage of privatization covering the period of 1996 – 2001 was performed through selling large stakes of the companies to strategic investors. Privatization was regulated by the Law on Privatization of State and Municipal Property released in 1997 (Nr. 10-261). Mainly large enterprises were privatized on this stage by employing principle of the best price in certain best conditions. Also, practically all investors were foreign. The residual minority share was privatized by public sale on the stock exchange. Additionally, managers of the companies played an important role in this privatization stage as they were purchasing shares that were privatized by other employees and in this way increased the concentration of the shares (Bivainis, 2000). Relating to influence on corporate governance, it was stated that the good governance practices brought by foreign investors have not spread further away from the large companies and only boosted the governance level in the investee companies (Solnyškinienė, 2004). As a consequence, the main influence of the privatization in Lithuanian companies was the high concentration of ownership by foreign investors in big companies and high stake owned by managers of the companies. The government's choice to launch only minority stake of shares publicly on stock exchange led to a slow development of the capital market.

After the privatization process accelerated, the actual governance of the companies gained its relevance. To access the EU, Lithuania had to implement EU Directives into national law system. Additionally, using the EU recommendations and other suggestive acts from international organizations, the main principles of good corporate governance practices were implemented in the Civil Code, the Law on Companies, the Law on the Securities, the Law on Markets in Financial Instruments and other legal acts. The acts contained the provisions to protect shareholder interests, to regulate functions, accountability and liability of corporate bodies and to ensure transparency of corporate governance (Nasdaq OMX Vilnius, 2010). These provisions set the rules for all legal entities in the country while the corporate governance code implemented by Nasdaq OMX Vilnius stock exchange is applicable only to listed companies to encourage the companies to follow even higher standards than the ones set in the law.

Privatization and governance environment in Latvia. Privatization process in Latvia has also been divided into two phases. The first one, also comprised the period of 1991 -1995 and was focused on the privatization of small and medium enterprises. The form of privatization was typically a take-over by management and employees. In the end of phase one in 1995, majority of small and medium companies have been privatized with the dominating form being insider ownership - 51 % in all privatized companies. In the large organizations with more than 200 employees, the state kept a majority stake of 41 %. Additionally, just few companies left to be without a majority owner (Vanags, Štrupišs, OECD, 1999).

The second phase of privatization focused to find strategic investors in the companies to avoid specific governance issues. In the beginning of 1999, 95 % of companies were privatized although Latvian government kept ownership in the biggest and strategically most important companies (mainly transportation, telecommunication, utility companies). The privatization process shaped corporate governance process with the main emphasis on finding strategic investors for most privatized companies. Therefore, the ownership is highly concentrated with a major investor having more than 30 % of shares. Nevertheless, country managed to attract foreign investors resulting in half of the companies being owned by them (Vanags, Štrupišs, OECD, 1999).

The main legislations regulating corporate governance issues in Latvia have been developed in the first years of independence – in the period of 1990 till 1993. The main principles were incorporated into the Law on Entrepreneurial Activity, Law on Enterprise Register, Law on Joint Stock Companies, Law on Securities and Commercial Law. In the later years they have been reviewed and updated to meet EU requirements and current economic conditions (Vanags, Štrupišs, OECD, 1999).

Privatization and governance environment in Estonia. The current company ownership structure was mainly affected by fast mass privatization with the goal of Estonian government to establish a base of core owners. In the beginning of the process, small and medium sized enterprises were sold by an auction. By the end of 1994, majority of those companies were privatized. Though, it took longer to sell larger companies. One of the key features of privatization in Estonia is that there were no limits of the stake that can be privatized by foreign investors, thus the application of tender method has resulted in most of the sales going to foreign investors. According to Estonian Privatization Agency, 70 % of privatized companies belonged to foreign owners up until 1993. Later on, by the end of 1995, 90 % of non-infrastructure companies were privatized considering the privatization process completed (OECD, 2011). Hence, Estonia has performed privatization process the fastest from all Baltic States.

The main legal act regulating corporate governance in Estonia is Commercial Code, which was enacted in 1995. It has been reviewed and amended several times later on (in 2008, 2009).

Commercial Code provides basic rules of governance for different types of companies, as well as Civil Code Act provide general rules valid for all legal entities. Specific rules regarding financial institutions, investment funds and investment companies have been put in place in separate legal acts regulating their activities (OECD, 2011).

Corporate governance system in Baltic countries. Baltic capital markets are characterized as small with few listed companies. The stock exchanges of all three countries have been connected to one Nasdaq OMX Baltic market with market capitalization of only 5,87 billion EUR in the end of 2014. The largest stock exchange is in Vilnius, Lithuania with 34 listed companies and corresponds to 3,33 billion EUR market cap. The second largest market is Tallinn, Estonia stock exchange with 15 listed companies and market cap of 1,66 billion EUR. The smallest exchange is Riga, Latvia market of 875 million EUR market cap even though it has 29 listed companies (Nasdaq OMX Baltic, 2015b). These features determined that Baltic market as a whole is illiquid and has small volatility (Ginevičius, Tvaronavičienė, 2003).

According to the main characteristics of the markets, Baltic States correspond to the European corporate governance model. Namely high concentration of ownership, majority of companies having controlling shareholder, the legal system being shaped by common law corresponds the closest to German corporate governance model. However, there are some market specific features that differs in Baltic governance model.

The analysis of the Baltic listed companies have been performed by the author using the company data from Nasdaq OMX Baltic database and website. The corporate governance index was applied, which included main governance mechanisms that are influencing good governance practices – the characteristics of the Board and internal monitoring mechanism - ownership. The index included annual percentage change of Board members, CEO duality, board size, board independence, managerial and institutional ownership. After analyzing the aggregated CG-index results it can be concluded that corporate governance level in different Baltic States can be considered as good with the average CG-index score of 4 out of 6 during analyzed period of 2009 – 2013. There has been discovered an improvement during the years as in 2009 there were 32% of the companies each having score of 3 and 4, while in 2013 the CG-index value of 3 was held only by 18% and CG-index score of 4 by 49% of the companies. The level of corporate governance in different Baltic States has been similar although the best average score has been given to Estonian companies (4,7) while Lithuanian and Latvian companies held CG-indexes of 4,0 and 3,8 on average.

Moreover, looking separately to the indicators of the Board characteristics in the index revealed the main governance tendencies of Baltic listed companies. First, the recommendations of corporate governance codes in each country suggest having two-tier Boards (management and

supervisory Board) for better monitoring of management and representation of shareholders. Hence, Latvian and Estonian companies have implemented this good CG practice fully with 100 % of companies having two-tier board. On the contrary, majority of Lithuanian companies – 58% - still have one Board. As a result, Lithuanian companies tend to have smaller Board size (6,6) then the average of 8 members in all Baltic companies.

Second, the separation of the Board in two tiers automatically solves the problem of CEO duality, as the CEO and Chairman of management board do not serve as a Chairman of supervisory board. Lithuanian companies also made sure to avoid CEO duality problem even though more than half Lithuanian companies have one board. Thus, it ending up with 99 % of Baltic listed companies with no CEO as a Chairman in the company.

Third, independence of the board, evaluated as a percentage of independent members in the Board, was 18 % on average in all Baltic companies. The weakest independence was in Lithuanian companies (63% below mean of 18%) while Latvian companies have divided in half by 52% having above median independence. The strongest independence was shown by Estonian companies as 83% had above mean percentage value. Nevertheless, the overall average of 18% means only 1 independent member out of 8 members in the Board. Additionally, 64% of Lithuanian companies had 0% independence while only 3% of Estonian counterparts showed this weakness. This indicates that Lithuanian Boards are usually formed and dominated by insiders and representatives of the controlling shareholders with no representation of minority shareholders. Therefore, it can be concluded that the overall independence level in all countries is still pretty low as e.g. recommendation is Latvian governance code suggests and to have one third of independent members in the Board.

Further on, the ownership characteristics should represent the interest of shareholders. The average managerial ownership in all countries is around 54%. This high percentage of ownership can be explained by high ownership concentration in Baltic market. Majority of listed companies have controlling shareholder, which appoints the members to the Board, usually themselves. Relatively small fraction of the shares is left in the free float. Under these circumstances, high managerial ownership can provide better governance practices in terms of representation of majority shareholders' rights though raise a problem of minority right expropriation.

The last indicator of institutional ownership has different degree in every country. Latvian companies attract the least institutional investors having median value of 0% and average of 7%. Lithuanian companies have half of the companies with institutional ownership above overall median of 8%. Remarkably, the research of Estonian companies revealed that 91 % of the companies had higher than 8 % institutional ownership with an average of 23 % for this country,

Therefore, Estonian companies have the most institutional investors in terms of prevalence and trust from the investors.

In conclusion, privatization processes in all Baltic countries have shaped the current corporate governance and ownership structure. The mass spontaneous privatization has been in progress between 1991 to 1999 with the focus on transferring the large stakes of the shares to insiders or other strategic investors. As a result, large companies are mainly owned by foreign investors while majority of the companies have one of few controlling shareholders. The corporate governance system in Baltics is considered insider dominated and is closest to German model with the features of high concentration of ownership, majority of companies having controlling shareholder and the legal system being shaped by common law. Additionally, there are certain voting restrictions as well as Baltic companies mainly have two-tier Boards. Although there are no requirements to include employee representatives as in German system. Furthermore, the specificities for Baltic corporate governance practices are an average size of the Board being 8 members, no CEO duality, really low Board independence having 1 out of 8 Board members independent, high managerial ownership of around 54 % and low institutional ownership of only 13% on average.

2.2.2. Corporate ownership structure in Baltic States

After discussing the legal framework of corporate governance and revealing the governance system in Baltic countries, it is relevant to analyze the actual corporate ownership structure. The division of ownership by different types of shareholders in all Baltic countries together has been presented in Figure 1.

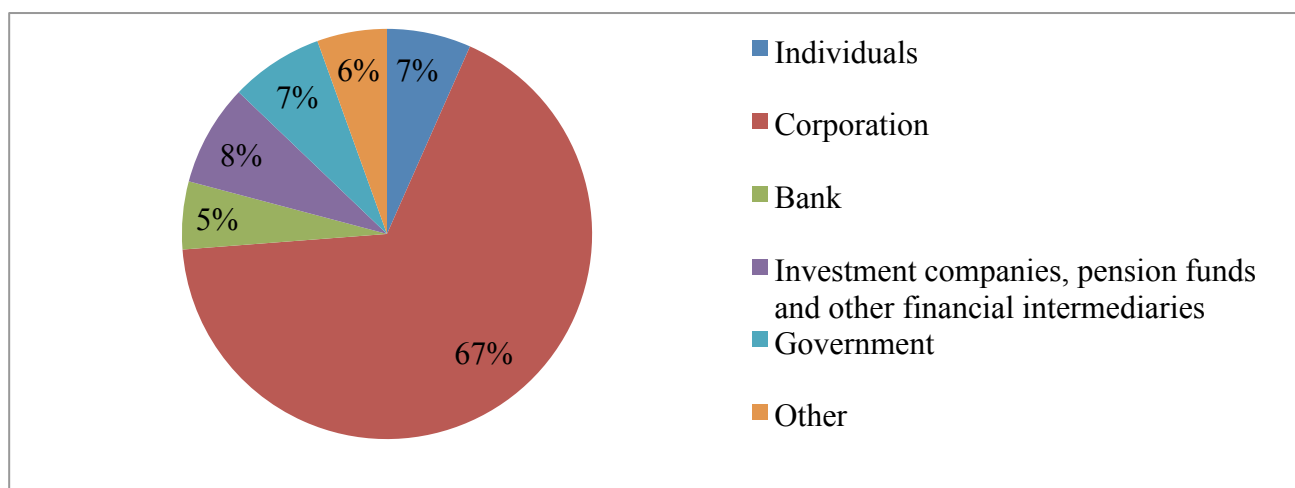


Figure 1. Ownership structure of Baltic listed companies in 2014

Source: Bloomberg database

The pie chart indicates that corporations are the dominant type of ownership by holding 67% of Baltic companies' shares. Although the data dividing investors into domestic and foreign

were not available, it can still be stated that large stake of the foreign investors would fall into this category of shareholders as usually big foreign companies were participating in privatization offers. Also the large stake of listed companies being owned by other corporations and the known facts of high ownership concentration indicate that pyramid ownership structures are widely used among Baltic companies. On the other hand, the institutional investors together (banks and other financial intermediaries) comprise only 13 % of all shareholders. This distribution is totally opposite to the UK or US ownership structures where institutional investors control over 60 % of shares (Charfeddine, Elmarzougui, 2010). Also 7 % of the listed companies still belong to the government indicating that state kept control of strategically important companies. Individual investors including the few individuals controlling shareholders and the numerous small investors represent the last 7 % of the owners.

As can be seen, the ownership structure of Baltic companies is specific. To better understand the differences in ownership patterns, the comparison with European listed companies is made (Figure 2).

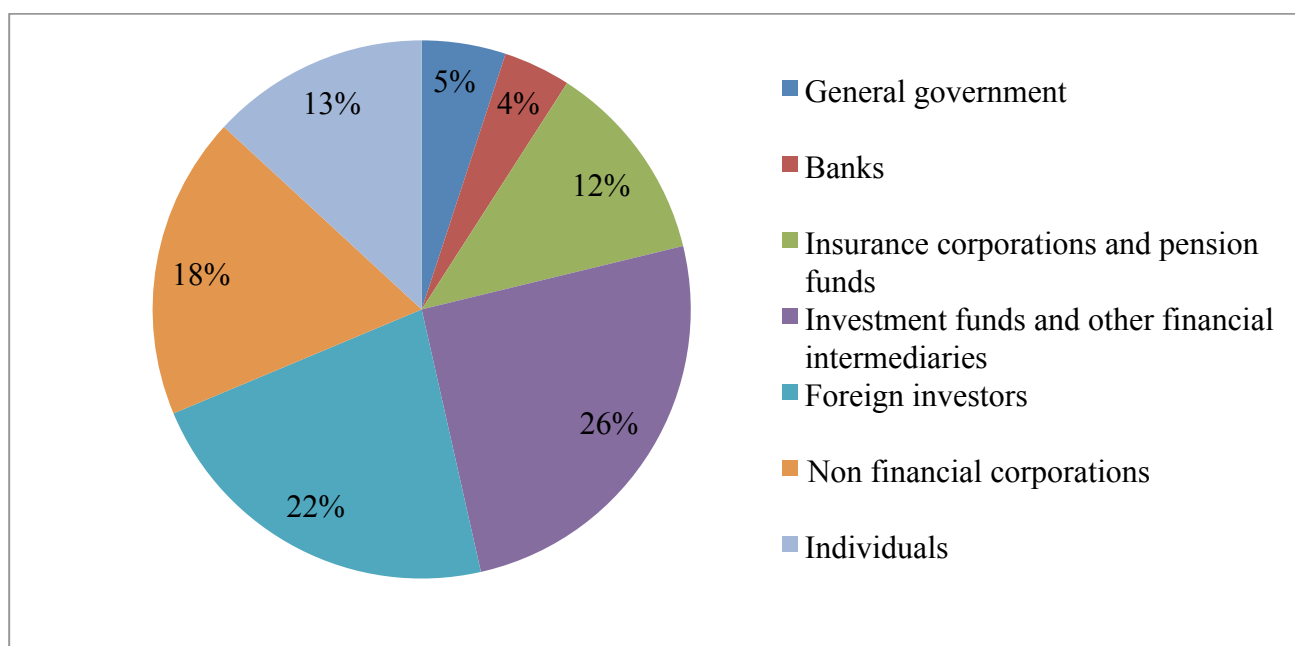


Figure 2. The ownership structure of EU listed corporations in 2011

Source: Davydoff, Fano, Qin (2013) p.7

The pie chart represents the ownership structure of EU listed companies from a single market perspective, meaning all investors within EU are considered domestic and 22 % of foreign investors represent shareholders resident in non-EU countries (Davydoff et al., 2013). Moving forward, the non-financial corporations correspond only 18 % of shareholders relating to 67 % in Baltic countries. Thus the dominating ownership type in other EU countries is not corporations but

institutional investors, which comprise 42 % of shareholders counting them together. This comparison indicates one more time that ownership patterns in Baltic States are really specific for the region resulting in region specific governance patterns as well. It also requires more investigation into the structure in each country separately. The table 2 contains the division of ownership by types and countries.

Table 2

Ownership structure of Baltic listed companies by types and by countries in 2014

Country	Individuals	Corporations	Banks	Investment companies, pension funds and other financial intermediaries	Government
Lithuania	6,2%	77,3%	2,7%	3,9%	5,0%
Latvia	9,1%	63,7%	0,7%	5,5%	15,7%
Estonia	5,9%	54,0%	12,0%	15,6%	6,1%

Source: Bloomberg database

The data in the table 2 indicates actual differences in ownership structures. First, Latvian companies have the highest share of individual owners (9,1%). In fact, a lot of companies in Latvia have majority individual owners though their share is relatively small as Latvian market is the smallest from all Baltics. Moreover, corporations have the highest stake of 77,3 % in Lithuanian companies suggesting that most of those companies are either owned by foreign holding or parent company either are involved in pyramid ownership structures. On the contrary, Estonian companies take the smaller share in other types of ownership, but the institutional ownership of Baltic companies is mainly concentrated in Estonia. 12 % of shares are owned by banks as well as 15,6% by investment companies and other financial intermediaries. This significant difference suggests the higher trust, performance and attractiveness of Estonian companies' shares to institutional investors. Lastly, majority of the state ownership – 15,7 % appears in Latvian corporations, namely utility, gas and transportation companies.

Summing up, the majority of the shareholders in Baltic countries are other listed or non-listed corporations. Other investors constitute only the minority stake while the differences appear in between countries with Latvian companies still having a significant state ownership stake and Estonian companies having the largest percentage of institutional ownership.

After revealing the identity of the shareholders, ownership structure requires to be analyzed from one more perspective. In the previous subchapter, it was concluded that privatization process led to a high concentration of shares in Baltic companies. The Table 3 presents actual data of the development in ownership concentration in the end of privatization process and in the last year.

Table 3**The stake of one and three largest shareholdings in Baltic companies**

Country	Median TOP1, %		Median TOP3, %	
	1999	2014	1999	2014
Estonia	42,24	43,22	61,84	66,80
Latvia	52,64	46,17	71,49	80,45
Lithuania	51,26	61,08	63,74	79,51

Source: compiled by author according to data for year 1999 (Olsson, Alasheyeva, 2000, p.22) and data for year 2014 (annual reports of listed companies in Nasdaq OMX Baltic market).

In the table, the median TOP1 represents the largest shareholding percentage in each country where as median TOP3 shows the cumulative stake of the three largest share blocks. The empirical evidence confirms the previous statements of concentrated ownership, as the median stake of the largest single owner is more than 40 % in all countries. The least concentration originates in Estonian companies with the median largest owner having 42,24 % and 43,22 % in 1999 and 2014 accordingly. It also has smallest cumulative share of three owners holding 66, 8 % of shares in 2014. Latvian companies fall in the middle with 46,17 % of control by one shareholder in 2014 and 80, 45 % by three. Finally, the most significant increase of concentration is observed in Lithuanian companies with already a majority stake of 51,26 % in 1999 increasing to 61,08 % in 2014. The discussed results indicate a really high concentration of control over the companies by just a few shareholders. Evidently, the traditional agency problem does not apply in this case, though the conflict of majority and minority shareholders can be a very relevant issue. The biggest shareholders do not even have to make coalitions to exercise the control as the TOP1 shareholder already controls from 40 to 60 % of shares and the second and third shareholding blocks correspond to the additional 20 %.

In conclusion, the presented ownership structure raises even more questions if there is an actual influence of the differences in ownership concentration, identity of the shareholder on firm market and financial performance. Therefore, the last subchapter of second part of the thesis is dedicated to construct a methodology for the empirical research in Baltic listed companies.

2.3. Corporate ownership empirical research methodology

This subchapter of the paper presents the empirical research aspects related to performing analysis on corporate ownership relation to firm performance in Baltic States. First, the necessity of the research is presented. Second, research problem, goal and hypotheses for empirical research are raised. Third, the research data and its collection methods are presented as well as the selection of research method is determined and the application process is specified. Last, the research limitations and constraints are discussed.

2.3.1. Research problem, goal and hypotheses

The main empirical research findings determined in theoretical part of this paper have been established in performing analysis in developed capital markets as US, UK or Germany. Later research spread to transition economies though the methods were replicated from the previous studies. However, the research in Baltic countries has been fragmented and vague in the area of corporate governance as well as ownership relationship with company market performance or accounting returns. The research that has been done usually by applying specific approach to the research question, mainly analyzing legal development of regulations in corporate governance field (Bivainis, 2000) or focusing on effectiveness of corporate governance codes (Juozaitytė et al., 2008). Other authors analyzed the effect of privatization on corporate ownership structure and the development of ownership structure itself (Starkus, 2001; Solnyškinienė, 2004) or just incorporated partly the question in the wider analysis of development of Baltic Stock exchanges (Ginevičius, Tvaronavičienė, 2003). Therefore the lack of deeper analysis is recognized, specifically in the connection of corporate ownership structure and different forms of ownership to firm performance in the framework of ownership being an internal corporate governance mechanism. None of the studies analyzed all three relevant ownership types – block, managerial and institutional all together in one model in the case of Baltic countries. This type of study could benefit the research of Baltic corporate governance and ownership by comparing these types and their significance as well as effectiveness to company performance as corporate governance mechanism.

As a result, the **empirical research problem** is to determine if there is a significant influence of block ownership, managerial and institutional ownership to firm performance in Baltic listed companies.

Empirical research goal – to assess the relationship between corporate ownership concentration, measured by magnitude of blockholdings, corporate ownership types, specifically managerial and institutional ownership, and company performance.

To achieve the research goal and following the aim of this paper, the author raised the following hypotheses.

H₁ – there is a significant relationship between block ownership and firm performance

The earliest studies (Demsetz, Lehn, 1985; Demsetz, Villalonga, 2001; Holderness, Sheehan, 1988) have not found a significant relationship of block ownership with firm performance. Though it can be argued that these studies were performance in US where the shares are commonly widely spread and block ownership stake is not significantly big to have an effect (Konijn et al., 2011). On the other hand, the studies done in Germany (Gugler, Weigand, 2003; Kaserer, Moldenhauer, 2007), which has much higher concentration of ownership, confirmed a significant and positive effect on firm performance. Therefore, having in mind the similarity of corporate

governance system in the Baltics to the German model and that concentration of block ownership is significantly big, the hypothesis is raised that block ownership should have a significant either positive or negative effect on firm performance.

H₂ – there is a significant relationship between managerial ownership and firm performance

The same early studies than investigated block ownership (Demsetz, Lehn, 1985; Demsetz, Villalonga, 2001; Himmerlber et al, 1999) have not recognized a significant relationship between insider – managerial ownership and firm performance either. Nevertheless, later studies have found either non-monotonic (Morck et al., 1988, McConnell, Servaes, 1990, Wirght et al, 1996 for US companies, Florackis, 2009 for UK companies) or positive and significant relationship in performance of German corporations (Kaserer, Moldenhauer, 2005) or Danish companies (Rose, 2005). In Baltic companies managerial ownership – the shares owned by the members of the Board, is significantly big and reaches on average 54 % thus it should be in line with the agency theory to align the interests of shareholders and managers. Nevertheless as Baltic companies distinguish having one or few controlling shareholders, high stake in managerial ownership mainly means that the controlling shareholders are sitting in the boards themselves thus directly effecting managerial decisions and having direct control over the company. Therefore, based on the previous research and ownership structure in Baltic market, it is relevant to state that managerial ownership would have a significant impact on firm performance as those companies with controlling shareholders can either seek for better performance of the company either expropriate personal benefits from the company and diminishing firm value.

H₃ - there is a significant relationship between institutional ownership and firm performance

The least contradicting findings have been found in investigations of institutional ownership and its effect on corporate performance. Numerous authors (Elyasiani, Jia, 2010; Ferreira, Matos, 2008; McConnell, Servaes, 1990; Wright et al., 1996) concluded that institutional ownership stake is affecting positively the firm performance and can be considered as a separate monitoring agent. Nevertheless, these studies based their findings on the independence of institutional investors thus it might controvert with block and managerial ownership stake. As the block and managerial ownership stake increases, there is less proportion left to be owned by institutional investors thus the positive effect of institutional ownership would be counterbalanced by the effect of managerial ownership. As a result, considering a small average portion belonging to institutional investors (around 8% in all Baltic companies) and the spread that not all companies have institutional investors, the hypothesis is raised that existence of institutional ownership should impact positively firm performance as there would be higher trust from investors in the companies.

To sum up these three identified hypotheses, the assumption that the higher stake of block ownership, managerial and institutional ownership would have a significant, mostly positive effect on firm market performance. The fourth ownership form – family ownership has not been included in the further investigation because the analysis of privatization impact on corporate ownership structure in Baltic listed companies showed that family ownership tradition did not form and is irrelevant in the Baltic context.

2.3.2. Research sample and data collection methods

Research sample. To construct the empirical research sample, the panel data (or time-series cross-sectional data) were used. In theory, panel data should help to overcome the unobserved firm heterogeneity problem (Holderness, 2003) as well as increase the degrees of freedom with more observations and reduce multicollinearity between independent variables (Bohdanowicz, 2014). The research sample constitutes of panel data of all listed companies in Lithuania, Latvia and Estonia (both in primary and secondary lists), which have been listed over the period of 6 years from 2009 to 2014. As currently there are 78 companies listed in Nasdaq OMX Baltic market, it was reduced to 66 companies because of the availability of the data: some companies were delisted or have been listed later than in 2009. Thus, the total sample constitutes of 66 companies from which from which 26 are Lithuanian companies, 28 – Latvian, 12 – Estonian. As a result, data for 66 companies over 6 years period constitutes in 396 observations. The full list of the sample companies and explanations for exclusion are presented in Annex 9.

The distribution of the sample companies by industries is presented in the table 4.

Table 4

Research sample by industries

Industry	Nasdaq OMX Vilnius	Nasdaq OMX Riga	Nasdaq OMX Tallinn	Total companies for Nasdaq OMX Baltic
1000 Basic Materials	1	3	0	4
2000 Industrials	5	8	3	16
3000 Consumer Goods	13	9	2	24
4000 Health Care	0	4	0	4
5000 Consumer Services	1	1	4	6
6000 Telecommunications	1	0	0	1
7000 Utilities	3	1	1	5
8000 Financials	2	1	2	5
9000 Technology	0	1	0	1
Total	26	28	12	66

Source: compiled by author from Nasdaq OMX Baltic (2015) database

As it is visible from the table, the majority of listed companies are concentrated in industrial and consumer good sector with 16 and 24 companies respectively. Industrial sector includes construction, industrial good and services companies while consumer goods industry represent food and beverage, automobiles and components, and consumer durables and apparel sub categories. The biggest variation in terms of industries is represented in sample of Lithuanian companies. However, as the sample constitutes all the listed companies in Baltic States, it is acceptable that each industry would not represent similar number of companies.

Data collection methods. The access to data for this research on corporate ownership and firm performance was only available for listed Baltic companies. Two main sources of data were employed – annual reports of the companies and Bloomberg database. First, data for ownership structure, mainly block, managerial and institutional ownership was collected from annual reports of 6 years of each sample company via Nasdaq OMX database presented on Nasdaq OMX Baltic stock exchange website (Nasdaq OMX Baltic, 2015). The identity of the largest shareholder was determined from all public information as company website, annual reports, public announcements and other public information published. Second, all financial information (Tobin's Q, control variables) of the sample companies was collected from Bloomberg database. The research data covers the period of the global financial crisis and post-crisis period. Therefore, the effect of changes over time is also controlled. Because of the size of the data set used in this research is not presented in the annexes of this paper. Though the full data set file is attached to the paper copy of the Thesis in the CD-ROM. Data can also be provided by contacting the author of the Thesis personally.

2.3.3. Research method and limitations

Research method. As it was discussed in theoretical part of this paper and exhibited in annexes 3 to 6, previous authors determined linear relationship between corporate ownership concentration, managerial and institutional ownership and firm performance. Authors (Demsetz, Lehn, 1985; Demsetz, Villalonga, 2001; Ferreira, Matos, 2008; Gugler, Weigand, 2003; Kaserer, Moldenhauer, 2007; McConnell, Servaes, 1990) used linear regression method by applying ordinary least squares (OLS) approach to test their hypotheses. Some authors (Boone et al., 2011; Cho, 1998; Demsetz, Villalonga, 2001; Elyasiani, Jia, 2010; Kaserer, Moldenhauer, 2007) extended the linear regression model and applied two-stage least squares (2SLS) method to account for endogeneity and possible opposite ownership and performance causality. However, considering the historical ownership development process in Baltic countries, the privatization has been a remedy for current ownership structure to form, which has been performed in some cases spontaneously and according

to the strategic goals of the government. This means that accounting performance or firm value was not the factor to purchase to companies. Moreover, the ownership structure has not changes significantly over time (Table 2) therefore there is no basis to assume the possible reverse causality. Hence, in case of the empirical research in Baltic countries it is considered sufficient to test the relationship with OLS approach.

The regression equation contains dependent variable Tobin's Q, which measures firm market value, independent ownership variables and control variables that capture the effect to firm value that is not explained by ownership variables. Control variables are selected according to the previous research and data availability.

Dependent variable. In this empirical research the dependent variable is defined as firm performance. In previous research there have been few criteria employed to measure firm performance. Main research (Demsetz, Villalonga, 2001; Florackis et al., 2009; Morck et al., 1988; Rose, 2005) has focused on firm performance that was referred as market performance, market valuation measured with Tobin's Q ratio where as other studies (Gugler, Weigand, 2003; Kaserer, Moldenhauer, 2007; Mandacı, Gumus, 2010) examined firm performance in reference to profitability ratios ROA or ROE. The Tobin's Q ratio has been widely accepted in corporate governance research to proxy for firm performance, as it is market based, present the firm through market valuation perspective and capture a long-term effect of corporate actions. Tobin's Q is a ratio of market value to the replacement cost of firm's assets. In this particular empirical research, firm performance is measured by market valuation ratio - Tobin's Q. It is calculated according to the formula of Bloomberg database which corresponds to the definition of Tobin's Q in H. Demsetz, B. Villalonga (2001) research.

Ownership variables. Three hypothesis were raised that distribution of blockholdings, managerial and institutional ownership impact firm value measured by Tobin's Q. Therefore separate independent variables are created to test that effect.

Block ownership. Definition of blockholder is ambiguous: US Security and Exchange Commission defines block owner having more than 5 % of shares (Connelly et al., 2010) while R. La Porta et al. (1999) consider shareholder being "large" when he holds no less than 10 % of voting rights. Nevertheless majority of stock exchanges' supervisory authorities use 5 % threshold as a minimum for share ownership disclosure purposes. Further on, different authors use different amount of blockholdings to measure block ownership influence on firm value. First, H. Demsetz, K. Lehn (1985) as well as H. Demsetz and B. Villalonga (2001) have used a cumulative amount of shares held by top5 shareholders while K. Gugler and J. Weigand (2003), C. Kaserer and B. Moldenhauer (2007) took into account a percentage of all shareholders holding more than 5% of shares. Additionally, while analyzing Lithuanian corporate ownership patterns, J. Solnyškinienė

(2004) measured the amount of shares held by the largest owner. Considering really high concentration of shares in Baltic market, we include both measures of the largest ownership stake (TOP1) to measure the impact of magnitude of controlling shareholder's stake as well as the impact of block ownership measured by cumulative percentage of five largest shareholders' shares (TOP5), which are reported to hold more than 5% of shares each.

Managerial ownership. To test for managerial ownership impact on firm performance, independent variable of percentage share of insider ownership (MANAG) is employed. In accordance with previous studies (Demsetz, Villalonga, 2001; Himmelberg et al., 1999; Kaserer, Moldenhauer, 2007; Rose, 2005) managerial ownership (MANAG) is characterized as percentage of shares held by members of management of the company and members of the Board (both Supervisory and Management).

Institutional ownership. To evaluate the influence of institutional investors as separate governance mechanism, the percentage of shares held by institutional investors (INSTIT) as banks, investment companies, pension funds and other financial intermediaries is also added to be regressed to Tobin's Q.

Control variables. To capture any impact to firm market performance that is not explained by ownership indicators, additional control variables are employed in regression analysis. To control for firm level effects, financial indicators of the companies (LEVERAGE, CAPEX, SIZE) are employed as well as dummy variables that control for specific effect of largest shareholder involvement in the company's activities and industry effects. First, LEVERAGE (total liabilities/total assets) can either have negative impact of firm value because of increased riskiness and debt overhang (Konijn et al., 2011) or either positive effect as creditors would take a disciplining role, managers would have less attempts to entrench themselves and increased debt could serve as a proxy for tax shields (Demsetz, Villalonga, 2001; Seifert et al., 2005). Second, capital expenditure (LN_CAPEX) are considered to reflect the level of investment company makes thus increasing capital expenditures should positively effect firm performance (Seifert et al., 2005). Third, companies' SIZE (measured by natural logarithm of total assets) is included to reflect the fact that it is harder to own a large stake in a big company. Thus large ownership stake serves as proxy for small firm size (Florackis et al., 2009; Kaserer, Moldenhauer, 2007; Morck et al., 1988). Additionally, differences in firm size can have meaningful effect of firm market performance, as it is harder have growth opportunities for large firms.

Dummy variables. Lastly, the dummy variables are included to control for specific industry and shareholder involvement effects. By holding from 40 to 60 % of shares on average, the largest shareholder in the Baltic companies has de facto control of the company. Therefore, the dummy variables to control for the largest shareholder's involvement in the direct control of the company

are employed. They include being an executive manager (TOP1_MANAG), member of the Supervisory or Management Board (TOP1_MEM) or as most common a Chairman of Supervisory Board (TOP1_CHAIR). As the majority of the shareholders in the Baltics are corporations, the representation of them in the company's governance structures would show if shareholders and management goal alignment has a significant influence on firm performance. Additionally, dummies for each INDUSTRY are used to capture heterogeneity in firm performance among industries (Kaserer, Moldenhauer, 2007; Mandacı, Gumus, 2010; Seifert et al., 2005).

Finally, all variables are included in the regression equation (1):

$$\text{TOBINSQ} = \beta_0 + \beta_1 \text{TOP5}_{it} + \beta_2 \text{TOP1}_{it} + \beta_3 \text{MANAG}_{it} + \beta_4 \text{INSTIT}_{it} + \beta_5 \text{LEVERAGE}_{it} + \beta_6 \text{LN_CAPEX}_{it} + \beta_7 \text{SIZE}_{it} + \beta_8 \text{TOP1_MANAG}_{it} + \beta_9 \text{TOP1_MEM}_{it} + \beta_{10} \text{TOP1_CHAIR}_{it} + \beta_{11} \text{IND}_{it} + \varepsilon_{it} \quad (1)$$

β_0 – intercept

$\beta_1 - \beta_{11}$ – coefficients

ε_{it} – error term

The summary and definitions of all variables are presented in Table 5.

Table 5

Variables of regression equation and their descriptions

Dependent variable	Definition
TOBINSQ	Ratio of the market value of a firm to the replacement cost of the firm's assets. Tobin's Q = (Market Cap + Total Liabilities + Preferred Equity + Minority Interest)/ Total Assets (Bloomberg)
Independent variables	
TOP5	Cumulative percentage of shares owned by five largest shareholders each holding more than 5 % of shares
TOP1	Percentage of shares owned by the largest shareholder
MANAG	Percentage of shares owned by members of management and members of Supervisory and Management Board
INSTIT	Percentage of shares owned by institutional investors (banks, investment companies, pension funds and other financial intermediaries)
Control variables	
LEVERAGE	Total liabilities to total assets
LN_CAPEX	Natural logarithm of capital expenditures
SIZE	Natural logarithm of total assets
TOP1_MANAG	Dummy variable, 1 if the largest shareholder is an executive manager in the company, 0 if no
TOP1_MEM	Dummy variable, 1 if the largest shareholder is a member of the Board or is represented in the Board, 0 if no
TOP1_CHAIR	Dummy variable, 1 if the largest shareholder is a chairman of Supervisory Board, 0 if no
INDUSTRY	Dummy variables for industries: Basic Materials (IND_BASIC_MATERIAL), Industrials (IND_INDUSTRIAL), Health Care (IND_HEALTH), Telecommunications (IND_TELECOM), Utilities (IND_UTILITY), Financials (IND_FINANCE), Consumer Goods (IND_CON_GOODS), Technology (IND_TECH), Consumer Services (if all other 0 value)

Source: compiled by author

Limitations. This research has been constrained by several limitations. The results of the research have the same limits as previous research, as depending on the time frame and sample selection. Second, firm performance is analyzed only by employing market performance, market valuation based indicator - Tobin's Q. No profitability ratios are taken into account. Third, the research findings can be related only to the relationship in Baltic listed companies, as the sample is not representative to do wider conclusions.

Summing up the methodology for empirical research of corporate ownership structure relationship to firm performance in Baltic States, the main empirical research goal is to assess the relationship between corporate ownership concentration, measured by magnitude of blockholdings, corporate ownership types, specifically managerial and institutional ownership, and company performance. Three hypotheses have been developed, namely H1 – there is a significant relationship between block ownership and firm performance, H2 – there is a significant relationship between managerial ownership and firm performance and H3 - there is a significant relationship between institutional ownership and firm performance. The research sample constitutes of panel data of all listed companies in Lithuania, Latvia and Estonia, which have been listed over the period of 6 years from 2009 to 2014. Data comprise of 66 companies from which 26 are Lithuanian companies, 28 – Latvian, 12 – Estonian, in total 396 observations. Data for ownership structure was collected from annual reports over 6 years of each sample company via Nasdaq OMX database and all financial information (Tobin's Q, control variables) of the sample companies was collected from Bloomberg database. To test the relationship of ownership structure and firm performance, ordinary least squares (OLS) linear regression method was employed. Dependent variable was firm performance measured by Tobin's Q. Independent variables included blockholding by TOP1 and TOP5 shareholders, managerial ownership stake (MANAG) and institutional ownership (INSTIT). Control variables included financial indicators of the companies (LEVERAGE, CAPEX, SIZE, INDUSTRY) and largest shareholder's involvement in the company's being in executive management (TOP1_MANAG), member of the Supervisory or Management Board (TOP1_MEM) or a Chairman of Supervisory Board (TOP1_CHAIR). The research has limitations on drawing conclusions only on Baltic stock markets.

III. EMPIRICAL RESEARCH RESULTS OF CORPORATE OWNERSHIP STRUCTURE RELATIONSHIP TO FIRM PERFORMANCE

In this last third chapter the results of corporate ownership structure impact on firm performance are presented. First, the compliance of the regression model to the assumptions is tested as well as descriptive statistics of the variables are presented. Further, detailed analysis of the relationship of blockholdings, managerial and institutional ownership influence is provided. Lastly, the results of the research in Baltic States are compared with the previous empirical studies and conclusions are drawn.

3.1. Testing of assumptions for regression analysis

In order to provide unbiased results using ordinary least squares (OLS) linear regression approach, several assumptions need to be met.

Outliers. First, the univariate outliers of dependent variable Tobin's Q and multivariate outliers for regression model are eliminated. Univariate outliers were eliminated by using outliers labeling rule, which states that observations are considered outliers if they fall out the interval (Tukey, 1977):

$$((Q1 - g(Q3 - Q1), Q3 + g(Q3 - Q1))) \quad (2)$$

Q1 – first quartile; Q3 – third quartile; g – tuning parameter

Later studies suggested g parameter value of 2.2 as more appropriate than the previous calculated g value of 1.5 (Hoaglin, Iglewicz, 1987). After calculating the values, the observations for TOBINSQ dependent variable are outliers if they fall out of the interval of (0; 1,8609). Further, multivariate outliers are detected by using Cook's distance test. Cook's distance is used to show the influence if deleting an observation in least squares regression analysis. Data point with large residuals (outliers) can distort the accuracy of the results of regression. The outliers are detected by formula:

$$D_i > 4/n, \text{ where } D_i - \text{Cook's distance, } n = \text{number of observations} \quad (3)$$

In our sample there are 396 observations, thus the outliers are all data points, which have $D_i > 0,01$. The compliance with both of these conditions result in elimination of 28 observations, thus the sample observations is decreased to 368.

Multicollinearity. Regression model includes an assumption of non-multicollinearity, meaning that there is no high correlation between one or more independent variables in the

regression model. To test for this assumption, the variance inflation factor (VIF) is used. A rule of thumb is if VIF is higher than 10, the variable is said to be collinear, thus a multicollinearity problem appears (Gujarati, 2004). After testing the constructed model, the results are provided in the table 6.

Table 6

Collinearity statistics

Model variable		VIF	Model variable		VIF
1	(Constant)				
	TOP5	1.593	TOP1_CHAIR		1.185
	TOP1	1.511	IND_BASIC_MATERIAL		2.278
	MANAG	1.273	IND_INDUSTRIAL		3.740
	INSTIT	1.372	IND_HEALTH		2.168
	LEVERAGE	1.240	IND_TELECOM		1.128
	LN_CAPEX	3.311	IND_UTILITY		2.400
	SIZE	3.840	IND_FINANCE		2.465
	TOP1_MANAG	1.350	IND_CON_GOODS		5.129
	TOP1_MEM	1.235	IND_TECH		1.268

Source: compiled by author using SPSS

In table 6 it is clearly indicated that VIF of none of the variables exceed value of 10, thus the assumption of no multicollinearity is satisfied.

Heteroscedasticity. Violation of homoscedasticity is another major issue in linear regression analysis. Homoscedasticity means that the variance of standard error terms of independent variables is constant number. The violation of this assumption – the presence of heteroscedasticity can impact the significant intervals of the regression (Gujarati, 2004). To significantly test for heteroscedasticity, the Breusch-Pagan test is employed. The results are provided in the table 7.

Table 7

Test for heteroscedasticity

```

Breusch-Pagan test for Heteroscedasticity (CHI-SQUARE df=P)
79.787

Significance level of Chi-square df=P (H0:homoscedasticity)
.0000

```

Source: compiled by author using SPSS

Breusch-Pagan test is a Chi-square test, where the null hypothesis is that data is homoscedastic and the alternative hypothesis is that data is heteroscedastic. In the case of this data, the significance level of 0.000 proves that the data is heteroscedastic. To correct the pitfalls of

heteroscedasticity existence, the procedure in SPSS program is employed to perform regression analysis with heteroscedasticity adjusted standard errors. In this way the p-values are corrected.

Autocorrelation. Next assumption of autocorrelation is an important issue using time-series data in regression analysis. Autocorrelation is defined as “correlation between members of series of observations ordered in time [as in time series data] or space [as in cross-sectional data]”. Thus, classical assumption states that there is no correlation between error terms of one observation with any other one. To detect if autocorrelation existence, the Durbin-Watson test is employed. Durbin-Watson test generates the d statistic, which has to be around 2.0 to accept the null hypothesis of no autocorrelation (Gujarati, 2004). In our case, d statistic is equal 2,086, which means the assumption that there is no autocorrelation between error terms is satisfied.

Linearity. To apply a linear regression analysis, the data has to be linearly related. The figure 3 represents the plot of standardized residuals versus standardized predicted values, which shows the presence of linear relationship.

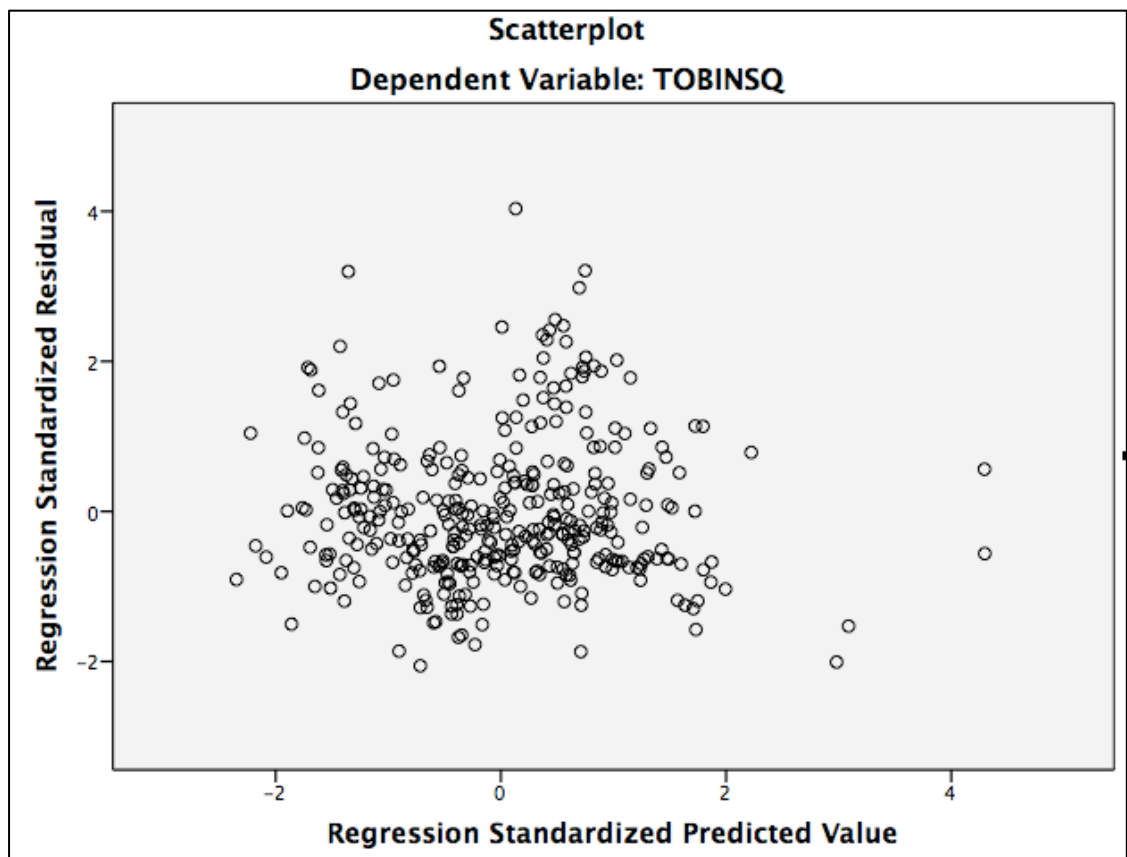


Figure 3. Scatterplot of regression analysis model

Source: compiled by author using SPSS

The points are distributed in such a manner that could be fitted between two parallel horizontal lines. This indicates that variables are related linearly and can be used in a linear

regression model to predict linear relationship. Additionally, all independent variable are treated as exogenous.

Normality. The last additional assumption in linear regression is that values of the residuals are normally distributed. The histogram in figure 4 represents the distribution of standardized residuals of the regression.

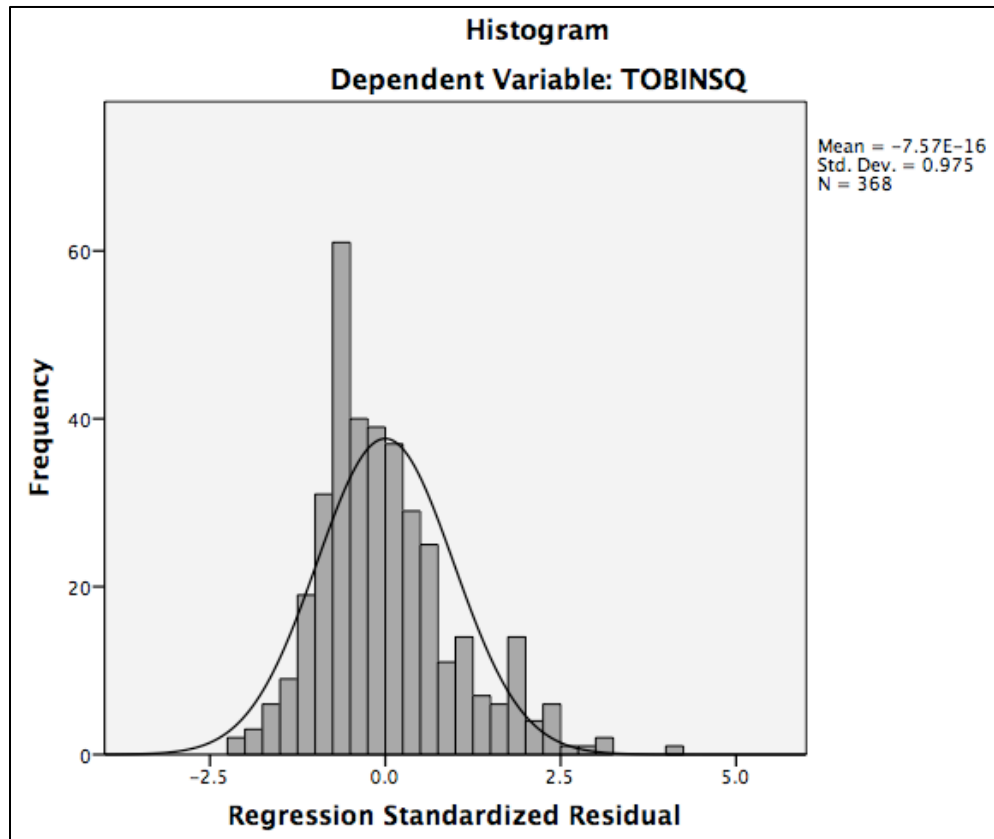


Figure 4. Distribution of standardized residual values in regression model

Source: compiled by author using SPSS

Clearly, the standardized residuals are not distributed normally, however, residuals only significantly affect the model and provide biased coefficients if the residuals are very far from the normal distribution. As standardized residuals roughly follow the normal pattern, in this case it is concluded that all assumptions except heteroscedasticity are satisfied and the error terms in the regression analysis will be adjusted accordingly to its presence. As all the assumptions are tested, in the next subchapters the descriptive statistics and results of regression analysis are presented.

3.2. Results of empirical research in corporate ownership structure relationship to firm performance

In this subchapter, the results of the ordinary least squares (OLS) regression analysis are presented. First, descriptive statistics of ownership and control variables are presented in Table 8.

Table 8**Descriptive statistics of ownership and control variables**

	N Valid	Mean	Median	Std. Deviation	Skewness	Kurtosis	Minimum	Maximum
TOBINSQ	368	0.865	0.850	0.289	0.575	0.357	0.184	1.828
TOP5	368	76.357	77.740	15.137	-0.618	0.088	25.810	99.040
TOP1	368	48.669	48.090	20.764	0.621	-0.146	9.980	99.030
MANAG	368	47.697	51.365	29.629	-0.233	-1.000	0.000	98.330
INSTIT	368	11.229	7.235	14.958	2.140	6.219	0.000	84.560
LEVERAGE	368	0.457	0.484	0.233	-0.016	-0.747	0.016	1.059
LN_CAPEX	368	13.396	13.671	2.627	-0.452	-0.071	5.666	18.833
SIZE	368	17.417	17.562	1.826	-0.097	-0.383	11.833	21.350

Source: compiled by author using SPSS

The mean and median values in table 8 do not show any major differences, meaning that the average values more or less divide the sample in two equal halves. The mean value of TOBINSQ ratio is 0.865, which indicates that on average companies in Baltic markets are undervalued relating to their book value of assets. Standard deviation is 0.289, which indicates that 68,2 % of the TOBINSQ ratios are in the interval of (0.576; 1,154). However, TOBINSQ ratio is positively skewed indicating the asymmetric distribution of the values with fat tale on the right side. Some companies show really significant underperformances in the market with the minimum value being 0.184 and some are considered overvalued with the TOBINSQ ratio of 1.828.

Moreover, the ownership variables represent different distribution patterns. All ownership data is presented in percentages. First, TOP5 shareholders correspond on average to 76,4 % of all shareholders in Baltic listed companies. Negative skewness means that more companies have higher than average concentration of 5 largest owners and are closer to maximum ownership value of 99%. Nevertheless, in majority of the companies, ownership concentration is even higher as TOP5 variable represents the ownership share of 1 to 3 largest shareholders as only they hold higher than 5% of share block.

Second, comparing TOP5 with TOP1 values, TOP1 shareholder holds an average value of 48.7% of shares in Baltic firms. This indicates that the largest shareholder on average exercises de facto control of the company and its interests are definitely represented within the management of the company. On the contrary to TOP5 values, TOP1 has positive skewness and higher standard deviation, which shows that 68,2 % of the TOP1 values are in the range between 27,9 % and 69,4%. Hence, the ownership concentration in Baltic companies is significantly high.

Third, managerial ownership variable MANAG has a mean value of 47.7 % for this sample of Baltic companies. Interestingly, MANAG values show highest deviation from the mean indicating the highest spread and not normal distribution of the values. Moreover, some companies

actually do not have any representatives of shareholders in the Board, as the minimum value of MANAG is zero.

Fourth, INSTIT variable for institutional ownership has the highest difference between mean and median values, 11.2 % and 7.2 % correspondingly, and together with really high positive skewness showing that half of the companies have lower then 7.2 % institutional ownership share with majority of the companies having a zero institutional ownership.

Moving on to descriptive statistics of control variables, the LEVERAGE mean value of 0.457 reveals that Baltic companies are not highly in debt and half of the assets are covered with the debt obligations. In some cases, there is almost a zero debt and other cases show really high liabilities of leverage being 1.059. The other two control variables LN_CAPEX and SIZE (LN_ASSETS) are transformed to natural logarithms, therefore the analysis of descriptive statistics would not present an actual level of capital expenditure or size of the company.

In sum, the descriptive statistics of ownership and control variables show the differences in the distributions and the mean, minimum and maximum level of each variable.

The following table presents the descriptive statistics of Tobin's Q ratio by countries (Table 9).

Table 9

Descriptive statistics of TOBINSQ by countries

	Mean	Median	Std. Deviation	Minimum	Maximum
LATVIA (RIG)	0.739	0.727	0.239	0.184	1.478
ESTONIA (TLN)	1.056	0.997	0.276	0.533	1.828
LITHUANIA (VLN)	0.924	0.899	0.282	0.436	1.761

Source: compiled by author using SPSS

From the table 9 it is visible that Tobin's Q mean and median values are very close to each other for all countries. The worst market value on average is for Latvian companies with Tobin's Q of 0.739 where as Estonian and Lithuanian companies have similar average values of 1.056 and 0.924 respectively. The same patterns are reflected in minimum and maximum values as well. Hence, it can be concluded that no big differences are found in the statistics of Tobin's Q values of Estonian and Lithuanian companies where as Latvian companies are on average underperforming to other Baltic counterparts. In conclusion, after presenting these indicators, the results of the regression analysis are presented in the following subchapter.

3.2.1. Evaluation of corporate ownership structure OLS regression results

After constructing the linear regression model from all variables described in Table 5, the OLS results are discussed in following. The main aspects that will be examined in terms of relationship between corporate ownership structure and firm performance measured by Tobin's Q include looking to R Square coefficient of determination, the significance levels of independent variables and weights of coefficients that determine the magnitude of influence on the dependent variable. The following results are obtained (Table 10).

Table 10

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.617 ^a	0.381	0.349	0.233

a. Predictors: (Constant), IND_TECH, IND_TELECOM, INSTIT, IND_HEALTH, IND_FINANCE, TOP1_MANAG, TOP1_CHAIR, IND_BASIC_MATERIAL, SIZE, TOP5, LEVERAGE, TOP1_MEM, MANAG, IND_INDUSTRIAL, TOP1, IND_UTILITY, LN_CAPEX, IND_CON_GOODS

b. Dependent Variable: TOBINSQ

Source: compiled by author using SPSS

The table 10 indicates the R Square statistics. R Square, or coefficient of determination, is a measure showing the amount of variance in Tobin's Q that is explained by the independent variables in the model. In this case, the R Square is 0.381. This means that 38.1% variance in Tobin's Q can be explained by this model. Moreover, adjusted R Square can be better estimation of goodness of fit as it is adapted to represent the goodness of fit if the data set would be changed. In this model, adjusted R Square is reported to be 0.349. Hence, it does not differ much from R Square. More interpretation, if whether R Square value of 0.381 is a good fit, is presented in the later chapter together with the evaluation of results.

Further, the analysis of variance (ANOVA) is presented in the Table 11.

Table 11

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.646	18	0.647	11.924	0.000 ^b
	Residual	18.937	349	0.054		
	Total	30.583	367			

a. Dependent Variable: TOBINSQ

b. Predictors: (Constant), IND_TECH, IND_TELECOM, INSTIT, IND_HEALTH, IND_FINANCE, TOP1_MANAG, TOP1_CHAIR, IND_BASIC_MATERIAL, SIZE, TOP5, LEVERAGE, TOP1_MEM, MANAG, IND_INDUSTRIAL, TOP1, IND_UTILITY, LN_CAPEX, IND_CON_GOODS

Source: compiled by author using SPSS

The main relevant information from Table 11 is the F test and its significance level. The significance value of 0.000 indicates that the F values are statistically significant therefore the model fits the data significantly and depicts the linear relationship between dependent and independent variables.

The next table indicates the significance (p-values) and the magnitude (beta coefficients) of independent variables influence to dependent variable (Table 12). As it was discussed previously, the standard errors in the model have been adjusted accordingly to heteroscedasticity. The significance levels have been adjusted as well. The unadjusted regression results as well as correlation metrics and confidence intervals are provided in annex 10.

Table 12

Heteroscedasticity-Consistent Regression Results

Model	Unstandardized Coefficients (B)	SE(HC)	Standardized Coefficients	t	p-value
Constant	0.4670	0.2194		2.1287	0.0340
TOP5	-0.0018	-0.0009	-0.094	-1.8956	0.0588
TOP1	0.0024	0.0008	0.172	3.0819	0.0022
MANAG	-0.0004	0.0005	0.036	0.7601	0.4477
INSTIT	0.0059	0.0012	0.304	4.7498	0.0000
LEVERAGE	0.4438	0.0702	0.357	6.3199	0.0000
LN_CAPEX	0.0260	0.0084	0.237	3.0972	0.0021
SIZE	-0.0122	0.0132	-0.077	-0.9294	0.3533
TOP1_MANAG	0.0544	0.0383	0.065	1.4211	0.1562
TOP1_MEM	0.0716	0.0345	0.110	2.0732	0.0389
TOP1_CHAIR	0.0672	0.0289	0.111	2.3263	0.0206
IND_BASIC_MAT	0.0087	0.0788	0.007	0.1111	0.9116
IND_INDUSTRIAL	-0.1287	0.0670	-0.195	-1.9212	0.0555
IND_HEALTH	0.0213	0.0942	0.018	0.2258	0.8215
IND_TELECOM	0.8064	0.2040	0.206	3.9532	0.0001
IND_UTILITY	-0.1028	0.0928	-0.095	1.1081	0.2686
IND_FINANCIAL	-0.0180	0.0709	-0.017	-0.2545	0.7993
IND_CON_GOODS	-0.0407	0.0723	-0.068	-0.5630	0.5738
IND_TECH	-0.1020	0.0999	-0.037	-1.0212	0.3079

a. Criterion Variable - TOBINSQ

Source: compiled by author using SPSS

In the table 12, the unstandardized coefficients represent the beta weights that would be included to form the regression function for Tobin's Q. SE (HC) are standardized errors (heteroscedasticity consistent) showing the distance of the observed values from the estimated regression line. As closer to 0, as more the estimations fall on regression line and the model is more representative. Further, the standardized coefficients are converted to standard deviations and represent the scale of how much dependent variable would change in standard deviations if independent variable would change in a standard deviation. These coefficients are represented on the same scale letting to compare which independent variable has most influence on the dependent variable. Lastly, t test and p values represent the significance of each variable. Only p-value is used to interpret the significance in this case. The variables have significant influence to Tobin's Q on the significance levels of 95 % and 99 %, at p values of 0.05 and 0.01 respectively.

The results of the regression analysis presented in the table 12 reveal some interesting results. The intercept or a constant is equal to 0.467 and shows the mean value of Tobin's Q when all independent variables are equal to 0. The value of the intercept is significant at 95 % level as p value is equal to 0.034.

Moreover, the p values of the independent variables show that a lot of predictors are not significant in determining the Tobin's Q value as their p values are above 0.05 threshold. For the purpose of clarity, the significant variables are marked grey. First, two of ownership variables, TOP5 and MANAG, are considered to be insignificant though both have negative beta coefficients, which would indicate a negative influence on market value. Nevertheless, as the p value of TOP5 is very close to the significance level, the increase of the sample size or the time period of analysis should probably increase this level and make the concentration variable significant. In the case of managerial ownership (MANAG) it is clear that there is no significant relationship with Tobin's Q ratio and if there were, the influence would be very low as the beta weight is really low.

The other two very important ownership variables, TOP1 and INSTIT, are significant (p values below 0.05) and have positive influence on firm performance measured by Tobin's Q as unstandardized beta coefficients are positive. Nevertheless, the level of R Square being 0.381 is too low to be reasonable drawing further conclusions about the weight and magnitude of influence from each variable to Tobin's Q. Therefore this analysis mainly identifies the significant predictors as well as their direction of influence, positive or negative, to the dependent variable. Still from the additional information presented in the annex 10, the part correlation squared values represent what part of the R Square measure is influenced by each variable. In the case of the largest shareholder, TOP1 variable determined 2 % of R Square, thus 2 % of Tobin's Q variance is explained by the percentage value of largest shareholder's shares. Additionally, institutional ownership has higher influence as INSTIT explain 6.7% of Tobin's Q variance.

Moving on, from control variables in the model, LEVERAGE and LN_CAPEX show significant positive influence on firm performance. The part correlations indicate that leverage ratio has really high influence on firm performance by contributing to R Square 10.3% while capital expenditure has less influence with explaining 1.7% of Tobin's Q variance. On the contrary, size of the company measured by logarithm of assets appears to have no significant influence in the companies' performance.

Further, dummy variables (TOP1_MANAG, TOP1_MEM TOP1_CHAIR) included to test the influence of largest shareholder's involvement in management of the company show that the participation of the shareholder in the Board of the company have positive and significant influence to firm performance. Serving either as a member or a Chairman of the Board increases the market value of the company. Both of the control variables contribute to R Square ratio by 1 % each.

The last group of dummy variables included to capture industry effects indicates that only for the companies in telecommunication sector the industry effect is significant. However, as the category for consumer goods industry was excluded, it means that the constant of 0.467 for Tobin's Q holds true for companies in consumer goods industry.

In sum, looking to all variables together, it is clear that all significant predictors (in grey lines) have only positive influence to Tobin's Q. By ranking the standardized coefficient values by descending influence it can be stated that the biggest effect to Tobin's Q in this model is coming from leverage, then institutional ownership, capital expenditures, telecommunication industry, largest shareholder and lastly its participation in the Board of the company. In addition, Pearson correlation coefficients and their significance are presented in annex 11 if any further details would want to be analyzed.

3.2.2. Summary and interpretation of empirical findings

The linear regression analysis revealed that the constructed model explains 38.1 % of Tobin's Q variance. In general, this level would be considered as low. Nevertheless, the dependent variable is market valuation ratio, which could be affected by numerous indicators. This model does not include macro economic variables, which generally have high effect of firm market performance. Moreover, the research time period covers the economic crisis and the post-crisis time frames, which was characterized with enormous changes in economic and capital market indicators thus high variance was present. Because of these two reasons, in this case the R Square ratio of 0.381 is acceptable as there were plenty of other micro and macro factors affecting the firm market performance.

Further on, the table 13 repeats the hypotheses that were raised in the methodology part of this work and summarizes the outcomes of the analysis if the hypotheses were accepted or rejected.

Table 13

Summary of the hypothesis of corporate ownership structure empirical research

Hypothesis	Accepted/rejected
<i>H₁ – there is a significant relationship between block ownership and firm performance</i>	Accepted
<i>H₂ – there is a significant relationship between managerial ownership and firm performance</i>	Rejected
<i>H₃ – there is a significant relationship between institutional ownership and firm performance</i>	Accepted

Source: compiled by author

H₁ – there is a significant relationship between block ownership and firm performance.

The relationship of block ownership to firm performance was tested with two variables TOP5 and TOP1. The concentration percentage of five largest shareholders was found to be insignificant while ownership by one largest shareholder implied a positive significant effect to Tobin's Q. These results are relatively contradicting, as significance of TOP5 variable would suggest to reject the H₁ hypothesis and TOP1 variables indicates the acceptance. It is already known that corporate ownership structure in Baltic listed companies is highly concentrated. The largest shareholder holds 48.7 % of shares on average as five largest shareholders represent 76,4 % blockholding. This means that in majority of the companies, the largest shareholder exercises de facto control over the company and the second to fifth shareholders do not have large enough blockholding to contest the decisions of the controlling shareholder. Therefore, the percentage stake of TOP5 shareholders becomes irrelevant in this particular corporate ownership structure of Baltic countries. Nevertheless, the positive influence of TOP1 variable indicates that companies perform better in the market when the largest shareholder has higher percentage of share block. Therefore, block ownership by the largest shareholder positively influences firm performance as companies perform better when having a controlling shareholder.

These findings can be additionally supported with investigation of largest shareholder's involvement in management of company's operations. Apparently, the market value ratio of Tobin's Q increases as the largest shareholder exercises its power by participating in the Board of Directors as a member of a Chairman. This conclusion corresponds with the agency theory, that the

goal alignment of managers and shareholders, in this case majority shareholders, decreases the agency costs and results in improvement of firm performance.

In sum, with the support of above-mentioned arguments, it is concluded that block ownership has a significant positive impact on firm performance measured with Tobin's Q and the hypothesis H₁ is accepted.

H2 – there is a significant relationship between managerial ownership and firm performance.

The impact of percentage share of managerial ownership to firm performance was tested using one variable MANAG. The insignificance of this variable led to rejection of hypothesis H₂ and conclusion that there is no significant relationship with firm performance. The explanation of these results would be the distribution of managerial ownership. This variable is not normally distributed and also the transformation using natural logarithm does not change the significance level of this variable. This insider ownership for 368 sample companies is 47.7 %. In relation to blockholdings, usual all major shareholders represent themselves by serving as members on the Board of the company. In this way they have a straight contact with management and can directly represent their own interests. Nevertheless, managerial ownership is distributed irregularly with similar frequencies of ownership from the minimum to maximum values. Thus, this consistent frequency distribution indicates that no matter what percentage of shares is owned by all members of the Board put together, the only relevant point is if the largest shareholder is sitting on the Board of Directors and exercises its rights and interests.

H₃ - there is a significant relationship between institutional ownership and firm performance.

The effect of institutional ownership to firm performance was measured with one variable INSTIT. This percentage cumulative share of all institutional investors in the company was found to be positively and significantly effecting firm performance measured with Tobin's Q. Thus, the H₃ hypothesis was accepted. The standardized coefficients showed that institutional ownership appears to be the most influential type of corporate ownership in this research. Even though the institutional ownership represents only 11.2 % of the ownership on average, the existence of institutional investors already proves to be significant governance and control mechanism improving the market value of the company.

Moving to interpreting the results of control variables. The leverage has shown interesting patterns. It appears to be that increase in leverage has a positive impact of Tobin's Q, thus investors award the company for taking more debt. On the other hand, the capital markets in Baltic countries are not developed enough therefore the main source of additional capital is still taking a loan. Additionally, looking to the capital expenditure ratio it seems that companies are rewarded for higher investments, which corresponds with the findings in previous studies. Furthermore, size evaluated by total assets was found to be insignificant in this case. This conclusion can be supported

by the fact that during the crisis numerous companies impaired their assets thus the variations that did not correspond with the changes in the market can be justified. Lastly, the industry dummies appeared to be irrelevant stating that Tobin's Q has higher value only in companies that operate in telecommunication industry. In some of the previous research, authors included dummy variable only for specific industries like utility, finance or media, others have not reported the significance levels of those industry dummies. Nevertheless, these insignificant levels might be a result of small number of companies in each industry as the majority is concentrated in only two industries (consumer goods and industrial).

In sum, even though one hypothesis of three has been rejected, the empirical research presented significant and robust findings of the corporate ownership structure influence to firm performance. Consequently, these results are compared to the findings in previous empirical studies.

3.3. Comparison of empirical findings with previous studies

The empirical results of this study correspond with some of the findings in previous research. The main constrain to compare the results of different studies is the variance in the variables used in the regression model. Even though this study tried to include the most commonly used control variables of leverage, capital expenditure and size of the company, different studies extended the research with adding other variables to test for specific effects. Moreover, the earliest studies in this field (Demsetz, Lehn, 1985; Demsetz, Villalonga, 2001; Himmelberg et al., 1999), Morck et al. 1988) included such control variables as research and development and advertisement expenditures for which no data was available for Baltic companies. Also a study of UK companies (Florackis et al., 2009) even found all our control variables (leverage, capex and size) to be insignificant. Nevertheless, the empirical findings can be compared on the general level.

First, comparing the studies that also included all three parameters of ownership (block, managerial and institutional) in their models (McConnell & Servaes, 1990; Wright et al., 1996), conclude that managerial and institutional ownership has a significant relationship with firm performance. However, the reported R Square values of different models in the research were even lower then the R Square value of this study. The most similar study of P. Mandaci and G. Gumus (2010) in Turkish companies with the same control variables (only additionally the growth of sales ratio) reported R Square being 0.341, which is really close to the result in our study. Therefore, robustness of our research is justified as the analysis of coefficients of determination in the models of previous studies showed that the level around 0.4 or even lower is usual in corporate governance and corporate ownership research.

Block ownership. The insignificant results of TOP5 ownership has been consistent with the findings by H. Demsetz, K. Lehn (1985), H. Demsetz, B. Villalonga (2001) and C. Holderness, D. Sheehan (1988) who found no significant relation between ownership concentration and firm performance. Nevertheless, the significant positive influence of TOP1 shareholders share fit with the studies of K. Gugler, J. Weigand (2003) and C. Kaserer, B. Moldenhauer (2007) who reported a positive significant relationship. Though the comparability of the studies is questionable as both above mentioned studies used profitability ratios ROA and ROE as dependent variable to measure firm performance. However, the study of S. Konijn et al. (2011) also concluded that the blockholdings have to be large enough to contest the controlling shareholder, thus the insignificance of TOP5 shareholders blockholding is justified as the controlling shareholder is too big to be challenged.

Managerial ownership. The findings in terms of managerial ownership relation to firm performance were the most contradicting in the previous research. In our case, the insignificant relationship of insider ownership share to Tobin's Q corresponds with the findings in the earliest studies of H. Demsetz, K. Lehn (1985), H. Demsetz, B. Villalonga (2001) and C. Himmelberg et al. (1999).

Institutional ownership. The results of institutional ownership positive impact to firm performance is the most significant and is matching with the findings in studies of US companies (Elyasiani, Jia, 2010; McConnell, Servaes, 1990; Wright et al., 1996) as well as 27 Western economies (Ferreira, Matos, 2008). Additionally, because panel data used in this study show the stability of institutional ownership over time, additional conclusion can be drawn in comparison to findings of E. Elyasiani and J. Jia (2010) that this stability also has effect on the impact of institutional ownership relation to firm performance.

Summing up, the firm performance measured by Tobin's Q is on average 0.865 in Baltic companies meaning that half of the companies are considered to be undervalued as the ratio is lower than 1. The mean values of five largest and the largest shareholders are 76,4 % and 48.7% respectively. This means that the biggest shareholder on average exercises de facto control of the company and represents its own interests in the management of the company. Moreover, the managerial and institutional ownership stakes have mean values of 47.7 % and 11.2 % correspondingly for this sample of Baltic companies. The performed OLS regression analysis satisfied all assumptions except heteroscedasticity to have unbiased regression results. To correct this mismatch, the regression model was adjusted to provide heteroscedasticity consistent standard errors and significant coefficients. The regression model provided R Square value of 0.381 meaning that 38.1% of the variance in the dependent variable Tobin's Q can be explained by the independent variables included in the model. The level is considered acceptable as the market value

measured with Tobin's Q can be affected by numerous other variables like macro indicators or cross country effects that were not included in the model. The main findings of the research include determining a significant positive relationship between block ownership measured with the blockholding of the largest shareholder. Companies that have controlling shareholder have on average higher market values than their counterparts. The involvement of the largest shareholder in the Board of Directors as a member or Chairman improves the Tobin's Q as well. Managerial ownership was found to have no significant relationship to firm performance while institutional ownership has the opposite effect and the larger share of institutional investors in the company impacts positively the firm performance.

This empirical research presented new integrated analysis of corporate ownership structure relationship to firm performance that was not detected to be tested in previous studies. The inclusion of all three main aspects of ownership structure, namely block, managerial and institutional widens the understanding of corporate ownership patterns in Baltic listed companies. After analyzing the results of this empirical research, the following recommendations can be drawn. In this research the year horizon was only 6 years period. By extending the time frame it could provide more robust results that would level out the variance of different indicators over time. Other recommendation could be to look for some other control variables that would improve the goodness of fit for the regression model. It could include macro economic indicators or cross country statistics that could explain the patterns better. Finally, the corporate ownership structure relationship to firm performance could be tested by expanding the range of dependent variables to include profitability ratios of ROA or ROE in order to compare the impact to market based performance ratio Tobin's Q and accounting performance.

CONCLUSIONS

Scholars managed to develop few theoretical frameworks that tried to explain the complex interdependencies and relations between corporate governance structures. Agency theory defines goal divergence between companies' management (agents) and shareholders (principals) together with the need to control this relationship with occurrence of agency costs in dispersed ownership structures. Stewardship theory opposes with identification to full goal alignment between agents and principals with high trust culture, which is acute in concentrated ownership structures. Resource dependency theory raised the importance of strategic management of resources through competent Board of Directors by recognizing the complexity of interdependencies in the corporate environment. Transaction cost theory complements agency theory by different perspective to the same agent-principal problem. Stakeholder theory tries to grasp the widest range of relationships into the concept by the approach of agent – multiple stakeholder goal alignment. This theory supports ownership-like incentives to the critical stakeholders as a mean to tackle the main issue. As all theories confront shortcomings to explain all influential forces in the reality, the last approach of multi-theory model should be the best example of how the different theories should be discussed not to oppose one another but with a purpose to complement each other, find a common ground and rationale in increasing complexity of corporate environment.

Previous empirical research in corporate ownership issues has been analyzed from four perspectives: block, managerial, institutional and family ownership research. First, research findings in block ownership provided contradicting conclusions. Some authors have not identified any significant relationship between concentrated, block ownership and different firm performance measures; others proved the significance of the connection. In addition, most of the studies have been done in developed countries therefore the equivalent research should be performed in smaller markets. The results can significantly differ depending on historical ownership structures – widely held or concentrated ownership dominance and differences of corporate governance systems as research in Germany provided mainly positive results comparing to negative ones from US researchers. Nevertheless, the studies indicate that block ownership and specifically the identity of the largest shareholder might be an important variable in the corporate value creation process therefore a further investigation is needed.

Second, agency theory supports managerial ownership, as an internal monitoring mechanism for corporate governance, and states that increase of the stake would lead to increase of firm performance. Nevertheless, too high share by insiders may lead to entrenchment problems which decrease the efficiency of monitoring, help the managers extract private benefits and result in

worse corporate performance. Empirical findings provide contradicting results. Some studies found a non-monotonic significant relationship between managerial ownership and firm performance. Small levels of insider ownership (in some studies <5 – 15 %, other <40-50%) correspond to efficient monitoring and goal alignment effect while high levels would bring entrenchment problems and decrease firm value. Other studies provide proof of linear relationship. Some studies find no relationship at all. Finally the replicated studies not from developed capital markets have even more variations in the results. Differences across these studies could be because of different measures and samples used. Some authors tested market performance with Tobin's Q, others measured financial performance with accounting returns. Samples varied from few hundreds to thousand companies. Moreover, estimation techniques (OLS, piece-wise, 2SLS, instrumental variables, 3SLS) and whether and how authors count for endogeneity of ownership has high impact to the comparability of the results. Lastly, managerial ownership and firm performance relationship can deeply vary depending on corporate governance system in the country the firm is listed.

Third, institutional investors have emerged to be majority owners in dispersed ownership structures while gaining a significant role in concentrated ownership structures as well. Empirical evidence shows, that these agent owners can be a powerful governance instrument but the level of engagement in monitoring varies between different groups of institutional investors. Pressure-resistant institutional investors are considered to monitor most efficiently thus increasing firm value. On the contrary, pressure-sensitive institutional investors are constrained of conflict-of-interest and might engage in cooperation with management thus not performing monitoring role and consequently diminishing the firm performance. On top of that, no matter the type of institutional investor, the ownership stability itself provides positive effect to firm performance as long-term investment horizon increases the engagement in supervision of firm activities.

Fourth, numerous research have acknowledged the positive relationship between family ownership and firm performance. Some authors found greater corporate performance in family firms only when the founder serves as CEO, others have even stated that descendant's governance in family firms diminishes the firm value. Still the main condition for greater profitability and market performance to occur is the founding family has to be active either in management positions or as Chairman of the Board. If the family was holding only an investor's position, the company would not have a superior performance over non-family firms. The relationship of family ownership and firm performance is non-linear, meaning the greater stake of family shares could bring controlling - minority shareholder agency problems. Therefore, the existence of other non-family blockholder could be considered as a good monitoring tool to reduce the risk of private benefit expropriation by family owners.

The comprehensive framework of corporate governance in EU and Baltic States constitutes of hard law and soft law acts. Hard law represents EU Directives directly applicable into national law, as soft law corresponds EU Recommendations, EU Commission action Plan, OECD governance principles and national governance codes. All of the above mentioned initiatives tackle specific issues like transparency, information accessibility, disclosure, investors protection, shareholder voting rights empowerment etc. in order to enhance corporate governance practices in listed companies. Current state of corporate governance and ownership structure in Baltic States was mainly shaped by privatization processes. The mass spontaneous privatization has been in progress from 1991 to 1999 with the focus on transferring the large stakes of the shares to insiders or other strategic investors. As a result, large companies are mainly owned by foreign investors while majority of the companies have one of just few controlling shareholders. Majority of the shareholders in Baltic countries are other listed or non-listed corporations. Other investors constitute only the minority stake while the differences appear in between countries with Latvian companies still having a significant state ownership stake and Estonian companies having the largest percentage of institutional ownership. The corporate governance system in Baltics is considered insider dominated and is closest to German model with the features of high concentration of ownership, majority of companies having controlling shareholder and the legal system being shaped by common law. Additionally, there are certain voting restrictions as well as Baltic companies mainly have two-tier Boards. Although there are no requirements to include employee representatives as in German system. Furthermore, the specificities for Baltic corporate governance practices are - an average size of the Board being 8 members, no CEO duality, really low Board independence having 1 out of 8 Board members independent, high managerial ownership of around 54 % and low institutional ownership of only 13% on average.

The methodology for empirical research of corporate ownership structure relationship to firm performance in Baltic States constitutes of the following elements. The main empirical research goal is to assess the relationship between corporate ownership concentration, measured by magnitude of blockholdings, corporate ownership types, specifically managerial and institutional ownership, and company performance. Three hypotheses have been developed, namely H1 – there is a significant relationship between block ownership and firm performance, H2 – there is a significant relationship between managerial ownership and firm performance and H3 - there is a significant relationship between institutional ownership and firm performance. The research sample was selected as panel data of all listed companies in Lithuania, Latvia and Estonia, which have been listed over the period of 6 years from 2009 to 2014. Data comprise of 66 companies from which 26 are Lithuanian companies, 28 – Latvian and 12 – Estonian with 396 observations in total. Data for ownership structure was collected from annual reports over 6 years of each sample company via

Nasdaq OMX database and all financial information (Tobin's Q, control variables) of the sample companies was collected from Bloomberg database. To test the relationship of ownership structure and firm performance, ordinary least squares (OLS) linear regression method was employed. Dependent variable was firm performance measured by Tobin's Q. Independent variables included blockholding by TOP1 and TOP5 shareholders, managerial ownership stake (MANAG) and institutional ownership stake (INSTIT). Control variables included financial indicators of the companies (LEVERAGE, CAPEX, SIZE, INDUSTRY) and largest shareholder's involvement in the company's being in executive management (TOP1_MANAG), member of the Supervisory or Management Board (TOP1_MEM) or a Chairman of Supervisory Board (TOP1_CHAIR). The research has limitations on drawing conclusions only on Baltic stock markets.

The firm performance measured by Tobin's Q is on average 0.865 in Baltic companies meaning that half of the companies are considered to be undervalued as the ratio is lower than 1. The mean values of five largest and the largest shareholders are 76.4 % and 48.7% respectively. This means that the biggest shareholder on average exercises de facto control of the company and represents its own interests in the management of the company. Moreover, the managerial and institutional ownership stakes have mean values of 47.7 % and 11.2 % correspondingly for this sample of Baltic companies. To provide unbiased regression results, the performed OLS regression analysis satisfied all assumptions except heteroscedasticity. To correct this mismatch, the regression model was adjusted to provide heteroscedasticity consistent standard errors and significant coefficients. The regression model provided R Square value of 0.381 meaning that 38.1% of the variance in the dependent variable Tobin's Q can be explained by the independent variables included in the model. The level is considered acceptable as the market value measured with Tobin's Q can be affected by numerous other variables like macro indicators or cross country effects that were not included in the model. The main findings of the research include determining a significant positive relationship between block ownership measured with the blockholding of the largest shareholder. Companies that have controlling shareholder have on average higher market values than their counterparts. The involvement of the largest shareholder in the Board of Directors as a member or Chairman improves the Tobin's Q as well. Managerial ownership was found to have no significant relationship to firm performance while institutional ownership has the opposite effect and the larger share of institutional investors in the company impacts positively the firm performance.

This empirical research presented new integrated analysis of corporate ownership structure relationship to firm performance that was not tested in previous studies. The inclusion of all three main aspects of ownership structure, namely block, managerial and institutional, widens the understanding of corporate ownership patterns in Baltic listed companies. After analyzing the results

of this empirical research, the following recommendations can be drawn. In this research the year horizon was only 6 years period. By extending the time frame it could provide more robust results that would level out the variance of different indicators over time. Other recommendation could be to look for some other control variables that would improve the goodness of fit for the regression model. It could include macro economic indicators or cross country statistics that could explain the patterns better. Finally, the corporate ownership structure relationship to firm performance could be tested by expanding the range of dependent variables to include profitability ratios of ROA or ROE in order to compare the impact to market and accounting performance.

Looking to the future research areas, this study could be extended to include wider range of countries from the post-soviet block. These countries had to build capitalistic economies at the same period thus it would be interesting to investigate, how privatization and the different corporate ownership tendencies determine the firm performance between countries. Other direction of future research could lead into deeper analysis of identities of the shareholders like corporations, foreign investors and their influence to firm value and their compliance to serve as corporate governance mechanisms.

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