UNIVERSITY OF LJUBLJANA

FACULTY OF ECONOMICS

MASTER'S THESIS

CEO COMPENSATION: AN EMPIRICAL ANALYSIS OF AUSTRIAN PUBLIC LIMITED COMPANIES

Ljubljana, June 2017 ANJA FESSL

AUTHORSHIP STATEMENT

The undersigned Anja Fessl, a student at the University of Ljubljana, Faculty of Economics, (hereafter: FELU), author of this written final work of studies with the title CEO Compensation: An empirical analysis of Austrian public limited companies, prepared under the supervision of prof. dr. Sergeja Slapničar

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INTRODUCTION

The executive compensation has been a delicate area in corporate finance for a long time. Lavish bonuses have gained popularity in the recent years and have been a topic of heated debates for a long time. Corporations want to pay executives well to simulate and to attract the suitable and well-qualified people. But there are different opinions about this issue. Some say that the amount of the compensation is the most important element, and others say that it is important how the executives are paid and not how much they receive (Jensen & Murphy, 1990). But what is really behind all that? Is there a relationship between firm performance and executive compensation? To understand this question, we have to recognize the source of the initial problem. Alchian and Demsetz (1972) exposed one of the most important theories in corporate governance, i.e. the agency theory. This theory was further developed by Jensen and Meckling (1976) a few years later. The theory is described as "the relationship between the principals, for example, shareholders, and agents, for example, the executives and managers" (Abdullah & Valentine, 2009). The problem exists if an agent (manager) has his own interests and wants to gain his own, personal value maximization. These may not necessarily be in the interest of the shareholders' value maximization. Each of both parties has their own interests and objectives. The differences between them generate the agency costs. In their study, Bebchuk, Fried, and Walker (2001) contend that the contact that perfectly aligns the interests of the both parties, the managers, and the shareholders, does not exist. The optimal contract is the one which minimizes the agency costs.

In public corporations, there is an additional agency problem. Executives are hired and monitored by the boards of directors (upon recommendation from the remuneration committees) and those agents are not necessarily perfect for the shareholders' interests. It is very important that there are good and effective executive remuneration packages. These are able to mitigate agency problems by harmonizing interests of the both parties, the managers and the shareholders (Jensen, Murphy, & Wruck, 2004). Poor packages can oppositely create an agency problem by hiring the wrong managers, attracting managers which are too expensive, keeping the bad managers, and also motivating an incorrect behavior and bad performance.

The purpose of this paper is to find out which factors determine the chief executive officer (hereinafter: CEO) compensation and to examine the relationship between the CEO compensation and the firm's performance, firm's size, the CEO tenure and institutional ownership of the Austrian companies listed on the Vienna Stock Exchange, specifically from the Wiener Börse Index (hereinafter: WBI). The period of the three years (2012/13-2014/15) is analyzed. The objectives of this research are to deliver key findings on the basis of a regression analysis, thus to identify those factors that affect

the CEO compensation in the Austrian public companies. A descriptive statistics are used to describe basics features of the data in the study. In addition, a comparison between the CEOs' compensation level of the companies, listed on the Ljubljana Stock Exchange and the Vienna Stock Exchange, is undertaken.

This paper is structured as follows: the first chapter is an introduction, where the theoretical background is presented. The section describes the corporate governance and different approaches to the managerial compensation. The traditional agency theory, as well as the managerial power theory, is presented. Section 2 provides a summary of the previous studies that have examined the relationship between the CEO compensation and the firm's performance, the firm's size, the CEO tenure and the firm's ownership. Section 3 is the beginning of the practical part of the paper, where the data and the methodology are described. The next section provides the results of the empirical research. The last section is the summary of the main conclusions of this paper.

1 CORPORATE GOVERNANCE

The corporate governance definition varies depending on individual's view of the world. It can be seen from at least two viewpoints. The first one is the narrow view, which is related to the arrangements within a corporate entity, and the broad perspective is considered to be the center of the both, the market economy and also the democratic society (Olayiwola, 2010). For example, Shleifer and Vishny's (1997) narrow viewpoint defines corporate governance as the range of different mechanisms (market and institutional-based). The mechanisms lead to the self-interested controllers of a company which has to make good decisions that maximize the company's value. Another view is Cadbury's (1992) who says that companies are controlled and directed by the corporate governance system. Gillan and Starks (1998) define a corporate governance system as a set of rules, laws, and elements that control a company as a whole as well as operations within the company. Denis and McConnell. (2003) define the governance mechanisms as internal and external. The internal mechanisms consist of the board of directors and ownership structure. External mechanisms consist of legal/regulatory systems as well as the external market for the corporate control.

1.1 Corporate Governance system in Austria

Typically, the corporate governance system in Austria follows a two-tier board system. However, the "Council Regulation on the Statute for European Company" has been in place in Austria since October 2014. From then on, it has been likely, with certain limitations, to set up a one-tier system by changing the corresponding articles of the corporation.

In public limited companies (ger. *Aktiengesellschaften* or *AGs*), the management board (ger. *Vorstand*) is responsible for managing the enterprise and should take the interests of shareholders into account, in addition to the interests of employees as well as the public good. The management board is composed of several persons, where one person has the chairman role. The Chairman of the management board (ger. *Vorstandsvorsitzender*) manages the work of the management board. The board of directors conducts the day-to-day business. They are responsible for strategy formulation and the center of corporate's decision making. The management board reports to the supervisory board about corporation's current state and purposed business policy. The supervisory board (ger. *Aufsichtsrat*) is responsible for monitoring the activities of the management board. The supervisory board also advises and supervises the management board in making decisions, and also provides support to the management board in leading the business. The members of the management board are appointed by the supervisory board. The supervisory board has also the rights to terminate the employment of the members of the management board. The chairman of the supervisory board is responsible for coordinating the tasks of the supervisory board. He prepares the meetings of the supervisory board and frequently communicates with the chairman of the management board (Austrian Working Group for Corporate Governance, 2015).

1.2 Remuneration committee

The supervisory board sets up a remuneration committee which deals with the contents of employment contracts with management board members, ensures the implementation of the C-Rules 27, 27a and 28, and regularly reviews the remuneration policy appropriate to management board members. The chairperson of the remuneration committee is always the chairman of the supervisory board as well if the supervisory board has more than 6 members. But where the supervisory board is composed of less than six members, this function may be assumed by all the members (Austrian Working Group for Corporate Governance, 2015).

1.3 Purpose of compensation

Primarily the purpose of compensation is to attract skilled employees and to keep them. It also stimulates employees to act in accordance with the shareholders' interests and strives to reduce possible conflicts of interests within the organization. Compensation should be set suitable to affect employees positively. According to Kaplan and Atkinson (1989), the three important criteria should be met in order to achieve these positive effects:

- Compensation should be competitive in terms of size in order to keep and attract the best personnel.
- Variable compensation shall encourage a performance-oriented corporate environment by rewarding good performance.
- Incentive programs shall strengthen the company's objectives by fixing the variable compensation to performance.

Moreover, the compensation shall be limited by upper and lower boundary in order to prevent huge amounts being paid and to avoid compensation being paid for an average or bad performance. If the upper boundary is not set, the risk that managers may try to increase their compensation in the short run at the expense of the long-run firm's health exists (Merchant & Van der Stede, 2007).

1.4 Different approaches to managerial compensation

In most of the literature, we can find two dominating theories explaining executive compensation. Those theories are the Agency Theory and the Managerial Power Theory and I briefly describe both in this chapter.

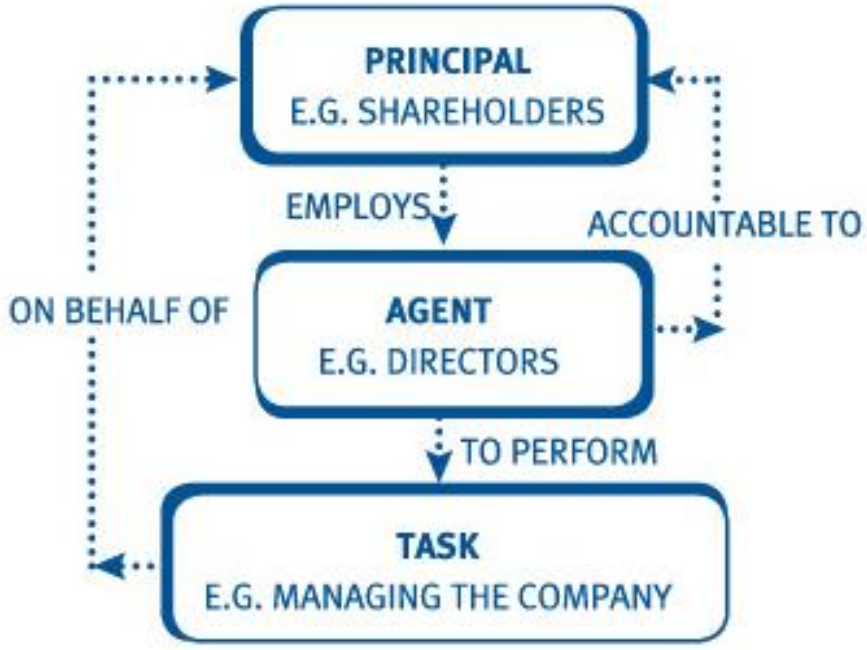
1.4.1 Agency theory and optimal contracting

Alchian and Demsetz (1972) exposed one of the most important theories in the corporate governance, the agency theory. This theory was further developed by Jensen and Meckling (1976) a few years later. The theory is described as "the relationship between the principals, for example, shareholders, and agents, like the executives and managers" (Abdullah & Valentine, 2009). Agency theory is well defined by Jensen and Meckling (1976). It is an agreement where the principals engage agents to perform on their behalf. If both parties maximize benefits, there might be some reasons that agents do not necessarily act in the interests of the principal. The agency theory assumes that an agent is a self-interested individual who seeks to pursue personal value maximization, which may not necessarily be aligned with the shareholder value maximization. As the agents and the shareholders always have some discrepancy of interests, we can assume that we cannot avoid the problem of agency's presence.

In public corporations, shareholders are principals and agents are managers. Each of both parties has their own interests and objectives. The differences between them generate agency costs. In their study, Bebchuk et al. (2001) discussed what defines optimal contracting. They contend that there is no contract that would perfectly align the interests of the managers and the shareholders. Therefore, the best contract should minimize the agency costs. The agency costs are defined as the sum of contracting,

monitoring and other expenditure made in reaching a certain level of compliance with the principals' interest and the costs of other divergences. The executive remuneration packages are the instruments which are created to reach the optimal contracting. The board of directors, who is supposed to maximize the shareholders' wealth, is trying to create optimal incentives for the executives (Bebchuk et al., 2001).

Figure 1. The separation of ownership and control



Source: *Kaplan Financial Knowledge Bank*, 2016.

1.4.1.1 Remuneration package

Jensen et al. (2004) defined well-designed remuneration packages for the executives as the one which attracts and retains the right executives at the lowest cost as well as encourages the executives who do not reach the goals to leave the company. It is also important that the executives are motivated as they have to take actions that increase the long-term shareholder value and the actions to avoid value destruction.

In public corporations, there is an additional agency problem. Executives are hired and monitored by the boards of directors (upon recommendation by the remuneration committees) and those agents are not necessarily perfect for the shareholders' interests. It is very important that there are good and effective executive remuneration packages. These are able to mitigate agency problems by harmonizing interests of the both parties, the managers and the shareholders (Jensen et al., 2004). Poor packages can oppositely create an agency problem by hiring the wrong managers, attracting managers which are

too expensive, keeping the bad managers, and also motivating an incorrect behavior and bad performance.

1.4.1.2 Pay-performance-sensitivity

The central pattern of the optimal agency-theoretic contracting perspective is called Pay-for-performance. It stipulates a positive relationship between corporate performance and the level of compensation in order to align incentives between the directors and the shareholders. The higher pay-performance sensitivity (PPS) motivates top executives to give their best performance to improve corporate governance (Jensen & Murphy, 1990). If there is no relationship between the CEO's compensation and company's performance, there should be a problem. Maybe the assets are not managed efficiently (Hall & Liebman, 1998). The PPS is commonly estimated as the degree to which the firm performance affects the CEO's compensation. The relationship between the CEO compensation and the firm performance can be measured as follows (Geiler, 2012):

- As % change in compensation for 1 % change in the firm's value,
- as a € change of an executive's wealth per € change in the firm's value,
- or as a € change of an executive's wealth per % change in the firm's value.

As Jensen et al. (2004) said, the relationship between pay and performance defines which results and actions have to be rewarded and which have to be penalized. Therefore, it determines what employees work on, how hard they work and how productive they are. There are important dimensions of the executive's pay which have to be managed by the remuneration committee and there are important policy suggestions of each dimension. There should be no conflict between the managers and shareholders about the structure and level of the packages, otherwise the conflicts and disagreements will start the discussions about the executives' pay-performance level. If those actions are not managed well, they can possibly lead to value damage as well as inefficient remuneration packages. Both parties should strive to fair pay-performance. A well-designed pay-performance relationship stimulates the executives, who strive to create higher company value in return (Jensen et al., 2004).

1.4.2 Managerial power Theory

This approach was formed by Berle and Means (1932). The most closely associated researches with this approach are from Bebchuk et al. (2001). They introduced an alternative approach to contracting. This approach suggests that actual manager's compensation is higher than it is necessary, and this is not consistent with the optimal contracting approach. The level of compensation is a result of managerial considerable

power. Managers have more power and influence than stockholders. They use this power to generate compensation arrangements favorable to them. The idea behind this approach is that executives have the power to set an important part of their own compensation. They prefer their compensation to be independent of the firm performance. If their compensation is high even when the employees are downsized or even if the shares are losing the value, we are talking about the "Outrage costs". Consequently, managers want to receive a performance-based compensation, which is actually camouflaged rent extraction.

To sum up, the difference between the principal-agent theory and the managerial power theory is that with respect to the principal-agent theory, the CEO is paid just enough that he does not leave the company, in contrast to managerial power approach where the compensation is set as high as possible (Weisbach, 2007).

Murphy (2012) was also trying to give an answer if managerial power can explain the trends in CEO's compensation. There is no doubt that every CEO prefers higher than lower compensation, and that CEOs are not directly involved in setting their own compensation. However, they have a subtle way of influencing the compensation committee as well as the pay-setting process. After the board independence has considerably increased during the1990s, the managerial influence over their own compensation should be reduced as well.

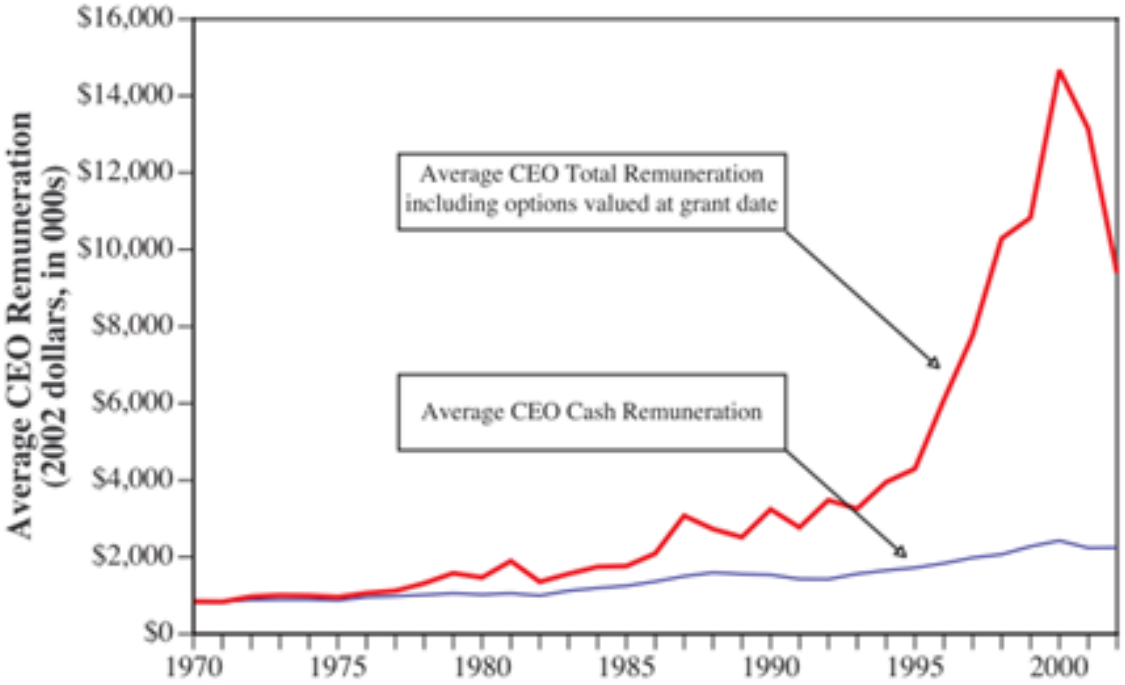
1.5 Evolution of the executive compensation

There is not much evidence on the evolution of the executive compensation on a global level. Most of the academic researches on the executive compensation focus on the US data. In comparison to a large set of US literature, there are relatively few studies focused on Europe. However, those which exist are mostly single country studies. Below, I present the development of the executive compensation in the USA where a one-tier corporate governance system dominates, and the development of the executive compensation in Germany and Austria with a two-tier system.

1.5.1 Executive compensation in the USA

Since Jensen and Murphy (1990), the connection between the compensation and performance has improved greatly. The evidence shows that the great part of the CEO's compensation comes through options. The annual cash pay remains practically unchanged. In 1990s there is a trend that the compensation is starting to increase rapidly, due to soaring option portfolios. That requires the need of effective monitoring (Frydman & Jenter, 2010).

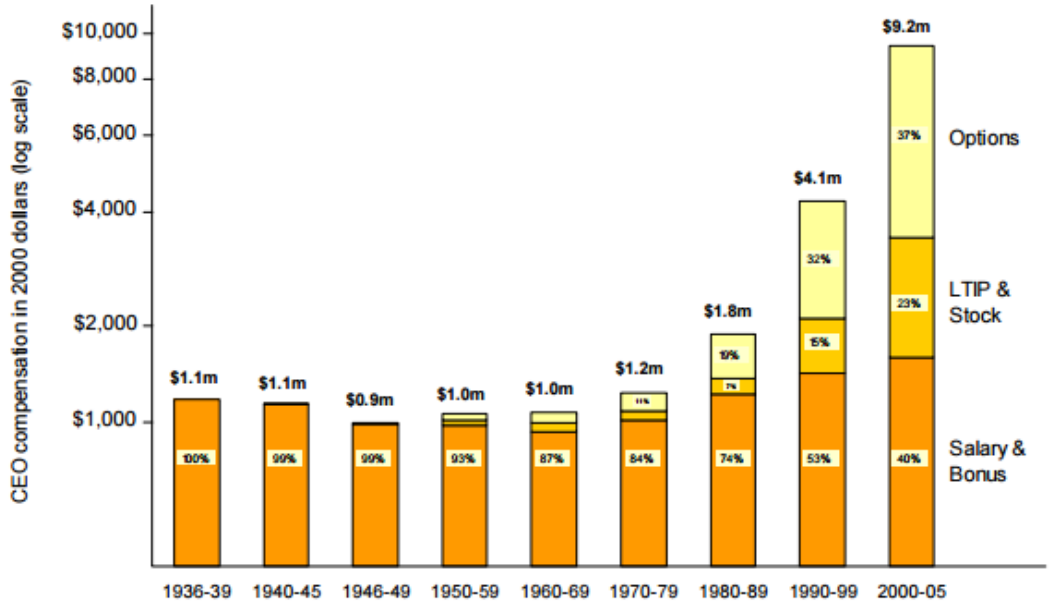
Figure 2. Executive compensation in the USA



Source*:* C. Frydman & D. Jenter, *CEO compensation*, 2010.

The Figure 2 shows the executive compensation in the USA per year from 1970 to 2002. The changes in the global economy have led to significant changes in executive compensation. The CEOs total compensation in large US companies increased dramatically, as grants and share options exploded over the past three decades. As the Figure 2 shows, average total CEO remuneration in S&P 500 firms increased in 30 years, from 1970 to 2000, from about $850,000 to over $14 Mio, but further on falling to $9.4 Mio in 2002.

Figure 3. Compensation components of the 50 largest US firms (1936 – 2005)



Source: C. Frydman & R. E. Saks, *Historical Trends in Executive Compensation 1936-2003*, 2005.

The Figure 3, developed by Frydman and Saks (2005), explains the CEO compensation level of the 50 largest US firms from 1936 to 2005. We can see that from 1936 to the 1950s, the CEO's total compensation consisted mostly of salaries with an annual bonus. The most remarkable change started in the early 1980s as the surge in the stock options compensation. The purpose of option compensation is to tie remuneration directly to share price and this type of incentive gives executives a motivation to increase shareholder value. The explanation of this change in the structure of compensation remains an open challenge. In theory, we can find few possible explanations for it. It is possible, that the explosion in stock options part was stimulated by tax policies that made performance based pay beneficial, and by accounting rules that minimized the cost of option compensation to the firm (Frydman & Jenter, 2010).

To conclude, the fast rise of the CEO compensation over the past 30 years has generated numerous debates on determinants of the executive compensation. The main arguments are represented (Frydman & Jenter, 2010):

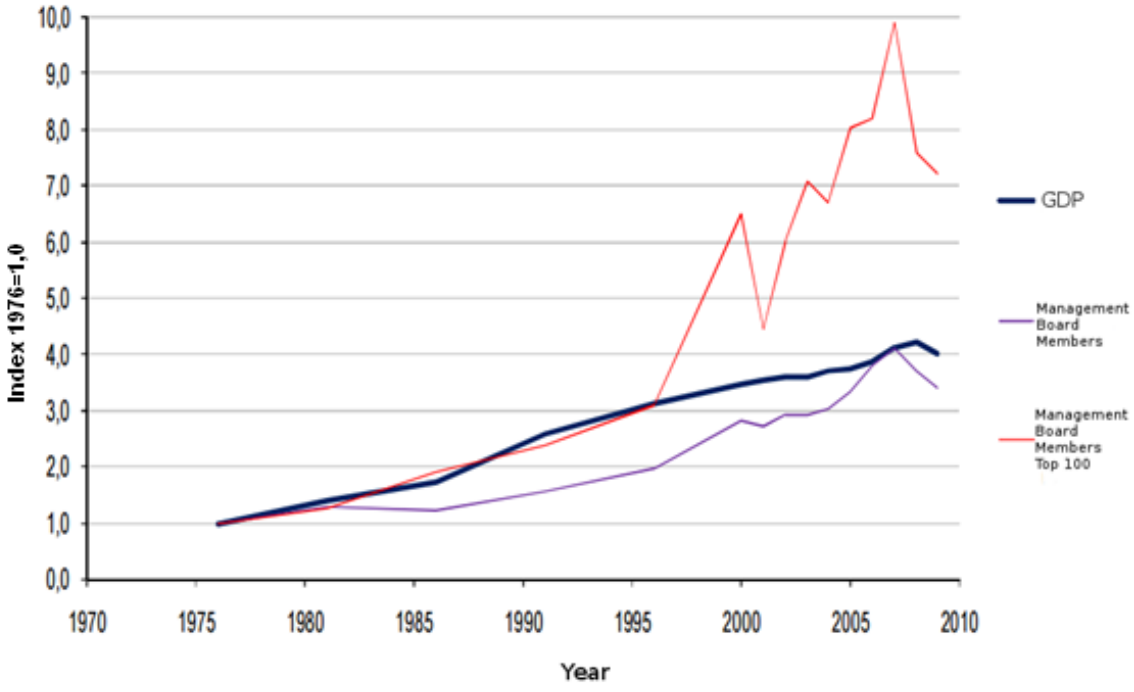
- The managerial power theory posits that weak corporate governance, as well as the acquiescent board, allows the CEOs to at least partly determine and influence the decisions on their own compensation, what results in a high level of compensation.

- Different to the managerial power theory, some other theories argue that the growth in the CEO compensation is the efficient result of increasing demand for CEO's effort or insufficient managerial talent. In this vein, some authors attribute the growth in the CEO compensation to increased firm size and scale effects. If greater CEO talent is more valuable in larger companies than larger companies should offer higher compensation and be matched with more capable CEOs by an efficient labor market.
- The next possible explanation is that great changes in firms' characteristics, technologies, and product markets over the past 30 years have consequently increased the effect of CEO talent and effort on firm value. That leads to higher levels of incentives. For instance, an increase in firm size increases also the optimal level of CEO effort and therefore his incentives if the marginal product of CEO effort raises with the firm's size.
- The market-based explanation suggests that the increase in the CEO compensation comes as the result of stricter corporate governance and better monitoring of the CEOs by large shareholders and the boards. Hermalin (2005) reports that if the CEO job stability is negatively affected by an increase in monitoring intensity, the firms respond to that and consequently increase the level of the CEO compensation.

1.5.2 Executive compensation in Germany

The management board compensation level adapted to international standards. With the increased shareholder value orientation, we can observe a sharp increase in compensation of the executives. Among the DAX 30 corporations, the level of compensation in 2005 is about 4.5 times higher than in 1987 (Schmidt & Schwalbach, 2007). In figure 4, it is clearly presented how the executive remuneration of 1500 public companies developed in the past forty years (from 1970 to 2010). The compensation level of all the executives increased proportionally to German gross domestic product (Ger.: *BIP*). The compensation of the executives of the largest 100 companies differentiate from it and have exploded since the mid-1990s, despite collapse after bursting of the dot-com bubble in 2000 and the financial crisis in 2008.

Figure 4. Executive compensation in Germany



Source: R. Koch, K. F. Raible & G. Stadtmann, *Vorstandsvergütung in Deutschland*, 2011.

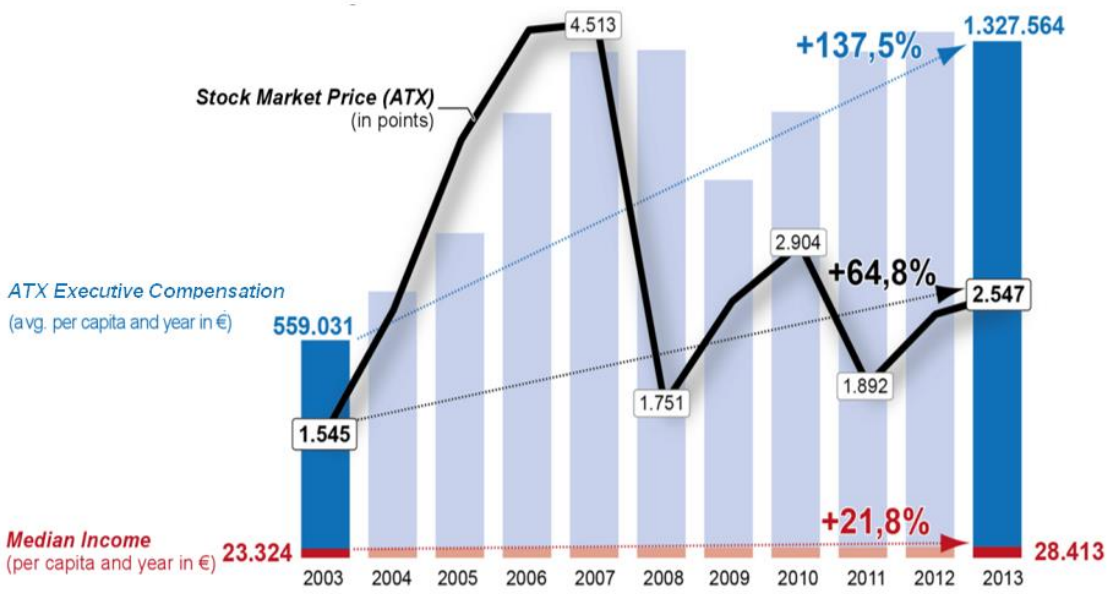
In the literature, the following reasons for the strong growth of the executive compensation in large corporations are presented (Koch, Raible, & Stadtmann, 2011):

- Due to globalization, the activity of the top managers is gentrified, as they are not as replaceable as simple activities. This increases their compensation. Beside that, the success after the mergers and the acquisitions by the US companies leads to an adaptation to their "compensation standards".
- There is an orientation to the level of the US compensation in order to be competitive in the competition for the best managers. One reason for this may also be the increased engagement of institutional investors, such as the investment funds in Germany with the same goal.
- There could be a positive relationship between the company size and the level of compensation.
- The implementation of variable compensation components for the purpose of increasing company's value led, consequently, to a sharp increase in total compensation. This refers especially to stock options, which occurred for the first time with the introduction of the Act for control and transparency in the corporate sector (KonTraG) in 1998.

1.5.3 Executive compensation in Austria

Prior researching on executive compensation of CEOs in Austria has been hampered by a lack of consistent and detailed data of the individual CEO compensation and, therefore, there is a lack of evidence on the CEO compensation development and trends through the history. The introduction of the corporate governance code in 2002 and later on changes in laws have contributed to the improvement of the disclosure of the executive compensation. There is no available evidence on the development of the executive compensation until 2003.

Figure 5. Executive compensation in Austria



Source: *Vorstandsgehälter laufen der Börse davon,* 2016.

As the Figure 5 shows, the level of median income per capita from 2003 to 2013 increased by 21.8% and stands at € 28.413 according to WIFO (Austrian Institute of Economic Research). But the Austrian Traded Index (hereinafter: ATX) Executive board compensation in the past 10 years (from 2003 to 2013) went up astronomically for almost 140%. The high increase of 137.5% refers, particularly, to stock-based incentive models. In the boom period from 2003 to 2007, the shareholder value principle unleashed a new radicalism of the management: the one who increases the share price, which consequently increases the company's value, should be involved in it. But since the outbreak of the financial crisis in autumn 2008, the executive board compensation has not just divided apart from the other compensation structures, it even outstripped the stock market price. While the ATX stock market price increased slightly

(2%) from 2009 to 2013, the executive compensations increased by more than a third (37%).

“Ideally, members of the board of directors should not earn more than twenty times the amount of a regular employee”, said the founder of the World Economic Forum, Davos, Klaus Schwab back in 2013 at ”Gipfeltreffen in den Alpen”. Austria also adopted the legal reform (§ 243b Abs. 2 Ziffer 3) to increase transparency and adequacy on their reporting of management board remuneration. But how do new regulations reflect in practice? Which incentive measures form the basis of the prevalent remuneration paradigm? Which benchmarks should the supervisory board set, concerning the remuneration structures of management in order to ensure a trendsetting and stakeholder-oriented corporate management (Wieser, 2013).

In April 2013, the Austrian Chamber of Labour *(*Ger. *Arbeiterkammer or AK)*, Department of Business Management investigated the principles and components of the managing board remunerations of the 20 ATX-companies on the Vienna Stock Exchange. The Chamber of Labour is an organization that represents the interests of 3 million Austrian employees and consumers and was founded in 1920. The implementation of the Second stability Act (§ 243b Abs. 2 Ziffer 3) of 2012 was therefore evaluated for the first time. The new regulation should increase transparency and should ensure fairness. However, as the available study shows, there is no sign of trend reversal. The first conclusion could rather be called “remuneration reloaded”. The trend in the executive compensation is increasing and was around 1.4 Mio EUR in 2012. This represents the 49-fold of the average Austrian salary. In the year 2000, the management board compensation was much lower, just 20-fold of the average Austrian salary (Wieser, 2013).

At first sight, the law regulating mandatory publishing of individual management board compensation level of the companies quoted on stock exchange ensures more transparency. Transparency has indeed increased, due to this disclosure obligation. However, a drop of bitterness remains. Unfortunately, the law regulating these mandatory reports excludes crucial compensation components, such as pension, severance and redundancy payments. Therefore, there is still insufficient detail in the depiction of increasingly important remuneration components. The quality of reports, concerning these issues, remains non-transparent and rudimentary in many cases. The analysis of annual reports in 2013 shows the following. The vast majority of companies (85%) provide additional pensions for their board of directors, which are mostly organized in pension funds. In four companies, an annual contribution of 10 to 20% of the fixed compensation runs into their pension fund. In two more companies, the board members are granted a maximum of 40% of their standard compensation as a bonus (Wieser, 2013).

1.6 Austrian Commercial Code (Unternehmensgesetzbuch – UGB)

The disclosure of the management board compensation has been a particularly crucial topic in corporate governance discussions. The legal framework of the law is defined in the Austrian Civil Code and a newly enacted Uniform Commercial Code (Ger. *Unternehmensgesetzbuch - UGB*). On January 1, 2007, a new unified Commercial Law came into force. It eliminated national and vested limitations to conform to the European Union requirements. For the purpose of this thesis, legal regulations § 243c and § 239 are crucial and I briefly describe a few important parts of this regulation.

In the legal regulation § 243c UGB, it is written that certain companies have to publish annual corporate governance reports. The novelty in the field of the corporate governance was established on June 1, 2008. For the financial years after December 31, 2008, the mandatory application of the new laws began.

§ 243c Abs. 2 UGB, paragraph 1 regulates mandatory information on the composition and operation of the management and the supervisory board and its committees. In 2012, the Austrian Parliament adopted two stability acts within the frame of the federal government's consolidation measures. With the introduction of the Second Stability Act of 2012, we can find a regulation in § 243c Abs. 2 Ziffer 3 that all the companies listed on a stock exchange are obligated to disclose the total remuneration of the individual board members, as well as the company's remuneration policy in their corporate governance report.

This amended remuneration framework on the disclosure of the remuneration for the individual members of the board of management applies to the financial years beginning after December 31, 2011. That applies regardless of whether the company complies with the Austrian code of corporate governance or any other code. Up to the Second Stability Act of 2012, a disclosure on the remuneration of a single board member was only provided in compliance with the Austrian corporate governance code, which is not mandatory (Wieser & Oberrauter, 2013).

However, the disclosure of the total compensation of the board members is not only just a part of the mandatory corporate governance report. Specific commissions also require the disclosure of the total remuneration of every single member of the management board with regard to the notes from the stock corporations. § 239 Abs. 1 Ziffer 4 UGB refers to the annex of the corporation's financial statement and defines that it is mandatory to disclose the total remuneration of the members of the management board for their services in the financial year. Total remuneration includes salaries, profit-share, expense allowances, insurance premiums, commissions and any

other benefits. However, pensions, severances, and redundancy payments are thus not included in the mandatory report. This analogously applies to the notes of the consolidated financial statements, in accordance to § 266 Ziffer 7 UGB. § 239 Abs. 1 Ziffer 5 UGB refers to options, as a possible variable remuneration component of the executive compensation.

In addition, before the Second Stability Act was adopted, the supervisory board was already responsible for guaranteeing that the total remuneration of the management board members is suitable in relation to individual functions as well as to the company's financial status. The Second Stability Act of 2012 implemented additional criteria. The supervisory board has to ensure now that the total remuneration of the management board members (also the incentive-based mechanisms) takes into account the performance of every single individual member, as well as the long-term development and the firm's financial status. The supervisory board is also obliged to consider the payment structure of the company as well as the market practice of similar competitors when defining appropriate remuneration schemes (EMEA Legal Insights Bulletin, 2013).

However, the amended remuneration framework will probably not have a significant effect on the practices for determining payment schemes for the management board members. The new rules list obligations which were already established on a supervisory board member by the old legal framework, taking into account the results of the short-term incentives that led to negative effects for the companies in the past years. Besides, the compulsory publication of the remuneration of each individual member of the management board does not add significant value for the investors (EMEA Legal Insights Bulletin, 2013).

1.7 Austrian Code of Corporate Governance

The Austrian corporate governance code is a system of rules and guidelines which are in accordance with the international standards for the responsible management of the corporations in Austria. The code presented to the public on Oct. 1, 2001 by the Austrian Working Group for the corporate governance. It has been adapted a few times due to the international and national developments. The last adjustment was made in January 2015. The code gives listed companies a set of voluntary rules to help them establish good corporate governance and control system. One key feature of the code is that it can be quickly adjusted to new national or international developments and changes (Austrian Working Group for Corporate Governance, 2015).

The code defines the three categories of rules. The rule "L" refers to mandatory legal requirements, the rule "C" complies or explains. This rule has to be followed. If there is

any deviation, it has to be explained and the reasons have to be specified in order to be in compliance with the code. The "R" rules are recommendations. If a company is not in compliance with this rule, there is no need of explanation or disclosure.

The L-rule 26a refers to the compensation of the management board members. The supervisory board shall provide that the total compensation of the single member of the management board is proportional to the performance and the tasks of every individual member, the general situation within the company and the usual compensation level (Austrian Working Group for Corporate Governance, 2015).

The C-rule 27 refers to fixed and variable components. The total compensation includes fixed and variable part. The variable components should be linked to sustainable, long-term, and multi-year performance criteria. Financial, as well as non-financial criteria, should be included. The variable components should not mislead persons to take unreasonable risks. The measurable performance criteria and maximum limits for the amount or as the percentage of the fixed remuneration should be set in advance (Austrian Working Group for Corporate Governance, 2015).

The L-rule 29 refers to § 239 par. 1 fig. 4 lit. Business Code. The total remuneration of the management board members for an annual year has to be reported in the notes to the financial statements. In addition, the corporate governance report should contain the total remuneration of each individual member of the management board and disclose the principles of the remuneration policy.

The last two important rules are the C-rule 30 and 31 wherein it is stated which information should the Corporate Governance Report contain in addition to the information required by law (L-rule 29) (Austrian Working Group for Corporate Governance, 2015):

- The ratio between the fixed and the variable components of the total compensation of the management board;
- A retirement plan principles for the management board;
- The principles applicable to eligibility and claims of the management board in case of termination of the function;
- The existence of a D&O insurance, if the costs are covered by the company;
- The principles for granting the variable compensation (especially for which performance criteria the variable components are linked), methods and maximum limits which determine the variable compensation and also the number of shares held in the company. In addition, major changes in comparison to the previous year have to be reported also.

- The variable and fixed remunerations of each individual management board member and for each financial year have to be disclosed in the corporate governance report. The same applies to the companies, where the remuneration is paid through a management company.

2 LITERATURE REVIEW ON MANAGERIAL COMPENSATION AND HYPOTHESES

Many researches have analyzed the factors that influence the compensation level of the CEOs. In this paragraph, it is discussed which factors may influence the level of the CEO compensation. A few factors are described: the factors of the firm size, firm performance, CEO tenure and institutional ownership. These four factors are dependent variables in the further analysis. In this chapter, it is discussed which characteristics may influence the level of the CEO compensation from a theoretical point of view. It is important to identify the factors affecting the CEO compensation in order to establish effective and equitable compensation mechanisms.

2.1 Firm size

To begin with Kostiuk (1990), a multitude of researches have investigated the relationship between the firm size and the executive compensation. The firm size is usually measured by the total sales revenues, the book value of total assets and by the number of employees. The idea for this connection is that managers of larger and more complex companies have to be more rewarded, as their work has a greater dimension and their tasks are more complex. Those managers need to be highly qualified and they demand to be paid well. The positive relation between the firm size and the executive compensation has been well-documented.

Kostiuk (1990) investigated US companies and took different samples for the analysis: the CEO compensation of 83 firms in the period 1969-1981, and 135 firms during the years 1934-1939. He reported that the relationship between the executive compensation and the firm size exists and is shown to be relatively stable over time as well as in different countries with different corporate governance structures. The elasticity of the executive compensation to the company size is almost the same in 1990 as it was sixty years before.

Bebchuk and Grinstein (2005) investigated the US executive compensation during the period 1993-2003. The positive relationship between the executive compensation and the firm size exists. A compensation level can be expected to increase with the firm size and performance. The relationship of the compensation to size, performance, and industry remained practically the same in 2003 and 1993.

Ueng, Wells and Lilly (2000) investigated the CEO compensation in small and large US firms. Small organizations are defined as those with assets lower than $ 250 Mio, and large organizations are those which are listed on the "Fortune 500". It has been found that the CEO compensation level was significantly related to the firm size. The influence of the CEO on his compensation was not an important determinant in small firms, but in contrast, it was a significant determinant of the CEO compensation level in large firms.

Canyon and Schwalbach (1999) analyzed the 48 German and 102 British corporations from 1969 to 1994. Those companies had different corporate governance system, but the results were similar. The relationship between the executive compensation and the company size in both countries are positive and significant. The difference is that the German CEOs did not receive equity-based compensation like the UK executives in the later part of the time period. In both countries, the CEO compensation increased over time. Haid and Yurtoglu (2006) analyzed 286 German firms for the period from 1987 to 2003 and found that compared to the firm performance, the firm size is a much more important determinant of the level of the executive compensation in Germany.

Based on the empirical results described above, I also expect size to be a major determinant of the CEO compensation level in the Austrian public limited companies. A general hypothesis is formulated. This hypothesis supposes a positive association between the firm size and the CEO compensation. The firm size is defined as a book value of the total assets, net sales or revenues and a total number of employees.

H1: Firm size positively influences CEO compensation.

2.2 Firm performance

Regarding the literature, the firm performance is the most important variable affecting the CEO compensation (Ozkan, 2007). The agency theorists have been mostly interested in this executive compensation determinant (Jensen & Murphy, 1990). Effective managerial performance should lead to improvement in the firm's performance, which increases the shareholder wealth (Gu & Choi, 2004). Nowadays, the firm performance is the first to be evaluated by the investors. There are a countless number of ways to measure financial performance, such as return on assets, return on investment, profit margin, earnings per share, P-E ratio, total shareholders return, debt to asset ratio, etc. Based on my reading of many articles, the most often used firm performance variables which explain CEO compensation are the return on assets (hereinafter: ROA) and the return on equity (hereinafter: ROE).

The first study between the CEO compensation and the company performance was made by Jensen and Murphy (1990). Their study was based on a large sample of the firms in the USA during the period 1974-1986. Jensen and Murphy (1990) conclude that the relationship between pay and performance exist, however the relationship is very low. Both, the total compensation as well as the cash compensation are positively related to the firm performance, however the values are too low. They conclude, that the board of directors should rather increase CEO's shareholdings and equity-based compensation. Jensen and Murphy (1990) also argue that from a shareholder's perspective, the level of compensation is not as important as an appropriate mix of compensation (Hengartner, 2006).

Since the Jensen and Murphy's (1990) research, numerous studies have replicated such investigations between the pay and the performance relationship. The next study is the one from Hall and Liebman (1998). They investigated 478 US largest companies between 1980 and 1994. They report about the four basic measures of the relationship between the CEO compensation and the firm performance. The first two show how the CEO wealth changes for "typical" changes in the firm performance. The third measure is elasticity - the percentage increase in the CEO compensation for a 1 % increase in the firm value. Finally, the fourth is the dollar change in the CEO wealth per 1,000 USD change in firm market value, as known as Jensen and Murphy (JM) statistic. The findings suggest that there is a strong relationship between the firm performance and the CEO compensation. Additionally, the level of the CEO compensation, and the sensitivity of the CEO compensation to performance has increased sharply over the past fifteen years. However, the study from (Hall & Liebman, 1998) came up with other findings. Regarding to their findings, there could be potentially deficits in the CEO compensation packages, as the relationship between the CEO compensation and the firm performance is not enough strong (Hall & Liebman, 1998).

Ozkan (2007) examined the link between the CEO compensation and the corporate performance in the UK. The sample includes 290 non-financial companies from the FTSE All Share Index for the period of 7 years (1999-2005). The results of the study show that there is a positive and significant relation between the CEO cash pay and the firm performance (stock return). The connection between the total compensation and the firm performance is reported to be positive but not significant.

Gregg, Jewell and Tonks (2005) measured the relationship between the CEO cash compensation and the firm performance. The analysis is made on the sample of large UK companies from 1994 to 2002. They reported a week relationship between the independent and dependent variables.

Most of the studies analyzed public firms in the USA and the UK. There is not so much evidence from other countries. In this paragraph, Isummarize a few studies from Germany. Haid and Yurtoglu (2006) study a sample of 286 German firms for the period from 1987 to 2003. They found a significant positive relationship between the executive compensation and the firm performance. They measured performance as a return on asset (ROA). Elston and Goldberg (2003) also found that the performance is mostly positively related to compensation. The research is made on the sample of a comprehensive set of German firms in the period 1961-1986. The author's findings are similar to the US previous studies. The following important study is the one from Conyon and Schwalbach (1999). They analyzed the executive compensation in Germany and the UK. In both countries, they found a positive relation between the executive compensation and the firm performance. However, the research on a sample of 83 firms in the period from 1968 to 1990, as well as 220 companies in the period from 1998 to 1992 shows, that the performance itself does not play the main role, just a trivial. The most important determinants are the firm size and the industry (Elston & Goldberg, 2003).

Bootsma (2009) reported the relationship between CEO compensation and firm performance. The analysis is based on 82 Dutch companies from 2002 to 2003. The cash compensation (salary and bonus) and the firm performance, measured by the ROA, ROE and Total shareholder return (hereinafter: TSR) are analyzed. This study did not find a significant and positive relationship between the variables.

Based on previous empirical researches, I expect the firm performance to be an important determinant of the CEO compensation level in Austria. I expect a positive association between the ROA and the ROE and the CEO compensation. Additionally, however, few other performance variables are tested in this paper. The general hypothesis assumes a positive association between the company performance and the CEO compensation, where variables ROE, ROA, net profit margin, TSR, Earnings per share (hereinafter: EPS) and P/E Ratio (hereinafter: P/E ratio) are tested.

H2: Firm performance positively influences CEO compensation.

Control variable – leverage: The leverage is the ratio of the long-term debt to the total assets. This ratio shows us a general measure of the long-term financial company's position. The ratio shows ability to meet financial requirements for the outstanding loans. This ratio is very important for the investors. If the ratio's value is high, the company has a relatively high degree of risk. Additionally, it is possible that the company is not able to repay its debts. This makes potential investors skeptical of buying shares. I suggest that there is a negative association between the long-term debt to total assets ratio and the CEO compensation.

2.3 CEO tenure

The effect of the CEOs tenure on their compensation has received certain attention among the researches on the executive pay. The effect of the CEO tenure on his compensation can be explained by the managerial power theory. There are causes for assuming that the longer the tenure of the CEOs, the more entrenched they are likely to become and the more power to seek their own interests rather than the shareholders' interests. The longer the CEO tenure, CEOs may be able to influence the executive board and consequently demand compensation packages in accordance with their own interests rather than those of the stockholders (Hill & Phan, 1991).

The same authors, Hill and Phan (1991), researched the connection between the total CEO cash compensation level and the CEO tenure from 1977 to 1988. Data of 104 firms were taken from a survey of the executive compensation by Forbes magazine. The hypothesis that the influence of CEOs over the executive boards and the likelihood that the CEO's compensation packages will reflect their interests increase with the CEO tenure was confirmed. Zheng (2010) also measured the CEO's tenure as the length of time since the CEO was on the position and the CEO compensation, and found an empirical support for this assumption, which was based on the managerial power theory.

Based on the managerial power theory and previous empirical researches, it is assumed that longer the CEO tenure (expressed in years the CEO holds the position) is related with a higher level of the CEO compensation. The following hypothesis can be formulated about the relation between the CEO compensation and the CEO tenure.

H3: CEO tenure positively influences CEO compensation.

2.4 Institutional ownership

An ownership structure is considered to be the major governance factor. Institutions such as pension funds, mutual funds, and investment trusts are different from individual investors in some important approaches (Victoravich, Xu, & Gan, 2013). The existence of institutional ownership is considered as one of the effective monitoring mechanisms which may reduce the agency problem between managers and shareholders by monitoring managerial actions (Abed, Suwaidan, & Slimani, 2014). On the other hand, institutional investors have an agency problem in themselves already. Institutions are represented by appointed managers, who are not owners in their own company.

In many countries over the world, the institutional investors have become dominant shareholders (Ozkan, 2007). If the institutional investors hold much higher equity share than individuals, they manage great pools of investment funds, and for that reason invest higher amounts to all the equities. Therefore, it is expected that institutions have more incentives to observe firms in which they possess a large amount of investment at stake (Ozkan, 2006).

Ozkan (2007) examined the influence of ownership structure on the level of the CEO compensation. The analysis is made on the sample of 414 large UK companies for the one financial year (2003/2004). The finding of the study shows that institutional investors have a significant and negative impact on the CEO compensation. The results are consistent with the theory that assumes that the executives are monitored by the institutional investors. Khan, Dharwadkar and Brandes (2005) investigated the sample of 224 companies for the period of 1992 to 1999 from the Thomson Financial Shareworld database, which generated a total of 1792 observations. The authors study the impact of concentration and dispersion of the institutional properties on the level of the executive compensation. They stress that institutional concentration leads to a lower level of compensation and when dispersed, the level of compensation increases.

Most researchers, who analyze the relationship between the ownership structure and the executive compensation, refer to the Anglo-Saxon corporate governance structure. The study of Haid and Yurtoglu (2006) filled the gap in the two-tier system of German corporations. The observation was made for the business years from 1987 to 2003. The findings indicate the presence of agency problem, caused by the separation of the ownership and control. If the executives are not controlled enough by the owners, they are able to gain higher compensation. Regarding Haid and Yurtoglu (2006), the ownership structure has a considerable influence on the executive compensation level. If banks own a large portion of shares, the executive compensation is reduced and it is considerably lower. Oppositely, the family ownership has an important positive impact.

The above-described studies show that large institutions have a significant influence on multiple aspects of the CEO compensation in accordance with the agency theory. Large institutions can reduce the level of salary, options and, finally, a total compensation effectively by reducing executive discretion in compensation decisions. The results also suggest that institutions can help reducing agency problem. They also serve as a control on the executive compensation. Based on previous empirical researches, I assume that higher institutional ownership concentration (expressed in percentage of the shares held by institutions) leads to a lower level of the CEO compensation in the Austrian public limited companies. The following hypothesis can be formulated about the relation between the CEO compensation and the institutional ownership.

H4: Institutional ownership negatively influences CEO compensation.

3 DATA AND METHODOLOGY

3.1 Sample

The first sample includes all the companies, listed on the Vienna Stock Exchange, whose shares are included in the WBI (Wiener Börse Index) during the 3 business years. The WBI is a major stock market index which tracks the performance of all the companies listed in Austria. It is a market capitalization-weighted price index. The WBI represents around 60% of Austrian stock trade. It covers public firms, whose shares are listed on the Semi-Official Market and the Official Market. As the WBI reflects movements on the Austrian stock market as a whole, a representative statistical analysis can be undertaken. A business year end can be the end of any quarter — March 31, June 30, September 30, or December 31. Approximately one-third of the Austrian companies do not have a business year end on December 31. The data sample includes the CEO compensation for the 3 business years:

1. Starting from January 1, 2012, and ending until September 30, 2013
2. Starting from January 1, 2013, and ending until September 30, 2014
3. Starting from January 1, 2014, and ending until September 30, 2015

The second sample includes the CEO compensation of all the companies, listed on the Vienna Stock Exchange whose shares are included in the Austrian Traded Index (ATX). The ATX is the most important stock market index of the Vienna Stock Exchange and the largest trading place in the Austrian economy. The ATX is defined as a price index and currently consists of 20 stocks. The largest 20 Austrian companies listed on the Vienna Stock Exchange are included in the ATX. The composition of the ATX is reviewed twice a year. The main criteria for the inclusion or deletion are the capitalized free float and stock exchange trading volumes. With every review, no more than three stocks may be changed in the composition of the index. The sample includes the CEO compensation for the 3 business years (2012/2013, 2013/2014, 2014/2015).

3.2 Data collection

The results are based on public annual reports, corporate governance reports of the companies and the data collected from the financial database Thomson Reuters Datastream. The main source of the data is published in the annual reports of the companies. The companies are obliged to publish and disseminate their annual reports to the shareholders. The reports are available on the firms' websites. The total number of firms whose shares are included in the WBI at the time of data collection is 66. The

data collection started in February 2016 and ended in July 2016. For the further analysis, I had to exclude a few companies from the sample of the 66 companies. The reasons are described below:

- The headquarters are not based in Austria. The CEO compensation level could not be compared if the company's headquarters are not based in the same country. The management board compensation system should be suitable for the circumstances of a country. Each country has its own social background, culture, history. Therefore, the level of the compensation is not comparable among different countries.
- The company's consolidated financial statement have not been audited and therefore not published.
- The company's financial year has changed. Therefore, an annual report has not been made for 12 months.
- The company has not been listed on the Vienna Stock Exchange for three full business years.
- The company type was not AG for all the three full business years.

The sample was reduced after the exclusion of certain companies. The sample for the further analysis included 60 companies for the financial year 2012/2013, 59 companies for the financial year 2013/20140 and 59 companies for the financial year 2014/2015.

3.3 Variable description

3.3.1 The CEO compensation

The chief executive total compensation consists of fixed, variable and other components. In the regression analysis, the total CEO compensation is a dependent variable. The dependent variable *(ln_compensation)* is measured by the natural log of total compensation, given to the CEO.

3.3.2 The firm size

According to the theory, the firm size is one of the most important variables in determining the CEO compensation. I use three variables which define the company size:

- The book value of total assets *(ln_ass)*. The total assets are the sum of all the current and noncurrent assets and must equal the sum of the total liabilities and stockholders' equity combined. In the regression analysis, the book value of total assets is measured by the natural log.

- The net sales or the revenues *(ln_rev)*. The revenues are the total amount the company has gained from sales (gross revenue) reduced by the value of product returns and allowances. In the regression analysis, the revenues are measured by the natural log.
- The total number of the employees *(ln_emp)*. In the regression analysis, total number of the employees is measured by the natural log.

3.3.3 The firm performance

The performance of the firm can be measured in many different ways and the right choice of ratios is very important for the interpretation of the results. The accounting-based measures like the ROE, the ROA and the market-based measures like the TSR are the most often used firm performance variables which explain the CEO compensation. For my analysis, I use the following firm performance variables:

- The return on equity ratio or the ROE *(roe)*. The ROE measures a corporation's profitability by revealing how much profit a company generates with the money the shareholders have invested. In other words, it shows how much profit each dollar of the common stockholders' equity generates. The financial analysts believe, the attractive ratio level for a quality investment is around 15-20%. The ROE is expressed as a percentage and calculated as (1):

$$Return\ on\ Equity = Net\ Income / Shareholder's\ Equity \quad (1)$$

- The return on assets or the ROA *(roa). The* ROA is an indicator of how profitable a company is relative to its total assets. The ROA gives an idea as to how efficient management is at using its assets to generate earnings. If the ratio is high, the company is earning more money on its assets. It is a key profitability ratio which measures the amount of profit made by the company per dollar of its assets. The higher ratio value, the better is for the company. The ROA is expressed as a percentage and calculated as (2):

$$Return\ on\ assets = Net\ Income / Total\ Assets \quad (2)$$

- The net profit margin *(net_margin)*. The net profit margin is a ratio of net profits to revenues for a company and shows how much of each dollar collected by the company as the revenue translates into profit. Typically, it is expressed as a percentage and calculated as (3):

$$Net\ profit\ margin = net\ profit / revenue \quad (3)$$

- The total shareholder return or TSR *(tsr)*. TSR is the total return of a stock to an investor. The TSR as an important metric of value creation is the internal rate of the return of all the cash flows to an investor during the holding period of an investment. Whichever way it is calculated, the TSR means the same thing: the total amount returned to investors. The TSR is calculated as (4):

$$TSR = (Ending\ stock\ price - Beginning\ stock\ price + Dividends) / Beginning\ stock\ price \quad (4)$$

- The earnings per share or EPS *(eps)*. The EPS is a ratio which measures the portion of a company's profit allocated to each outstanding share of common stock. It is also a calculation that tells us how profitable a company is on the shareholder basis. This calculation is obviously heavily influenced by how many shares are outstanding. Therefore, a larger company will have to split its earnings amongst many more shares of stock compared to a smaller company. The EPS is calculated as (5):

$$EPS = (Net\ income - Preferred\ dividends) / Average\ outstanding\ shares \quad (5)$$

- The Price-Earnings Ratio or P/E Ratio *(pe_ratio)*. This market prospect ratio calculates the market value of a stock relative to its earnings by comparing the market price per share by the EPS. In other words, it tells what the market is willing to pay for a stock based on its current earnings. The ratio is helpful for investors because it helps to analyze how much they should pay for a stock based on its current earnings. The price earnings ratio formula is calculated as (6):

$$P / E\ ratio = Market\ value\ price\ per\ share / EPS \quad (6)$$

Long-term debt to total assets ratio *(debt_ratio)*. This ratio is a measure of the financial leverage of the company. It shows what percentage of the assets is financed by the long-term debt. A high ratio is a worrying factor for the company. It is important to find out the reasons which lead to the high percentage. If the ratio is very high, it is important for the company to have steady cash flows and positive revenue. The ratio is calculated with the following formula (7):

$$Long\ Term\ Debt\ to\ Total\ Assets\ Ratio = Long\ Term\ Debt / Total\ Assets \quad (7)$$

3.3.4 The CEO Tenure

The variable CEO tenure represents a number of years when the CEO holds the position.

3.3.5 The institutional ownership

The institutional ownership is a percentage (%) of the shares held by large financial organizations, pension funds, and endowments. Institutions can buy large blocks of a company's shares and thus have a significant impact on corporate governance. The variable is measured in %.

3.4 Research methodology

The goal of the thesis is to test a relationship between the total CEO compensation level and the firm size, firm performance, CEO tenure, and percentage of shares held by institutions. The relationship between dependent and independents variables is tested for the three years from 2012/2013 to 2014/2015 for a sample of the Vienna Stock Exchange listed companies. For the descriptive statistics, the descriptive statistics methods, such as mean, median, standard deviation, maximum and minimum are used.

To analyze the relationship between the independent variables and the dependent variable, I use the Pooled Ordinary Least Squared (OLS) regression model to test the impact of dependent variables on CEO compensation. For this analysis, a panel data approach is used. The advantage of the panel data regression is that by combining the time series and the cross section observation, the panel data provide better informative data, less collinearity among the variables, and higher efficiency. Furthermore, the panel data minimize the biases that may be caused if separate company level data are divided into broad aggregates. And finally, the panel data can measure the effects that are not possible to observe in pure time series or pure cross section data (Yasser, 2011).

Formally, the model for the multiple linear regression, given n observations, is the following (8):

$$Y = b_0 + b_1 x_{i1} + b_2 + x_{i2} + \ldots b_k\, x_{ik} + e_i \; (i=1,2\ldots.,n) \qquad (8)$$

I filled the relevant variables in the basic equation. For my purpose, the following Pooled Ordinary Least Squared (OLS) regression is used to test the impact of independent variables on total CEO compensation.

$$(CEOcompensation)_{i,t} = \beta_0 + \sum_{p} \beta_1\, (performance_p)_{i,t} + \sum_{s} \beta_2\, (size_s)_{i,t} + \beta_3 (ownership)_{i,t} + \beta_4 (CEOtenure)_{i,t} + e_{i,t}$$

Where the CEO compensation is a dependent variable measuring the total CEO compensation at firm i during the year t. The performance is a set of performance specific variables. The sizes are a set of firm size specific variables. Ownership is a variable, measured as the percentage of the shares owned by institutions. The CEO tenure is a variable, measured as a total number of years when the CEO holds that position. The βs are the parameters to be estimated and e i,t is the error term.

4 EMPIRICAL RESULTS

4.1 Disclosure and transparency

The next step in the process was to collect the necessary data on the CEO compensation and the date of commencement of the CEO position from the annual reports. The CEO compensation contains fixed, variable and other components. Fixed compensation is a basic salary which does not vary according to the performance or the achieved results. Contrary, the variable pay changes in accordance with the firm performance or the achieved results. The variable remuneration may contain short-term incentive pay and the long-term incentive pay. The short-term incentive pay is focused on the performance within the period of one year and the long-term incentive pay focused on the period that is longer than a year, usually between three and five years. It usually contains stock options, restricted stock, performance shares or cash. Besides the variable and the fixed compensation, members of the management board could also receive severances, contribution to pension funds, benefits in kind or other bonuses in cash or in other forms. Those incentives are classified as "the other remuneration".

I reviewed annual and corporate governance reports from the sample of 60 companies. The data collection was long-lasting, as each company makes the reports in a different way. Some companies do not report the remuneration of each management board member clearly in the table with a clear division to fixed, variable and/or other remuneration, and with a brief personal description of every management and supervisory board member.

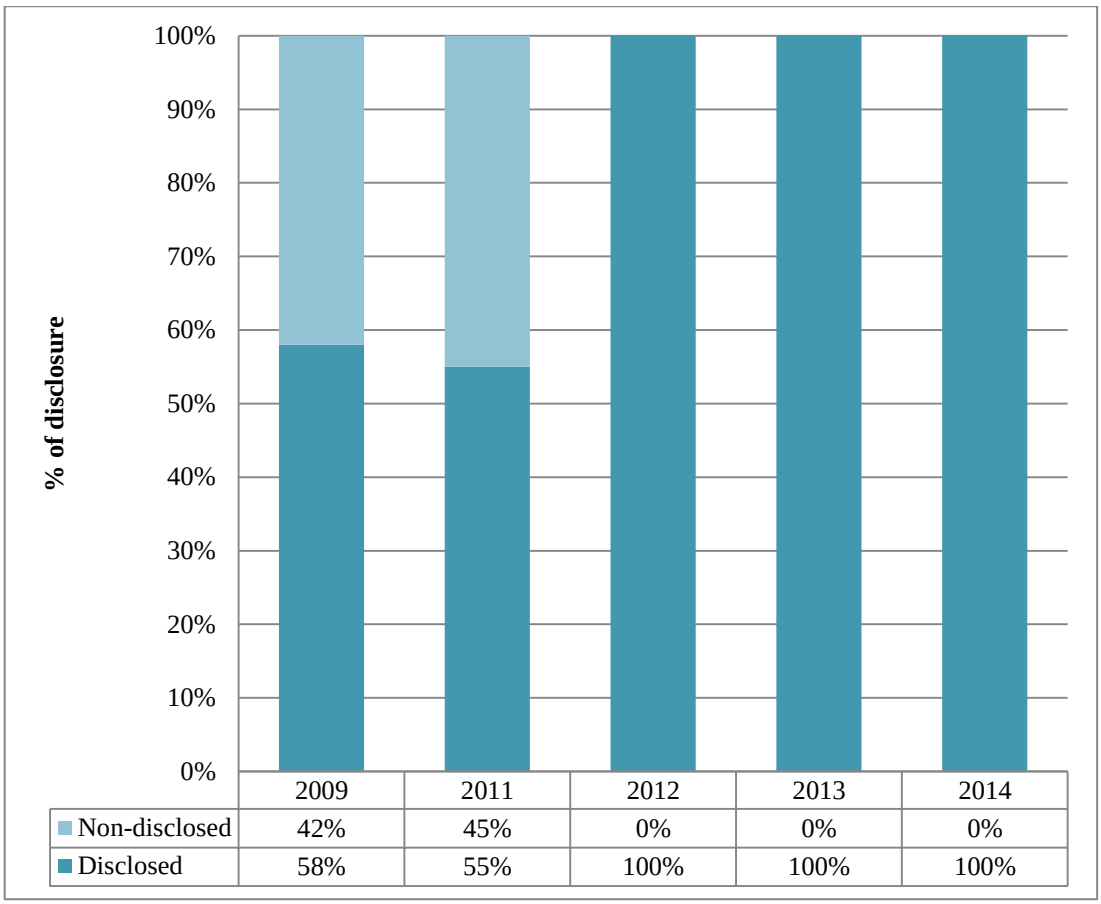
Due to the legal regulation, it is mandatory to disclose the total remuneration of every member of the management board for their services (§ 243c Abs. 2 Ziffer 3). However, some companies do not disclose this information. The reasons are various:

- As the Company does not have any employees of its own, disclosure is not applicable.
- The majority shareholder is another company and the management board compensation is paid by the majority owner (with the exception of the expense allowances).

- Protective clause.
- Total remuneration of a single board member is not disclosed, as there is no detailed information on their career history and responsibilities and that would result in an incomplete picture. Therefore, just a total remuneration of all the executive board members is disclosed.

The implementation of the Second Stability Act (§ 243c Abs. 2 Ziffer 3) should increase transparency and should ensure fairness. It entered into force on January 1, 2012. For the financial years beginning after December 31, 2011, all the companies listed on the stock exchange are obliged to disclose the total remuneration of individual board members as well as the company's remuneration policy in their corporate governance report. To see the effect of the new law, I had to check the remuneration disclosures in the financial years before 2012. I collected the data from the Arbeiterkammer's research on the Corporate Governance Code evaluation (2010), the Kienbaum Management Consultants' report (2013), and the Aktienforum report (2012). From those reports, I collected the percentage of disclosure on the total remuneration of the individual board members for the two financial years, 2009 and 2011, listed on the ATX.

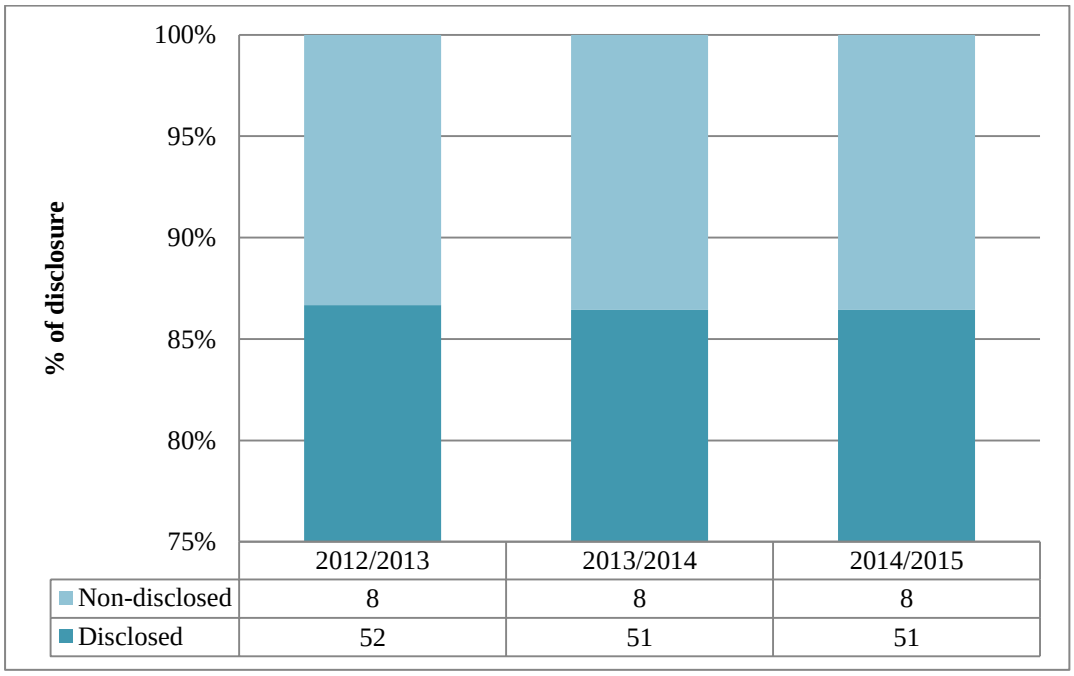
Figure 6. Disclosure of the compensation of each individual board member – ATX



	2009	2011	2012	2013	2014
Non-disclosed	42%	45%	0%	0%	0%
Disclosed	58%	55%	100%	100%	100%

Figure 6 shows the proportion of the disclosed and non-disclosed total compensation of each individual board member. The percentage of the companies, listed on ATX, whose disclosure about the remuneration of each individual board member has changed significantly with the introduction of the Second Stability Act of 2012 (§ 243b Abs. 2 Ziffer 3). Before the compensation disclosure of the individual board members became an obligatory part of corporate governance reports, less than 60% of the companies disclosed this information. In 2009 42% of the companies did not disclose the information, and in 2011 there were 45% of such companies. After the enactment of the new law in 2012, all the companies listed on the ATX disclosed the remuneration of every member of the management board. We can see a positive impact of the new law. Transparency has indeed increased due to the disclosure obligation.

Figure 7. Disclosure of the compensation of each individual board member – WBI



	2012/2013	2013/2014	2014/2015
Non-disclosed	8	8	8
Disclosed	52	51	51

Figure 7 shows the proportion of the disclosed and non-disclosed total remuneration of each individual board member. The percentage of the companies, listed on the Vienna Stock Exchange Index (WBI), whose disclosure about the remuneration of each individual board member, did not change significantly over a 3-year period from 2012/13 to 2014/15. 8 companies did not disclose the total compensation of each management board member in all the three years. That represents around 13% of all the companies.

Because the panel regression requires the complete data for each company for all the three financial years, the sample for the descriptive statistics and the regression analysis

consists of 50 companies for the financial year 2012/13, 50 companies for the financial year 2013/14, and 50 companies for the financial year 2014/15. The exclusion of 2 companies for the financial year 2012/13, 1 company for 2013/14 and 1 company for 2014/15 was necessary. The companies in the sample are distributed over the stock indices WBI and ATX. Compensation of the CEOs who did not hold the CEO position for the whole financial year had to be weighted and so adjusted to the whole financial year. If the CEO does not hold the position for the whole financial year, his total remuneration would be accordingly lower.

4.2 Descriptive statistics

4.2.1 CEO compensation – WBI

Table 1 shows the total compensation paid to the CEOs over the period from 2012/13 to 2014/15 (WBI listed). The compensation figures are expressed in EUR. The total sample consists of 150 observations. Mean (median) total compensation paid to the CEOs in the period 2012/13-2014/15 is €1,043,284 (€859,538) and ranges from €176,000 to €5,383,150.

Table 1. The total CEO compensation – WBI

The total compensation paid to the CEOs	period 2012/13 – 2014/15
Mean	1,043,284
Median	859,538
Std. Deviation	838,133
Minimum	176,000
Maximum	5,383,150
N =	150

Figure 8 is a frequency histogram which shows the distribution of the total compensation amounts of the WBI-listed companies in the period 2012/13-2014/15. The histogram is skewed right. Most of the CEOs receive less than €1,000,000. However, there are a handful of extreme outliers who receive more than €3,000,000.

Figure 8. The frequency histogram of the total CEO compensation – WBI

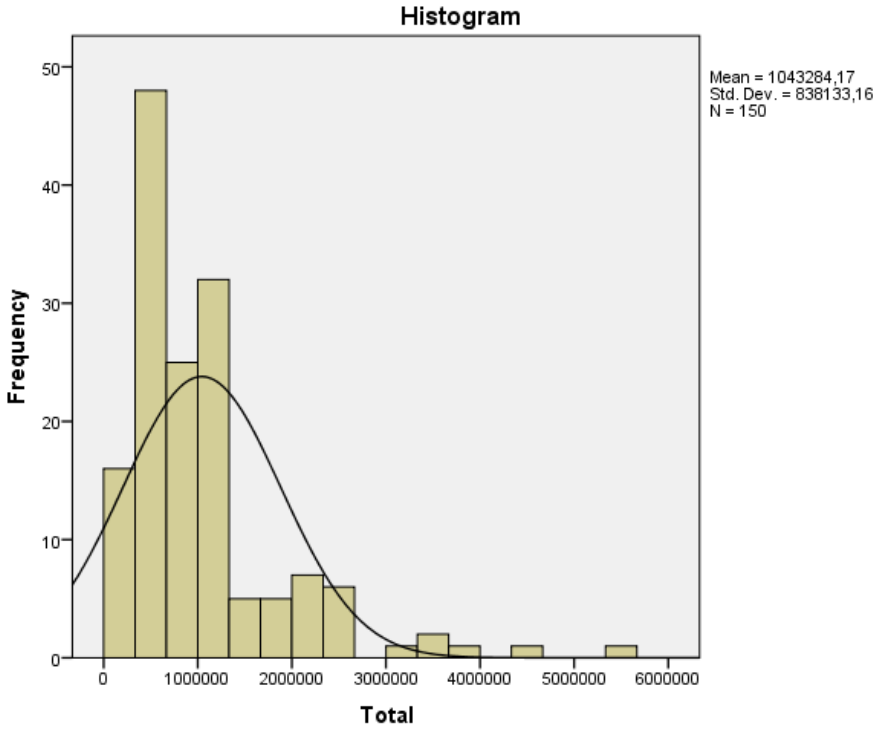


Table 2 shows the summary descriptive statistics of the compensation paid to the CEOs in the period 2012/13-2014/15. The companies in the sample are distributed over the WBI stock index. The executive compensation is split into the elements of total, fixed, variable and other compensations. 40 out of 50 companies published a clear division to the fixed, variable and other compensations paid to the CEOs in the year 2012, and these represent 80%. In 20% of the annual and the corporate governance reports, the companies publish just the total compensation paid to the CEOs. The mean (median) value of the total compensation is €987,408 (€714,500) and ranges from €205,200 to €5,383,150 in 2012/13. In the companies, which published a clear division to the fix, variable and other components, the mean (median) value of the fixed compensation is €672,558 (€496,000) and ranges from €159,600 to €4,913,250 in 2012. 34 CEOs out of 40 receive the performance-based variable compensation, with the mean (median) value of €395,005 (€389,647). The mean value of the other compensation of the CEOs, who received it, is €58,026.

In the financial year 2013/14, 43 out of 50 companies published a clear division to the fixed, variable and other compensations paid to the CEOs. The mean (median) value of the total compensation is €1,068,309 (€863,688), and ranges from €176,000 to €4,505,200. The average fixed compensation is €672,558 and the average variable compensation is €472,941. The variable part was paid to 40 CEOs. 14 CEOs got other compensations, the average other compensation is €117,037 and has a large range up to €3,850,000. The component other compensations have a high standard deviation, which

represents €588,788. The large standard deviation indicates a great diversity of other compensations level between the different companies. It is the result of the expenses resulting from an exit agreement of Herald Sommerer (Zumtobel Group AG).

In the financial year 2014/15, the same as in the previous year, 43 out of 50 companies published a clear division of compensation components paid to the CEOs. The average fixed compensation was €591,834 and the average variable compensation €535,319. Almost all the CEOs received the performance-based part. The variable part was not paid just to one CEO. The total compensation ranges from €194,000 to €3,675,300 and the mean (median) level represents €1,074,136 (896,350). To 14 CEOs, the other compensations were given, and the mean of this compensation component represents €28,602.

The mean (median) value of the total compensation has risen for approximately 9% (25%) over the sample period. We can see a trend, that the fixed compensation was constantly decreasing (in the sample period for around 12%), and the variable part was increasing and rose sharply for around 36% in the period of three years. The median value (€347,500) of the variable compensation was relatively low in comparison to the mean value (€535,319) in the year 2014. A low value of the median shows that the sample consists of a few firms which grant a relatively large part of the variable compensation. The standard deviation of the total compensation over the period 2012/13-2014/15 did not change significantly. The standard deviation of the variable compensation rose dramatically and almost doubled over the period of the 3 years. On the contrary, the standard deviation of the fixed compensation decreased for more than double. As we can see, the trend in compensation is toward performance-based compensation, as the fixed part is decreasing. The large standard deviation of the variable compensation indicates a great diversity of the variable part between different companies.

Table 2: Summary descriptive statistics of the compensation paid to the CEOs – WBI

	Total	Fixed	Variable	Other
2012/2013				
Mean	987,408	672,558	395,005	58,026
Median	714,500	496,000	389,647	0
Std. Deviation	882,949	748,524	329,676	184,683
Minimum	205,200	159,600	0	0
Maximum	5,383,150	4,913,250	1,500,000	1,000,000
N=	50	40	40	40
2013/2014				
Mean	1,068,309	563,811	472,941	117,037
Median	863,688	518,000	430,576	0
Std. Deviation	834,585	300,744	487,553	588,788
Minimum	176,000	157,000	0	0
Maximum	4,505,200	1,640,571	2,560,044	3,850,000
N=	50	43	43	43
2014/2015				
Mean	1,074,136	591,834	535,319	28,602
Median	896,350	560,000	347,500	0
Std. Deviation	809,410	293,422	615,612	94,829
Minimum	194,000	159,000	0	0
Maximum	3,675,300	1,475,300	2,577,614	498,200
N=	50	43	43	43

4.2.2 CEO Compensation – ATX

Table 3 shows summary descriptive statistics of compensation paid to the CEOs of the ATX-listed companies in the period of the three years, 2012/13-2014/15. In all 20 companies, a clear division to fixed, variable and other compensations is published in companies' annual/corporate governance reports. The mean value of the total compensation did not change significantly in the three observation years. It ranges from €1,547,855 to €1,666,021. But there is a significant change in the structure of the paid compensation. The mean value of the fixed compensation is €923,148 in 2012/13. In 2013/14, the mean value of the fix compensation decreases for around 22% to €721,166 and increases slightly to €745,363 in 2014/15. The standard deviation also decreases significantly for around 70% from 2012/13 to 2014/15, which means that diversity of the fixed compensation between different companies become less considerable. On the contrary, the variable compensation gradually increases over 3 years and the mean value increases for more than 60%. The standard deviation increases significantly, which

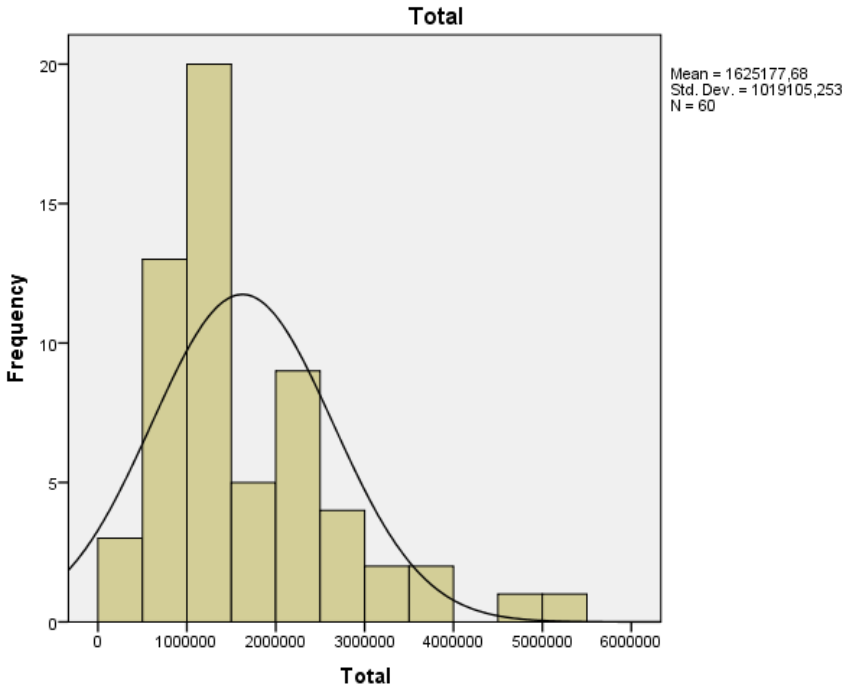
means that there is a higher diversity of variable part among different companies every year. Only in the financial year 2014/15, all the 20 companies paid variable performance-based compensation to the CEOs. To sum up, the average total compensation remains practically unchanged, but the structure of the compensation changed, the fixed part decrease, and the performance-based increase.

Table 3. Summary descriptive statistics of the compensation paid to the CEOs – ATX

	Total	Fixed	Variable	Other
2012/2013				
Mean	1,547,855	923,148	518,721	105,986
Median	1,160,912	653,029	531,688	0
Std. Deviation	1,129,931	995,898	350,207	254,297
Minimum	619,000	320,000	0	0
Maximum	5,383,150	4,913,250	1,500,000	1,000,000
N=	20	20	20	20
2013/2014				
Mean	1,666,021	721,166	706,467	239,088
Median	1,232,143	660,577	591,500	0
Std. Deviation	1,020,428	349,728	613,269	858,074
Minimum	444,200	253,700	0	0
Maximum	4,505,200	1,640,571	2,560,044	3,850,000
N=	20	20	20	20
2014/2015				
Mean	1,661,657	745,363	861,385	54,997
Median	1,482,490	735,500	593,500	0
Std. Deviation	947,407	312,595	761,168	134,864
Minimum	457,300	249,937	89,000	0
Maximum	3,675,300	1,475,300	2,577,614	498,200
N=	20	20	20	20

Figure 9 is a histogram, which shows the distribution of the total compensation amounts of the ATX-listed companies in the period 2012/13-2014/15. The histogram of the ATX companies is skewed right with a tail going off to the right, where most of the CEOs receive less than €1,500,000. Companies, listed on the ATX on average pay their CEOs more than the companies, listed on the WBI. I assume that an important factor of the CEO compensation level is the firm size. Bigger (smaller) firms give higher (lower) compensation to their CEOs.

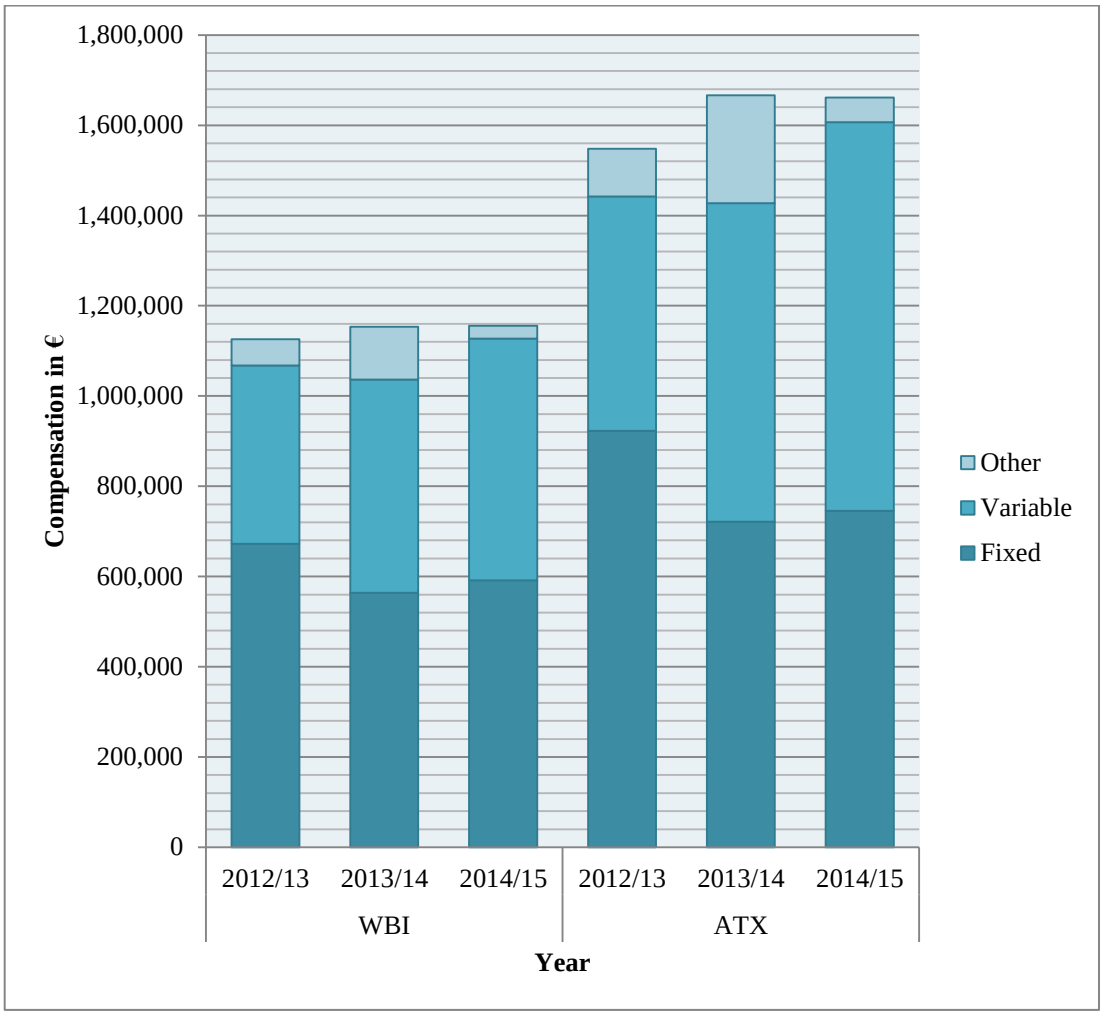
Figure 9. Frequency histogram of total CEO compensation – ATX



4.2.3 CEO compensation – a comparison between the ATX and the WBI-listed companies

The figure 10 shows the structure (variable, fixed and other compensations) paid to the CEOs in the period from 2012/13 to 2014/15. In this column, I compare the CEO's compensation in the 20 companies listed on the ATX with the compensation in companies listed on the WBI. The sample of the WBI-listed companies contains the companies which reported clear division to fixed, variable and other compensations (40 in 2012/13, and 43 in 2013/14 and 2014/15). The CEOs of the WBI-listed companies are paid around 30% less on average than the CEOs of the ATX-listed companies in all the 3 observation years. In the year 2012/13, the fixed compensation represents around 60% of the total compensation in the WBI and the ATX. In 2013/14 and 2014/15 the fixed compensation decreased to around 50% of the total compensation in the WBI-listed companies and to around 44% of the total compensation in the ATX-listed companies.

Figure 10. Structure of the compensation

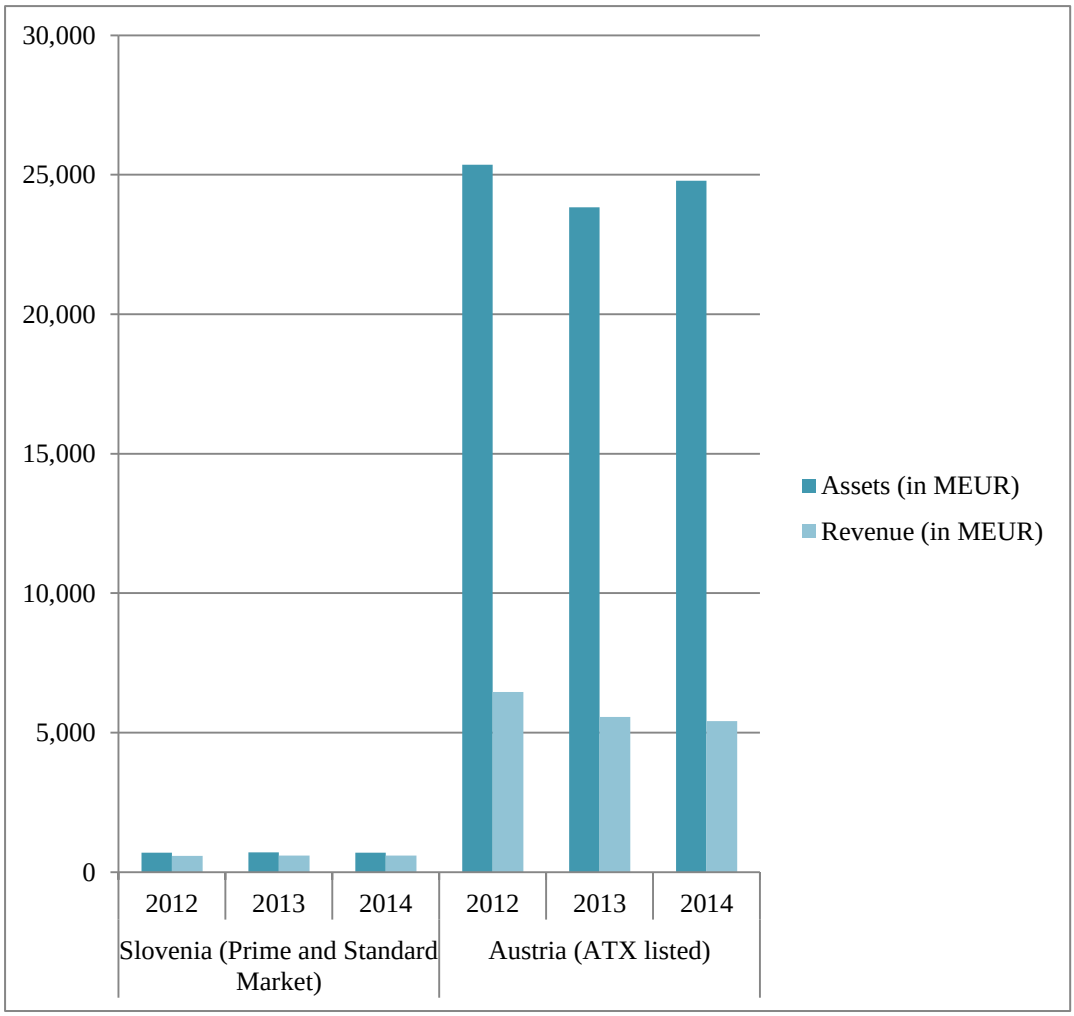


4.2.4 CEO Compensation – comparison between the ATX and the Ljubljana Stock Exchange

In this chapter, I am presenting a comparison between the companies listed on the Vienna Stock exchange and the Ljubljana Stock Exchange from 2012 to 2014. I compare the CEO compensation as well as some important ratios of the firm size and performance. As a sample of the companies listed on the Vienna Stock Exchange, I took all the companies, listed on the ATX. As a sample of the companies listed on the Ljubljana Stock Exchange, I took the companies listed on the Prime market and the standard market. The Prime market includes larger established companies known for their liquidity and transparency of operations, which are the top companies among international investors as well. The standard market is intended for larger companies with a dispersed ownership structure, characterized by higher levels of transparency of their operations. The sample of the companies listed on the prime and the standard

market includes 21 companies for the financial years 2012, 2013 and 2014. The financial data of the companies for all the three business years have been collected from annual reports of the companies, published on their websites. The data of the CEO compensation level for the financial years 2012 and 2013 has been collected from the master's thesis of Fonda S. (2015) with the title "Prejemki članov uprav in poslovna uspešnost podjetij". The data of the CEO compensation level for the financial year 2014 was collected by me. The data collection ended in May 2017.

Figure 11. Assets and Revenue comparison – the ATX and the Ljubljana Stock Exchange



The figure 11 shows mean total assets and mean revenue comparison between the firms listed on the Vienna Stock Exchange and the Ljubljana Stock Exchange. Assets and revenues are important measures of the firm size. As evident, the Austrian companies are much bigger than the Slovenian companies. The mean value of total assets of the ATX companies varies between 23,834 MEUR and 25,363 MEUR. This value is around

35-times higher than the average value of the Slovenian companies. The mean value of the total assets of the Slovenian companies varies between 690 MEUR and 708 MEUR, with the higher average value in 2013. Revenues are also much higher in the Austrian companies. The mean value in the Austrian companies varies between 5,410 MEUR and 6,458 MEUR and between 583 MEUR and 589 MEUR in the Slovenian companies. The revenues are 10-times higher in the Austrian companies on average compared to Slovenian companies.

Figure 12. Comparison of the number of the employees– the ATX and the Ljubljana Stock Exchange

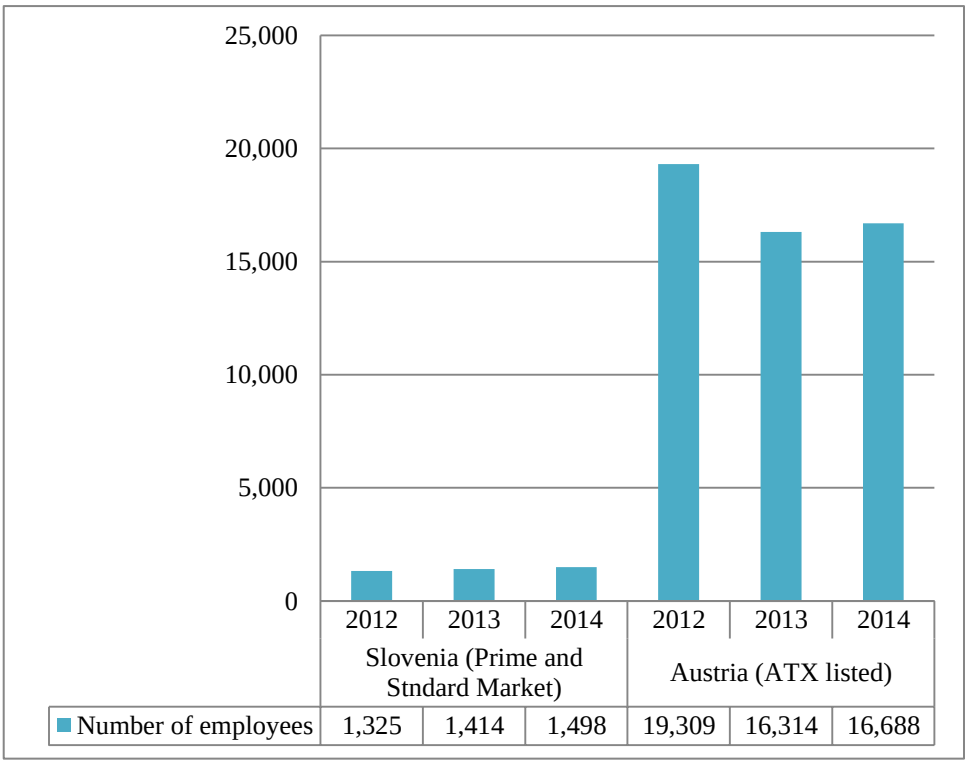
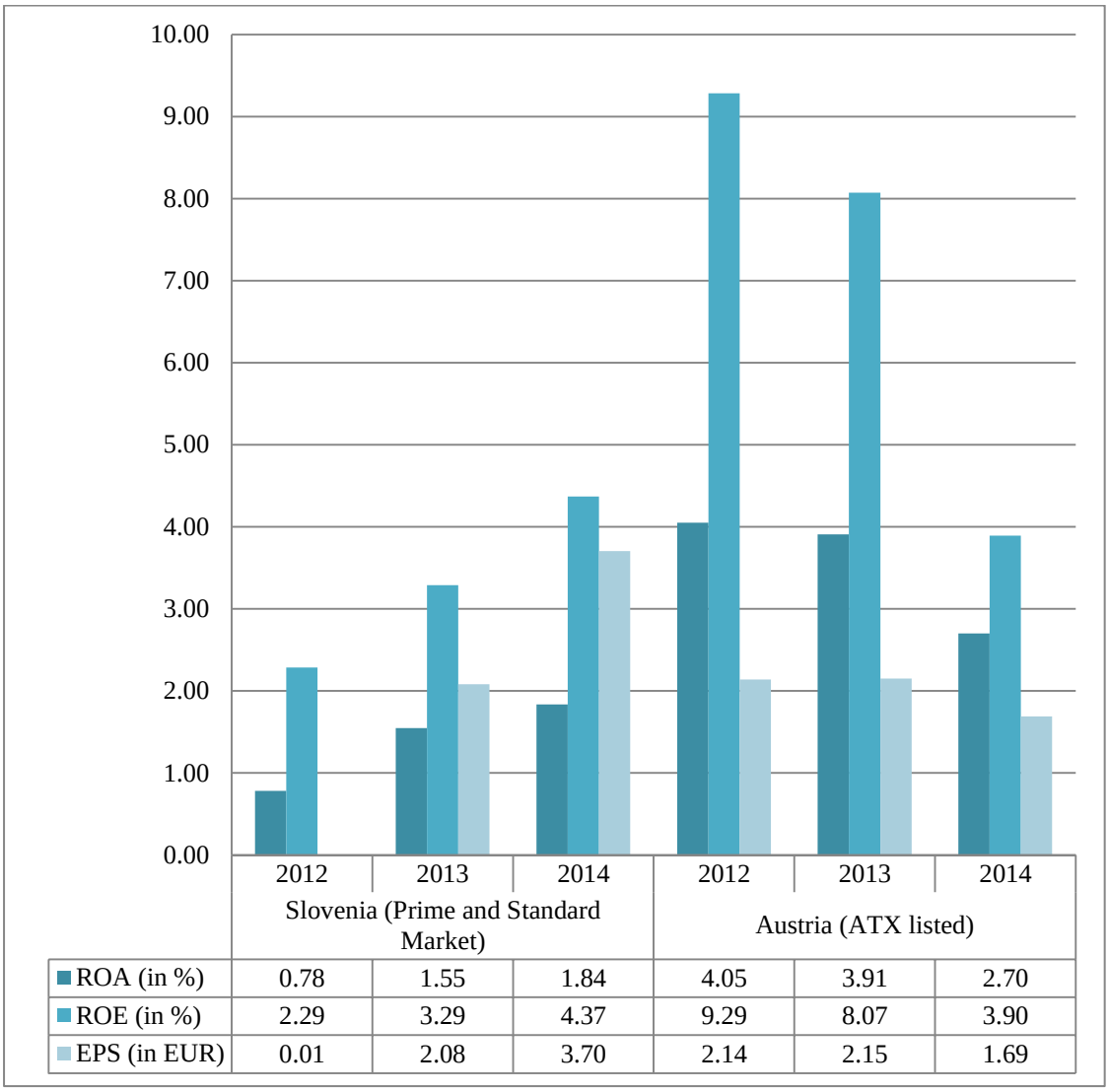


Figure 12 shows an average number of the employees of the Slovenian and the Austrian companies during the observed period. The Austrian companies employ more employees, which also indicate bigger firm size. On average, the Austrian companies have 12-times more employees than the Slovenian companies. The average number of the employees in Slovenia increased slightly from 1,325 to 1,414. The average number of the employees in Austria decreased from 19,309 to 16,688.

Figure 13. Firm performance comparison – the ATX and the Ljubljana Stock Exchange



	2012	2013	2014	2012	2013	2014
	Slovenia (Prime and Standard Market)			Austria (ATX listed)		
ROA (in %)	0.78	1.55	1.84	4.05	3.91	2.70
ROE (in %)	2.29	3.29	4.37	9.29	8.07	3.90
EPS (in EUR)	0.01	2.08	3.70	2.14	2.15	1.69

The figure 13 shows the firm performance analysis in the Slovenian and the Austrian companies. The first ratio is Return on Assets (ROA). As we can see, ROA in the Slovenian firms increased from 0.78% to 1.84% and oppositely decreased from 4.05% to 2.70% in the Austrian companies. Roughly speaking, I can say that management of the Austrian companies uses the assets more efficiently to generate profit. However, we have to take into account that ROA can vary substantially across the different industries. The next ratio is ROE. The financial analysts believe, the attractive ratio level for a quality investment is around 15-20%. However, the average ROE value of the Slovenian and the Austrian companies was considerably lower in all the three observed years. Anyway, ROE in the Slovenian firms was increasing from 2.29% to 4.37%. In the Austrian firms, the ROE decreased significantly from 9.29% to 3.9%. The last profitability ratio I analyzed was earning per share (EPS). Higher EPS ratio is better than lower. If the ratio is high, the company is more profitable. The same as in the case

of the ROA and the ROE, the mean value of EPS ratio in the Slovenian companies increased from 0.01 to 3.7, and oppositely decreased from 2.14 to 1.69 in the Austrian companies. To sum up, profitability ratios were increasing in the Slovenian companies and decreasing in the Austrian companies. However, the ratios in the Austrian companies still had higher and better value in all the three observed years.

Figure 14. CEO compensation level – comparison between the ATX and the Ljubljana Stock Exchange

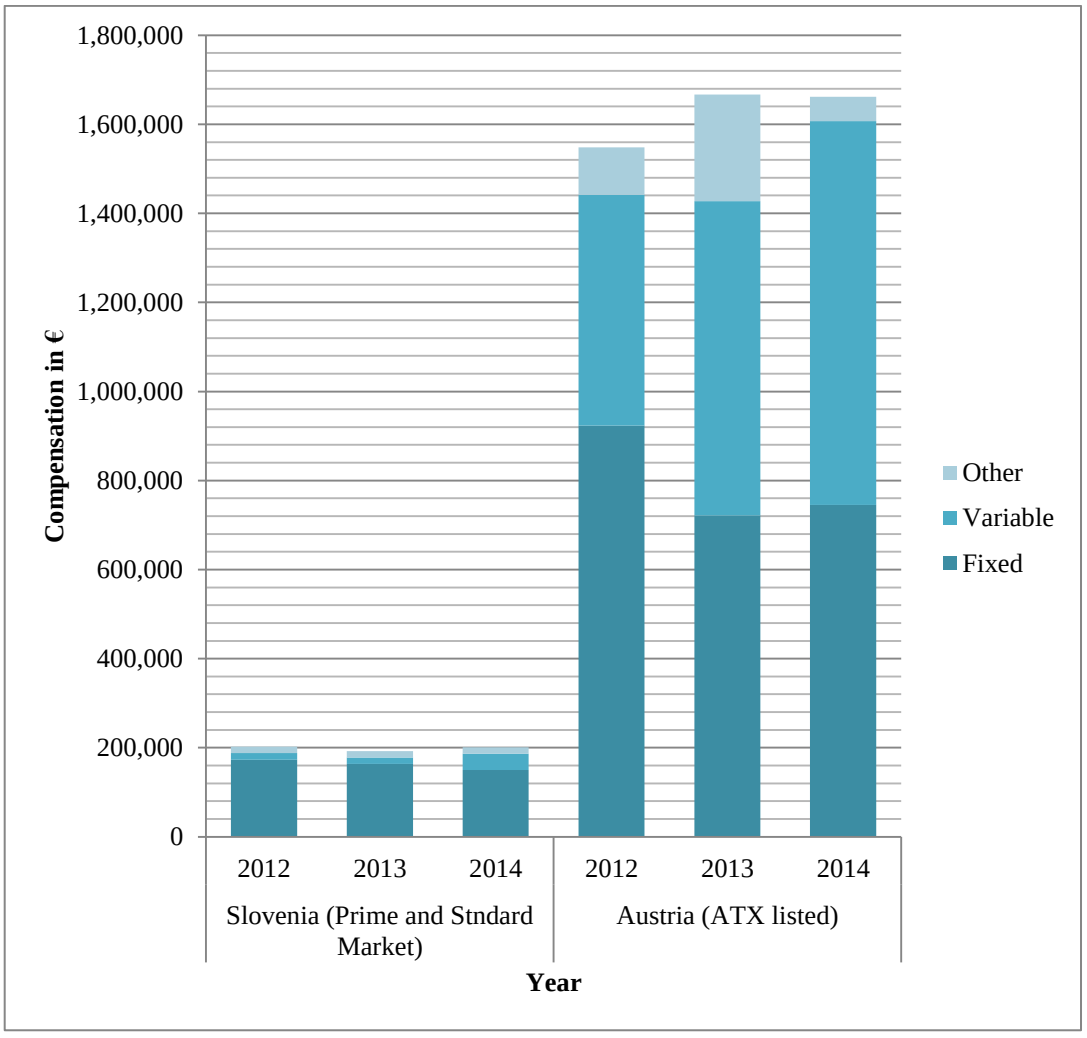


Figure 14 shows the average annual CEO's compensation of the Austrian and the Slovenian companies in 2012, 2013 and 2014. In 2012, the average annual compensation of the CEOs in Austria was 1,547,855 which is almost 8 times more than the average CEO's annual compensation in Slovenia. In 2012, the average compensations in Slovenia, paid to the CEOs were 202,327 EUR. In 2013, the Austrian CEO was paid more on average. In 2013, the compensations paid to the Austrian CEOs were more than 8.5 times higher than the compensations paid to the Slovenian CEOs.

The average compensations paid to the CEOs in Slovenia were 192,404 EUR in 2013. The average compensation paid to the Austrian CEOs increased by around 7.5%, as the average CEO compensation in Slovenia decreased for around 5% in the financial year 2013. In 2014, the average Slovenian CEO compensation was 200,994 EUR. The CEO in Austria earned around 8.3 times more on average in comparison to the Slovenian CEO. The average total CEO compensation in Austria stayed almost unchanged and decreased for less than 1%, and the average CEO compensation of Slovenian CEOs increased by approximately 4%.

Figure 15. CEO compensation structure – comparison between the ATX and the Ljubljana Stock Exchange

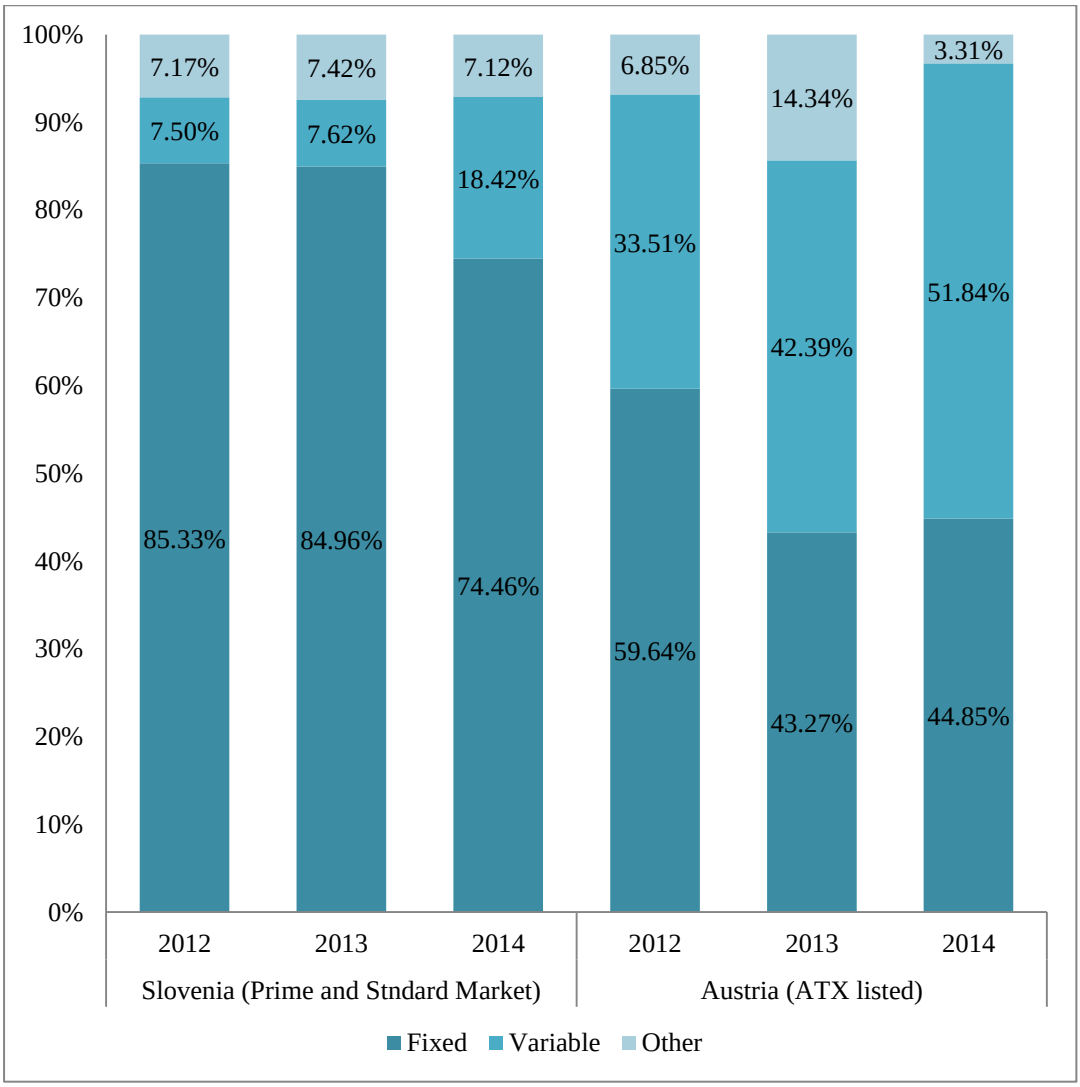


Figure 15 shows the structure of the CEO's average annual income in Slovenia and Austria in the financial years 2012, 2013 and 2014. As can be seen from the column, the variable remuneration of the Slovenian CEOs remain almost steady from 2012 to 2013

and that represents around 7.5 % of the total compensation. In 2014 the variable compensation rose to around 18.4% of the total compensation. Other remuneration, as severances, contribution to pension funds, benefits in kind of some other bonuses in cash or in the other form remain stable at around 7%. The largest share represents the fixed remuneration. The structure of the compensation of the CEOs in Austria is entirely different, as the variable part (performance based) represents significantly higher proportion. In 2012, the variable part represents around 33.5% of the total compensation. In 2013, it rose to 42% and in 2014 to almost 52%. And that represents the majority of the total compensation. As evident from the column, we can see an upward trend in the variable compensation part in both countries.

4.2.5 Compensation of the management board members – ATX-listed companies

Table 4 shows summary descriptive statistics of the compensation paid to the management board members of the ATX-listed companies in the period 2012/13-2014/15. The management board compensation is split into the four elements: total, fixed, variable, other, and is expressed in EUR. In total, I analyzed 176 executive board members over the period of the three years. In all the companies, a clear division to fixed, variable and other compensations of all the management board members is published in companies' annual/corporate governance reports.

The average total compensation remains practically unchanged over the three years. The mean value of the total compensation of the management board members is €1,032,186 in 2012/13 and slightly increases to €1,056,443 in the financial year 2013/14. The mean value decreases to €1,005,618 in the financial year 2014/15. The biggest difference between the minimum and the maximum compensation level is in the financial year 2012/13. The total compensation varies significantly from €57,000 to €5,800,000. A large standard deviation indicates a great diversity of the total compensation level among the management board members.

The variable compensation part does not vary significantly over the 3 observational years. The mean value of the variable compensations was €342,838 in 2012/13, increased to €436,068 (27%) in 2013 and decreased to €360,974 (17%). Inversely proportional varies the fixed compensation level. In all the three years, the minimum value of the variable compensation is €0. That means that all the management board members did not receive the variable performance-based compensation. In all the three years, the fix compensation is higher than variable. In 2012/13 the mean value of the fixed compensation is around 37% higher than variable. In 2013/14, the difference is just approximately 8%, and in 2014/15 the difference between mean values increases again to app. 31%. An interesting fact is that all the CEOs received variable

compensation, which should be performance based, but all the management board members did not receive performance-based pay.

Table 4. Management board members compensation

	Total	Fixed	Variable	Other
2012/2013				
Mean	1,032,186	539,932	341,835	150,419
Median	832,650	466,500	246,500	0
Std. Deviation	967,804	420,127	375,339	575,030
Minimum	57,000	52,600	0	0
Maximum	5,800,000	2,338,800	1,800,000	3,500,000
N=	62	62	62	62
2013/2014				
Mean	1056,443	473,912	436,068	146.463
Median	911,000	445,396	333,000	1,703
Std. Deviation	559,491	176,889	382,503	404,264
Minimum	303,000	222,667	0	0
Maximum	2,834,408	857,000	2,080,408	2,222,519
N=	57	57	57	57
2014/2015				
Mean	1,005,618	520,157	360,974	124,487
Median	807,600	492,000	301,000	0
Std. Deviation	603,473	202,733	330,615	522,905
Minimum	305,000	100,000	0	0
Maximum	4,214,000	908,000	1,499,283	3,850,000
N=	57	57	57	57

4.2.6 Ratio of the average CEO compensation to the average total management board member compensation

This analysis contains the total compensation of the 20 Management boards in the period from 2012/13 to 2014/1 and represents the ratio of the CEO compensation to the average total management board members compensation.

Figure 16. Ratio of the CEO compensation to the average total management board members compensation

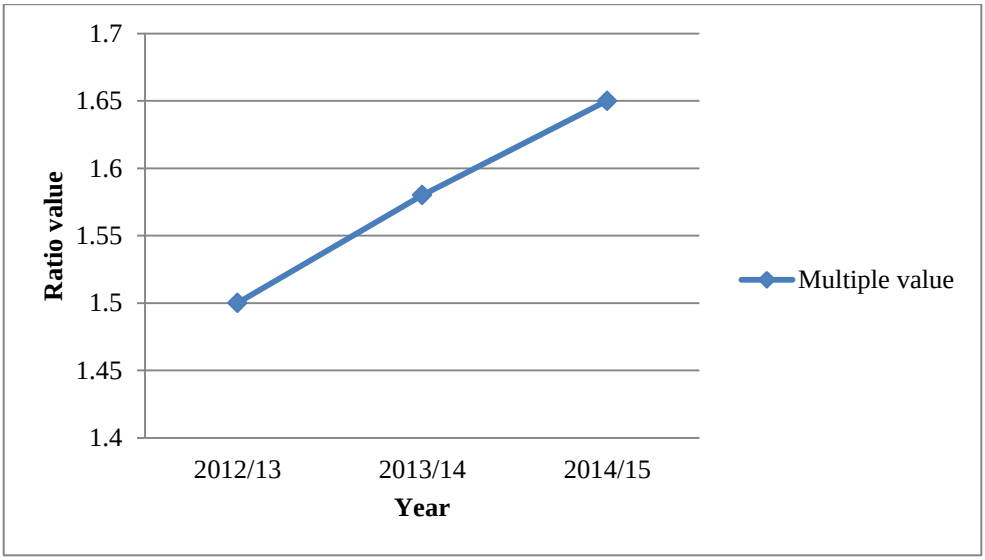


Figure 16 shows a comparison between the total CEO compensation with the total compensation of the management board members. The average total compensation paid to the CEOs was 50% higher than the average compensation paid to the management board members in 2012/13. In 2013/14 the difference increased to 58% and in 2014/15 to 65%. We can see a noticeable trend of a growing gap between the CEO compensation level and other management board members compensation levels.

4.3 Regression analysis

4.3.1 Correlation Analysis

In this section, I present the correlations between all the variables pertinent to this study. Correlation analysis is a prerequisite to conducting the regression analysis. The researcher can identify the relationship between the independent variables. It is important to note that correlation provides evidence that there is a relationship between the two variables but does not, however, indicate that one variable causes the other. It serves to identify any cases of multicollinearity where two or more independent variables are highly correlated. Strong correlations among independent variables do not necessarily compromise the robustness of the model as a whole. However, it compromises the explanatory power of the individual independent variables. The correlation coefficient value lies between 1 and -1, where 0 indicates no relationship; 1 indicates a perfectly positive relationship, and a value of -1 implies a perfectly negative relationship. The correlation matrix is tabled on the next page.

Table 5. Pearson's correlation matrix

	ln_compensation	ln_fix	ln_variable	ln_ass	ln_rev	ln_emp	roe	roa	net_margin	eps	debt_ratio	tsr	pe_ratio	ownership	tenure
ln_compensation	1														
ln_fix	.876**	1													
ln_variable	.407**	.280**	1												
ln_ass	.618**	.651**	.214*	1											
ln_rev	.725**	.683**	.300**	.814**	1										
ln_emp	.645**	.628**	.216*	.655**	.902**	1									
roe	.258**	0.13	.279**	0.108	.191*	0.136	1								
roa	0.083	0.007	.254**	-.210**	-0.019	-0.05	.674**	1							
net_margin	0.025	-0.012	0.044	0.129	-0.104	-.211**	.458**	.408**	1						
eps	.256**	0.122	.296**	0.131	.265**	.229**	.262**	.264**	.167*	1					
debt_ratio	-0.113	-.178*	-0.11	0.046	-0.101	-0.157	-.226**	-.176*	-0.087	-.239**	1				
tsr	0.071	0.038	.182*	-0.05	-0.05	-0.076	.284**	.196*	0.116	0.07	-0.062	1			
pe_ratio	-0.004	0.028	-0.153	-0.012	0.003	-0.03	0.07	0.081	-0.053	-0.148	0.055	0.011	1		
ownership	.369**	.269**	0.009	.189*	.242**	.213**	0.114	0.144	-0.009	-0.018	0.103	0.076	.280**	1	
tenure	0.005	0.055	0.104	-0.11	-0.151	-0.102	0.097	0.087	0.055	.189*	0.13	0.013	-0.058	0.03	1

Note: **. Correlation is significant at the 0.01 level (2-tailed).

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

ln_compensation: total CEO compensation, *ln_fix*: fixed CEO compensation, *ln_variable*: variable CEO compensation, *ln_ass*: book value of total assets measured by the natural log, *ln_rev*: net sales or the revenues measured by the natural log, *ln_emp*: total number of the employees is measured by the natural log, *roe*: return on equity, *roa*: return on assets, *net_margin*: net profit margin, *tsr*: total shareholder return, *eps*: earnings per share, *pe_ratio*: Price-Earnings Ratio, *debt_ratio*: Long-term debt to total assets ratio, *tenure*: number of years when the CEO holds the position, *ownership*: percentage of the shares held by large financial organizations, pension funds, and endowments.

I observed the following relationship between the dependent variable natural log of the total compensation given to the CEOs and independent variables. Independent variables which represent the firm size (number of employees, total assets, and revenues) are shown as a natural logarithm. There is no significant correlation between the natural log of the total compensation given to the CEOs and the variables ROA, net margin, total shareholders return, P/E ratio, long-term debt to total assets ratio, and CEO tenure in years. However, I find the following statistical significant correlations:

- In the table above, I observed the three cases of strong correlations. There is a significant positive correlation between the revenue *(ln_rev)* and the natural log of the total compensation given to the CEOs, $r = 0.725$, $p < 0.01$, between the number of employees *(ln_emp)*, and the natural log of the total compensation given to the CEOs, $r = 0.645$, $p < 0.01$, and between the total assets *(ln_ass)* and natural log of the total compensation given to the CEOs, $r = 0.618$, $p < 0.01$.
- I observed three cases of weak correlation. The significant and positive correlation is found between the ROE and the natural log of the total compensation given to the CEOs, $r = 0.258$, p (two-tailed) < 0.01, between the earnings per share and the natural log of the total compensation given to the CEOs, $r = 0.256$, p (two-tailed) < 0.01 and between the ownership structure and the natural log of the total compensation given to the CEOs, $r = 0.369$, p (two-tailed) < 0.01.

I also analyzed the relationship between the natural log of the fixed compensation *(ln_fix)* given to the CEOs and independent variables. As expected, there is a significantly strong correlation between the firm size (assets, revenue, and number of employees) and natural log of the fixed compensation. I found a very weak negative correlation between the fixed compensation given to the CEO long-term debt to total assets ratio and a weak correlation between the fixed compensation and the ownership structure. The correlation between the natural log of the variable compensation *(ln_variable)* and the firm size is weak but statistically significant. I also found a relationship between the variable compensation *(ln_variable)* and some independent variables which represent firm performance. As expected due to the literature, there is a weak, but statistically significant correlation between the variable compensation given to the CEOs and the performance variables ROE, ROA, and earnings per share. A very weak correlation to the variable compensation represents the independent variable total shareholders return.

4.3.2 Regression analysis and the comparison of the results with theoretical expectations and previous researches

The following section presents the results of the regression model. The regression analysis allows us to examine to what degree the independent variables influence the dependent variable, in this case, the CEO compensation.

Table 6. Regression analysis

	SIZE			PERFORMANCE							OWNERSHIP	TENURE		
Model	assets	revenue	number of employees	ROE	ROA	net margin	EPS	LT debt to total assets ratio	TSR	p/e ratio	institutional ownership	CEO tenure in years	constant	R-squared
1	0.184***			0.007**						-0.002	0.017**	0.004	9.396	0.517
2		0.262***		0.004*						-0.002	0.015**	0.009	7.947	0.576
3			0.234***	0.007***						-0.002	0.014*	0.004	11.443	0.514
4	0.201***				0.024					-0.002	0.017*	0.005	8.993	0.514
5		0.270***			0.005					-0.002	0.015**	0.01	7.777	0.576
6			0.245***		0.013					-0.002	0.014*	0.006	11.339	0.511
7	0.197***					-0.007		-0.008	0.001	-0.002	0.018**	0.008	9.279	0.471
8		0.271***				0.006		-0.002	0.001	-0.002	0.015**	0.01	7.776	0.571
9			0.257***			0.012		-0.001	0.002	-0.001	0.014*	0.006	11.229	0.5
10	0.183***						0.058*		0.001	-0.002	0.018**	0.002	9.337	0.467
11		0.264***					0.017		0.002	-0.002	0.015**	0.009	7.857	0.563
12			0.235***				0.034		0.002	-0.001	0.015**	0.004	11.376	0.483

Note: *ln_compensation*: total CEO compensation, *ln_fix*: fixed CEO compensation, *ln_variable*: variable CEO compensation, *ln_ass*: book value of total assets measured by the natural log, *ln_rev*: net sales or the revenues measured by the natural log, *ln_emp*: total number of the employees is measured by the natural log, *roe*: return on equity, *roa*: return on assets, *net_margin*: net profit margin, *tsr*: total shareholder return, *eps*: earnings per share, *pe_ratio*: Price-Earnings Ratio, *debt_ratio*: Long-term debt to total assets ratio, *tenure*: number of years when the CEO holds the position, *ownership*: percentage of the shares held by large financial organizations, pension funds, and endowments.

Table 6 reports the results of the OLS regression analysis with the full sample of the 50 companies in the three observation years. 12 different regression models are made to avoid multicollinearity¸. The total number of observations is 1800. The company size, measured by the natural logarithm of assets, the revenue and the number of the employees, is the most important determinant of the total CEO compensation (p=0,000). A positive relationship between the company size and the CEO compensation level is found. The coefficient of the revenues is the largest. Companies with higher (lower) revenue pay higher (lower) total compensation to the CEOs. Managers of larger and more complex companies are more rewarded, presumably as their work has greater dimension and their tasks are more complex. According to the theoretical background, the H1 is confirmed.

The company performance shows unequal results. The relationship between the CEO compensation and the firm performance depends on the selection of ratios. However, in the literature, the firm performance, especially the ROE and the ROA is often considered as the most important variable affecting the CEO compensation. Furthermore, the ROE and the ROA are ratios which agency theorists are mostly interested in. The ROE is positive and significantly related to the level of the total compensation (p=0.05 or lower). Companies with higher (lower) ROE pay higher (lower) total compensation to the CEOs. The coefficient of the earnings per share (EPS) is positive and significantly related to the level of compensation just in one out of three models (p=0.05). All the other determinants which represent the firm performance (the ROA, net margin, total shareholders return, p/e ratio) are not statistically significant. So, they are not determinants of the total compensation. The hypothesis H2 cannot be confirmed.

I found no statistical significance of the CEO tenure in years in any of the model. The CEO tenure (expressed in years the CEO held the position) is not related to a higher level of the CEO compensation. This finding is not consistent with the theoretical background. The managerial power theory assumes that the longer the CEO holds the position, the more entrenched he is likely to become and it is to expect, that he will gain more power and will act in his interests (rather than the shareholders' interests). In my case, the hypothesis H3 cannot be confirmed.

The results demonstrate that the level of the CEO's total compensation is positively and significantly related to the institutional ownership concentration (p=0.05 or higher). This result suggests that institutional shareholders do not provide monitoring for the CEO's compensation level. Oppositely, the higher (lower) institutional ownership concentration (expressed in percentage of the shares held by institutions) leads to a higher (lower) level of the CEO compensation. The hypothesis H4 cannot be confirmed.

Probably we can see an effect that the institutional owners pay more because they are agents by themselves. Institutions are represented by appointed managers-agents.

CONCLUSION

This thesis contributes to the improvement of the literature on the CEO compensation by analyzing data from the Austrian public limited companies. Prior researching of the Austrian executive compensation has been limited by a lack of transparent disclosure of the executive compensation level. The Austrian corporate governance system changed significantly with the introduction of the Second Stability Act of 2012. A regulation that all the companies listed on a stock exchange are obligated to disclose the total remuneration of the individual board members, as well as the company's remuneration policy in their corporate governance reports, was introduced. Due to the changed regulation, CEO compensation became more transparent.

Many researches have been made in order to determine the factors that influence the compensation of the CEOs. There are firm-specific as well as personal characteristics which may influence the level of the CEO compensation. To sum up a few of them, Abed et al. (2014), Kostiuk (1990), Bebchuk and Grinstein (2005), Ueng, Wells and Lilly (2000) found a strong positive correlation between the CEO compensation and the size of the firm. Ozkan (2007), Hall and Liebman (1998), Haid and Yurtoglu (2006), Elston and Goldberg (2003), Conyon and Schwalbach (1999) reported a positive relationship between the CEO compensation and the firm performance. Abed et al. (2014) and Zheng (2010) found some positive relationships between the CEO tenure and the CEO compensation. Ozkan (2007), Khan, Dharwadkar and Brandes (2005), Haid and Yurtoglu (2006) reported that institutional investors have a significant and negative impact on the CEO compensation. Most of the studies analyze one-tier corporate governance system, rarely two-tier (German) model, and I have not found any study examining these relationships in the Austrian public firms.

In this paper, the CEO compensation level of a large sample of the Austrian public limited companies during the period of 2012/2013-2014/2015 is analyzed. Data collection was complicated and long-lasting, as each company makes the reports in a different way, and some reports are not clearly represented. Many companies issued publications in German language only. Total compensation is divided into fixed, variable-performance based and other compensations. In the first part of my analysis, I used descriptive statistics to analyze the total compensation paid to the CEOs. Descriptive statistics was based on the companies which are distributed over the WBI stock index and ATX stock index. 80% of companies in the WBI stock index published a clear division to fixed, variable and other compensation paid to the CEOs in years 2012/2013. The percentage increased to 86% in 2013/2014 and in 2014/2015 (WBI). In

all 20 companies in the ATX stock index, the CEO compensation is published. The CEOs of the WBI-listed companies are paid around 30% less than the CEOs of the ATX-listed companies on average in all the 3 observation years. We can see that the trend in compensation is toward performance-based pay, as the fixed part decrease and the variable part increase, and an average total compensation remains practically unchanged. The large standard deviation of the variable compensation indicates a great diversity of the variable compensation between different companies.

The CEO compensation of the Austrian and the Slovenian companies is compared as well. On average, the Austrian CEOs are paid more than 8 times more. There is also a big difference in the structure of the compensation, as the variable (performance based) compensation represents the significantly higher proportion of the total compensation in the Austrian companies.

The last part of the descriptive statistics is the comparison of the total CEO compensation with the total compensation of the management board members. The average total compensation paid to the CEOs was 50% higher than the average compensation paid to the management board members in 2012/2013 and increased to 65% in 2014/2015. We can see a noticeable trend of a growing gap between the CEO compensation level and the other management board members compensation level.

The second part of my research is a regression analysis. I tested a relationship between the total CEO compensation level (dependent variable) and the firm size, the firm performance, the CEO tenure and the percentage of the shares held by institutions (independent variables). To analyze the relationship between the independent variables and the dependent variable, the OLS regression model is used. The company size is the most important determinant of the CEO compensation as there is a positive association between the dependent variable and independent variable. I suppose, managers of larger and more complex companies have to be more rewarded, as their work has greater dimension, and tasks are more complex. The relationship between the compensation and the firm performance depends on the performance-based ratios which are used. The ROE is positive and significantly related to the level of the total compensation. Companies with higher (lower) ROE pay more to the CEOs. The coefficient of earnings per share was positive and significantly related to the level of compensation just in one out of three models and all the other determinants which represent the firm performance are not statistically significant. It is surprising, that ROA does not represent a statistically significant factor, affecting the CEO compensation. Also, the CEO tenure in years is not significantly related to the level of the total compensation. The last finding is very surprising, as the finding is contrary to the theoretical background. The level of the CEO's total compensation is positively and significantly related to the institutional ownership concentration. Higher (lower) institutional ownership concentration leads to a higher (lower) level of the CEO compensation.

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APPENDIX

APPENDIX 1: List of the companies for the analysis

Nr.	Title
1	AGRANA BETEILIGUNGS-AG
2	AMAG AUSTRIA METALL AG
3	ANDRITZ AG
4	AT&S AUSTRIA TECH.&SYSTEMTECH.
5	ATRIUM EUROP.REAL EST.LTD
6	BANK FUER TIROL UND VBG AG VZ
7	BKS BANK AG VZ
8	BURGENLAND HOLDING AG
9	BUWOG AG
10	BWT AG
11	CA IMMOBILIEN ANLAGEN AG
12	CONWERT IMMOBILIEN INVEST SE
13	C-QUADRAT INVESTMENT AG
14	CROSS INDUSTRIES AG
15	DO & CO AG
16	ECO BUSINESS-IMMOBILIEN AG
17	ERSTE GROUP BANK AG
18	EVN AG
19	FACC AG
20	FLUGHAFEN WIEN AG
21	FRAUENTHAL HOLDING AG
22	GURKTALER AG VZ
23	HIRSCH SERVO AG
24	HTI HIGH TECH INDUSTRIES AG
25	IMMOFINANZ AG
26	JOSEF MANNER & COMP. AG
27	KAPSCH TRAFFICCOM AG
28	LENZING AG
29	LINZ TEXTIL HOLDING AG
30	MASCHINENFABRIK HEID AG
31	MAYR-MELNHOF KARTON AG
32	OBERBANK AG VZ
33	OESTERREICHISCHE POST AG
34	OESTERREICHISCHE STAATSDRUCKEREI HOLDING AG
35	OMV AG
36	OTTAKRINGER GETRAENKE AG VZ
37	PALFINGER AG
38	PANKL RACING SYSTEMS AG
39	POLYTEC HOLDING AG
40	PORR AG
41	RAIFFEISEN BANK INTERNATIONAL AG
42	RATH AG

43	RHI AG
44	ROSENBAUER INTERNATIONAL AG
45	S IMMO AG
46	SCHLUMBERGER AG VZ
47	SCHOELLER-BLECKMANN OILFIELD EQUIPMENT AG
48	SEMPERIT AG HOLDING
49	STADLAUER MALZFABRIK AG
50	STRABAG SE
51	SW UMWELTTECHNIK AG
52	TEAK HOLZ INT. AG
53	TELEKOM AUSTRIA AG
54	UBM DEVELOPMENT AG
55	UNIQA INSURANCE GROUP AG
56	UNTERNEHMENS INVEST AG
57	VALNEVA SE ST
58	VERBUND AG KAT. A
59	VIENNA INSURANCE GROUP AG
60	VOESTALPINE AG
61	WARIMPEX FINANZ- UND BETEILIGUNGS AG
62	WIENER PRIVATBANK SE
63	WIENERBERGER AG
64	WOLFORD AG
65	WP AG
66	ZUMTOBEL GROUP AG
67	Delo prodaja, d.d.
68	Petrol, d.d.
69	Gorenje, d.d.
70	Intereuropa, d.d.
71	Istrabenz, d.d.
72	Krka, d.d.
73	Luka Koper, d.d.
74	Mlinotest, d.d.
75	Mercator, d.d.
76	Nika, d.d. Brezice
77	Pozavarovalnica Sava, d.d.
78	Salus, d.d.
79	Sava, d.d.
80	Terme Catez, d.d.
81	Telekom Slovenije, d.d.
82	Unior, d.d.
83	Zavarovalnica Triglav, d.d.
84	Aerodrom Ljubljana, d.d.
85	Letrika, d.d.
86	Pivovarna Lasko, d.d.
87	Zito, d.d.