UNIVERSITY OF AGDER

Corporate Governance and Determinants That Explain CEO Compensation in Indonesia

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Abstract

This thesis examines determinants that can help explain CEO remuneration in an Asian emerging market, focusing on Indonesia. Our sample consists of 46 Indonesian stock listed companies, and we use data from recently expanded rules on disclosure to analyze the level and structure of compensation for the CEO - domestically known as the president director. Looking at corporate governance arrangements, firm performance, and CEO characteristics, our empirical evidence reveals a significant positive relationship between firm size and CEO pay. No further significant relationships are found between CEO compensation and our remaining determinants, but we find that firms owned by the Indonesian Government are larger in size than family-owned firms, hence they compensate their CEOs higher than those owned by families. Finally our thesis adds to the general understanding of international corporate governance issues, and our findings suggest a low level of disclosure on CEO remuneration in Indonesia.

Keywords: *CEO compensation, corporate governance, company performance, determinants, Indonesia*

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Abbreviations List

ARCG	Asian Roundtable on Corporate Governance
Bapepam LK	The Capital Market and Non-Bank Financial Sector Regulator
BOC	Board of Commissioners
BOD	Board of Directors
CEO	Chief Executive Officer, *see PD*
FRC	Financial Reporting Council
GMS	General Meeting of Shareholders
IDX	Indonesian Stock Exchange
IMF	International Monetary Fund
IFDI	Inward Foreign Direct Investment
LTIP	Long-Term Incentive Plan
NCG	The National Committee on Governance
OECD	The Organization for Economic Co-operation and Development
PD	President Director (Indonesian equivalent of CEO)
ROE	Return on Equity
ROSC	Reports on the Observance of Standards and Codes
SERP	Supplemental Executive Retirement Plan
Tbk.	Terbuka (Open listed public company)

1 Introduction

1.1 Background and Rationale of the Study

During the last two decades there has been a growing interest around top executive remuneration (Economist, 2007), combined with an increase in strategic international managerial labor markets for the CEO (Fernandes, Ferreira, Matos, & Murphy, 2009). After having half a century with a stable ratio of CEO compensation to median earnings, ratings began to increase substantially, first in the United States in the 1980s and some years later elsewhere until peaking in the U.S. around year 2000 (Economist, 2007), causing international CEO pay to slowly converge against U.S. levels as the premium was greatly reduced from 2000 to 2006 (Fernandes, et al., 2009). In a recent study on CEO remuneration in 4.164 firms in 27 countries, Fernandes et al., (2009) found that Asian CEOs receive the lowest average remuneration, and they stated that:

> *While the United States' status as "the" preeminent economic superpower is increasingly challenged by the European Union and emerging Asian economies, there is one sector where U.S. dominance seems fairly secure: top executive compensation. U.S. executives are paid significantly more than their foreign counterparts, and receive a greater share of their compensation in the form of stock options, restricted shares and performance-based bonuses* (p. 1).

With scandals such as Barings Bank, WorldCom, Enron, Goldman Sachs, and various bankruptcies during the latest global financial crisis (e.g. Lehman Brothers and Washington Mutual), weak corporate governance within firms has been widely debated. In a study, Millar, Eldomiaty, Choi, and Hilton (2005) emphasize the importance of having effective corporate governance systems combined with strong ethical values throughout the world. They further claim that no nation has a perfect governance system, but rather that the best system would come from combining several existing successful systems (Millar, et al., 2005), helping non-related shareholders and other outsiders to use CEO pay as a test of the board's ability of monitoring the executives (Economist, 2007). While within rich economies, governments have started implementing new corporate governance codes and a disclosure of remuneration from the corporations (Economist, 2007), emerging nations still struggle with low transparency levels and weak corporate governance (World Bank, 2010).

The empirical part of this thesis is based on a sample from Indonesian listed companies. We chose Indonesia because we find both their past history and future economic potential particularly interesting. Indonesia is a member of the ASEAN-China free trade arrangement– the largest regional trading area in the world (Financial Times, 2010); which we argue will open the door for many great economic possibilities in the future. For instance, an article written in the Economist (2010) regarding emerging markets proposed that "the biggest praise will be for Indonesia: it will be the emerging-market star of 2011, with analysts lauding its innovative companies, growing middle class and relative political stability".

Indonesia is an emerging market and a developing nation that recently seems to attract the attention of foreign investors. In an article in the Norwegian newspaper *Dagens Næringsliv*, Bjørndal (2010) explains that the Indonesian Stock Exchange (IDX) grew the most of all stock markets in 2009 increasing by a staggering 120 percent, and that foreign investments more than doubled. He further explains that the domestic demand is the biggest factor on Indonesian economic growth (Bjørndal, 2010),which could indicate that the performance of companies may not be as affected by the recent financial crisis as in nations with economies depending on international demand. This view is further supported by an Indonesian study where Tambunan (2011) suggests that Indonesia, largely due to an increase in inward foreign direct investments (IFDI) weathered the 2008/2009 international financial crisis better than many other nations (Tambunan, 2011).

In an Indonesian context, despite the implementation of several codes of good corporate governance following the Asian financial crisis in 1997/98 (World Bank, 2010), transparency on remuneration disclosure still seems low. In fact, for Indonesian listed companies, CEO pay is rarely directly disclosed (Fernandes, et al., 2009; World Bank, 2010), and we could not find previous studies directly related to CEO compensation in Indonesian listed companies. Hence this thesis attempts to find the determinants which can help explain Indonesian CEO compensation, and the main focus will be trying to examine the relationship between corporate governance, company performance, and CEO remuneration in Indonesia.

1.2 The Indonesian Economy

To better explain the economic history and current situation in the Indonesian economy, we have decided to first present a brief history where we try to point out the relevant factors that have contributed to how Indonesian firms look today, suitable to further explain the level of CEO remuneration in Indonesia. We believe that their history is both unique and interesting,

and being faced with so many challenges and different regimes, their way to prosperity is not given easily. Another interesting point is how Singapore – neighboring country and also a former colony - has become a developed market and financial center of the world, while Indonesia is still an emerging nation with a high corruption level that may indicate improper CEO compensation and under-the-table arrangements (Thompson, Strickland, & Gamble, 2010).

First we should keep in mind that during the 17th and 18th century, Holland, through the Dutch East India Company, started colonizing Indonesia (then known as part of the Dutch East Indies), and controlled important sea routes to Europe. However, as the British acquired Singapore in 1819, the maritime roads to Europe instead became controlled by the British until 1942. This left the Dutch focusing on their established holdings, mainly in Java and a few outlying areas (Fisher, 1972). Indonesia finally became independent after four years of negotiations, ongoing hostilities, and interference of the UN, when the Netherlands in 1949 finally agreed upon the transfer of sovereignty (CIA, 2011).

The result of misplaced and lack of new capital investment, combined with an uncontrolled spending, steered the national economy towards a state of collapse, as a military coup led by General Soeharto in 1966, gave reason to a huge change in the Indonesian economy, which is known as the New Order (Fisher, 1972).

1.2.1 Entrenchment of the New Order and the Indonesian Stock Market

The New Order government, led by Soeharto, early on discovered the deficiency of a lacking stock market in the financial system of Indonesia, with one of the main arguments being that the economy was too dependent on the banking sector. Deciding to re-open the Jakarta Stock Exchange (JSX) in 1977 after two decades of inactivity[1] initially proved to be more symbolic than economically viable. Given the fact that there were few large firms in the economy, and that many of them were either owned by the government or under ownership of foreign investors, these firms were not dependent on equity financing from the domestic public (Kung, Carverhill, & McLeod, 2010). According to IDX (2011), the activity of stock trading in JSX was low, consisting of only 24 listed companies, most people preferred investing their money in banks rather than in the capital markets. In their study on the Indonesian Stock Market, Kung, Carverhill and McLeod (2010) explain that the per capita income and savings

[1] For two decades the Jakarta Stock Exchange (JSX) had been inactive under the rule of former President Sukarno. It was re-opened on August 10th 1977 (IDX).

were still low in this period, giving a low demand for pension funds and life insurance companies from the private sector. This led them to the conclusion that the re-activation of JSX was not market driven but rather driven by the government, a view that the low volumes on JSX supports (IDX, 2011).

According to Tambunan (2011), inward foreign direct investment (IFDI) in Indonesia has been, and still is, an important aspect of the economic growth and development process. Following the first investment law on Foreign Investment in 1967 amended by Law Number II in 1970, FDI flows into Indonesia were relatively high. During this period the IFDI in Indonesia was mainly concentrated in the primary sector of the natural gas and oil industry. To cope with this narrow investment picture, the Soeharto government introduced numerous deregulations in order to liberalize its domestic market and boost IFDI in the manufacturing and service sectors. The main idea was to use these deregulations and also incentives to reduce the nation's dependence on the primary sector. These measurements proved to have a positive effect on diversity in the economic structure of Indonesia, and since then the secondary and tertiary sectors have attracted more foreign investments to the country (Tambunan, 2011).

An implementation of a series of reforms and rules in December 1987 gave fuel to the growth of the Indonesian stock market, allowing some important favorable changes. First, a new policy overruled the old policy that prohibited foreign investors from purchasing shares in listed companies. The new rule allowed up to 49% ownership by foreign investors on all shares except banks. The 49% limit rule was lifted for non-bank stocks in 1997 and for bank shares in 1998. Second, a former restriction that prohibited stocks having daily price movements no larger than 4% was removed. As a result, the Jakarta Composite Index went from 80 points in 1987 to 305 points in late 1988 (Kung, et al., 2010).

In the years before the Asian financial crisis of 1997/98 the banking sector, as already mentioned, was a dominant force in the Indonesian financial system. We can see from Table 1-1 below that bank loans held a larger percentage of the GDP (Purchasing Power Parity) than the stock market capitalization up until 2003.

1.2.2 Changes in Economic Policy: *Reformasi*

The Asian financial and currency crisis also lead to the resignation of President Soeharto on 21 May 1998, after 31 years of rule, and a new era known as *reformasi* started. With high foreign debt and an extreme inflation, banks collapsing, companies going bankrupt and

millions of people losing their jobs, he had no choice but to resign. Also, the number of Indonesian citizens living below the poverty line increased from 20 to 100 million, making up nearly 50% of the entire population (Lonely Planet, 2011).

Kingsbury (2007) asserts that since 1998 the gap between economic- and population growth in Indonesia was mainly due to a low foreign investment level. In addition, the foreign-export of oil and natural gas from Indonesia was declining, and with oil even being imported due to lack of capital investments in the domestic oil and gas industry (Kingsbury, 2007). In 1999, the Indonesian economy started to regain strength, though IFDI did not begin increasing until 2002. Related to this increase, Asia has been the major source region of IFDI in Indonesia, followed by Europe and Africa. Amongst Asian investors in Indonesia, Malaysia, and Singapore are the main Southeast Asian investors, followed by Japan, Republic of Korea, Hong Kong (China), Taiwan Province of China, India, and China. Despite the fact that FDI inflows are becoming more diversified by sectors, the primary sector still remains the key IFDI sector, with coal, gold, oil, and natural gas industries accounting for nearly 72% of total Indonesian IFDI stock (Tambunan, 2011).

The National Committee on Governance issued a new good corporate governance code in 2006, encouraging more listings on the stock market, while also introduced a new code of ethics for the representatives selling mutual funds. Following these issues came some new company laws in 2007, meant to govern both transparency and disclosure in annual reports and financial statements of all the listed companies (Kung, et al., 2010).

Checking data from IDX (2011) in the table below, we can see that there was a rapid growth on JSX from around March/April 2003 until late 2007 when the financial crisis hit. With a market capitalization growing nearly 10 times from Rp 200 trillion at the end of 1998 to around Rp 2000 trillion in late 2007, we see a change from the previous dominance of banks in the financial markets. Finally in 2007, JSX and SSX merged into IDX.

	JSX/IDX Index[a]	Number of Firms	Market Capitalization		Bank Loans	
			Rp trillion	% of GDP	Rp trillion	% of GDP
1987	82.6	24	0.1	0.1	32.9	28.7
1988	305.1	24	0.5	0.3	42.5	28.4
1989	399.7	56	4.4	2.4	62.9	35.0
1990	417.8	122	12.4	5.9	97.0	46.0
1991	247.4	141	16.4	6.6	112.8	45.1
1992	274.3	153	24.8	8.8	122.9	43.5
1993	588.8	172	69.3	21.0	147.3	44.7
1994	469.6	218	103.8	27.2	187.6	49.1
1995	513.9	248	157.4	34.6	234.6	51.6
1996	637.4	267	193.5	36.3	293.1	55.0
1997	401.7	306	156.8	25.0	378.1	60.2
1998	398.0	288	175.9	18.4	545.4	57.1
1999	676.9	277	206.7	18.8	277.3	25.2
2000	416.3	287	226.1	16.3	320.4	23.1
2001	392.0	316	231.3	14.1	358.6	21.8
2002	425.0	331	268.4	14.7	410.3	22.5
2003	691.9	333	460.4	22.9	477.2	23.7
2004	1,000.2	331	679.9	29.6	595.1	25.9
2005	1,162.6	336	801.3	28.9	730.2	26.3
2006	1,805.5	344	1,249.1	37.4	832.9	24.9
2007	2,745.8	383	1,988.3	50.2	1,045.7	26.4

[a] The Jakarta and Surabaya Stock Exchanges (JSX and SSX, respectively) were merged to form the Indonesia Stock Exchange (IDX) in 2007.

Table 1-1: Stock market activity and bank lending (Kung, et al., 2010) p. 333

The status on December 31st 2009, which is the last day concerning our data analysis (annual reports from 2007-2009), is that the market capitalization in stock was Rp 2 010.37 trillion (IDX) or as little as 22.08%[2] of the GDP, recessing to lower levels than before both the Asian financial and economic crisis in 1997/1998 and the global economic crisis in 2007/2008. In contrast to a lower market capitalization and despite a small decline in FDI flows in 2009, Tambunan (2011) asserted that:

> *Indonesia still faces some uncertainties relating to the implementation of regional autonomy and to the high costs of running businesses caused by inadequate infrastructure, restrictive labor regulations and corruption. Nevertheless, the availability of vast reserves of highly diversified natural resources, a huge domestic market potential, a cheap labor*

[2] Using the end of 2009 market capitalization of stocks in IDX divided by the 2009 GDP of $974.6 billion (CIA) converted into Rp 9146,6 trillion using the end of 2009 exchange rate of Rp 9385/$ (StockNod).

force, and continued reforms in the direction of a market-based economy, including privatizations and open access to almost all sectors, are likely to boost IFDI (p. 1).

1.2.3 History of the Indonesian Economy in Relation to Chinese Big Business in Indonesia

First, it is in order to define *Chinese* in context with this thesis. Chua (2008) refers to Ethnic Chinese living in Indonesia as Chinese Indonesians or Sino Indonesians. An assertion from 1998 explains that the Chinese only make up 3.5% of the population in Indonesia, but control as much as roughly 70% of the economy. Before the Asian economic crisis in 1997/1998 and the fall of long-time dictator Soeharto in May 1998, 26 of the top 30 business conglomerates in Indonesia were Chinese (Chua, 2008). According to Sato (1994), a business group can be called a conglomerate if more than five companies are under the ownership of the same person or his family. How do so few people control such a large portion of the wealth in Indonesia? For instance, Yoshihara (1995) claimed that:

One can easily hypothesize that one basic reason [for the poor economic performance of some countries in the ASEAN region (e.g. Indonesia)] is that their culture lacks a strong work ethic. If this is true, the dominance of the ethnic Chinese in the capitalist sector of the economy (or the private sector as a whole) can be a result of it, instead of its cause.

Chua (2008) concludes that even after the fall of the New Order and the introduction of *reformasi*, the conglomerates managed to prosper despite of the financial crisis and other challenges. The big businesses showed their maturity as capitalists, retained their position as economic leaders, and even influenced the scope and outcomes set out by the new governments. In defense of the Indonesian people, you may also look at the historical facts from colonization. Fisher (1972) claims that:

What in effect the Dutch had done throughout their period of colonial rule, and certainly not least since the Dutch East India Company had been abolished in 1798, had been to treat the country as a kind of giant business concern. Development had been successively concentrated in a few well selected places to give the maximum return for a localized expenditure on infrastructure, and the rest had for all practical purposes been ignored, or rather held in reserve until they were needed (p. 156).

And he summarizes it by saying:

> *Thus, when the Indonesians at last began in 1950 to set their new state in order, they were faced with a formidable accumulation of unresolved problems to tackle, and it says much for the good sense of their economic experts that they at first set about this task along eminently sensible lines, which in fact were basically similar to those adopted by the Dutch a decade earlier* (p. 157).

1.3 Structure of the Thesis

Following the first chapter with a short introduction and research problem, this thesis consists of six more chapters, making up seven sections in total. Chapter 2 presents specific and general theory relevant for our study on corporate governance and the determinants of CEO compensation in Indonesia. In Chapter 3, we develop our hypotheses based on the theory and previous literature that can be related to this study. Having developed our hypotheses we describe the data and methodology in Chapter 4 in order to test our hypotheses. These multivariate relationships are tested in Chapter 5 after first presenting descriptive and bivariate analysis. We discuss and review these results in Chapter 6, seeking to evaluate our hypotheses. Finally, in Chapter 7 we summarize our key findings in a conclusion and make recommendations for further studies, while also commenting on the limitations of our study.

2 Theory

2.1 Relevant Theoretical Background for the Study

2.1.1 Stakeholders

Regarding the compensation of the CEO, there are several stakeholders that have to be considered. These stakeholders have a bound interest in the performance of the company and the fair compensation of the CEO based on his performance-related potential.

In a wide context, there exist many stakeholders involved in making a corporation successful and who may or may not have a direct or indirect impact on CEO remuneration. For instance, a complete list of stakeholders would include the executives, other employees, the shareholders, the community, as well as the customers and suppliers of the organization (Ellig, 2007). As we are to explore the organizational bodies which have a direct impact on the remuneration of the CEO, we will focus on the three major stakeholders that is; the top executive (the CEO), the supervisory board (Board of Directors), and the Shareholders.

2.1.1.1 The Top Executive

The CEO is the highest ranking executive in an organization. He has the executive responsibility for running the company business (Mallin, 2010b), with responsibilities concerning day to day operations of the organization, planning and implementing corporate strategies, explore opportunities for expansion, and make sure of a profitable business. The CEO reports to the Board of Directors.

Notice that in an Indonesian context, the equivalent of the CEO is the President Director. As Indonesian companies have a two-tier board structure, the title of the top executive relates to the head of the management board. His responsibilities are, however, the same as that presented for the CEO above. This difference in board structure in Indonesian companies will be accounted for in greater detail in the chapter *Corporate Governance in Indonesia.*

2.1.1.2 The Supervisory Board

The supervisory board, commonly known as the Board of Directors, acts as the shareholders' agent in charge of running the company (Kim, Nofsinger, & Mohr, 2010a). The Board of Directors is in theory the voice of the owners. As large corporations normally are owned by multiple shareholders, it would be difficult for all the shareholders to make any unified

decisions regarding the company. Thus the main objective of the board is to make sure that the shareholders' interests are attended to.

To avoid any confusion, it is essential to explain the difference in the titling of the supervisory board in Indonesia and the general description made above. In the literature, the Board of Directors is commonly referred to as the supervisory board that is directly liable to the shareholders. In Indonesia, however, the supervisory board is entitled *the Board of Commissioners*, and the management board (headed by the CEO/President Director) is entitled *Board of Directors*. The Board of Commissioners has the same responsibilities as presented in the general statement concerning the Board of Directors made in the first paragraph of this sub-chapter.

2.1.1.2.1 The Chairman of the Board

The chairman of the supervisory board is elected to preside over the board and the committees of the board. The duties of the chairman involve ensuring that meetings run smoothly, and work towards the consensus in board decisions.

2.1.1.3 The Shareholders

The Shareholders are the owners of a corporation, and their ownership consists of shares of stock in the company. They own the part of the company that equals the proportion of shares they own (Blacksacademy). A publicly listed company offers shares of stock for any private or commercial investor, so the number and variety of owners may add up to a vast number of different shareholders, both national as well as international.

Shareholders are entitled to a portion of the profits, directly related to the performance and success of the company. They receive their share of the profits in the form of dividends (Blacksacademy), depending if the company chooses to use a profit surplus to either pay dividends to its shareholders or retain the earnings to re-invest them in the company.

2.1.1.4 Modifications

In the next chapters, you will notice that the abbreviation 'CEO' is used as the reference to the top executive and 'Board of Directors' as the term for the supervisory board. The reason for this is that we explain theory in a more general perspective, and in order not to confuse the reader more than necessary, we use the popular terms for the top executive and supervisory board.

2.1.2 CEO Compensation

As with any other employment relation, the CEO of a company will receive a compensatory remuneration for his efforts. The nature of this compensation, however, is structured differently than a normal pay practice of salary based payment. Company executives are compensated in many different ways (Kim, Nofsinger, & Mohr, 2010c) and compensation practices vary with company size, industry and country (Murphy, 1999). How they are compensated and which factors contribute to determine the size and composition of the total compensation of the CEO, is a subject that attracts the attention of academic researchers as well as the popular press.

Even though there exist great differences in the structure of CEO pay across countries (Murphy, 1999), there seems to be a basic list of components that make up the total compensation of the CEO. Murphy (1999) describes the four following components as the reoccurring most common parts of any CEO compensation package; a base salary, an annual bonus tied to accounting performance, stock options, and long-term incentive plans. These components will be explained in greater detail below.

CEO compensation is a widely debated subject. Especially in the U.S., UK and many other European countries, there have been public cries about "Fat cat" pay and excessive compensation of executives (Tyson, 2005). This gives fuel to the already controversial subject of CEOs being paid too much considering their responsibilities. The Board of Directors - in some cases represented by a Remuneration Committee - is in charge of the compensation of the CEO on behalf of the shareholders. It has been theorized that CEO compensation to some degree is a result of the CEOs relation with, and control over, the Board of Directors. Executives have a substantial influence on the mechanisms that govern their employment (Shijun Cheng & Indjejikian, 2009), which implies a severe agency problem between the executives of the company and the shareholders, as CEOs are often more interested in empire building and personal wealth, than maximizing shareholder value (Jensen & Meckling, 1976; Murphy, 1999). Combs & Skill (2003) have confirmed the idea regarding influence of the CEO; "Pay premiums are the result of executives' ability to influence the compensation process. According to human capital theory, pay premiums represent compensation for unique and valuable managerial skills" (p. 63).

There is a massive and well documented theoretical and empirical literature on CEO compensation, but there are still many issues left worthy of research (Murphy, 1999).

Especially regarding factors that drive CEO pay, the trend shows that CEO compensation is rising, but why? As mentioned, the composition of CEO pay varies from country to country. By examining the composition of the remuneration and explore which determinants explain each one, it might provide us with some answers. In our case and our focus on the emerging market of Indonesia, it can be interesting to see whether or not the same norm of conduct applies also here, as there is a vast scarcity of research done particularly on Indonesia.

2.1.2.1 Base Salary

The foundation of CEO compensation is the base salary, or a specific annual salary, which is typically determined through the benchmarking method (Murphy, 1999). This involves the Board of Directors, or the Remuneration Committee, doing a survey on peer CEO levels of salary for comparison. These surveys report a variety of pay percentiles, where salaries less than the 50^{th} percentile are considered under market, while salaries in the 50^{th} to 75^{th} percentile are considered competitive (Kim, et al., 2010c). In effect this means that a CEO is compensated by comparative pay, regardless of his age, experience, education and performance. To the extent that base salaries reflect any of these potentially important variables, they are reflected in discretionary adjustments in the target percentiles rather than incorporated as a formal criteria (Murphy, 1999).

One explanation for the rise of CEO compensation lies in the sphere of base salary. CEOs argue for competitive salaries, and if each CEO receives a salary above the median, the median salary will go up as a result. This way, we can observe that each year executives receive raises and also observe that new CEOs earn more than current CEOs (Kim, et al., 2010c).

The risk-averse CEO would prefer a high base salary as compared to any other forms of compensation (Milgrom & Roberts, 1992). With a fixed pay, whatever the CEO does, he will receive the fixed salary. As with any bonus- or variable compensation that is related to different performance measures, the final compensation figure is more uncertain and induces more personal risk on the individual CEO. A second argument is that most components of compensation are measured relative to the base salary level, while option grants are expressed as a multiple of base salary. In that regard, any increase in base salary will have positive repercussions on the other components and in effect the total compensation of the CEO (Murphy, 1999).

2.1.2.2 Annual Bonus

According to Murphy (1999), most companies offer its top executives an annual cash bonus based on the previous years' performance, primarily based on accounting profits or share price performance. The size of the bonus will depend on how well the performance goals are met. He further organizes the executive bonus plans into three categories; performance measures, performance standards, and the structure of the pay-performance relation.

Performance measures are based on accounting related profits. Usual accounting performance measures include revenues, net income, ROE, ROA, EBIT, and EVA. Since bonus plans most commonly depend on the dollar-value of profits, they also frequently depend on profits on EPS (Murphy, 1999).

Performance standards are the specific goals for each performance measure. This is the level of performance the CEO is supposed to achieve in order to be granted the annual bonus. No bonus is paid until a threshold performance (a percentage of the performance standard) is achieved (Murphy, 1999), which means that the minimum of what can be expected to be paid as a bonus is paid at this threshold level.

Pay-performance relation is in simple terms the relation between the bonus amount paid, and the corresponding level of performance achieved. In the bonus compensation plan, there will be a bonus "cap" which implies there is a top limit to the amount characteristics of the bonus. The most common payout method is the so-called "80 / 120" plan. Under this plan, no bonus is paid unless performance exceeds 80% of the performance standard and bonuses are capped when performance exceeds 120% of the performance standard (Murphy, 1999).

Setting performance standards and paying bonus accordingly, serve as an incentive arrangement to ensure that the CEO seeks to attain profits. However, this may cause agency problems when the CEO is measured relative to the standard, as he will attempt to control the standard-setting process (Murphy, 1999). The logic behind this argument is that performance standards will be set to mirror the previous period. A CEO would feel he is being penalized when reaching a premium performance goal, only to realize the performance standard is rising in the next period making it harder to obtain the same level of performance, and in effect obtain the preferred bonus.

2.1.2.3 Stock Options

Stock options are well known integrated elements in the incentive plan of corporate executives. Most of the options expire in 10 years and are granted with exercise prices that should equal the market value (Murphy, 1999). Black and Scholes (1973) state that an option is:

> *….a security giving the right to buy or sell an asset, subject to certain conditions, within a specified period of time. An "American option" is one that can be exercised at any time up to the date the option expires. A "European option" is one that can be exercised only on a specified future date. The price that is paid for the asset when the option is exercised is called the "exercise price" or "striking price." The last day on which the option may be exercised is called the "expiration date" or "maturity date."* (p. 637).

The most common and simple option is the *call option*, which basically gives you the right to buy a single share of common stock on an agreed upon price in the future; the exercise price. Generally we can say that the higher the price of the stock, the greater the value of the option. If the stock price is much greater than the exercise price, the option will nearly always be executed. Should the value of the stock decrease below the exercise price, it is nearly sure not to be exercised; hence the value of option will be close to zero (Black & Scholes, 1973).

To implement the stock option plan, it is needed to get a vote of approval from the shareholders. Post of this approval the board of directors will generally assign the remuneration committee to administer the stock option plan. The remuneration committee will then decide for both the size and timing of these stock option grants (Lie, 2005).

Murphy (1999) claims that stock options give a direct link between managerial rewards and appreciation of the share-price. An executive holding a stock option will gain incentives to avoid dividends and favor share repurchasing. The reason for this is that the stock options only reward appreciation of the stock-price, and not the total shareholder return (that also includes dividends). He furhter puts emphasis on the theory that an executive will pursue riskier investments in order to gain higher volatility on the stock price, which in turn will increase the value of the stock option (Murphy, 1999).

2.1.2.4 Long-Term Incentive Plans

Long-term incentive plans (LTIPs) are an extension of the annual bonus plan described above. As with a bonus arrangement, the LTIPs compensation effect revolves around performance,

typically based on rolling-average 3- or 5- years cumulative performance (Murphy, 1999). In other words, an LTIP is an incentive tool used to encourage long-term performance goals.

LTIPs usually consists of stock option plans, stock appreciation rights (SARs), restricted stock and performance plans (Westphal & Zajac, 1994). However, the most necessary condition for LTIP adoption is the performance plan. A performance plan gives the executive the right to receive shares of common stock or cash at a particular date in the future, given that specific performance goals are met (Westphal & Zajac, 1994), typically accounting-based performance goals (Larcker, 1983). Larcker (1983) argues that LTIPs can lengthen executives' time horizon and focus their attention on creating shareholder value.

2.1.2.5 Other Forms of Compensation

The above methods have received the most attention from researchers and are most frequently mentioned in published articles on the field. As complements to the basic compensation methods described above, the pay of a CEO may consist of other forms of compensation as well. The subchapters below describe more peripheral ways of compensating the CEO, which are not as common, or are not such a big part, of the total compensation package.

2.1.2.5.1 Restricted Stock

Restricted stock is common stock of the company, limited to a certain length of time or certain goals to be achieved before realization of the stock is possible (Kim, Nofsinger, & Mohr, 2010d). Compared to stock options, restricted stock has the advantage that it will not decrease to zero when the stock price falls, and has in that respect, not the same asymmetric characteristics as a stock option. Restricted stock is also a common part of LTIPs (Murphy, 1999).

2.1.2.5.2 Retirement Plans

In addition to be involved with regular company retirement plans, executives also participates in SERPs - Supplemental Executive Retirement Plans (Murphy, 1999). SERPs can take a variety of forms, like defined benefits based on credited years of service or other non-fixed benefits based on inflation or performance (Murphy, 1999). When the CEO leaves the company he will receive any performance shares the company owes him, and he can sell any options or restricted stock he has accumulated over his period as CEO (Kim, Nofsinger, & Mohr, 2010e). For many CEOs, the possibilities a retirement plan represents vast amounts of personal profits, most commonly referred to as a *golden parachute.*

2.1.2.5.3 Perquisites

A perquisite in a work related setting, is defined as a "non-monetary compensation (…) not strictly necessary for the accomplishment of the employee's duties*"* (Rajan & Wulf, 2006). In other words, a perquisite is a privilege achieved through ones employment in the form of tangible benefits not related to a monetary compensation. Examples of perks for CEOs are company cars, club memberships (golf clubs, country clubs, and the like), catered lunches, luxurious office accessories, private jets, and similar.

Perks can be the result of a contractual agreement related to the CEO's terms of employment. When this is the case, perks are used as a direct incentive to increase executive performance; they provide a psychic value to the recipient that exceeds their direct cost to the company (Yermack, 2006), as they will increase the sense of status perceived by the CEO. Not only will this contribute to clarifying and reinforcing the chain of command, it can also help improve productivity. Rajan and Wulf (2006) present these as rational expenditures, or value-increasing business expenses. According to Maslow (1943), an individual will have reached his full potential when all the levels of his hierarchy of needs are fulfilled. The latter of these levels are connected to self-actualization, of which an important building block is the sense of status and accomplishment. This is a theory that can help explain the incentive effect of a perquisite incentive plan.

As mentioned, perquisites may arise as a result of a contractual agreements to the position, but also as a result of weak governance (Yermack, 2006). Perquisites resulting from weak governance manifest themselves as e.g. misuse of company assets by the CEO. This relates heavily to Jensen & Mecklings' (1976) agency problem theory, and is a large issue concerning apparent incentive problems related to this method of compensation. If executives have a great on-the-job consumption, more than desired by the shareholders, it will reduce firm value directly. A more indirect reduction of firm value appears if workers located lower than the CEO in the hierarchical structure, observe the behavior of the CEO and then react adversely. Perks can, in this way, catalyze shirking, unethical behavior or low moral through the company (Yermack, 2006).

2.1.2.5.4 Rents

Tollison (1982) describes economic rents as the excess returns given for goods and services provided above normal standards and norms in a competitive market. In other words, you may say that it is the excess return related to the opportunity cost of the resource owner. Johnson

and Pasour (1981) defined opportunity cost as "the value of a resource in the best alternative use".

2.1.3 Corporate Governance

2.1.3.1 Introduction to Corporate Governance

The subject of corporate governance relates to the standards and improvement of corporate responsibility, transparency, accountability, fairness, and compliance within the company and in all dealings with the company shareholders. Its purpose is to facilitate an effective and prudent management to ensure the long-term success of the firm (FRC, 2010).

The Cadbury report defines corporate governance as the system by which companies are directed and controlled (FRC, 2010), with the Board of Directors as those responsible for the governance of the companies. Their responsibilities include setting the company's strategic aims, appoint executives and management to put those strategic aims into effect, supervising the management, and finally report back to the shareholders. The shareholders, on the other hand, hold the role of electing the directors and appoint auditors. As the owners of the company, they have to ensure themselves that an appropriate governance structure is in place. The relationships in a traditional corporate governance structure are illustrated in the figure below;

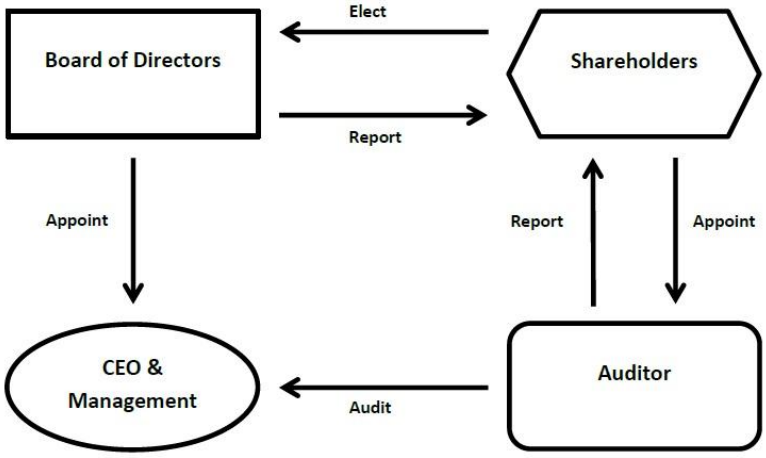


Figure 2-1: Classic corporate governance structure (C. Boyd, 1996)

The field of corporate governance is an evolving area, and its development has been driven by the desire for transparency and accountability to help restore investor confidence in the world's stock markets after financial scandals and corporate collapses (Mallin, 2010a). Both investors and governments have been proactive in an effort to ensure that corporate boards are

more accountable, and that they act in the best interest of the shareholders. The demand for independent board members playing a key role in the board structure, introduction of audit-, nomination- and remuneration committees and ensuring that external auditing firms are able to perform their audits properly, are measures to ensure and protect shareholder interests. (Mallin, 2010a)

Corporate governance codes of conduct are not mandated by law, but rather as standards or guidelines to form a basis for the companies to follow. As such, companies are not legally bound to comply with any such code, but they may be committed to do so as a result of listing requirements on the stock exchange or to satisfy the demands of the stakeholders (FRC, 2010).

In order to help standardize codes of corporate governance, the Organization for Economic Co-operation and Development (OECD) developed a set of principles on request of the OECD council (Mallin, 2010a). The World Bank and the International Monetary Fund (IMF), and their collective initiative named Reports on Observed Standards and Codes (ROSCs), use these principles to help member countries improve awareness and implementation of corporate governance codes, among other issues.

2.1.3.2 Corporate Governance Codes

Whilst there are many corporate governance codes and guidelines that have had an impact on corporate governance practices in countries around the world, there are some that have had a more fundamental influence and that will be covered in the next subchapters.

2.1.3.2.1 The OECD Principles of Corporate Governance

The OECD Principles of Corporate Governance is a set of standards and guidelines to form an international standardization of corporate governance codes (Mallin, 2010a). The OECD principles are non-binding, and they represent merely a proposal of which key elements to include. Functioning as guidelines, the OECD acknowledges that these codes may not be applicable to all types of countries, but they represent a majority of the practices of corporate governance across the world (Mallin, 2010a). The 6 principles are as follows, quoted from the OECD Principles of Corporate Governance (2004):

:

	Principle	Narrative
I.	*Ensuring the basis for an effective corporate governance framework*	The corporate governance framework should promote transparent and efficient markets, be consistent with the rule of law and clearly articulate the division of responsibilities among different supervisory, regulatory and enforcement authorities
II.	*The rights of shareholders and key ownership functions*	The corporate governance framework should protect and facilitate the exercise of shareholders' rights
III.	*The equitable treatment of shareholders*	The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights
IV.	*The role of stakeholders in corporate governance*	The corporate governance framework should recognize the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises
V.	*Disclosure and transparency*	The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company
VI.	*The responsibilities of the boards*	The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders

Table 2-1: OECD Principles of Corporate Governance

In the same way as the OECD principles, the UK Corporate Governance Code (formerly known as the Combined Code on Corporate Governance[3]) functions as a set of guidelines and provisions to a number of key components to effective board practice (FRC, 2010). Its "comply or explain" practice, which means that companies can either comply with the recommendations of the Code or explain to the shareholders why they are unable to comply (Mallin, 2010a), has been widely imitated across the world.

Both codes value transparency and shareholder rights. The end-result of implementing such codes are long-term stock performance for the investor, lower cost of capital for the firm, and enhanced capital formation for the country (Oxelheim & Randøy, 2010). In order to achieve this, the structure and composition of the board, the independence of the CEO, the

[3] The *UK Code on Corporate Governance* followed as a result of revisions made to the *Combined Code* of 2008, which will apply to financial years beginning on or after 29-June-2010 (FRC, 2010).

composition of skills and qualified personnel, equal treatment of shareholders, monitoring by boards, and incentives for top management are highlighted as crucial issues. A statement of these issues will be further discussed in the following chapters.

2.1.3.2.2 IMF and the World Bank: The ROSC Initiative

The Reports on the Observance of Standards and Codes (ROSC) initiative produces reports on the observance of standards and codes that summarize the extent to which countries observe internationally recognized standards and codes (IMF, 2011). This includes sections on corporate governance, accounting, and auditing. The goal of the initiative is to assess the economic and financial vulnerability of a country by identifying its weaknesses. The World Bank has established a program to assist countries in strengthening their corporate governance frameworks, with the following objectives (World Bank, 2011):

1) Benchmark the country's corporate governance framework and company practices against the OECD Principles for Corporate Governance.
2) Assist the country in developing and implementing a country action plan for improving institutional capacity with a view to strengthening the country's corporate governance framework.
3) Raise awareness of good corporate governance practices among the country's public and private sector stakeholders.

The World Bank conducts their corporate governance assessments under the ROSC initiative based on the OECD principles mentioned above[4].

2.1.3.3 Corporate Governance and the CEO

The CEO, in control of day-to-day operations and in charge of maintaining shareholder interests, is at risk of taking advantage of the agency relationship between the owners and himself (Kim, Nofsinger, & Mohr, 2010b). Corporate governance has evolved partially to address this conflict, and in effect, create investor confidence. The logic is simple; when the investor is assured measures are in place to protect his interests, he will invest.

CG codes are in place to make sure the CEO acts on behalf of the shareholders under the supervision of the Board of Directors. To make sure he acts according to shareholder interest, corporate governance codes of conduct emphasize degrees of transparency and accountability

[4] By the end of June 2010, 75 assessments had been completed in 59 countries around the world (World Bank, 2011)

(Mallin, 2010a). This involves any information required by stakeholders to be made public and accessible, while having an effective board structure to supervise and control the CEO.

2.1.3.3.1 Board Structure

Looking back to the Stakeholders chapter, we recollect that the Board of Directors leads and controls the company and are an extension of the shareholders, creating a link between the shareholders and the management (Mallin, 2010b). Pfeffer (1972) stated that "the board of directors is considered as an instrument for dealing with the organizations environment" (p. 218). As seen in Figure 2-1, the board of directors is essential for sustaining an effective corporate governance structure. The relation between the board of directors and the CEO are of great interest for this thesis, and this chapter seeks to clarify empirical results from this relationship.

Codes of corporate governance seek to implement the effective board. But what is an effective board? The textbook answer to this is a board consisting of few members with relevant experience and expertise, members with different backgrounds to provide flexibility and variation, high fraction of independent board members unaffiliated with the CEO, non-executive directors, and the existence of board sub-committees (Kim, et al., 2010a; Mallin, 2010b).

A small board will not necessarily suffer from the "too-many-chefs" fallacy that large boards tend to, and decisions are more likely to be considered independently and evaluated thoroughly by each member. Thus making the outcome of any decisions as considerate as possible (Kim, et al., 2010a). Complementing the board with members having industry-specific knowledge and experience will contribute positively to any issue related to the attainment of long-term profitability and growth. As for members with different backgrounds, these will contribute in giving the board a wide range of expertise. Examples may be a member with background in marketing, another in finance, a third in accounting, and so on. (Kim, et al., 2010a). Perhaps the most debated and researched phenomenon when it comes to board structure and the subject of board effectiveness is the degree of independence among board members. An independent board member is, simply stated, a non-insider, one who is not previously affiliated with the company, or perhaps most importantly, not affiliated with the CEO in any way (Kim, et al., 2010a). The subject of independent board members is a reoccurring factor in codes on corporate governance. Excerpts from the earlier presented corporate governance codes, indicates a prominent focus on the matter.

From the UK Corporate Governance Code;

> *The board and its committees should have the appropriate balance of skills, experience, independence and knowledge of the company to enable them to discharge their respective duties and responsibilities effectively (FRC, 2010).*

And from the OECD principles;

> *Independent board members can contribute significantly to the decision-making of the board. They can bring an objective view to the evaluation of the performance of the board and management (OECD, 2004).*

The structure of boards, and in extension, the independence of board members, are interesting for our thesis as it is evidenced through empirical research that it has an effect on the compensation of the top executive. With a more effective board, the total compensation of the CEO will have a negative effect. This statement relates to what degree of influence the CEO may have over the Board. Core, Holthausen and Larcker (1999) argues that if the Board of Directors is influenced by the CEO, the Board does not structure the compensation package to maximize value for the shareholders. Evidence from research shows that the independence of board members is an increasing tendency, which would make it harder for CEOs to increase their pay at the shareholders' expense (Murphy & Zábojník, 2004). The agency problem (Jensen & Meckling, 1976) goes a long way in describing this relation. Core, Holthausen and Larcker (1999) found that measures of board and ownership structure "explain a significant amount of cross-sectional variation in CEO compensation after controlling for standard economic determinants of pay" (p. 371) and that firms with a weaker governance structure experiences greater agency problems; CEOs at these firms receive greater compensation as the monitoring of their actions is poor due to weak corporate governance. The background and effect of the agency problem will be presented later in this thesis.

Jensen (1993) further introduce an argument for why boards are ineffective under influence of the CEO; when the CEO has great influence over the board in that he controls the agenda and information given to the board, a board culture will develop that discourages conflict as board members avoid challenging the CEO in fear of the consequences. Jensen (1993) found that in general there is little equity ownership by managers and non-managers on the typical board, therefore board members will not have an incentive to limit the power of the CEO, and in turn his remuneration package. Another problem related to board effectiveness, is when the CEO

holds the position of chairman in the same company which he serves as CEO. This creates a severe agency problem concerning CEO duality, which will be explained later.

Contrary to the above reasoning, Vance (1964) concluded on a study of 103 large companies, that on average, inside-dominated boards were superior in performance to outside-dominated boards.

In conclusion, the structure of the board is a crucial determinant to the compensation of the CEO. The degree of influence the CEO has over the board will have an effect on the total remuneration package and his degree of power. Corporate Governance practices seek to limit this influence by proposing measures to be implemented, among them a fraction of independent board members in the ranks of the Board. This will in turn aid the goal of corporate governance, to protect the interests of the shareholders making sure the CEO is compensated fairly and not over-excessive. Finally, we wish to stress that the empirical evidence presented above is extracted from studies mainly undertaken in the U.S. and Europe.

2.1.3.3.2 Unitary and Dual Board Structure

A unitary board structure is defined as one single supervisory board comprising both executive and non-executive directors. The board is responsible for all company activities, and the members of the board are all working to achieve the same goal (Mallin, 2010b). The directors are elected by the shareholders at the annual general meeting of shareholders (AGMS). Unitary boards are most common in the U.S. and UK.

A dual board structure consists of a supervisory board and an executive board of management (Mallin, 2010b). The two boards are clearly separated between the functions of monitoring and management. The supervisory board is in charge of overseeing the direction of the company, and implement strategic decisions towards maximizing shareholders wealth, while the executive board is in charge of the daily operations of the company. The shareholders elect the members of the supervisory board, while in turn the supervisory board appoints the members of the executive board.

2.1.3.3.3 Sub-Committees of the Board

As initially mentioned in the last chapter on board structure, an effective board will appoint a number of sub-committees under their control, to help the board of directors delegate various activities under the jurisdiction of the board (Mallin, 2010b). Charkham (2005) defines the role of board sub-committees as follows:

> *Committees of the board are used for various purposes, the main one being to assist the dispatch of business by considering it in more detail than would be convenient for the whole board…the second purpose is to increase objectivity either because of inherent conflicts of interest such as executive remuneration, or else to discipline personal preferences as in the exercise of patronage* (pp. 321-322).

Sub-committees are designed to relieve the board of some of the more important decisions, with providing a more detailed assessment, which in turn has to be approved by the board. The increased objectivity introduced as an effect of sub-committees is an important issue related to the implementation of corporate governance. Codes on corporate governance also emphasize the use of sub-committees to provide a more objective and neutral board as a whole. The codes suggest implementation of at least three sub-committees in particular; (1) Audit committee, (2) Nomination committee, and (3) Remuneration committee (FRC, 2010; Mallin, 2010b; OECD, 2004).

The *Audit Committee* is considered one of the most important sub-committees of the board (Mallin, 2010b). According to a review done by sir Robert Smiths (2003), the main purposes of the audit committee includes monitoring the integrity of the financial statements of the company, monitoring and reviewing the internal auditors effectiveness, make recommendations to the board in relation to the appointment of external auditor, as well as monitoring and reviewing the external auditors independence, objectivity, and effectiveness. Further it is proposed that the audit-committee should consist of at least three members, but most important, that the members should all be independent non-executives, this to ensure the objectivity and effectiveness of the committee.

The *Nomination Committee* is important to ensure the correct and effective nomination of directors of the board (Mallin, 2010b). To avoid any cronyism related to the appointment of new directors, the nomination committee should ensure its objectivity by consisting of a majority of independent non-executives (FRC, 2010).

The *Remuneration Committee* is the most relevant sub-committee regarding the subject of executive compensation. The Remuneration Committee makes recommendations to the board on the company's policy on compensation of executives and it should determine, on behalf of the board, the specific remuneration package to each of the executive directors and management (Mallin, 2010b). According to the statements of the UK Corporate Governance Code (FRC, 2010), the Remuneration Committee should consist of at least three independent

non-executive members, and the committee should have delegated the responsibility of setting the remuneration for all executives and directors. The establishment of this committee should prevent any CEO from determining his own pay. The remuneration committee should decide upon a compensation package sufficient to attract, retain, and motivate directors and executives to run the company according to the shareholders best interest.

Other sub-committees worth mentioning are *the risk-committee* and *the ethics-committee*. The introduction of these committees is not directly recommended by codes of corporate governance to the same extent as the above mentioned three. However, the focus of managing risk and developing codes of ethics in an organization, is a tool to further streamline the corporate structure (Mallin, 2010b).

2.1.3.3.4 CEO Duality

We mentioned that the CEO can influence the board to affect his compensation package. Core, et al (1999) states that if the board is influenced by the CEO, they will fail to structure the compensation package of the CEO to maximize shareholder value. The influence the CEO has over the board increases when he entertains two conflicting positions at the same time – CEO and chairman of the board. This is known as CEO duality.

Worrell, Nemec and Davidson (1997) argues that CEO duality causes major agency problems, as the idea of one person holding both the position as CEO and chairman of the board is inconsistent with shareholder wealth maximization. It is desirable that these two positions are held separate, because otherwise there could be too much power vested in one individual (Mallin, 2010b). Agency theory suggests that splitting the titles of CEO and chairman of the board between two individuals, will improve firm performance and monitoring of the CEO conducted by the board. No matter how relevant the agency problems may be, Harris and Helfat (1998) point out that other factors such as succession planning and managerial capabilities, will also be related to the issue of consolidating executive titles.

Hence, CEO duality can be another determining factor explaining the level of compensation given to the CEO. When the CEO in addition holds the position as chairman of the board, his influence over the board increases consequently and the independence of the board is drastically compromised, enabling the CEO to positively influence his own remuneration.

2.1.4 Corporate Governance in Indonesia

After the Asian economic crisis in 97/98, Indonesia experienced an economic reform, of which one of the key issues was the focus on corporate governance (Sato, 2003). In the aftermath of the crisis, Asian firms experienced a massive negative view upon their governance practices. The World Bank (1998) stated on the conditions in Asia that:

> *The poor system of corporate governance has contributed to the present financial crisis by shielding the banks, financial companies, and corporations from market discipline* (p. 67).

The World Bank further showed in their studies that East Asian firms suffered from high leverage, concentrated ownership, high level of control by a few families, and the expropriation of minority shareholders (Sato, 2003). The assumption made was that these disadvantages led to poor corporate governance. The studies on East Asia also included Indonesia, where efforts have been made in the last decade to improve implementation and awareness of corporate governance practices of the Anglo-American type. The principles of the OECD have had a particular impact on the view on corporate governance practices in Indonesia, and a number of regulations and measures have been implemented to improve the situation. The ROSC that we mentioned in Chapter 2.1.3.2.2, have made an own report on the corporate governance situation in Indonesia, and their findings will be discussed later. First, we would like to introduce some of the most important and evident regulations that contributes to the ongoing improvement of corporate governance practices in Indonesia.

2.1.4.1 Regulations

The subject of corporate governance is a growing issue in Asian economies, and Indonesia is no exception. Still lagging somewhat behind on implementation of corporate governance practices compared to other countries in the region[5], Indonesia is on the way. Evidence of this is the increasing implementation of regulations on the field (World Bank, 2010), some of which the most important will be presented in this chapter.

2.1.4.1.1 Bapepam LK

Bapepam LK is an Indonesian acronym for The Capital Market and Non-Bank Financial Sector Regulator (Bapepam LK, 2009). The agencies duties include to supervise daily activities of the capital market and execute the policies and technical standards in financial institutions area, in accordance to policies which have been set by the Ministry of Finance and

[5] India, Thailand and Malaysia in particular (World Bank, 2010)

based on prevailing laws and regulations (Bapepam LK, 2009). In performing its duties, the agency has the following 11 functions:

1) *Capital market rule making;*
2) *Capital market law enforcement;*
3) *Monitoring of persons who obtain business licenses, approvals, registrations from the agency and other institutions in the capital market area;*
4) *Ratification of company disclosure principle for issuers and Public Companies;*
5) *Settlement of appeal by Persons imposed sanctions by stock Exchange, Clearing and Guarantee Institution, and Custodian and Settlement Institution;*
6) *Ratification of accounting provisions in capital market area;*
7) *Preparation of policies formulation in financial institutions area;*
8) *Execution of policies in financial institutions area in accordance with the current regulations;*
9) *Formulation of standards, norms, criteria and procedure guidelines in financial institutions area;*
10) *Providing technical guidance and evaluation in financial institutions area;*
11) *Execution of agency administration.*

In exercising its duties, the Bapepam LK has at its disposal 12 offices within its ranks[6]. The agency's focus on Corporate Governance proves itself in that Bapepam-LK has participated in several meetings with the OECD, and other economic bodies in Asia to discuss the subject. On a meeting with OECD in March 2009, corporate governance wore among the discussed issues, and in September the same year, they met with ARCG in Manila, the Philippines, to discuss primarily how to improve corporate governance practices in Asia.

The power and authority of Bapepam LK is in general terms consistent with what is considered international good practice, and it plays a key role in overseeing corporate governance practices of the listed companies (World Bank, 2010). The authority of the agency extends to the point that they can conduct investigations and inspections whenever they suspect any public company of violating capital market acts or its own regulations, and consequently enact sanctions[7] upon the violating company. The regulations of Bapepam LK

[6] Regulation and Legal Counsel; Research and Information Technology; Enforcement; Investment Management; Market Institutions and Transactions; Services Sector Corporate Finance; Real Sector Corporate Finance; Accounting Standards and Disclosure; Financing and Guarantee; Insurance; Pension Fund; Internal compliance.
[7] Impose fines and/or reverse decisions made by the GMS, board or management if the decision violates the law.

do, to some extent, overlap some aspects of the Company Law, and can directly intervene in a number of cases outside the traditional Bapepam LK regulations area. The agency has a good reputation in the market, however, there have been concerns about Bapepam LKs relations with the government and the degree of influence the government has over the agency. Bapepam LK is supposed to be an independent body, but it reports and is responsible to the Minister of Finance and it is financially dependent on the state budget for its funding.

The Bapepam LK maintains and supervises that Company Law and regulations are upheld by listed companies, and functions as a watchdog in that regard. It can impose sanctions to those who do not comply, and is effectively one of the most important bodies of implementing, improving, and supervising good corporate governance in Indonesia.

2.1.4.1.2 Company Law (40/2007)

The Company Law 40/2007 was enacted to govern disclosure and transparency in the annual reports and financial statements of listed companies (Kung, et al., 2010). In the 161 articles of the law, what is of specific interest are the paragraphs explaining the duties for the company organs (General Meeting of Shareholders, Board of Commissioners, and Board of Directors), and the prerequisites for a good annual report. According to the Company Law (2007), article 66, §(2):

The annual reports contemplated in paragraph (1) must contain at least:

a. *a financial report consisting of at least the last balance sheet for the financial year just ended in comparison with the previous financial year, a profit and loss statement for the financial year concerned, a cash flow report, and a report on changes in equity, and notes on the financial report;*
b. *a report on the Company's activities;*
c. *a report on the implementation of Environmental and Social Responsibility;*
d. *details of problems which arose during the financial year which influenced the Company's business activities;*
e. *a report on the duty of supervision performed by the Board of Commissioners during the financial year just ended;*
f. *the names of the members of the Board of Directors and members of the Board of Commissioners;*

g. salaries and allowances for members of the Board of Directors and salaries or honoraria and allowances for members of the Board of Commissioners of the Company for the year just ended.

Disclosure of CEO remuneration, described in section *g*, is of particular importance regarding the subject of this thesis. As the ROSC on Indonesia discovered, the disclosure of such information is not stated to the detailed extent that would be preferred. This would also prove to be a challenge when it comes to our data collection. The ROSC findings and our experiences will be discussed later.

The next articles further explain that all the commissioners and directors should sign the report as a sign that they endorse the report and are aware of its contents, and that the financial statements should be delivered to a public accountant for auditing. These articles embrace the corporate governance principle of reliability and transparency.

The duties and responsibilities of the supervisory and management boards are covered in Chapter VII. For Board of Directors, Article 92, §(1) states:

> *Boards of Directors shall undertake the management of Companies in the interest of the Companies and in accordance with the Companies' purpose and objectives.*

And further in Article 94, §(1):

> *Members of Board of Directors shall be appointed by the GMS.*

The same statements are made for the Board of Commissioners in article 108, §(1):

> *Boards of Commissioners shall supervise management policies, the running of management in general, with regard to both the Company and the Company's business, and give advice to the Board of Directors*

And in article 111, §(1):

> *Members of Boards of Commissioners shall be appointed by GMS.*

The law implies that the classic corporate governance structure, illustrated in Figure 2-1 in Chapter 2.1.3.1, is not representative to the structure in Indonesian companies. The Company Law further stipulate in article 1 (2) that the Indonesian company consists of the three legal entities: the General Meeting of Shareholders (GMS), the Board of Directors (BOD) and the

Board of Commissioners (BOC). The relationship between the three company organs, as indicated in the quotations above, is illustrated in Figure 2-2 below:

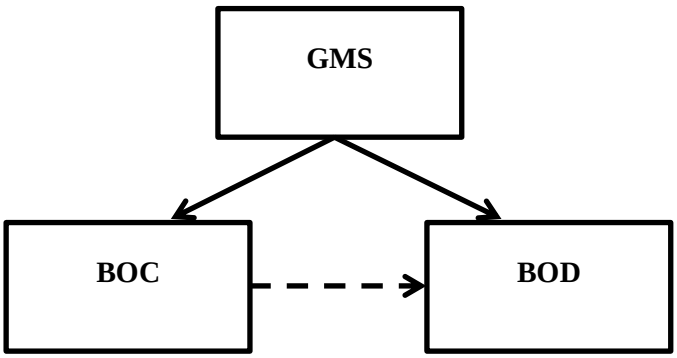


Figure 2-2: Three company organs

In short, the Company Law contains regulations to promote corporate governance practices, and except certain structural designs, the same principles of responsibility, transparency, compliance, accountability, and fairness are highly valued in the execution and development of corporate governance practices.

2.1.4.1.3 Capital Market Law (8/1995)

The Capital Market Law requires issuers and listed companies to file audited annual and quarterly financial statements to Bapepam-LK. These should be prepared in accordance with generally accepted accounting principles (Kung, et al., 2010).

2.1.4.1.4 Investment Laws

According to Tambunan (2011), foreign investment policies have always been an important part of Indonesia's economic growth since the 'New Order' era and he further assert that for Indonesia to sustain economic growth, it is essential to attract IFDI. Hence, the Soeharto government introduced the Foreign Investment Law (1/1967), which opened possibilities for foreign equity participation (Tambunan, 2011). The Indonesian Investment Coordinating Board (BKPM) was established in 1973 to administer the Foreign Investment Law of 1967, and among their administrative duties they screen any investment applications, grants licenses, and permits and offer investment incentives (Tambunan, 2011).

After the Asian economic crisis of 97/98, the BKPM framework became less relevant due to the introduction of the Regional Autonomy Law (RAL)[8]. One of the most important

[8] The RAL empowers the regencies and municipalities, amongst other things, to run their economies, including administering governance of investments (Tambunan, 2011).

investment reforms initiated by the Indonesian government, is the Law on Investment (25/2007) which is considered to be more 'open' than FIL no. 1 of 1967. This new law covers all private foreign- and domestic investments (Tambunan, 2011). With this new regulation, it has been much easier for foreign investors to do business in Indonesia and this may be reflected when looking at the ratio of foreign ownership in Indonesian companies during the last decade.

2.1.4.1.5 The National Committee on Governance (NCG)

The NCG was established on 30 November 2004 with the purpose of enhancing comprehension and implementation of good governance in Indonesia and also to advise the government on governance issues (KNKG, 2011). The NCG works as an advisory body, formulating corporate governance guidelines and dispersing the principles of good corporate governance (GCG) by conducting studies and making recommendations to enhance the awareness and legislation related to the issue. The NCG issued a Code of Good Corporate Governance (CGCG) in 2006, with new regulations to encourage more listings on the stock market (Kung, et al., 2010).

2.1.4.2 Key Findings of the ROSC on Indonesia (2010)[9]

The Report on Observed Standards and Codes, in its review on Indonesia, benchmark the country's corporate governance practice, and policy framework with regard to the OECD Principles of Corporate Governance, with focus on the companies listed on the Indonesian stock exchange (World Bank, 2010). Recent improvements in corporate governance regulation are highlighted in this report, as well as recommendations for further improvement. The key findings of the report will be reproduced in this chapter. The Detailed Country Assessment of the OECD Principles of Corporate Governance on Indonesia is presented in Appendix 2.

The key findings of the report are divided into achievements and obstacles of corporate governance implementation, as well as suggested steps to be taken in order to further improve corporate governance in Indonesia. Among the achievements, the report mentions that Bapepam LK has continued to introduce and amend its regulations, which in turn has been actively enforced to protect investors. In addition, other regulations has been developed and amended since the last ROSC assessment in 2004. Among them are the Code of Good Corporate Governance (CGCG), the Law on Investment, and a new Company Law;

[9] Update from the 2004 ROSC on Corporate Governance in Indonesia.

introducing explicit duties for board members and requirements for information disclosure. Other achievements include emplacement of basic shareholder rights (the right to attend and cast votes at the GMS) and companies production of more timely and complete reports. A higher ratio of independent members in boards of commissioners and the commissioners being more professional about their responsibilities are also among the improvements.

The obstacles Indonesia still face concerning implementation of corporate governance principles of western standard, concerns itself with protection of minority shareholders, information disclosure and board structure. Despite the new Company Law (2007), the report uncovers that commissioners still do not carry out many of the key functions required by the OECD Principles of Corporate Governance, especially when it comes to the election of the CEO (read: President Director). Another pressing issue is, as mentioned, the rights of minority shareholders. According to the report, minority shareholders continue to have little or no influence on board member selection. Issues regarding shareholder rights, further extend to them having limited rights to access other information from the company. Company websites are deficient in information, and information in general is hard to obtain. Even though corporate governance statements are a mandatory compliment to the annual report, they are limited in their content, which oppose the principles of the OECD of being transparent and reliable (OECD, 2004). The annual report should present details on board members; qualifications, meeting attendance, independence, board compensation, and remuneration policy. In practice, however, most companies only disclose aggregated remuneration of the boards, and no more than two percent of the companies listed on IDX include remuneration details on an individual level in their annual reports. Basic shareholder rights are in place, but the shareholders influence to ask questions not related to the agenda of the GMS, or even propose the agenda, is limited at best. The CGCG is still voluntary, and unlike the UK and the Corporate Governance Code embodied on UK companies, Indonesian companies are not restricted by a "comply or explain" prescript. As a result, awareness and compliance with the Code is not as widespread as would be preferred. The companies' use of sub-committees of the Board of Commissioners is also a matter open for improvement, specifically the implementation of audit- and remuneration committees. Several companies have complied with this, but many are still lagging behind.

Since the last assessment in 2004, Indonesia has made the most noticeable improvements in the area of shareholder rights. In the process of assessing compliance with the OECD principles, the report concluded with the following observations; From the 65 principles to be

observed, four principles were fully observed, 25 were broadly observed, 34 principles were partially observed, and two were not observed. Indonesia still has a lot of work to be done compared to other countries in the region; India, Thailand and Malaysia in particular.

The report has made some suggestions for steps to be taken to further improve implementation of corporate governance, quoted from the ROSC Indonesia country assessment (World Bank, 2010):

- *Better regulation of ownership disclosure and other nonfinancial disclosure;*
- *Requiring key shareholder rights to be incorporated into company articles;*
- *Making more effective use of independent commissioners and audit committees;*
- *Amending company law to better protect shareholders;*
- *Incorporating and expanding board member powers in company law and the CGCG;*
- *Requiring that companies disclose their compliance with CGCG*
- *Giving minority shareholders a greater say on board selection;*
- *Increasing Bapepam-LK's capability to oversee company disclosure and other key areas;*
- *Encouraging board and media training.*

2.1.4.3 Board Practices

Our focus is on the determinants of CEO compensation, and by referring to the chapter on Corporate Governance and the CEO, we wish in this chapter to put a light on the corporate governance landscape of Indonesia and what norm of conduct applies when it comes to board structure, independence and CEO influence.

Earlier, we discussed the difference between unitary- and dual board structure. Indonesian companies practice a dual-board structure; the Board of Commissioners (BOC) as the supervisory board, and the Board of Directors (BOD) as the management board (Scott, 1999). As stressed in our chapter on stakeholders, the Board of Directors is not to be confused with the definition of a supervisory board. We have to admonish that the Board of Directors in this chapter refers to the management of the company, and rather the Board of Commissioners should be seen as the equivalent of the Anglo-American unitary-board structure definition of a supervisory board. The President Director of the BOD is, as stated, the equivalent of the CEO.

As mentioned, the governance structure of Indonesian companies differs slightly from that presented before. This comes to light in the election process of commissioners and directors.

Referring to the description of a dual-board structure above, it is common practice for the supervisory board, in this case the BOC, to elect and choose the members of the management board. In the case of Indonesia, all members of the BOC and BOD are chosen directly by shareholders at the general meeting of shareholders (GMS), this means that the responsibilities of electing members for the management board is not up to the BOC, and this practice is mandated by law (Company Law, 2007). The BOC may, however, suspend a director, but this has to be confirmed by the GMS within 30 days (World Bank, 2010). When the responsibility of electing directors is deprived from the BOC, it may limit the commissioners' oversight of the management and in effect prevent the BOCs ability to hold the BOD accountable (World Bank, 2010). It also requires the GMS to hold more technical expertise than normally and to elect top managers best fitted for the job.

Previously, the commissioners were not considered to be fiduciaries or have an obligation to act in the best interest of the company's shareholders (Scott, 1999), but this changed due to the implementation of the Company Law. According to the law; "Board members are to act in the interest of the shareholders, in a reasonable manner, and with good faith and prudence" (World Bank, 2010). Board members can be held liable for losses occurred as a result of not complying with these duties.

The Company Law (40/2007) makes it mandatory for every company to have a two-tier board structure, in order to make a clear distinction between ownership and control: the Board of Directors in charge of management on the one hand, and on the other hand Board of Commissioners in charge of supervision of the managements running of the company (Tumbuan, 2005). The ROSC on Indonesia (World Bank, 2010) further acknowledge that the two-tier board structure ensures that all commissioners are non-executives, but that they may still be major shareholders or have connections to help them control and monitor the management and the shareholders. The listing rules of IDX require the BOC to consist of at least 30 percent independent commissioners (IDX, 2004). Most companies comply with this regulation, but very few exceed the 30 percent rule. Further, the listing requirements states that in relation to the implementation of good corporate governance, all public companies are required to have an audit committee chaired by an independent commissioner and a corporate secretary (IDX, 2004). Remuneration- and Nomination committees are not demanded by the regulation to the same extent, but companies are encouraged to implement them. The corporate secretary should be a director of the relevant listed company (IDX, 2004), and his duties include staying informed on capital market regulations, provide information to the

public, make recommendations to the BOD concerning the Capital Market and its implementing regulations, and act as contact person for the company (Bapepam LK, 1996).

The regulations mentioned above should lay a solid foundation for the fair and prudent exercise of CEO remuneration, with requirements regarding independence of the board, separation of ownership and control, and focus on further improvement of corporate governance practices. But as the results from the ROSC show, there are still a lot of improvements to be made.

2.2 Economic Theories

2.2.1 Agency Theory

2.2.1.1 Agency Relationship

The theory of agency and its precursors of inspiration stem from many years ago. Smith (1776) claimed that a director of a joint-stock company will not administer the money of other people as carefully as if they were his own. This relates to the problems of the separation of ownership and control, later explained in the work and research done by Berle and Means (1932). In their research on corporations, they describe the executives as *agents* and the shareholders as *principals*. The Principal-Agent framework has later been strongly influenced and developed by for instance Jensen and Meckling (1976), Fama and Jensen (1983), and later followed by e.g. Eisenhardt (1989). The agency theory can be described as cooperating parties having different goals and positions within the corporation. This often relates to the problems of risk-sharing that occurs when the parties have different perceptions of risk (Wilson, 1968). A standard way of referring to the agency relationship is when two (or more) parties, one appointed as agent, acts on behalf or as a representative for another part, the principal (Ross, 1973). This means that the principal wants the agent to perform some kind of service on his behalf, which then will involve the delegation of power from the principal to the agent (Jensen & Meckling, 1976).

In regard to this thesis we think of the CEO as the agent, and shareholders and the supervisory board as the principals. Notably, the board of commissioners and board of directors in Indonesian listed companies are elected by the stockholders at the general annual meeting of shareholders. We will first present central and general discussions on agency theory, and finally present some unique characteristics on emerging markets in an agency theory perspective.

2.2.1.2 Agency Problem

According to Fama and Jensen (1983), the corporation is a nexus of written and unwritten contracts, between owners, workers, and customers. These contracts will specify the rights that each agent has in the organization, the evaluation of their performance, and the different payoff functions the agents will face (Fama & Jensen, 1983). The specifications of individual rights through contracts (explicit and implicit) determine how both costs and rewards will be allocated between the participants in any organization. This means that the behavior of the executives within the corporation will depend on the specified contracts between the owner (principal) and the executive (agent) (Jensen & Meckling, 1976). Contracts between two or more parts are not unproblematic. In fact, Jensen & Meckling (1976) state that:

> *Agency costs arise in any situation involving cooperative effort (such as the co-authoring of this paper) by two or more people even though there is no clear cut principal-agent relationship* (p. 309).

This supports the theory that agency problems arise because contracts are not costless written and enforced. Agency costs include the costs of structuring, monitoring, and bonding a set of contracts among agents with conflicting interests. Agency costs also include the value of output lost because the costs of full enforcement of contracts exceed the benefits (Milgrom & Roberts, 1992).

2.2.1.2.1 Risk

There have been done several studies by economists in the field of risk and risk sharing among two or more people (Arrow, 1971; Fama & Jensen, 1983; Wilson, 1968). In agency theory we also include the agency problem that happens when the principal and agent have different goals and perceptions of risk. You may say that a person is said to be risk averse if he always prefers an outcome with certainty to a lottery that has the same expected value, and this may cause some serious problems with the agency relationships (Milgrom & Roberts, 1992). According to Eisenhardt (1989), an agent problem that occurs is when it becomes difficult or expensive for the principal to verify the actual actions made by the agent involved. This relates to the risk sharing problem that happens when the agent and the principal have different approaches to risk. The main problem is that different risk preferences may lead to different actions between the agent and the principal (Eisenhardt, 1989).

The situation which can most easily be identified with our problems regarding CEO compensation may be the concept of executives and shareholders. Here the shareholder

(principal) enjoys the outcome or output produced by the effort (actions) of the chief executive officer (agent), together with a random element. Followed by this action the principal pays the agent a fee. It is most common that the agent is risk neutral, meaning that his fee should equal the outcome minus a constant, being the share that the principal is given. The principal (shareholders) is assumed to be risk averse, willing to pay a fee to allocate the risk in a desirable way, and using another principal (supervisory board) to monitor the actions of the agent (CEO). The idea is to give the right incentives to the agent, avoiding asymmetric information and moral hazard (Shavell, 1979) that leads to increased agency costs (Jensen & Meckling, 1976), terms that will be discussed more deeply in the next subchapter.

2.2.1.3 Adverse Selection and Moral Hazard

Moral hazard can be described as a lack of effort on the part of the agent, meaning that future actions agreed upon when writing the contract may not be fully made by the agent. In other words, you may say that the agent is shirking some tasks that he should have done according to the written contract (Eisenhardt, 1989). It is post contractual opportunism that arises because actions are not freely observable, so the person taking them (the CEO) may choose to pursue his private interest at others' (the shareholders and supervisory board) expense.

The difficulty or cost of monitoring and enforcing appropriate behavior creates the moral hazard problems, and Milgrom and Roberts (1992) presents conditions for a moral hazard problem to exist:

1) *There must be* an agency relationship *between the individuals in the transaction;*
2) *There must be* asymmetric information *regarding the transaction (monitoring is costly or impossible);*
3) *The individuals in the transaction have* different utility functions.

Adverse selection is simply that the agent may claim having certain abilities or skills during the hiring process, which can be hard to verify for the principal also after the agent is hired and starts working (Eisenhardt, 1989). This can be exemplified by an agent (CEO) specialized in chemical engineering getting hired by the principal (shareholders) with no real knowledge about this topic.

2.2.1.3.1 Agency Costs

It is assumed that both parties will try to maximize their own utility. This indicates that the agent often will act in his best own self-interest, and not in the interest of the principal. This imbalance will create some costs; Jensen & Meckling (1976) define these agency costs as:

1) *Residual Loss;*
2) *Costs occurred for the principal through monitoring;*
3) *Bonding expenditures created by employing the agent.*

To try and minimize the divergence from his interest, the principal may initiate appropriate incentives for the agent. These should be value-increasing incentives such as performance based bonuses, salary revisions, stock options, and performance based dismissal decisions (Jensen & Murphy, 1990). The principal can also incur monitoring costs that should be designed for to some extent prevent the agent from deriving from the interest of the principal (Jensen & Meckling, 1976). Finally, Eisenhardt (1989) claims that the unobservable behavior (related to moral hazard and adverse selection), can be dealt with by the principal in two possible ways. First, you may discover the behavior of the CEO by monitoring his actions through information systems. These systems may include budgeting systems, reporting procedures, board of directors, and additional management layers. However, such monitoring always has a cost. Jensen & Meckling (1976) explained that neither the principal nor the agent can ensure that the agent is going to make an optimal decision in the best interest of the principal at zero cost. Secondly, the principal has the opportunity to contract the outcome of the agent's behavior.

Interesting for our thesis, we can search for a link between firm performance and remuneration given to the CEO in Indonesian listed companies. This may help us discover if there is a well-functioning incentive system implemented within these firms.

2.2.1.4 Emerging Markets in an Agency Theory Perspective

While the general agency theory presented so far can be applied to most markets, Cho (1999) explains that the context of weak corporate governance in emerging markets creates a unique relation to agency theory. These sets of agency problems involve concerns related to a unique expropriation of minority shareholders (Cho, 1999), as well as intensified traditional principal-agent problems such as entrenchment and perquisite consumption (Dharwadkar, George, & Brandes, 2000).

Expropriation happens when there exist weak corporate governance within a firm, and a large or major shareholder assumes control of the company and deprives the minority owners' right to gain appropriate returns on their investments (Morck, Shleifer, & Vishny, 1988). Agency theory on expropriation in emerging markets is further supported by the ROSC report on Indonesia, suggesting that minor shareholders should gain a greater saying on important issues relevant to the stock performance (World Bank, 2010). Entrenchment refers to actions of the CEO that reduce the degree of control mechanisms made to regulate the management behavior. Perquisite consumption refer to short-term costs that occur when the CEO perform activities designed to enhance no salary income (perquisites) or other on-the-job consumption (Dharwadkar, et al., 2000).

Agency theorists argue that with change of ownership, the new owners should be aware of managerial perquisite consumption and problems related to entrenchment (Eisenhardt, 1989; Fama, 1980; Jensen & Meckling, 1976). Agency issues related to privatization in emerging market occur when ownership is transferred from the government to the new owners while creating the previously mentioned problems (Dharwadkar, et al., 2000). In an Indonesian context it can be interesting to investigate whether these problems affect the firms and the remuneration given to the CEO, and whether there is a difference in government owned and non-government owned firms.

2.2.2 Human Capital Theory

To increase profits in the long run, and to produce results more effectively, studies have shown that investments in human assets and the development of these, is a prerequisite for growth and competitiveness in the market. Human assets, in a perspective of competitiveness, are hard to imitate due to scarcity, specialization, and tacit knowledge (Coff, 1997). Hence, human capital theory refers to the concept of the inherent skills of workers, and how these skills can be utilized to the benefit of the company (Becker, 1993). Human capital is, simply stated, another phrase for resources in the form of people (Becker, 1962).

According to this theory, the amount of human capital a worker possesses influences his productivity, which in turn influences his earnings (Becker, 1993). Agarwal (1981) argues that the same reasoning should apply for executives as well; an executive with greater amount of human-capital would be better able to perform his job, and thus be paid more.

Education and training are the most important investments in human capital (Becker, 1993), including schooling, on-the-job-training, medical care, and acquiring information about the

firms systems. Becker (1962) argues that there is a close relationship between earnings and the amount of human capital invested. According to human capital theory, it is a logical assumption to make that the more able an executive is, the more he gets paid. When exploring the determinants of CEO pay, we will take this assumption in to consideration. The level of education, and the years of experience of the CEO will, according to human capital theory, have a positive impact on the total remuneration package. Contradictive to this idea, the CEO base-pay is more related to a "competitive pay" view, than that of the executives past experience and education, while bonus-arrangements is more a result of the company's performance and not directly related to the human capital investments in the CEO (Kim, et al., 2010c).

The theory of human capital distinguishes between three different types of skills an executive possesses. They form a three-skills classification hierarchy presented by Becker (1993) , which is based on the degree of specificity to the skills of the organization in which the executive works (Harris & Helfat, 1997) ; (1) Generic skills, (2) Industry specific skills, and (3) Firm specific skills. Generic skills are transferable across industries, businesses or firms. These skills are inherent of any executive and can be transferred and utilized by any business or firm, across industries (Harris & Helfat, 1997). The nature and extent of these skills may vary between executives. Examples of generic skills are level of education, communicative capabilities, social capabilities, and similar. Industry specific skills are directly related to the industry in which the executive operates. These skills are obtained through training and experience within one type of industry and are not transferable across industries. For example an executive with experience in the oil and gas industry will have certain qualifications that are not transferable to real-estate, simply because he does not have the prerequisites for this industry as he had in the oil and gas industry. The last one, firm specific skills, are skills directly related to one particular firm and cannot be utilized in any other firm or business (Harris & Helfat, 1997). These skills may relate to the particular firms accounting systems, idiosyncrasies of the particular firms machines, special firm terminology, decision procedures particular for the firm, and the needs of the firms customers (Milgrom & Roberts, 1992).

While all aspects of an executives human capital to some degree are equally important, Becker (1962) emphasizes on-the-job training as one of the prominent issues in human capital investment. On-the-job training is a process that raises future productivity and differs from school training in that an investment is made on the job, rather than an institution that specializes in teaching (Becker, 1962). On-the-job training is a way for the company to invest

in firm-specific skills in the CEO, which will prevent potential agency problems and threat of turnover due to interchangeable human capital qualities across firms and industries (Coff, 1997). When investing in firm-specific skills, the company will create an incentive for the CEO to stay in the company, and they can compensate him less than if he was more competitive with greater generic or industry-specific skills (Murphy & Zábojník, 2004), because firm-specific skills will not represent an attraction for any other employer, hence the CEO will be less competitive and desirable in the market.

In general, human capital theory promotes the inference that the compensation of any employee or executive is based on their capabilities and skills. Well-developed generic skills imply greater compensation as the executive becomes more attractive in the market, while industry- and firm-specific skills are limited by their specificity, and will reduce CEO attractiveness. With this reasoning and according to human capital theory, the level of education and work experience would be a significant factor when determining the compensation of the CEO.

2.2.3 Managerial Power

During the first decades of the last century, Berle and Means (1932) introduced the concept of managerialism. The idea behind this concept was that a factory system, stemming from the industrial revolution would bring a large number of employees under the power of a single management. Combining this with the Modern Corporation; described as placing the wealth of individuals under a common central management, we get a separation between ownership and control. They presented a quasi-public corporation; which is a corporation consisting of multiple owners, giving a large measure of separation that takes place amongst ownership and control.

2.2.3.1 Managerial Power Theory

> *The skillful employer of men will employ the wise man, the brave man, the covetous man, and the stupid man* – Sun Tzu (512 BC)

Following the introduction of managerialism, came the development of managerial power theory. Finkelstein (1992) defines managerial power as the ability to influence others, and in relation to both the uncertainty and ambiguity related to strategic issues of the corporation, this power is extra important. Murphy (2002) explains that the view of managerial power puts emphasis on incumbent exercise power and influence of the executives, held over outside

directors that are somehow connected to the executives in charge. These connecting bonds may be interest, collegiality, or affinity.

Relationships between the chief executive director and the organization and composition of the boards will also affect the power of the CEO. Board composition related to the number of dependent / independent directors, as well as the number of directors whom the CEO holds some degree of influence, are also critical factors regulating the CEO power. Classified boards therefore raise the amount of power held by the CEO, and decrease the possibility of hostile takeovers (Bebchuk, Fried, & Walker, 2002).

2.2.3.2 Managerial Discretion

Managerial discretion was introduced by Hambrick and Finkelstein (1987), and is a theory explaining how executive officers are able to affect organizational outcomes. According to them, the outcomes of an organization related to the actions of executive directors, are a function of the characteristics of management, the environment tasks, and the internal organization. They also report that the relation between top management tenure and both continuity of strategy and firm performance, is being moderated by managerial discretion (Carpenter & Golden, 1997).

Pfeffer (1992) assert that a manager (or CEO) must be perceived as powerful by others in order to influence others. Carpenter and Golden (1997) further comments on this, explaining the significance of Pfeffer's statement by emphasizing that it separates managerial power from perceived managerial discretion, both practically and theoretically. Even if a CEO perceives himself as powerful and having much discretion, they will not be powerful unless others actually recognize them as being powerful. Carpenter and Golden (1997) therefore conclude that perceived discretion can predict managerial power, but only when the manager has little discretion.

2.2.3.3 CEO Remuneration in Light of Managerial Power

Clearly, CEOs (like most others) prefer more, rather than less remuneration. The question is rather if a CEO and other executive directors have the opportunity to directly influence the structure and level of their granted compensation (Murphy, 2002).

Related to the remuneration of executives, an optimal contracting practice supported by the research of many academics, would be a pay arrangement set by the board of directors with the goal of optimizing shareholder value. This is with an arm's length relationship, meaning

that directors are not able to influence their own compensation. Managerial power theory has a different approach and neglects the arm's length relationship assumption. In fact, it claims that executive officers have the power and ability to influence their own remuneration, and by the use of this power they can also extract rents. The managerial power approach concludes that the greater the power of the CEO, the higher the amount of rents will tend to be (Bebchuk, et al., 2002). Murphy (2002) disagrees with this view and presents in his study evidence that CEOs hired from the outside with no connections to the boards of the firm actually receive *especially attractive pay packages*.

Managerial power held by the CEO will greatly depend on the ownership structure of the corporation. The more shares held by the CEO, the greater the influence on the election of directors and stronger the ability to resist hostile takeovers. This means that the power of the CEO will decrease as the number of shares owned by outside stockholders increases, and as already mentioned, increase with the percentage of shares owned by him (Bebchuk, et al., 2002).

We can put a closer emphasis on ownership structure by looking at stock options granted to the CEO. Murphy (2002) explains that CEOs working in the United States of America, receive a substantially higher pay level than CEOs in other nations. This hypothesis held even after controlling for industry, size, and other managerial and environmental characteristics. Murphy also proposes that this variance in CEO remuneration amongst the different countries, stem from the higher utilization of stock options in the U.S., an assertion that we also find interesting in relation to CEO compensation in Indonesia.

In Morck (2000) we are presented that corporations under the control of large shareholders or families, often choose to install themselves as executive directors rather than hiring professional managers. Furthermore he explains that the CEOs of such companies may actually have a greater power than CEOs in the U.S. This power can help the executive directors extracting rents through their CEO remuneration. Family- and CEO ownership is also an element of our data analysis, and we hope to discover if it also affects remuneration in some of the Indonesian stock listed companies.

2.2.4 Theory of Firm

Early firm theory and why a firm emerges was presented by Ronald Coase (1937). He claimed that the main reason for firms to be established would be because it is profitable due

to the cost of using the price mechanism. In short, he explains that by having a production organized through the price mechanism, a cost will occur as we discover the relevant prices involved. This is because the thought of all relevant prices being known to all individuals, does not hold in the real world. Additionally Coase explains that contracts are greatly reduced when there is a firm existing, as the series of contracts is substituted one (Coase, 1937).

The theory of firm was extended by Alchian and Demsetz (1972) and Michael Jensen and William Meckling (1976) who in short describes the firm as a set of contracts among different production factors. We know that Coase (1937) claimed that the effect on contracts was given by the market, and that activities also related to exchanges would be kept within the firm in situations where the costs related to using the market exceeded the costs of authority. Alchian and Demsetz (1972) disagree with this view and emphasize the role of contracts as the driving factor for optional exchanges, as well as underlining the importance of monitoring in situations with joint input or team production[10] in the firm.

As we described in our chapter regarding agency theory, individuals usually act in their own self-interest. Jensen and Meckling (1976) elaborate this view, and explain that the firm can be seen as a team of individuals realizing that their outcomes to some extent depend on the achievements of the group, compared to teams that can be seen as competitors. In one of his articles, Fama (1980) claims that the view presented above is not carried far enough. He explains the separation of security ownership and control by using a set of contracts, making it an efficient economic organization. Fama (1980) treats management and risk bearing attributed to an entrepreneur in a large modern corporation, as two naturally different factors. These factors are being separated by a set of contracts known as the firm.

Following already established firm and organizational theory around separation of ownership and control (Berle & Means, 1932; Fama, 1980; Jensen & Meckling, 1976), Fama and Jensen (1983) defines an organization as:

> *...the nexus of contracts, written and unwritten, among owners of factors of production and customers. These contracts or internal "rules of the game" specify the rights of each*

[10] *They define the classical capitalist firm as a contractual organization of inputs in which there is '(a) joint input production, (b) several input owners, (c) one party who is common to all the contracts of the joint inputs, (d) who has rights to renegotiate any input's contractual residual status, (e) who holds the residual claim, and (f) who has the right to sell his contractual residual status* - Alchian and Demsetz (1972) as sited by Jensen and Meckling (1976)

agent in the organization, performance criteria on which agents are evaluated, and the payoff functions they face (p. 302).

2.2.4.1 Stock Ownerships in Firms

To achieve satisfactory investment results is easier than most people realize; to achieve superior results is harder than it looks – Benjamin Graham (1973)

Berle and Means (1932) stated that the most common conditions that we see in large companies, is that the largest stockholder is a second corporation that itself also is widely owned. We have already introduced the modern corporation, and explained the concept behind the separation of ownership and control, as explained by Berle and Means. Monsen and Downs (1965) later backed up this research by restating that in the most significant and largest modern firms, management and ownership are tasks handled by two totally different groups of people.

3 Literature Review and Research Hypotheses

3.1 Previous Empirical Research on CEO Compensation

Empirical research on CEO remuneration has been developed and influenced under various theories from multiple disciplines. Scholars from finance, accounting, economics, management, law, and organizational behavior have all contributed to the academic research on this topic. Also, as we more deeply discussed under our different theories, these academics may have different views and approaches while the basic assumptions and conclusions usually are related or homogenous.

Studying the recent corporate governance reforms, we have added yet another view to the theory of CEO pay. Emphasizing more on the top pay debate, where governments and others regard pay inequalities as a wider indifference in the society, researchers have started looking more at the transparency of processes regarding decisions of CEO pay and the amount of this remuneration. Finally, there is an increasing pressure from shareholders and institutions, requesting more control over both remuneration committees and directors (Tyson, 2005), supporting the idea of maximized shareholder value.

For a deeper understanding of our chosen topic, we will present some previous studies conducted on CEO pay, both in a local (Indonesian) and international context. While our local findings are limited, we will provide various international contributions in order to see examples of which determinants and sample sizes have been used.

Starting with previous research conducted on CEO pay in Indonesia, our search offered only limited results. As stated in our Corporate Governance in Indonesia chapter; even though most listed companies on IDX disclose their total BOD and BOC compensation, only two percent of the firms reveal individual remuneration. Adding that only five percent of the listed companies disclose their remuneration policy, we believe that this report explains the lack of previous research on CEO remuneration in Indonesia.

Supporting the results from the above mentioned report (ROSC on Indonesia), Murphy, Fernandes, Ferreira, and Matos (2009) in their study on why American top executives are paid more than their foreign counterparts, due to too few observations, chose to leave out 21 countries and amongst them Indonesia.

Keeping focus on emerging markets, Firth, Fung and Rui (2006) made a paper examining the corporate performance and CEO remuneration in China. Looking at annual reports data from

549 Chinese listed companies over a three year period from 1998-2000, they conduct their statistical analysis. Consistent with research in other countries, size is positively and significantly related to CEO remuneration. Further, they conclude there is a positive correlation between CEO pay and firm performance both measured in shareholder wealth and accounting terms (though only statistically significant under special ownership conditions). Finally, they find that firms having the state as major shareholder do not tend to have performance related pay. The opposite can be found in privately held companies, were CEO remuneration goes up as stockholder wealth or firm profitability increases (Firth, et al., 2006).

Cheng and Firth (2006) made a study on CEO remuneration, corporate governance, and family ownership in Hong Kong. They used remuneration data from 336 firms listed on the Stock Exchange of HK over a nine year period (1994-2002), excluding foreign and Chinese firms, banks, and investment funds. Their findings suggested that CEO remuneration is reduced if directors have substantial shareholdings. Secondly, they find that pay is positively related to profits but not to stock returns. These findings support the theory that outside shareholders and independent non-executive directors prefer firms to base CEO pay on the profitability of the firm (Suwina Cheng & Firth, 2006).

In a European study, Randøy and Nielsen (2002) looked at how company performance and corporate governance affects CEO remuneration in two Scandinavian countries; Sweden and Norway. They explain that Scandinavian countries have a political economy characterized by economic transparency (in both listed companies and governments), and that their corporate governance is moving closer to the Anglo-American system. In their research they used a sample of 224 traded companies (120 Norwegian and 104 Swedish firms) over a three year period from 1996-1998. Their empirical statistical evidence provides significant positive relationships between CEO compensation and; board size, foreign board membership, and market capitalization, respectively. In addition, there was a significant negative relationship between CEO ownership and CEO remuneration. Finally, no significant relationship was found between CEO tenure and CEO compensation (except for Norwegian firms when a change in market-to-book performance measure was used) or company performance and CEO remuneration (Randøy & Nielsen, 2002).

In an Anglo-American context, Conyon and Peck (1998) used a sample of 94 UK listed companies assessing the empirical relationship between remuneration, top management pay, board of directors, and remuneration committees. Main measures used in this study were

compensation, board- and remuneration committees, and CEO duality, while using nominating committees, board size, firm performance, company size, and off-board shareholdings as controlling variables. Their findings suggested that boardroom control and variables of vigilance had little effect on CEO compensation. They also concluded that CEO duality had a negative correlation with management remuneration. Finally they explain that companies that have adopted remuneration committees or with a high level of unrelated members generally have a higher level of executive remuneration (Conyon & Peck, 1998).

In a similar study on board control and CEO pay, Boyd (1994) used a sample of 193 publicly held U.S. companies with annual data from 1980. Identifying board of directors as a key internal control mechanism for deciding the CEO pay, he claimed using theory that the CEO will attempt to gain board control in an effort to maximize his own remuneration. Using corporate governance literature, findings further suggested that CEO compensation is greater in firms with lower level of control. Perhaps more surprisingly, he found no significant relationship to firm size or profitability. His analysis proved board control to have the largest effect on remuneration (standardized coefficient of -0.85), firm size the second largest (0.12), and the controlling variable profitability as the third (0.08) largest (B. K. Boyd, 1994).

Hill and Phan (1991) conducted a study on *CEO Tenure as a Determinant of CEO Pay*, where they looked at the total compensation data of 104 U.S. firms, paid in the period from 1977 till 1988. Using data from Forbes magazine, they found a positive relationship between CEO pay and stock returns. This relationship will be weaker the longer the tenure of the CEO (significant and negative coefficient for this variable, $p<.01$), with the dependent variable being the change in CEO compensation. They also hypothesized a positive correlation between CEO pay and firm size - the longer the tenure of the CEO. They got an interaction term (size by tenure) being significant ($p<.001$) and positive, supporting their hypothesis. Their results also suggested that a long CEO tenure helps the CEO build influence, increasing the positive relationship between pay and firm risk, while the correlation between pay and stock returns weakens (Hill & Phan, 1991).

Finally, we present a study on worldwide structure and level of CEO compensation. As mentioned in this chapter, Fernandes et al. (2009) looked at the structure and level of CEO compensation in 27 countries, using recent data from newly developed rules on disclosure and transparency. They conclude that CEOs in the U.S. earn more than their foreign counterparts, and that difference in firm, industry, intensive use of incentive compensation, and governance

characteristics can explain the US pay premium. Finally, they prove that after seeing a sharp reduction in pay premium from 2000 till 2006, worldwide CEO pay is converging to U.S. levels.

3.2 Research Hypotheses

Firm size, corporate governance, and firm performance are among the main determinants of CEO remuneration, explained in our previous chapters. In addition to these determinants we also include special determinants more or less unique in an Indonesian context.

As mentioned, Chinese business conglomerates control as much as 70% of the Indonesian economy, and these conglomerates are often owned by powerful families (Chua, 2008). Former president Soeharto was associated with many of these groups, indicating close relationships between government and families. The Soeharto family was considered a major financial force in Indonesia, owning various domestic firms themselves (Fisman, 2000).

Privatization of state-owned enterprises increased in Indonesia when the new Investment Law was implemented in 2007, making it easier for the Indonesian Government to facilitate the measures needed to privatize. Tambunan (2011) claims that the Indonesian Government has acknowledged that private investment, including IFDI, is crucial for the modernization of the Indonesian economy and to achieve sustainable economic growth. He explains one of the measures initiated by the government to give better conditions for privatized companies, is by developing an overall policy meant to accelerate the development of infrastructure, logistics, law enforcement, security, and human resource development (Tambunan, 2011). Combined with the agency problems of entrenchment and managerial perquisite consumption related to transfer of ownership from the government to new owners and the issues mentioned above, we are inclined to suggest that privatized Indonesian firms may perform worse than government owned firms.

Based on discussed theory and previous empirical results, we are ready to formulate our research hypotheses:

Looking at firm size in relation with CEO compensation, there have been conflicting findings. Boyd (1994) found no significant relation between firm size and CEO compensation. Firth, Feng and Rui (2006), on the other hand, concludes in their research on 549 Chinese companies, that there exist a positive relationship between the size of the company and the remuneration package offered to the CEO. With historic ties, geographical connection, and

strong Chinese ownership in Indonesia, we argue for a similarity in pay structure in firms within these two nations. Other studies also prove a positive relationship between firm size and CEO compensation (Cosh, 1975; Kostiuk, 1990), hence we formulate Hypothesis 1 as follows:

H_1: There is a positive relation between firm size and CEO compensation

As with firm size, there have also been contradictory findings in the relationship between firm performance and CEO compensation. Jensen and Murphy (1990) and Attaway (2000) find a significant and positive relationship between firm performance and CEO compensation, although not proving a very strong relationship. Firth, Feng and Rui (2006) and Cheng and Firth (2006) are also able to identify a relationship in their study on China, though only significant under certain ownership conditions. Randøy and Nielsen (2002), in company with studies by Firth et.al (1995), Miller (1995) and Boyd (1994), did not succeed in finding any significant relationship between firm performance and CEO compensation. All these studies, except Firth, et al (2006) and Cheng and Firth (2006), are conducted in western markets. Due to lack of previous research on Indonesia, we argue for the existence of a positive relationship with coverage in agency theory, proposing an incentive effect related to firm performance. This implies that the greater the performance of the company, the greater the compensation of the CEO. Our second hypothesis reads as follows:

H_2: There is a positive relation between firm performance and CEO compensation

Further, we wish to explore if there exists a relationship between family owned firms and CEO compensation. Randøy and Goel (2003) argues that family ownership in Norwegian companies gives incentives for moderate pay and long-term perspectives, which infers a negative effect on CEO compensation. In a study on determinants of CEO compensation in India, Ramaswamy, et al, (2000) confirm that a high proportion of family ownership is negatively related to CEO compensation. Contrary to this, Barontini and Bozzi (2009), find in their recent working-paper on Italian-listed companies, that family firms pay CEOs systematically more than other firms. Results of research are contradictory in this case as well. In our chapter on the history of Indonesian economy, Chua (2008) explains that the big Chinese families survived the fall of the New Order, making them a strong force to be reckoned also today. These long-term ownerships may indicate the long-term perspective and moderate pay as presented in Randøy and Goel (2003). According to this, we suggest the following hypotheses:

H_3: There is a negative relation between family owned firms and CEO compensation

Looking more closely at the effects of ownership structure in Indonesia, the government is the largest shareholder in many listed firms on the IDX, and in effect the owner of these companies. Firth, et al, (2006) provides evidence for a negative relation between state-ownership and CEO compensation in China. In contradiction to this, and in line with our agency theory on emerging markets, Dharwadkar, et al., (2000) proposed that several privatized firms in emerging economies are ineffective and have a weak governance system, leading to a weak financial performance. Further they explain that emerging economies recently have introduced measures to privatize their government-owned companies, intending to replicate the success of models in developed markets. As mentioned in our Theory chapter, transfer of ownership from government to the new owners will create agency problems. This may indicate that government owned firms in emerging markets perform better than privatized firms and have a better developed corporate governance system. Since we already suggest a positive relation between firm performance and CEO compensation, our fourth hypothesis states that:

H_4: There is a positive relation between government ownership and CEO compensation

According to previous research, there exist a positive relation between board size and CEO compensation. Looking back at the suggested steps on how to improve corporate governance in the different corporate governance codes, the idea of having a small effective board is strongly recommended. A small board will not suffer from the same monitoring and communication problems as that of a large board - where the CEO will have greater influence on the board. Core, et al, (1999) and Randøy and Nielsen (2002) both find a positive association between board size and CEO compensation. Based on this previous research, and theory of corporate governance, our fifth hypothesis states:

H_5: There is a positive relation between board size and CEO compensation

The subject of including independent non-executive directors in the ranks of the supervising board is widely covered in theory and regulations of Corporate Governance. The purpose of implementing independent directors is to reduce cronyism, develop fairness and protection of shareholder rights, and in effect have an impact on CEO remuneration. Independent board members are required not to have any relations with the top management, to better be able to make objective decisions related to the well-being of the company. CEO influence on the

board will decrease, and his ability to affect his own compensation diminishes; effectively leading to a negative relationship between the ratio of independent board members and CEO compensation. Hence, our final hypothesis is formulated accordingly:

H_6: There is a negative relation between the ratio of independent board members and CEO compensation

4 Data and Methodology

4.1 Data Collection and Sampling Procedure

The sample used for our data analysis is drawn from the Indonesian Stock Exchange (IDX) as this is the common practice in corporate governance research. Conducting our empirical study, we have chosen a sample of Indonesian stock listed companies, using annual reports from 2007, 2008, and 2009. The selection criterion for our sample was the existence of useable financial performance, compensation, size, and governance data. As of December 2010 there were 415 listed companies on IDX (our population) from which we derived our sample after a series of exclusions and minor problems. These reports were obtained from the IDX website or respective company websites if not found in IDX. Our first time-consuming data collection resulted in the following statistics:

Annual Report Coverage (Period)	Count	Percentage
5 years	63	15.18%
3-4 years	133	32.05%
1-2 years	79	19.04%
< 1 year	131	31.57%
Only financial statements	9	2.17%
Total	415	100%

Table 4-1: Preliminary results from data collection

The above results led to the exclusion of 218 listed companies, as they did not provide annual reports for the three years of our study. Having a preliminary sample of 196 (47.23 %) listed companies, we further excluded all banks, Sharia banks, and insurance companies (31+11), as they have different law regulations and corporate governance policies than our remaining companies, involving both the composition of boards and rules on foreign acquisitions.

With an initial goal of analyzing all companies less banks and insurance, we divided the remaining 154 companies in two equal parts, each researcher starting alphabetically from ticker AALI and JIHD respectively. Due to time limitations and complications briefly described below, from 154 listed companies remaining, our final sample is 46 (30%) Indonesian listed companies, while we initially hoped to have at least a 100. Using a sample on the basis of judgment, we chose a sample size best suited the time-limitations of our thesis. Acknowledging that we are inexperienced researchers, we also looked at previous studies conducted by experienced researchers (Zikmund, Babin, Carr, & Griffin, 2010). We mainly

used secondary data from the financial statements and corporate governance policies provided in the annual reports of the Indonesian listed companies. Unfortunately, for a number of variables in our study, we could not use the secondary sources. In response to this we used e-mail, LinkedIn, Facebook, and similar to get in contact with the companies in order to obtain data on both CEO tenure and age, founding year, and similar. Previous research indicates that executive stock option-plans are increasingly popular in Asia (Suwina Cheng & Firth, 2006). Sadly, the disclosure and level of details provided by firms proved insufficient for us to derive the option values, nor if any option agreements did exist.

Furthermore, we want to emphasize that our sample provides a rather uneven distribution of different industries. As shown in the table below we have e.g. only one firm from agriculture while we have as much as eleven from infrastructure, utilities, and transportation. This means that our sample will not reflect the *true* population, and that we should control for industry effects when later conducting our analysis. Table 4-2 shows our sample of firms divided into their respective industries, compared with the entire IDX population minus banks and insurance companies, meant go give a clearer picture of probable differences between our sample and the population.

Industry Classification	IDX Population	%	Thesis Sample	%
1. Agriculture	15	4%	1	2.2%
2. Mining	29	8%	4	8.7%
3. Basic Industry	59	17%	3	6.5%
4. Misc. Ind.	42	12%	2	4.3%
5. Consumer and Manufacture	34	10%	8	17.4%
6. Property and Real Estate	47	13%	9	19.6%
7. Infrastructure, Utilities and Transportation	32	9%	11	23.9%
8. Trade, Services and Investment	96	27%	8	17.4%
Total	354	100%	46	100%

Table 4-2: Population and sample overview

In addition, we note that the profitability (ROE) may be different depending on for example industry and ownership structure. Again we emphasize that our sample may not necessarily reflect the population. Finally, we present a table with the market capitalization for the different industries on IDX, and at the same time presenting an average market capitalization

for each company belonging to a specific industry. This can be a measurement for firm size, and we can see that e.g. the average mining company is substantially larger than the average property and real estate firms.

Industry Classification	%	Number of shares	Market Cap.	Avg. Market Cap
1. Agriculture (15)	4%	84 927 522 960	94 001 178	6 266 745
2. Mining (29)	8%	268 156 472 861	473 730 539	16 335 536
3. Basic Industry (59)	17%	158 247 336 332	222 822 054	3 776 645
4. Misc. Ind. (42)	12%	55 949 720 120	239 744 789	5 708 209
5. Consumer and Manufacture (34)	10%	87 161 080 032	441 178 789	12 975 846
6. Property and Real Estate (47)	13%	296 136 071 709	107 140 786	2 279 591
7. Infrastructure, Utilities and Transportation (32)	9%	303 770 057 921	439 093 095	13 721 659
8. Trade, Services and Investment (96)	27%	321 275 641 281	256 191 955	2 668 666
Total	100%	1 575 623 903 216	2 273 903 185	6 423 455

Table 4-3: IDX overview

Seeing time caught up with us, due to issues such as slow firm-websites, reports being in the Bahasa Indonesia language (we used Google™ Translate), scanned/illegible/unsearchable, and lacking crucial variables to our research, we acknowledge the limitations of our sample and would be happy to share our annual reports with anyone interested in further conducting empirical studies on CEO compensation in Indonesia.

4.1.1 The CEO-Pay Extraction Equation[11]

When going through the data collected, we discovered major problems in collecting the dependent variable - CEO pay. Details concerning the remuneration of the CEO are noted under the Corporate Governance chapter in the annual reports or in the notes to the financial statements. About 15% of the companies in our sample disclose detailed information of CEO remuneration, 15% give aggregated remuneration numbers for BOD[12] and BOC[13]

[11] Note that in Indonesia, they refer to the CEO as the President Director.
[12] The Board of Directors (BOD) consists of the CEO and several executive directors. This is the management board, in control of day-to-day operations.
[13] The Board of Commissioners (BOC) consists of the President Commissioner and several dependent and independent commissioners. This is the supervisory board, in charge of maintaining shareholder interests and monitoring the BOD.

respectively, while 70% of the companies disclose the total remuneration paid to both BOD and BOC.

We developed the *CEO pay extraction equation* to extract the CEO pay from these aggregated numbers. Some sample companies, while not disclosing detailed remuneration information, disclosed the ratio distribution of the total remuneration as a percentage of the CEOs salary. While these ratios differ, we found that the most common ratio distribution were as follows; Directors are paid 90% of the CEOs pay, the President Commissioner receives 40% of the CEOs pay and each commissioner (both dependent and independent) receive 36% of the CEOs pay (or 90% of the President Commissioners pay). When generalizing this relationship, we developed the following equation to extract the CEO remuneration:

$$Total\ BOD\ and\ BOC\ pay = n + (\sum \mathrm{D} \times r_D n) + (\mathrm{PC} \times r_{PC} n) + (\sum \mathrm{C} \times r_C n)$$

Where n is the CEO pay, $(\sum \mathrm{D} \times r_D n)$ is the amount paid to the directors, $(\mathrm{PC} \times r_{PC} n)$ is the amount paid to the President Commissioner, and $(\sum \mathrm{C} \times r_C n)$ is the amount paid to the commissioners. The equation leaves us with only one unknown; n. We have explained the CEO-pay extraction equation in detail in Appendix 3, where we illustrate the proceedings used in our data collection.

4.1.2 Random and Systematic Sampling Errors

As mentioned, we are aware that our sample may not always provide sufficient and accurate results, and that some statistical errors may occur.

Random sampling errors are functions of the sampling size. This means that if we had increased our sample from 30% to 100% of the accessible listed Indonesian companies, the random sampling error would decrease to a minimum. Laws of probability assume that the smaller the sample size, the larger the possibility of misinterpretations and margins of error (Zikmund, et al., 2010). An example could be that the average CEO remuneration will have a larger probability of error using a smaller sample size.

Another type of error is the systematic (non-sampling) errors from factors not directly related to the sample. These errors often relate to the correctness of execution and nature of the study (Zikmund, et al., 2010). Sample biases may come from e.g. difference in validity on the variables in the annual reports from the Indonesian listed companies, depending on the quality of internal and external auditing.

Finally, Zikmund et al. (2010) describes additional errors that may occur when the sample is less than perfectly representative. In our case we have chosen to call this a *non-reporting* error which happens when annual reports were not available or incomplete, forcing us to initially leave out 218 Indonesian listed companies.

Carefully considering all errors mentioned above, we realize the danger of using too many, and non-significant, or weakly, correlated variables in our multiple regression analysis. We will watch closely at the degrees of freedom (df), that Zikmund et al. (2010) describes as the number of observations we have minus the number of assumptions we actually need to calculate a statistical term.

4.2 List of Variables

Below we present our table of variables together with theory to support our analysis. Conducting a multiple regression analysis, the number of independent variables should be two or more, and the type of measurement for both the dependent and explanatory variables will be interval (Zikmund, et al., 2010).

DEP = Dependent Variable, IND = Independent Variable, CONTR = Controlling Variable

Variable	Definition	Type
	CEO Compensation	
Total CEO compensation (log)	Natural log of Total CEO compensation in IDR	DEP
	CEO Characteristics	
CEO tenure (log)	Natural log of years as CEO in the Company	CONTR
CEO education dummy	Dummy that equals 1 if CEO has a Masters, MBA, JD or PhD degree, and zero otherwise	CONTR
	Firm Characteristics	
Firm size (log)	Natural log of total revenues	IND
Firm performance	Average ROE (Return on Equity)	IND
Family firm dummy	Dummy that equals 1 if the Company is owned by a family, and 0 otherwise	IND
Government ownership dummy	Dummy that equals 1 if the Company is owned by the Indonesian Government, and 0 otherwise	IND
Industry dummy	Dummy that equals 1 if the Company belongs to a given industry, and 0 otherwise	CONTR
	Board Characteristics	
Board size	Number of members in the Board of Commissioners (BOC)	IND
Board independence	Ratio of the number of independent board members to board size	IND

Table 4-4: List of variables

4.2.1 Dependent Variable

CEO remuneration is our dependent variable which we try both to predict and explain by the use of other variables, and alone using descriptive tools. Presented theory asserts that CEO compensation optimally should consist of a base salary, an annual bonus related to accounting performance, stock options, and long-term incentive plans. Unfortunately, very few Indonesian listed companies disclosed any of those components, and rarely even the total pay given to their CEO. This led us to the use of unorthodox measurements, developing our own simple mathematical model named the *CEO-pay extraction equation.*

Being a continuous variable that can take a range of values while responding to a quantitative amount (Zikmund, et al., 2010), we will use the natural logarithm of CEO remuneration as our dependent variable, in order to reduce heteroscedasticity. This is a well-known approach that has been used by several researchers in the past, amongst them Boyd (1994), Randøy and Nielsen (2002), and Fernandes, Ferreira, Matos and Murphy (2009).

4.2.2 Independent Variable

Our dependent variable (total CEO pay) will be lagged one year with respect to some of our explanatory variables, meaning that these independent variables refer to years 2007 and 2008. This approach has previously been used by Kerr and Betis (1987), and in a more recent study conducted by Oxelheim and Randøy (2005) - where they explain that the one year lag gives a more accurate description of CEO remuneration. They reason for this with the fact that CEO pay-levels may not be continuously evaluated (Oxelheim & Randøy, 2005), hence our firm size variable, corporate governance variables, and CEO characteristics will be with the lag mentioned.

Our first independent or explanatory variable is *firm size*, which we already discussed in our previous research chapter as often being a strong predictor of CEO compensation (Randøy & Nielsen, 2002). It can be measured by total assets (Fernandes, et al., 2009), net sales/revenue (B. K. Boyd, 1994), or market capitalization (Oxelheim & Randøy, 2005).We have chosen to measure firm size by using the natural logarithm of revenue, seeing that size alone was normally not disclosed.

Firm financial performance is our next explanatory variable, and we will use an accounting-based measure given by Return on Equity (ROE), calculated by dividing annual net income by the end-of-year equity of shareholders. We will not use the one year lag, but instead the average of 2007 and 2008 for total CEO pay 2008, and average ROE of all three years for

total CEO compensation in 2009. The reason why we chose to use the average rather than one year lag, is because the CEO, as mentioned in Oxelheim and Randøy (2005), is not continuously evaluated. In addition, Eaton and Rosen (1983) point out that by using an average ROE, we can account for unusual changes during the time period of the study. Further, Finkelstein and Hambrick (1989) presented a significant relationship between bonus pay and ROE, supporting our approach of using present year's performance and not only lagged values.

To test our hypotheses and enlighten our research problem, explanatory variables related to *board power* and board characteristics are also included in our analysis. Here we use BOC size, percentage of independent board members, and two dummies; foreign BOC members and international education within the BOC.

4.2.3 Control Variables

In our multiple regression analysis we also want to include non-metric independent variables - known as dummy variables. These variables use 0 and 1 to code the different levels of two-group variables, and multiple dummy variables can be used in the regression model (Zikmund, et al., 2010). We have decided to include three controlling dummy variables in our study; with the first two being reporting year and industry. In a similar study, Oxelheim and Randøy (2005) also controlled for one-digit industry effects by using 1 for yes and 0 for no.

Controlling variables related to CEO characteristics include CEO tenure and our final controlling dummy variable; education level of the CEO. We are not including CEO duality as the dual board structure and corporate governance laws prohibit the executives from being in both the BOD and the BOC (which controls the remuneration committee).

4.3 Descriptive Statistics

The major purpose of descriptive statistics is to describe characteristics of the sample (Zikmund, et al., 2010). Descriptive characteristics give an oversight of the data in an understandable manner, and are easy to interpret. This approach helps us to see the development in CEO remuneration through the three years of which we have collected our data sample.

Common descriptive statistic measurement methods are; illustrations of frequency distributions, proportions, and measures of central tendency. When presenting the descriptive findings of our sample, we will take advantage of frequency distributions and measures of

central tendencies; mean-values and standard deviation. Mean-values are simply put, the average of the metric values in a sample, while the standard deviation explains the degree of spread in the sample. If the standard deviation deviates much from the mean, it means that there is a large spread among the sample values, and opposite if the standard deviation is close or equal to the mean, indicating a small spread (Zikmund, et al., 2010).

4.4 Correlations

A bivariate correlation is an index explaining how much two variables correlate, and represents a standardized measure of covariance (Zikmund, et al., 2010). More specific, Wenstøp (2006) explains that when two variables display a correlation of 1.0, they are perfectly correlated, meaning they have no unique variance and essentially can be thought of as one and the same. When the opposite happens, and two variables are correlated with -1.0, they are perfectly negatively correlated (Wenstøp, 2006). The variables are mirror images of each other, so if hypothetically CEO age went up, CEO remuneration would go equally down if they had a correlation of -1.0. As we show in the figure below, correlation can range between -1.0 and 1.0. Correlations near 0 indicate a lack of relationship between two variables (Zikmund, et al., 2010).

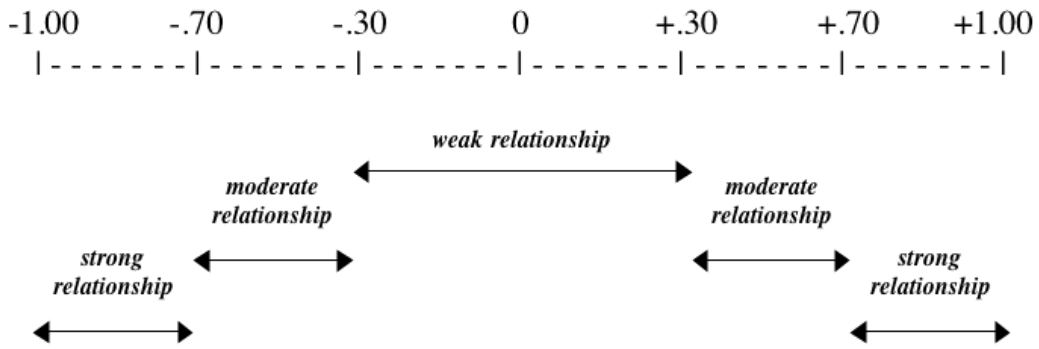


Figure 4-1: Strength of correlations

4.5 Multiple Regression Analysis

Zikmund et al. (2010) describes multiple regression analysis as an extension of the simple regression analysis, making us able to predict a metric dependent variable by using multiple independent variables. The multiple regression analysis equation can be explained by this mathematical model:

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \ldots \beta_n X_n + \varepsilon_i$$

Y = the dependent variable which will be explained by the independent variables

X = independent variable (or explanatory variable) expected to influence Y in some way

α = constant, will equal the mean if slope coefficients are zero

β = standardized regression coefficient, explains the relationship between Y and X while taking into consideration the other X that also affect the dependent variable (partial correlation)

ε = shows the remaining change which cannot be explained by the chosen variables

Best suiting our variables, and in line with previous research on corporate governance and CEO compensation (Core, et al., 1999; Randøy & Nielsen, 2002) we propose the following regression model:

$$\textit{Total CEO Compensation}_t \textit{ (log)} = \alpha + \beta_1 \times \textit{ROEmean} + \beta_2 \times \textit{Firm Size}_{t-1} \textit{ (log)} + \beta_3 \times \textit{Board Size}_{t-1} + \beta_4 \times \textit{Board Independence}_{t-1} + \beta_5 \times \textit{CEO Tenure}_{t-1} + \beta_6 \times \textit{Government Owned Dummies} + \beta_7 \times \textit{Family Firm Dummies} + \beta_8 \times \textit{CEO Education Dummies} + \beta_i \times \textit{Industry Dummies}$$

If we used only a simple regression analysis, the dependent variable (Y_i), would have been explained by just one independent variable (X_n). In reality it is usually a lot more complicated, hence we will conduct our analysis on Y and X by the use of a multiple regression analysis in SPSS. Previous studies in line with using this statistical method related to CEO pay include e.g. Hill and Phan (1991), Finkelstein and Boyd (1998), Randøy and Nielsen (2002), and Fernandes et al. (2009).

Unfortunately, as already mentioned in this chapter, our relatively small sample has its limitations; consequently we may exclude explanatory variables with low correlations in our final regression model.

Our main goal with this thesis is to develop and test a model in order to find and analyze the determinants that can help explain CEO remuneration in Indonesia. To interpret the results given by our multiple regression analysis, Zikmund et al. (2010) proposes the following four steps (p. 588):

1. Examine the model F-test;
2. Examine the individual statistical tests for each parameter estimate;
3. Examine the model R^2;
4. Examine collinearity diagnostics.

We will go through these steps, while also further explaining what the statistical values and data analysis show us.

4.5.1 Analysis of Variance

When you want to test your hypothesis for differences between more than two groups, meaning more than two levels of the independent variable, a t-test alone cannot handle this problem. ANOVA is an available tool included in the multiple regression analysis in SPSS that can be used for this purpose. Wenstøp (2006) explains the most important values given by the ANOVA-model; the F-test, leading us to the first step presented by Zikmund et al. (2010), saying that if the test result is not significant, the model should be rejected and further steps are not needed.

In ANOVA, the F-test can be used to identify whether there is more variability in the scores of one sample compared to the scores of another sample. The key is to find whether two sample variances differ from each other or if they are from the same population. Breaking down the variance in a total sample, we are conducting an analysis of variance (Zikmund, et al., 2010).

The F-distribution is a function (f) of the ratio between two sources of variance (Zikmund, et al., 2010) p. 546:

$$F = f\left(\frac{SSB}{SSE}\right)$$

The above is total variability portioned into SSB as *between-groups variance*, and SSE representing *within-groups variance*. The larger the F-value, the more likely is the result to be significant (Zikmund, et al., 2010), and in order to have a good model the F-value should at least be above 1.0 (Wenstøp, 2006).

In addition, when we have checked that the F-test is significant, Zikmund et al. (2010) suggest in the next step to check all our individual statistical tests for every parameter estimate. By doing this, we can find our independent variables that are considered as significantly explainable. When we happen to find non-significant variables, we should re-run the model without these variables, often by deleting one predictor variable at the time (Zikmund, et al., 2010), supporting our already planned approach when running the multiple regression analysis.

4.5.2 R-Squared in Multiple Regression

The third step in analyzing our multiple regression models is by examining the model R-Square. Zikmund et al. (2010) explain that a multiple determination coefficient can be used to indicate the variation in our dependent variable (Y) given in a percentage and explained by *all* explanatory variables (Zikmund, et al., 2010). An example can be if we get a value $R^2 = 0.75$, meaning that 75% of the variance in CEO Remuneration (Y) can be explained by our independent variables. Importantly, Zikmund et al. (2010) emphasizes that the absolute value of R^2 is more proper when we want to predict rather than explain the dependent variable. This means that when we want to explain which variables that drive CEO pay, cutoff values from the R^2 model are inappropriate (Zikmund, et al., 2010).

4.5.3 Multicollinearity

When conducting our multiple regression analysis, we need to check for multicollinearity. Wenstøp (2006) describes that no explanatory variable should be too highly correlated with each other. He explains that this can lead to difficulties with interpreting the individual parameter estimates; with high p-values it will be hard to see what the independent variables explain (Wenstøp, 2006). SPSS gives us the VIF (Variance Inflation Factor) for each variable. Zikmund et al., (2010) uses a rule of thumb, saying that a VIF above 5.0 suggests problems with multicollinearity, while Wenstøp (2006) set this number to above 10 (Wenstøp, 2006). Oxelheim and Randøy (2002) used a VIF tolerance level of <10 and we will do the same in our analysis. SPSS will also give us tolerance, which according to Wenstøp (2006) indicates the percentage of variance in the explanatory variable that cannot be accounted for by the other explanatory variables. A tolerance value less than 0.10 may indicate a redundant explanatory variable (Wenstøp, 2006).

4.5.4 Normality and Outliers

Heteroscedasticity, described by Wenstøp (2006) as when the random variables have differences in their variance, will also be accounted for. We can check for heteroscedasticity by using the scatterplot (Wenstøp, 2006). Scatterplots can help us find the outliers, described by Zikmund et al. (2010) as values that lie outside the normal range of our data. Outliers having too high or low scores should be removed as a precaution not to cause errors in our multiple regression analysis. Tabachnick and Fidell (2001) suggest that variables shown in the scatter plot with a standardized residual above 3.3 or below -3.3, should be removed.

Finally we analyze the regression residuals for non-normal distribution. We examine the tails, and check for kurtosis and skewness (Wenstøp, 2006). When checking for non-normality in SPSS we will use the normal probability-probability plot (P-P plot). If the points on the graph lie approximately on the reference line, they indicate normality. If the points are above the reference line they indicate that the observed quantiles are lower than expected and vice versa (Landau & Everitt, 2004).

5 Data Analysis

5.1 Descriptive Statistics

In this chapter we present a selection of descriptive statistics from our findings. Descriptive statistics summarizes and describes the data in a simple and understandable manner (Zikmund, et al., 2010). Furthermore, in order to get a straightforward picture of the development in our data sample, we have developed a set of descriptive tables. The descriptive statistics are seen in context with executive compensation, and the purpose of this chapter is to view the advances or setbacks in that regard. We wish to make accessible to the reader a breakdown of the CEO (President Director) compensation seen in context with family ownership, Chinese ownership, government ownership, and foreign control. We will also present frequency tables of independent BOC (supervisory board) members and CEO compensation in relation with board size and firm size. Again we would like to remind our readers that President Director, in an Indonesian context, is the equivalent of the CEO.

5.1.1 Annual Development in CEO Pay

The annual change in CEO remuneration is given in Table 5-1, and as we can read from the table, there has been a steady increase in CEO pay on an annual basis. The table shows the minimum and maximum amount paid in compensation, and as we can see, there is a great difference between the smallest and largest amount paid. This tendency is evident for all years. Included in the table is also the standard deviation, reflecting the dispersion of the distribution. This is the most valuable index of spread (Zikmund, et al., 2010), and it gives us an indication of the dispersion in our sample. The largest growth rates are from 2007 to 2008, while the growth between 2008 and 2009 is not that significant. The reason for this may be applied to the recession of 2008, but Indonesia does not rely that heavily on international trade, consequently they should not feel the effects of the financial crisis that hard. Still, the difference in growth between the three years is evident, and the financial crisis may very well be an explanatory factor in that regard.

	N	Minimum*	Maximum*	Mean*	Std. Deviation*
CEO pay 2009	46	142 598 688	7 227 200 000	1 908 738 501	1 661 225 798
CEO pay 2008	46	122 200 776	7 529 800 000	1 763 515 676	1 647 105 991
CEO pay 2007	45	95 611 024	4 740 100 000	1 309 388 576	1 047 159 875

**Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)*

Table 5-1: Annual development in CEO pay 2007-2009

To give a more exact picture of the yearly change in CEO remuneration, we corrected for inflation in Table 5-3 using the inflation rates given in Table 5-2.

Year	Inflation rates Indonesia
2008	6.30%
2009	9.90%
2010	4.80%
2011	5.10%

Table 5-2: Inflation rates in Indonesia from 2008 – 2011 (Indexmundi, 2011)

	N	Mean*	PV of Mean*	Growth
CEO pay 2009	46	1 908 738 501	2 102 376 205	-1.52%
CEO pay 2008	46	1 763 515 676	2 134 720 837	26.70%
CEO pay 2007	45	1 309 388 576	1 684 858 771	

**Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)*

Table 5-3: Annual development in CEO pay (2011) corrected for inflation

Table 5-3 shows the present value (PV) of the mean remuneration given to CEOs in the period 2007-2009. We have also applied the growth ratio, showing that by 2011 values, there has been a small decrease in the amount of remuneration paid to the CEOs on an average basis from 2008 to 2009. Table 5-3 further strengthens the analysis above. There is a strong growth from 2007 to 2008, which might be explained by the increasing economic growth in Indonesia after the Asian economic crisis in 97/98.

	N	PV of Mean IDR	Converted to USD[14]	Converted to NOK[14]
CEO pay 2009	46	2 102 376 205	260 131	1 377 056
CEO pay 2008	46	2 134 720 837	264 133	1 398 242
CEO pay 2007	45	1 684 858 771	208 471	1 103 582

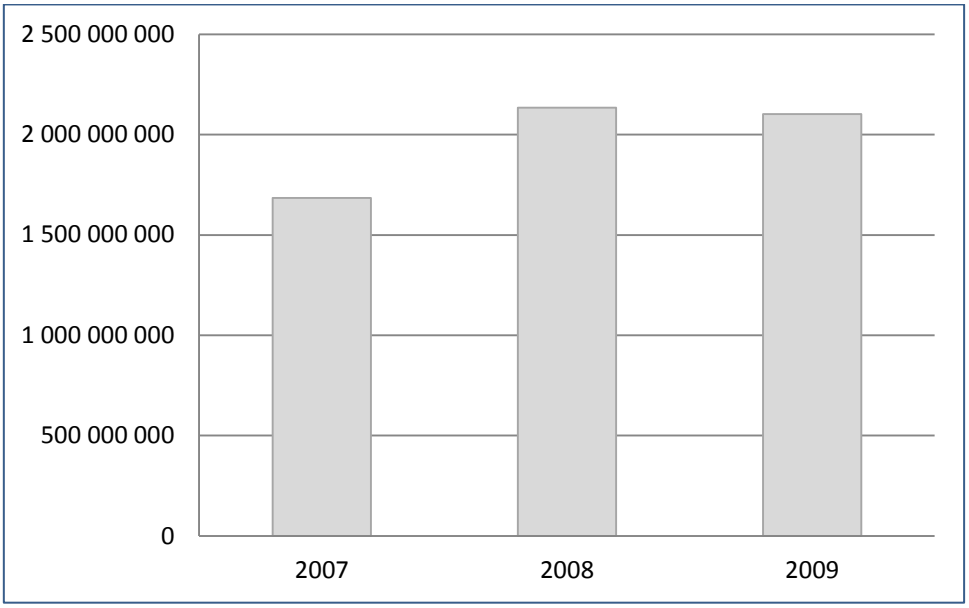
**Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)*

Table 5-4: CEO pay converted into USD and NOK - 2011

[14] 1000 Rupiah = 0.66 NOK and 0.12 USD according to DnB NOR on April 27, 2011 (DnB, 2011)

In addition, we convert the PV in Rupiah into both U.S. Dollars and Norwegian Kroner in order to make it easier to interpret the pay levels for international readers, shown in Table 5-4.

The figure below graphically illustrates the yearly development of CEO compensation, as presented in Table 5-3. We can clearly see the already mentioned large increase in CEO remuneration from 2007 to 2008, and the relatively stable state in pay from 2008 to 2009.



Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)

Figure 5-1: PV Annual CEO Pay (mean)

Note that if we should make a generalization of these results, growth rates for several more years are needed.

5.1.2 CEO Pay in Family- and Non-Family Owned Companies

The following table gives an overview of the difference between executive compensation in family owned firms and non-family owned firms. Defining family firms in Indonesia is a complicated process. The majority of listed companies are controlled by families or approximately 10 large family-owned groups (World Bank, 2010). In the annual reports, it is rarely disclosed whether or not the company in question is a family owned company, and to determine if it is a family company we had to trace the ownership of the company to the very end. In 43.5% of our sample, we were able to identify the company as being family owned. The rest are either government owned, foreign controlled, or simply independent companies.

For the analysis of Table 5-5, the tendency is clear; executives in non-family controlled firms earn more than those in family controlled firms. We can also interpret from the table that there is a steady growth in compensation, in both family and non-family firms.

	Ownership	Mean*	N	Std. Deviation*
2009	Non-family	2 404 540 187	26	1 879 755 854
	Family	1 264 196 310	20	1 055 016 967
	Total	1 908 738 501	46	1 661 225 798
2008	Non-family	2 287 883 536	27	1 920 815 924
	Family	1 018 361 348	19	674 183 801
	Total	1 763 515 676	46	1 647 105 991
2007	Non-family	1 557 191 473	27	1 192 675 685
	Family	937 684 231	18	647 104 240
	Total	1 309 388 576	45	1 047 159 875

**Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)*

Table 5-5: CEO pay in family and non-family firms 2007-2009

We acknowledge skewness between family- and non-family owned companies in our sample, but we consider the sample size large enough to provide a representative tendency.

5.1.3 CEO Pay in Chinese- and Non-Chinese Owned Companies

Among the firms listed on IDX, many companies can be traced back to being owned by powerful Chinese conglomerates – which have had an undisputable influence on Indonesian economy for decades. Chinese influence on the Indonesian economy is a fact, and the development of the country can, to some degree, be credited to the Chinese. To determine whether or not companies are owned by Chinese conglomerates, we use the same procedure as with the family companies; we had to retrace the ownership-trail of the parent companies. It should be noted that the categorization of foreign control and Chinese ownership to some degree get intertwined. The distinction relates to Chinese owners in Indonesia and Chinese owners in China.

	Ownership	Mean*	N	Std. Deviation*
2009	Non-Chinese	2 045 717 336	36	1 752 785 555
	Chinese	1 415 614 695	10	1 226 966 163
	Total	1 908 738 501	46	1 661 225 798
2008	Non-Chinese	1 965 867 129	36	1 791 404 476
	Chinese	1 035 050 445	10	575 701 578
	Total	1 763 515 676	46	1 647 105 991
2007	Non-Chinese	1 433 565 548	35	1 115 497 337
	Chinese	874 769 174	10	624 670 889
	Total	1 309 388 576	45	1 047 159 875

**Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)*

Table 5-6: CEO pay in Chinese- and non-Chinese owned companies 2007-2009

We acknowledge that Chinese owned companies are represented by no more than 29% of our sample. As in the case of family companies versus non-family owned companies, we believe that the descriptive results presented above give a representative tendency for the population.

The table indicates that Chinese owned companies tend to pay less than companies not controlled by Chinese. This tendency is consistent with all years, and the increase in pay does not show any significant large or small growth rate for any particular year.

5.1.4 CEO Pay in Foreign- and Non-Foreign Owned Companies

Foreign investment in Indonesia is increasing, especially from neighboring countries; Singapore, Malaysia, India and China in particular, but also western countries like the Netherlands, the UK, Germany and the U.S.[15]. We distinguished between foreign owned and non-foreign owned companies by looking at the percentage of foreign ownership as a total. If the total percentage of ownership exceeded the amount of any other domestic shareholder, it got categorized as foreign owned.

[15] Data should be interpreted with caution as "foreign" shares are reportedly off-shore Indonesian capital coming back into the country (World Bank, 2010)

	Ownership	Mean*	N	Std. Deviation*
2009	Domestic	1 977 837 369	37	1 772 164 482
	Foreign	1 624 665 378	9	1 130 367 835
	Total	1 908 738 501	46	1 661 225 798
2008	Domestic	1 820 338 571	36	1 793 103 717
	Foreign	1 558 953 253	10	1 000 871 150
	Total	1 763 515 676	46	1 647 105 991
2007	Domestic	1 343 341 159	34	1 093 983 161
	Foreign	1 204 444 230	11	926 995 916
	Total	1 309 388 576	45	1 047 159 875

**Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)*

Table 5-7: CEO pay in foreign- and non-foreign owned companies 2007-2009

Table 5-7 indicates a small difference between foreign- and domestic owned companies, in favor of domestic owned companies, but we believe that a larger sample would be appropriate to make any generalization of the result. The conclusion we can draw from the above figures, are that domestic-owned companies pay slightly more than foreign owned companies. The results further confirm the growth in annual pay that we have shown in the previous tables. This is true for both domestic- and foreign owned companies.

5.1.5 CEO Pay in Government- and Non-Government Owned Companies

The national government of Indonesia controls 114 companies through the Ministry of State Owned Enterprises, whereas 16 companies were listed on the IDX as of January 2010 (World Bank, 2010). In our data collection we observed 10 companies where the government of Indonesia was listed as the major shareholder. Common to all cases is that the government of Indonesia owns a significant share of stock (70% - 90%). It was a forgiving task to organize companies into the two categories presented in the table.

	Ownership	Mean*	N	Std. Deviation*
2009	Non-government	1 460 906 182	36	1 150 256 866
	Government	3 520 934 849	10	2 227 737 141
	Total	1 908 738 501	46	1 661 225 798
2008	Non-government	1 368 065 842	36	1 216 794 740
	Government	3 187 135 077	10	2 220 256 833
	Total	1 763 515 676	46	1 647 105 991
2007	Non-government	1 125 596 680	35	891 904 231
	Government	1 952 660 214	10	1 328 361 352
	Total	1 309 388 576	45	1 047 159 875

**Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)*

Table 5-8: CEO pay in government- and non-government owned companies 2007-2009

The results show a significant difference between government owned and non-government owned companies. The immediate assumption is that an executive in a government owned company will be greatly compensated as compared to an executive in a non-government owned company. The standard deviation however, gives an indication that there exists a larger spread in the salaries of CEOs in government owned companies than in firms not controlled by the government. The issue of the sample size could of course be argued to present some degrees of error, but the large difference in compensation is in any case hard to ignore. We believe such a strong indication of the difference in salaries is representative for the population.

5.1.6 Frequency of Independent BOC Members

According to the listing requirements of the IDX, the BOC should consist of at least 30% independent directors (IDX, 2004). The ROSC on Indonesia (World Bank, 2010) states that companies mostly comply with this requirement, but they seldom exceed it.

The table below illustrates the frequency of independent directors in the boards in all the three years. Our findings coincide with the findings of the ROSC. We can interpret from the table that most companies meet the IDXs requirements of 30% independent commissioners or more, and that the highest frequencies are in the proximity of the requirement (30%-49%). What we discovered, is that a few companies do not meet the 30% quota. Reasons for this might be because the companies got listed before the IDX listing requirements of 2004 came into force.

	Ind. BOC members	Frequency	Valid Percent	Cumulative Percent
2009	0% - 29%	3	6.5	6.5
	30% - 49%	29	63.1	69.6
	50% - 69%	12	26.1	95.7
	75% - 100%	2	4.3	100.0
	Total	46	100.0	
2008	0% - 29%	7	15.2	15.2
	30% - 49%	27	58.7	73.9
	50% - 69%	10	21.7	95.6
	75% - 100%	2	4.4	100
	Total	46	100.0	
2007	0% - 29%	6	13.0	13.0
	30% - 49%	29	63.0	76.0
	50% - 69%	10	21.7	97.7
	75% - 100%	1	2.2	100.0
	Total	46	100.0	

Table 5-9: Frequency of independent BOC members

5.1.7 CEO Pay Compared to Board Size

We have earlier mentioned the impact board size might have on the top executives' remuneration. Previous research often show that there is a positive relationship between the amount paid to the president director and board size; the larger the board, the greater the pay to the president director.

From the descriptive statistics below, we cannot make a generalized conclusion to whether or not this relationship exists in Indonesian companies. The mean compensation varies inconsistently between the different board sizes. We can however make the inference that large boards lead to salaries above the total mean, and observe that the lowest means most frequently relates to small boards.

The issue related to our relatively small sample size is also evident in this case, as we have very few companies represented by a board size of six commissioners or more. This may in turn indicate a tendency in Indonesian companies that large boards are not that common. A board size of five commissioners, including the chairman, seems to be the reoccurring median for all years. If we look at the cases of five commissioners and below, we observe that the mean salary is larger in boards with five members, than those with fewer members. This is

true for all years except 2007 where we observe a discrepancy in boards consisting of three members.

	Board members	Mean*	N	Std. Deviation*
2009	2	1 142 230 325	3	1 021 046 556
	3	1 313 621 958	11	1 239 028 563
	4	585 977 564	7	329 782 261
	5	2 694 743 920	16	1 862 688 675
	6	2 440 948 030	6	1 912 155 487
	7	980 268 750	1	.
	8	3 329 372 930	1	.
	9	3 752 363 010	1	.
	Total	1 908 738 501	46	1 661 225 798
2008	1	815 337 020	1	.
	2	952 752 675	2	54 900 315
	3	1 593 832 882	9	1 364 191 962
	4	588 746 707	9	338 470 699
	5	2 443 045 403	14	2 166 942 650
	6	2 300 595 049	8	1 721 889 488
	7	2 593 854 720	1	.
	9	1 531 190 910	1	.
	12	2 025 220 740	1	.
	Total	1 763 515 676	46	1 647 105 991
2007	2	791 906 465	2	51 965 624
	3	1 351 669 847	10	912 708 148
	4	819 692 461	5	444 853 715
	5	1 272 834 364	19	1 318 141 457
	6	1 741 978 356	7	919 538 152
	7	1 315 136 510	1	.
	12	2 030 674 300	1	.
	Total	1 309 388 576	45	1 047 159 875

**Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)*

Table 5-10: CEO pay compared to board size

5.1.8 CEO Pay Compared to Firm Size

The last descriptive statistics we present are mean executive pay for each year, seen in context with the mean firm size of the sample. From Table 5-11 we can read that firm size is growing

together with the executive pay. Even though CEO pay on average have a slightly higher growth rate than firm size, it is hard to generalize due to the small sample size. Another aspect of the statistics worth noticing is the large standard deviation compared to mean firm size. This indicates a great spread in firm size, and this makes it harder to make any assumptions based on the result of the table.

		No. of Firms	Mean*	Growth rate	Std. Deviation*
2009	**CEO pay**	46	1 908 738 501	8.24%	1 661 225 798
	Firm size	46	4790.72E9	7.79%	10057.97E9
2008	**CEO pay**	46	1 763 515 675	34.68%	1 647 105 991
	Firm size	46	4444.65E9	28.77%	9431.31E9
2007	**CEO pay**	46	1 309 388 576	-	1 047 159 875
	Firm size	46	3451.50E9	-	8890.98E9

**Values in Indonesian Rupiah (IDR) - 1000 Rupiah = 0.12 USD (DnB NOR April 27, 2011)*

Table 5-11: CEO pay compared to firm size

If any general conclusion were to be made from Table 5-11, it is that top executive pay in Indonesian companies is highly sensitive to increase in firm size. But again, we have to stress that the results are made on the basis of a relatively small sample size and this may affect the final outcome. For a more conclusive result, a larger sample size is preferred.

5.2 Correlation Analysis

After looking at the descriptive data, a correlation analysis is the appropriate next step in finding determinants that can further explain CEO compensation. As already mentioned, checking the correlations between all our variables can help us develop a well-functioning multiple regression analysis. These correlation results are indicators of which determinants that are relevant to the total pay granted to the CEO.

We will check separately for correlations between CEO pay in 2008 and 2009 and all other time-adjusted explanatory variables. Since we use the average ROE and a one year lag on the other variables, combining the two years is not needed as we already cover for any unusual changes and irregular pay evaluations. The table below shows our bivariate correlations between the dependent and explanatory variables, based on CEO remuneration in 2008.

Variables (Year-end 2007 unless otherwise stated)	Mean	Std. Deviation	Correlation						
			(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) CEO pay (log)	20.897	.932	1						
(2) Firm size (log)	6.804	1.807	.742***	1					
(3) Firm performance	22.416	86.923	.074	.129	1				
(4) Family (dummy)	.390	.493	-.256*	-.458***	-.166	1			
(5) Government (dummy)	.220	.417	.415***	.512***	-.001	-.423***	1		
(6) BOC size	4.650	1.622	.215	.333**	-.048	-.076	.213	1	
(7) Board independence	.394	.132	.078	.072	-.138	-.006	.159	.173	1

*** Correlation is significant at the 0.01 level (2-tailed); ** Correlation is significant at the 0.05 level (2-tailed); * Correlation is significant at the 0.10 level (2-tailed).

CEO compensation is measured as the natural logarithm of the total executive compensation of 2008 (CEO compensation was extracted using the CEO pay extraction equation). Firm size is measured as the natural logarithm of total revenues. Firm performance is measured using ROE (Return on Equity) as a two year average for 2007 and 2008. ROE is annual net income divided by end-of-year equity of shareholders. Family Owned is a dummy that equals 1 if the company is owned by a family and 0 otherwise. Government Owned is a dummy that equals 1 if the company is owned by the Indonesian Government and 0 otherwise. BOC size is measured as the number of member in the Board of Commissioners. Board independence is measured as the ratio of independent board members in the Board of Commissioners.

Table 5-12: Pearson correlation matrix on CEO compensation 2008

Above we see the correlations based on CEO pay in 2008 and adjusted respective explanatory variables. We find three explanatory variables that show a significant relationship with the CEO compensation, two positive and one negative.

As presented earlier, firm size is usually a strong and positive explanatory variable on CEO pay. Our correlation indicates the same, showing a positive correlation of 0.742 at a 0.01 significance level, indicating a strong and positive relationship with our dependent variable.

Government ownership also has a moderate but positive (0.415) and significant (at the 0.01 level) relationship with CEO pay. This comes as a surprise to us as we found previous research indicating the opposite in e.g. China (Firth et al., (2006).

Notably, we see that firm size also has a positive and significant relationship with both BOC size and government ownership. This indicates that government owned firms are larger, and that large companies have more board members than smaller firms.

Finally we assert that family owned companies have negative and significant ($p < 0.10$) relationship with CEO remuneration. Family firms further show a negative and significant relationship with firm size, supporting our preliminary finding that the largest firms are government-, rather than family-owned, and compensate their CEO higher than the family firms. Again we have to remind our readers that our sample may not reflect the entire population of Indonesian listed companies, and that previously mentioned sampling errors may occur.

Despite showing weak to moderate positive relationships with CEO pay, we failed to find any significant relationships between CEO remuneration and; firm performance, board size, and board independence respectively.

Our results so far indicate that firm size is the dominating determinant to explain CEO remuneration. From our sample, it seems that firms owned by the Indonesian Government are larger than family owned firms, relationships that may cause complications in our multiple regression analysis. While we have looked at determinants of CEO pay in 2008, we will now look at the Pearson correlation for CEO compensation in 2009, intending to utterly reduce the chance of misinterpretations due to unforeseen events which may have happened during that period.

Variables (Year-end 2008 unless otherwise stated)	Mean	Std. Deviation	Correlation						
			(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) CEO pay (log)	20.982	.948	1						
(2) Firm size (log)	7.003	2.086	.721**	1					
(3) Firm performance	20.299	67.702	.069	.149	1				
(4) Family (dummy)	.410	.498	-.322*	-.522**	-.199	1			
(5) Government (dummy)	.220	.417	.447**	.442**	.025	-.442**	1		
(6) BOC size	4.650	1.828	.410**	.478**	-.030	-.083	.160	1	
(7) Board independence	.392	.165	.229	.045	-.070	-.013	.156	.005	1

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

* Correlation is significant at the 0.10 level (2-tailed).

CEO compensation is measured as the natural logarithm of the total executive compensation of 2009 (CEO compensation was extracted using the CEO pay extraction equation). Firm size is measured as the natural logarithm of total revenues. Firm performance is measured using ROE (Return on Equity) as a three year average for 2007, 2008, and 2009. ROE is annual net income divided by end-of-year equity of shareholders. Family Owned is a dummy that equals 1 if the company is owned by a family and 0 otherwise. Government Owned is a dummy that equals 1 if the company is owned by the Indonesian Government and 0 otherwise. BOC size is measured as the number of member in the Board of Commissioners. Board independence is measured as the ratio of independent board members in the Board of Commissioners.

Table 5-13: Pearson correlation matrix on CEO compensation 2009

In the table above we can see that four explanatory variables have significant correlations to CEO remuneration, with three being positive and one negative.

Based on CEO pay in 2008 we already saw firm size as a strong explanatory determinant, and our 2009 CEO compensation shows the same, seeing a positive correlation of 0.721 between firm size and CEO pay at a 0.01 significance level. This indicates a strong and significant relationship in line with our expectations, while the three significant variables remaining showed moderate relationships in respect to our dependent variable.

Board size also proves a significant ($p < 0.01$) and positive (0.410) correlation to CEO pay. Simultaneously we see that size of the board is positively correlated to firm size as well, meaning that larger firms often have larger boards. This relationship should be accounted for and double-checked when we conduct our multiple regression analysis.

Interestingly, government owned firms still have a significant and positive correlation with CEO compensation. At a 0.01 significance level with positive correlation of 0.447,

government ownership is a good candidate for being a positive determinant for larger CEO remuneration. Note that firm size still is significantly and positively correlated to government ownership, indicating that the largest firms are government owned. Contrary to government ownership, family ownership shows a negative (-0.322) and significant (0.05 level) relationship to the pay granted to the chief executive officer. Not surprisingly, family firms also show a significant and negative correlation with firm size, suggesting that family firms are smaller than government owned firms; hence they are paying less to their CEO.

Related to CEO remuneration, we fail to find any significant relationship with neither firm performance nor board independence. While board independence shows a weak, but insignificant, positive correlation with our dependent variable, firm performance shows close to zero correlation (0.069) which indicates a lack of relationship with CEO pay.

5.3 Regression Analysis

In this subchapter we intend to perform a multiple regression analysis, meant to illuminate any relationship between our dependent variable and the explanatory (independent) variables. The effects of the explanatory variables are investigated simultaneously, as opposed to the bivariate correlation analysis in the previous chapter. The analysis will assist us in being able to accept or reject the research hypotheses which we developed for the thesis.

In explaining the results from Table 5-14, we will base our analysis on the four steps presented by Zikmund; examine the F-statistic, examine the individual statistical test for each parameter estimate, examine the model R^2, and finally examine the collinearity statistic.

In our analysis we have tested relationships on four models for both years; one model including our controlling variables industry and CEO characteristics (CEO tenure and CEO level of education), and the second model with only the explanatory variables. To further increase the explanatory power of our models, we developed models 3 and 4 consisting of variables with t-values above 1.0. Models 3 and 4 are extensions of models 1 and 2 respectively.

All independent variables in our model have proven both through our correlative analysis and in previous research, to explain CEO remuneration; hence we used a forced entry method when inserting the variables in the linear regression model in SPSS. A stepwise approach would be more appropriate if the variables were considered to be of a more exploratory nature, in which case SPSS would eliminate the variables with minimal significance automatically, while we want to plot the all the statistical results in the model.

5.3.1 Models 1 and 2

We start by formulating our two first models according to the linear regression model presented in Chapter 4.5.

Model 1:

$$\textit{Total CEO Compensation}_t\ (log) = \alpha + \beta_1 \times \textit{ROEmean} + \beta_2 \times \textit{Firm Size}_{t-1}\ (log) + \beta_3 \times \textit{Board Size}_{t-1} + \beta_4 \times \textit{Board Independence}_{t-1} + \beta_5 \times \textit{CEO Tenure}_{t-1} + \beta_6 \times \textit{Government Owned Dummies} + \beta_7 \times \textit{Family Firm Dummies} + \beta_8 \times \textit{CEO Education Dummies} + \beta_i \times \textit{Industry Dummies}$$

Model 2:

$$\textit{Total CEO Compensation}_t\ (log) = \alpha + \beta_1 \times \textit{ROEmean} + \beta_2 \times \textit{Firm Size}_{t-1}\ (log) + \beta_3 \times \textit{Board Size}_{t-1} + \beta_4 \times \textit{Board Independence}_{t-1} + \beta_5 \times \textit{Government Owned Dummies} + \beta_6 \times \textit{Family Firm Dummies}$$

The output from running the regression analysis in SPSS for models 1 and 2 is presented in Table 5-14.

	Predicted relationship	2009		2008	
		Model 1	Model 2	Model 1	Model 2
Firm size	+	.633 (3.937)***	.656 (4.498)***	.741 (4.968)***	.776 (5.718)***
Firm performance	+	-.006 (-.050)	.002 (.017)	.022 (.178)	-.005 (-.043)
Family (dummy)	-	.114 (.787)	.101 (.774)	.189 (1.294)	.128 (1.030)
Government (dummy)	+	.175 (1.350)	.161 (1.326)	.092 (.620)	.080 (.621)
BOC size	+	.158 (1.182)	.078 (.649)	-.015 (-.113)	-.054 (-.470)
Board independence	-	.157 (1.510)	.175 (1.668)	.046 (.394)	.018 (.167)
CEO characteristics		YES	NO	YES	NO
Industry dummies		YES	NO	YES	NO
Number of firms		46	46	46	46
Adjusted R-square		.557	.521	.482	.499
F-Statistic		4.322***	9.167***	3.460***	8.472***

*** Correlation is significant at the 0.01 level (two tailed)
Standardized beta values reported with t-statistics in parentheses

Table 5-14: Output from regression analysis - Model 1 and 2

Results of Model 1:

When controlling for industry and CEO characteristics in addition to the explanatory variables, we can read from Table 5-14 that the model is significant at the 0.01 level for both 2009 and 2008 with an F-statistic reading respectively 4.322 and 3.460. Based on the significance of the F-statistic, we do not dismiss the model at this stage.

Examining the individual statistical results for each parameter, we find that only firm size indicates a significant effect on the dependent variable. It is significant at the 0.01 level with a t-value of 3.937 for 2009 and 4.968 in 2008. In the correlation analysis we found that Family owned, government owned, and BOC size all had significant correlations with CEO pay in 2009, while family owned and government owned had significant correlations with CEO pay in 2008. We can read from the correlation analysis that these variables also had significant correlations with firm size, which leads us to believe that firm size, affect them more than they affect the model. This can explain the lack of significance in the regression model.

The adjusted R-square shows an explanatory power of 55.7% and 48.2% in 2009 and 2008 respectively. As we want to explain the impact on CEO pay, as opposed to predict the impact, we can argue about the suitability of the R-square. However, the R-square indicates a strong explanatory power, but we wish again to stress that our sample is very small and this may lead to an overestimation of the true value of the population.

As explained earlier, we want to test for multicollinearity with the parameters of VIF < 10 and Tolerance > 0.10. Common for all variables is that they all meet these requirements for both years in model 1. This indicates a low degree of multicollinearity, which effectively gives further credibility to the model.

We extend our analysis beyond the four steps presented by Zikmund (2010) to involve a test for heteroscedasticity by using scatterplots. Testing for heteroscedasticity we plot the standardized residuals (ZRESID) against the standardized predicted values (ZPRED). To keep any variable, it should be confined within the parameters 3.3 and -3.3 in the scatterplot diagram. Interpreting the figures, we find no outliers in the model, which implies homoscedasticity for both years.

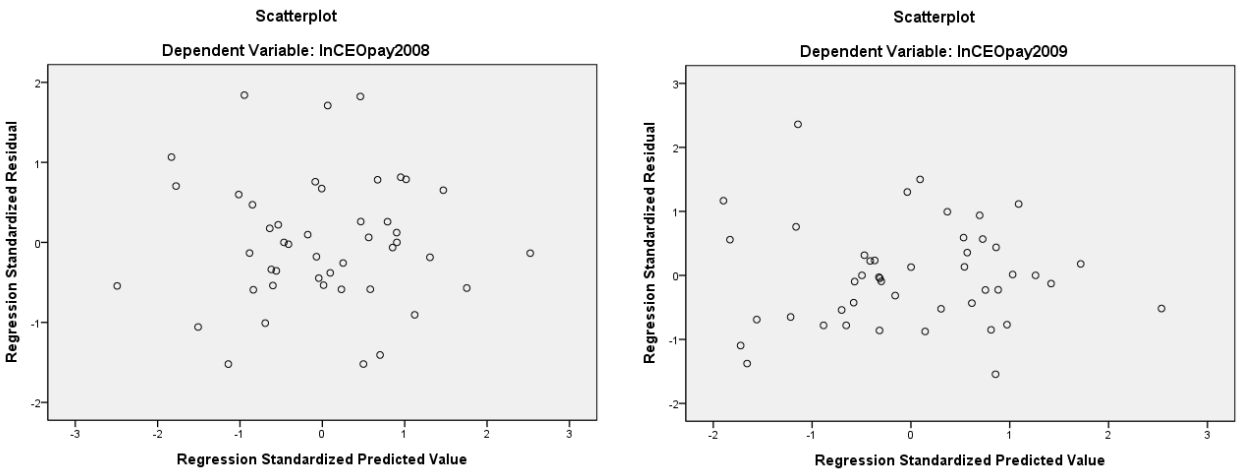


Figure 5-2: Scatterplots for Model 1 – 2008 and 2009

Finally we test for non-normality in our analysis on Model 1. Normality requires the points on the graph in the P-P Plot diagram to lie approximately on, or close to, the reference line. The figure below indicates normality of the model as no points deviate significantly from the reference line.

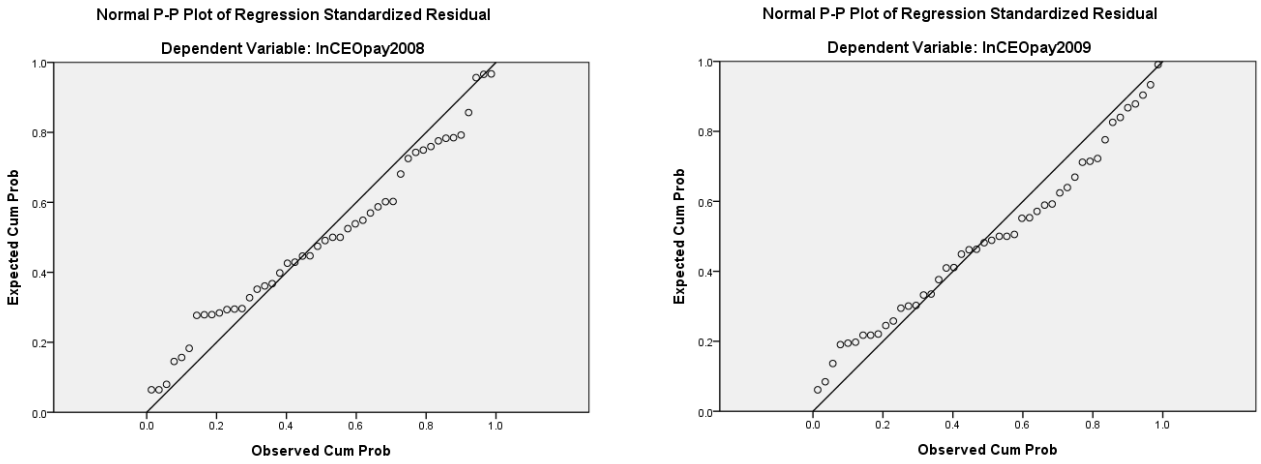


Figure 5-3: P-P-Plots for Model 1 - 2008 and 2009

Results of Model 2:

In Model 2 we excluded the controlling variables to see if they had any significant impact on the model. We can see from the regression table that the F-statistic is significant for both years with $p < 0.01$, and F-values of 9.167 in 2009 and 8.472 in 2008. Seeing as the F-value is significant for both years in Model 2, we do not dismiss the model at this stage.

Similar to results from Model 1, firm size is the only variable indicating a significant effect on the dependent variable for Model 2. It is significant at the 0.01 level with t-values of 4.498 for 2009 and 5.718 for 2008. The same argument regarding the correlation analysis and it showing significant correlation for the other variables; family owned, government owned and BOC size, can be made also in this case.

The Adjusted R-square tells us that Model 2, in 2009, explains 52.1% of the predictors of CEO compensation, and in 2008 we have an explanatory power of 49.9%. This result is not that different from the results of Model 1, which leads us to assume that the impact of the controlling variables industry and CEO characteristics is minimal at best.

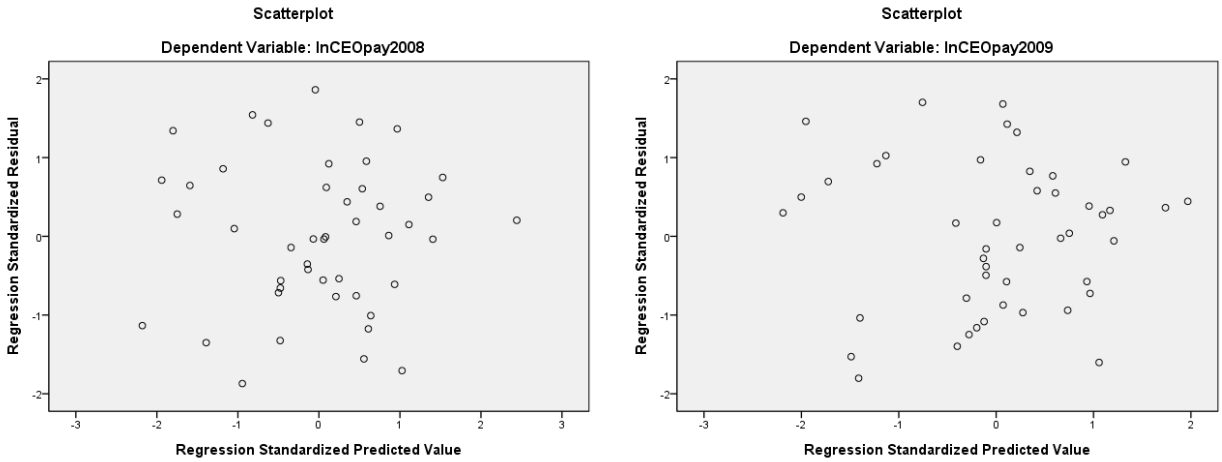


Figure 5-4: Scatterplots for Model 2 - 2008 and 2009

Testing for multicollinearity, we find that the variables meet the parameter requirements specified for VIF and Tolerance; VIF < 10 and Tolerance > 0.10.

We apply the same statistical tool to test for heteroscedasticity by using scatterplots for Model 2 as well. As we can read from the figure, we find no outliers in this model either, which implies homoscedasticity for both years.Finally in our analysis on Model 2, we test for non-normality. The figures below indicate normality of the model, as no points deviate significantly from the reference line.

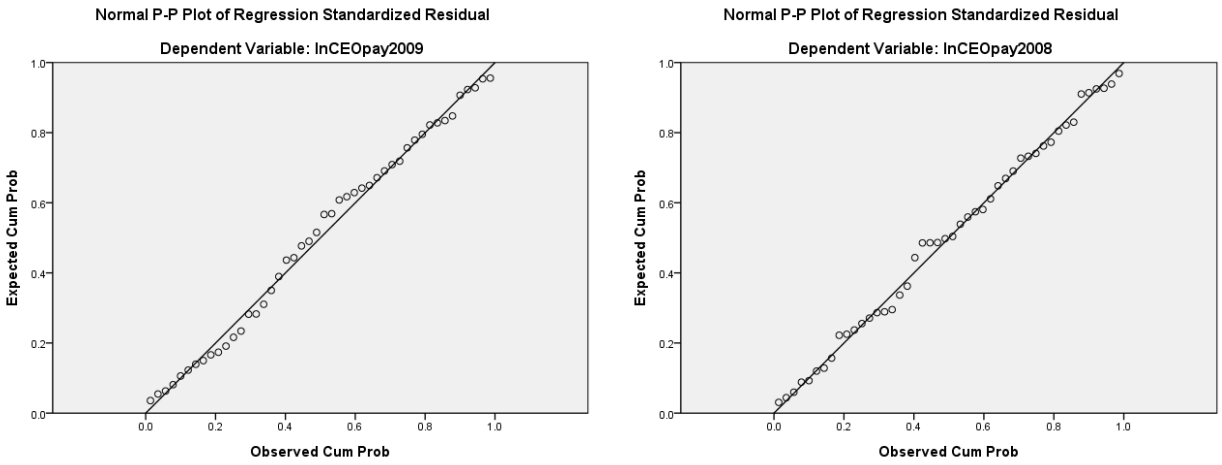


Figure 5-5: P-P-Plots for Model 2 - 2008 and 2009

5.3.2 Models 3 and 4

The next step in our regression analysis is to extend the first two models to deal with only the variables with a t-value of 1.0 or more - this to increase the explanatory power of the model. Seeing as the output from the two years has different values, this will reflect the derivation of models 3 and 4. The new models will be different for 2008 and 2009 as the two years show a difference in which values have t-values above 1.0.

From a general perspective we can say that Model 3 equals:

$$\text{Total CEO pay (log)} = \alpha + \left(\sum_{x=1}^{n} \beta_x \times \text{Variables with t} > 1.0\right) + \beta_x \times \textit{Control variables}$$

And Model 4 can be generalized as follows:

$$\text{Total CEO pay (log)} = \alpha + \left(\sum_{x=1}^{n} \beta_x \times \text{Variables with t} > 1.0\right)$$

Model 3 for 2009 is equal to Model 1 less firm performance and family dummies. Model 3 for 2008 is equal to Model 1 less firm performance, government dummies, BOC size, and board independence.

Model 4 for 2009 is equal to Model 2 less firm performance, family dummies, and BOC size. Model 4 for 2008 is equal to Model 2 less firm performance, government dummies, BOC Size and board independence.

Running the regression in SPSS, we present the following output:

	Predicted relationship	2009		2008	
		Model 3	Model 4	Model 3	Model 4
Firm size	+	.580 (4.092)***	.656 (5.818)***	.774 (6.344)***	.790 (6.934)***
Firm performance	+				
Family (dummy)	-			.173 (1.305)	.105 (.923)
Government (dummy)	+	.162 (1.326)	.129 (1.132)		
BOC size	+	.187 (1.488)			
Board independence	-	.157 (1.549)	.179 (1.749)*		
CEO characteristics		YES	NO	YES	NO
Industry dummies		YES	NO	YES	NO
Number of firms		46	46	46	46
Adjusted R-square		.577	.541	.537	.538
F-Statistic		5.091***	18.651***	5.009***	27.242***

***Significant at the 0.01 level (2-tailed); ** Significant at the 0.05 level (2-tailed);
*Significant at the 0.1 level (2-tailed)
Standardized beta values reported with t-statistics in parentheses

Table 5-15: Output from regression analysis - Model 3 and 4

Results of Model 3:

From the outputs in Table 5-15, we interpret that the F-statistic for both years are significant at the 0.01 level, with values of 5.091 and 5.009 for 2009 and 2008 respectively. The model is still strongly significant, which comes as no surprise since less important variables have been extracted.

Even with the modifications to Model 1, we still find that firm size is the only variable with a significant effect on the dependent variable. For 2009, firm size is significant at the 0.01 level with a t-value of 4.092. The standardized beta of firm size and government ownership has decreased compared to the results from Model 1, while BOC size has increased. This indicates that with firm performance and government ownership taken out of the equation, BOC size will have a greater impact on the size of BOC compensation, whilst firm size and government ownership will have less impact than that presented in Model 1. For 2008, we

find that firm size is significant at the 0.01 level with a t-value of 6.344. In Model 1 we only have two variables with t-values > 1.0, and comparing the two models, we find that b-values have increased for firm size and decreased for family, indicating a greater impact for firm size on the dependent variable.

The adjusted R-square indicates an increase in the explanatory power of the models, with 57.7% and 53.7% compared to 55.7% and 48.2% in Model 1, respective of 2009 and 2008. The explanatory properties of the variables have increased with approximately 2%, leaving out variables with t < 1.0 from Model 1. This show increased significance for the selected variables.

All variables meet the requirements of the VIF and Tolerance parameters, for both years. This indicates a low degree of multicollinearity for Model 3.

From the scatterplot-diagram we see that all variables are confined within the parameter of 3.3 and -3.3, which implies homoscedasticity for both years. From the P-P Plots of Model 3 for 2009 and 2008 we find that the points on the graph lies in close proximity to the reference line, confirming normality of the model. The diagrams can be located in appendices 6 and 7.

Results of Model 4:

In our fourth model, we use the same properties of Model 2 excluding all variables with t-values < 1.0. Similar to our previous models, the F-statistic is significant at the 0.01 level, with F = 18.651 for 2009 and F = 27.242 for 2008. The same analytical conclusion can be drawn from these results as that from Model 3; the model is highly significant due to the extraction of less important variables.

The individual statistical results show that firm size still is the most influential variable on CEO compensation, with a significance level of 0.01 for both years. However, we find that board independence has increased to a 0.10 significance level in 2009, when extracting firm performance and family dummies from the regression analysis. We see the same alteration tendency of the beta-values as in Model 3. Firm size and government ownership both have a slight decrease in beta-values. BOC size and board independence impact on the dependent variable, on the other hand, have increased slightly. In 2008, we find the same change as in Model 3. Firm size has increased in impact whilst Family has a small decrease in impact on the dependent variable.

We experience a change in the explanatory power of the model as compared to Model 2. The adjusted R-square indicates that the model explains 51.1% of the variation in CEO compensation in 2009 and 53.8% in 2008. This growth implies greater explanatory abilities in Model 4 compared to Model 2. The difference between Model 3 and 4 is minimal, which leads us to draw the same conclusion as before; industry and CEO characteristics are not significant in explaining the variance in CEO compensation.

When testing for multicollinearity, we find that all variables meet the requirements of VIF < 10, and Tolerance > 0.10. There are acceptable levels of multicollinearity in the model.

The scatterplot diagram indicates homoscedasticity for the model, and seeing how the points on the P-P Plot confine themselves close to the reference line, we can confirm that normality applies for this model as well. The diagrams can be located in appendices 6 and 7.

6 Findings and Discussion

In this chapter we will present our findings in relation to the developed research hypotheses, and consequently discuss our output in relation with theory, previous research, and empirical findings on the field. As we have stressed in previous chapters, results of this type of research on Indonesia are limited and we have to compare our findings to that of other emerging countries.

We want to see our hypotheses in context with our statistical results. Below follows a review of each hypothesis:

H_1: There is a positive relation between firm size and CEO compensation

From our correlation analysis we find that firm size is significantly correlated with CEO compensation at the 0.01 level, with a correlation coefficient of .742 in 2008. The regression analysis further confirms this result for all models in 2008. The significance of firm size to CEO compensation holds, both with and without the controlling variables. The exclusions of any variable with a t-value < 1.0 in Model 3 and 4 only helps to increase the significance of Firm Size as an explanatory variable.

In 2009, we find in the correlation analysis that firm size is significant at the 0.01 level with a correlation coefficient of .721. As with the results from 2008, the multivariate analysis verifies a significant relationship for all models in 2009.

The results indicate that the hypothesis is supported, and that there is a statistically significant and strong positive relationship between firm size and CEO compensation.

H_2: There is a positive relation between firm performance and CEO compensation

The correlation analysis for 2008 reveals a weak and insignificant relationship between firm performance and CEO compensation, with a correlation coefficient of .074. With t-values < 1.0 in the regression analysis for models 1 and 2, firm performance was deducted for further analysis in models 3 and 4.

In 2009, the correlation analysis gives a correlation coefficient of .069 between firm performance and CEO compensation indicating a weak, statistically insignificant, correlation. This further strengthens the results from 2008. As for the multivariate analysis, we had to deduct firm performance in models 3 and 4 for the same reason as in 2008. With t-values < 1.0, it only helps to increase errors in the models.

We could not find any statistical significance to support the hypothesis.

H_3: There is a negative relation between family owned firms and CEO compensation

According to our results from the 2008 correlation analysis, we find that family ownership is significant at the 0.10 level with a correlation coefficient of -.256. This indicates a negative correlation as predicted in the hypothesis. The same is true for the correlation analysis of 2009; Family ownership is significant at the 0.10 level with a correlation coefficient of -.322. We also observe that Family ownership has a significant negative relationship with firm size ($p < 0.01$) for both years, and this may help to explain why the regression analysis is not able to prove any significant relationship between family ownership and CEO compensation. However, the t-values in 2008 are higher than 1.0, hence they are included in Model 3 and 4. The results from the two last models do not prove any significance. As for 2009, t-values are below 1.0 and are not included in models 3 and 4. Unable to validate any statistical significance of the relationship between Family ownership and CEO compensation, we cannot support Hypothesis 3.

H_4: There is a positive relation between government ownership and CEO compensation

The correlation between government ownership and CEO compensation shows a significant relationship at the 0.01 level with a positive correlation of .415 and .447 in 2008 and 2009 respectively. We face the same issues in this case as with family ownership; government ownership shows a significant relationship with firm size ($p < 0.01$), but also with family ownership ($p < 0.01$). The regression analysis shows no statistical significance, and only 2009 output gives t- values > 1.0 and are consequently included in models 3 and 4. In any of the cases, no statistical evidence of the significance is proven. Despite indications of a positive relationship in the correlation analysis, we cannot argue for the validity of this relationship based on the result of the regression analysis. We reject the hypothesis.

H_5: There is a positive relation between board size and CEO compensation

Hypothesis 5 predicts a positive correlation between board size and CEO compensation, and the analysis of this correlation shows a positive (.215), but insignificant ($p > 0.10$) relationship in 2008. The correlation analysis from 2009 shows a positive (.410) and significant ($p < 0.05$) relationship between BOC size and the dependent variable. For both years, there seems to be a significant correlation with firm size at the 0.05 level. The

multivariate analysis indicates no significant relationship in any of the two years. Only Model 1 for 2009 has a t-value > 1.0 and is included in model 3. In model 3, we still see no statisticly significant relationship between BOC size and CEO compensation. This indicates that the hypothesis is false.

H_6: There is a negative relation between the ratio of independent board members and CEO compensation

The correlation analysis fails to justify this hypothesis. We find that there is a weak, but positive, insignificant correlation between board independence and CEO compensation. This is true for both years. Correlation coefficients show .078 and .229 for 2008 and 2009 respectively. The multivariate analysis shows no significance of the relationship for any of the two years in model 1 and 2. The t-values for 2009 are above 1.0 for models 1 and 2, and are therefore included in models 3 and 4. What we find when analyzing Model 4, is that board independence show to be significant at the 0.10 level. However, the analysis indicates a positive relationship, so in conclusion we can say that the hypothesis is rejected.

The results derived from our statistical analyses presented proof of only one of our hypotheses to be true, namely the predicted relationship between firm size and CEO compensation. This corresponds well to the findings of Firth, Feng and Rui (2006) and their similar study, conducted on Chinese companies. As mentioned, the basis for direct comparison between other studies in Indonesia is limited. The positive relationship between firm size and CEO compensation is proven in other studies as well (see chapter on Previous Empirical Research), hence the result comes as no big surprise to us. firm performance on the other hand, was the determinant with the least impact on CEO Compensation. This corresponds poorly to agency theory predictions (Berle & Means, 1932; Eisenhardt, 1989; Fama & Jensen, 1983; Jensen & Meckling, 1976; A. Smith, 1776), and the subject of the incentive effect of good performance. However, our results are similar to empirical evidence concluded by other studies; Boyd (1994), Miller (1995), and Randøy and Nielsen (2002) among others, did not find any significant relationship. Worthy of mentioning once more, is how studies on China revealed a weak relationship between firm performance and CEO compensation.

When it comes to ownership structure, we were sure to find some evidence of any impact family- and government owned companies may have on the remuneration of the CEO. Taking a second glance at the result from the descriptive statistics, it was reasonable to assume a relationship. However, as the correlation analysis showed, both family ownership and

government ownership had strong correlations with firm size, and it is a fair assumption to make that the ownership structure determinants are stronger determinants of the firm size, than that of CEO compensation.

As stated, previous research has revealed a positive relationship between board size and CEO compensation. We found that there exists no significant relationship between these two factors in the case of Indonesia. Again we find that the size of the board correlates heavier with firm size than CEO compensation, even though our descriptive statistics indicate otherwise. We have no direct foundation for comparison in any close-by emerging markets, but studies conducted in western-regions find a positive correlation as predicted in our hypothesis (Core, et al., 1999; Randøy & Nielsen, 2002). We mentioned the growing implementation of corporate governance codes in Indonesia, and the codes focus on small and effective boards to counteract over-excessive compensation. As the results show, we were not able to prove any such relationship.

The ratio of independent board members is also a subject manifested in the codes of corporate governance. We can argue for a negative relationship between the ratio of independent board members and CEO compensation with background in managerialism, and the subject of CEO influence of the board. With greater independence in the supervisory board, the influence of the CEO is suppressed. The two-tier board structure of Indonesian companies, which effectively prevents any person of entertaining the position as both CEO and chairman at the same time, may explain why we were not able to extract any statistical significant results to prove the hypothesis.

7 Conclusion and Limitations of the Study

7.1 Conclusion

We have made an effort to identify determinants that can explain CEO compensation in Indonesian listed companies. This study is unique, because as far as we know it is the only study of its kind on Indonesia.

Weak corporate governance and the often perceived unfair compensation of the CEO is a hot topic in today's business sphere. Corporate governance literature emphasize the importance of compensating top management in accordance with principles of fairness, corporate responsibility, and compliance within the company and in dealings with the shareholders of the firm. Our experiences when collecting data coincides with the findings of the World Banks ROSC on Indonesia; there is a growing focus on implementation of corporate governance principles, but the degree of transparency is limited. The issues related to lack of disclosure within the annual reports, in particular related to details on top executive remuneration, may have had an impact on our results.

Covering a period of three years from 2007 to 2009, we used CEO remuneration from 2009 and 2008, while our explanatory variables mainly have values from 2007 and 2008. Amongst all our independent variables, our findings show that firm size is the only explanatory determinant of top executive compensation in Indonesia. Agency theory suggest a link between firm performance and CEO compensation by the use of value-increasing incentives, but our findings are not able to prove any such statistically significant relationship. This may indicate poor incentive systems in Indonesian companies, and could be an effect related to a low level of stock option agreements. Further, family ownership, government ownership, and BOC size all correlate stronger with firm size than with CEO compensation, which can help explain why they show no significant correlation in the multivariate analysis. The last variable, board independence, show no significant correlation with the dependent variable.

In conclusion we did not find any evidence of strong statistical significance between CEO pay explanatory variables tested, except firm size. The multivariate analysis indicates a stronger explanatory power for firm size when not controlling for industry and CEO characteristics. The same is also true when excluding the variables that did not exceed t-values of 1.0.

7.2 Limitations of the Study

We have already emphasized the limitations concerning the relatively small sample of our study. Comprising of 46 out of 415 Indonesian listed companies, we are aware that a larger sample would be appropriate in order to increase both the validity and reliability of our thesis. A smaller sample leads to difficulties in generalizing our results for the entire population, a problem stemming from the previous described unavailability of annual reports. The degrees of freedom given in our analysis indicate the adjustments done in response to our small sample. They show our number of observations less the amount of constraints or assumptions needed to be able to calculate a statistical term.

Importantly we are aware that what we use as the total value of CEO compensation does not necessarily explain the full remuneration package. However, we believe that this thesis brings us one step closer to explaining determinants of CEO remuneration in Indonesia, as well as being an indicator of the pay levels for chief executive officers working in Indonesian listed companies.

Low transparency levels in some of the annual reports may provide inaccurate or misleading information regarding the ownership-structure and family relationships within an Indonesian firm. Special for Indonesia, we should note that the majority of the population does not use family names and some even use only a single name, making it difficult to discover family relations within the Indonesian listed companies of our study.

Conducting our analysis we are using two observation years per firm to exclude the possibility of experiencing one-year effects, although this may be at the expense of overstating the statistical relationships. Using explanatory variables with one year lag to our dependent variable, our explanatory variables are from 2007 and 2008, while the dependent variable is from 2008 and 2009. Due to time limitations of our study we measured the financial performance of a firm only by one accounting based measure (ROE). We acknowledge that also including a market-based (stock performance), or a combination of an accounting-based and a market-based measure (Δ market-to-book ratio) would have given a different result.

7.3 Recommendations for Further Research

Given the relatively large amount of time needed to obtain all the data in our analysis, we suggest future researchers to expand our models by including a greater sample of Indonesian

listed firms. Although our results are proven both statistically valid and reliable, a larger sample would be able to generalize the results and fully reflect the true population. Finally we recommend expanding the time frame from 3 to 5 years in order to utterly control for unforeseen events and one-year effects.

Corporate governance can also be analyzed more in-depth by including a greater amount of explanatory variables combined with the already mentioned increase in sample size.

With a low level of disclosure on CEO pay in Indonesia, we recommend the use of qualitative methods such as personal interviews, phone interviews, fax correspondences, and similar in order to obtain data describing CEO remuneration in Indonesia on a more detailed level. We believe that it is interesting to see how the pay structure is, regarding e.g. stock options, bonuses, LTIPs and other incentive systems.

Finally we recommend a multinational research collaboration that include people with knowledge of the Bahasa Indonesia language and with further access to relevant information. this might help increase the explanatory power of our determinants on CEO compensation in Indonesia.

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Appendix 1 – Detailed Country Assessment ROSC on Indonesia

Summary of Observance of OECD Corporate Governance Principles in Indonesian listed companies (World Bank, 2010)

FI = Fully Implemented; BI = Broadly Implemented; PI = Partially Implemented; NI = Not Implemented.

	Principle	FI	BI	PI	NI
I.	Ensuring the Basis for an Effective Corporate Governance Framework				
IA	Overall corporate governance framework			X	
IB	Legal framework enforceable/transparent			X	
IC	Clear division of regulatory responsibilities		X		
ID	Regulatory authority, integrity, resources			X	
II.	The rights of the shareholders and key ownership functions				
IIA	Basic shareholder rights				
IIA 1	Secure methods of ownership registration		X		
IIA 2	Convey or transfer shares	X			
IIA 3	Obtain relevant and material company information		X		
IIA 4	Participate and vote in general shareholder meetings	X			
IIA 5	Elect and remove board members of the board	X			
IIA 6	Share in profits of the corporation		X		
IIB	Rights to part in fundamental decisions				
IIB 1	Amendments to statutes, or articles of incorporation		X		
IIB 2	Authorization of additional shares		X		
IIB 3	Extraordinary transactions, including sales of major corporate assets			X	
IIC	Shareholders GMS rights				
IIC 1	Sufficient and timely information at the general meeting		X		
IIC 2	Opportunity to ask the board questions at the general meeting			X	
IIC 3	Effective shareholder participation in key governance decisions			X	
IIC 4	Availability to vote both in person or in absentia			X	
IID	Disproportionate control disclosure				X
IIE	Control arrangements allowed to function				
IIE 1	Transparent and fair rules governing acquisition of corporate control			X	
IIE 2	Anti-take-over devices		X		
IIF	Exercise of ownership rights facilitated				
IIF 1	Disclosure of corporate governance and voting policies by inst. investors			X	
IIF 2	Disclosure of management of material conflicts of interest by inst. investors			X	
IIG	Shareholders allowed to consult each other	X			
III.	Equitable treatment of shareholders				
IIIA	All shareholders should be treated equally				
IIIA 1	Equality, fairness and disclosure of rights within and between share classes			X	
IIIA 2	Minority protection from controlling shareholder abuse; minority redress			X	
IIIA 3	Custodian voting by instruction from beneficial owners		X		
IIIA 4	Obstacles to cross border voting should be eliminated		X		

	Principle	FI	BI	PI	NI
IIIA 5	Equitable treatment of all shareholders at GMs		X		
IIIB	Prohibit insider trading			X	
IIIC	Board/Mgrs. disclose interests			X	
IV.	Role of stakeholders in corporate governance				
IVA	Legal rights of stakeholders respected		X		
IVB	Redress for violation of rights			X	
IVC	Performance-enhancing mechanisms		X		
IVD	Access to information		X		
IVE	“Whistleblower” protection			X	
IVF	Creditor rights law and enforcement			X	
V.	Disclosure and Transparency				
VA	Disclosure standards				
VA 1	Financial and operating results of the company		X		
VA 2	Company objectives		X		
VA 3	Major share ownership and voting rights			X	
VA 4	Remuneration policy for board and key executives			X	
VA 5	Related party transactions		X		
VA 6	Foreseeable risk factors		X		
VA 7	Issues regarding employees and other stakeholders			X	
VA 8	Governance structures and policies			X	
VB	Standards of accounting & audit		X		
VC	Independent audit annually			X	
VD	External auditors should be accountable			X	
VE	Fair & timely dissemination		X		
VF	Research conflicts of interests			X	
VI.	Responsibilities of the board				
VIA	Acts with due diligence, care			X	
VIB	Treat all shareholders fairly			X	
VIC	Apply high ethical standards			X	
VID	The board should fulfill certain key functions				
VID 1	Board oversight of general corporate strategy and major decisions		X		
VID 2	Monitoring effectiveness of company governance practices			X	
VID 3	Selecting/compensating/monitoring/replacing key executives			X	
VID 4	Aligning executive and board pay			X	
VID 5	Transparent board nomination/election process				X
VID 6	Oversight of insider conflicts of interest		X		
VID 7	Oversight of accounting and financial reporting systems		X		
VID 8	Overseeing disclosure and communications processes			X	
VIE	Exercise objective judgment		X		
VIE 1	Independent judgment		X		
VIE 2	Clear and transparent rules on board committees			X	
VIE 3	Board commitment to responsibilities			X	
VIF	Access to information			X	

Appendix 2 – The CEO-pay Extraction Equation

This appendix presents the argument on how to calculate an approximation of the total CEO (President Director) remuneration, when only given aggregated remuneration info in total for both the BOD and the BOC.

During our data collection, we observed the following reported tendencies in distribution of pay;

Directors under the CEO receive on approximation 90% of the CEOs pay.

Chairman of the BOC (President Commissioner) receives on approximation 40% of the CEOs pay.

Commissioners under the President Commissioner receive on approximation 36% of the CEOs pay, which is equal to 90% of the President Commissioners pay.

When generalizing this distribution, it was fairly easy to develop an equation with only *one* unknown constant; CEO pay. The total BOD and BOC pay equals the sum of CEO pay and the sum of directors, president commissioner's and commissioners pay multiplied with their respective ratios of the CEO pay constant. We also have to adjust for the number of directors and commissioners of the boards.

The equation is formulated on the following basis;

$$Tot.BOD\ and\ BOC\ pay = \ pay + Tot.dir.pay + Pres.Comm.pay + Tot.Comm.pay$$

The ratios of the total remuneration number are given as;

$$Director\ (D)\ pay = r_D = 0{,}90$$

$$Pres.Comm.(PC)\ pay = r_{PC} = 0{,}40$$

$$Commissioner\ (C)\ pay = r_C = 0{,}36$$

To find the part of each, the rates above are multiplied with CEO pay, *n*, and the number of people relevant. We are now ready to formulate the equation;

Equation 1: $Total\ BOD\ and\ BOC\ pay = n + (\sum \mathrm{D} \times r_D n) + (\mathrm{PC} \times r_{PC} n) + (\sum \mathrm{C} \times r_C n)$

We want to find CEO pay, then consequently solving for *n*;

Equation 2: $n = \frac{Total\ BOD\ and\ BOC\ pay}{[(\sum \mathrm{D} \times r_D) + (\mathrm{PC} \times r_{PC}) + (\sum \mathrm{C} \times r_C) + 1]}$

When knowing *n* we can calculate the remuneration for the others as well.

In cases where total BOD and BOC numbers were given independent of each other, we further developed the equation to deal with them. We know that Directors on approximation receives 90% of the President Directors pay, and Commissioners receive on approximation 90% of President Commissioners pay;

$$Director\ (D)\ pay = r_D = 0{,}90$$

$$Commissioner\ (C)\ pay = r_C = 0{,}90$$

Given this context, the following equations are used to extract PD pay when given total BOD remuneration numbers;

Equation 3: $Total\ BOD\ pay = n_{PD} + (\sum \mathrm{D} \times r_D n_{PD})$

Where n_{PD} equals the PD pay and $(\sum D \times r_D n_{PD})$ is the amount paid to all other directors. We can further solve for *n;*

Equation 4: $n_{PD} = \frac{Total\ BOD\ pay}{[(\sum \mathrm{D} \times r_D) + 1]}$

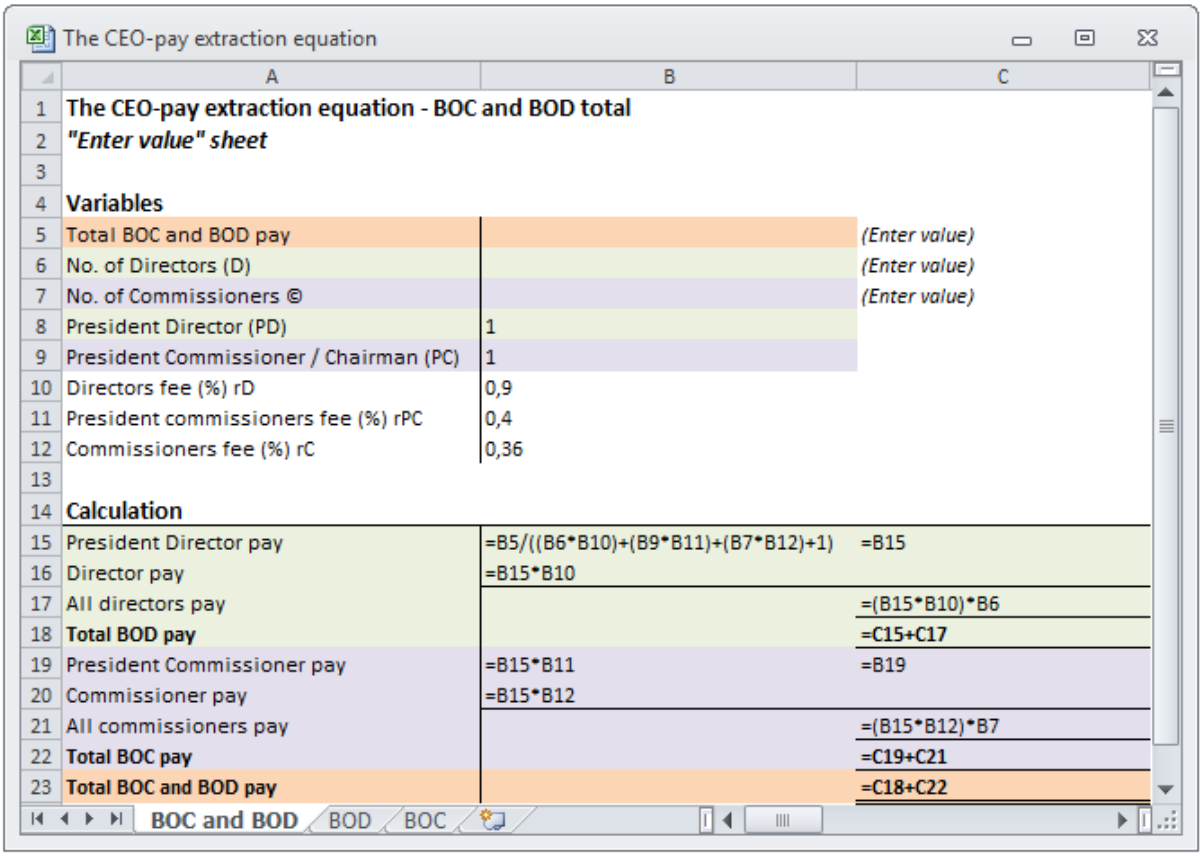
The same equations can be used to extract President Commissioner pay and Commissioner pay given total BOC numbers;

Equation 5: $Total\ BOC\ pay = n_{PC} + (\sum \mathrm{C} \times r_C n_{PC})$

Where n_{PC} equals the President Commissioner pay and $(\sum C \times r_C n_{PC})$ is the amount paid to all other commissioners. We can further solve for *n;*

Equation 6: $n_{PC} = \frac{Total\ BOD\ pay}{[(\sum \mathrm{C} \times r_C) + 1]}$

We made an Excel-sheet to further improve efficiency with the calculations;



The CEO-pay extraction equation

	A	B	C
1	**The CEO-pay extraction equation - BOC and BOD total**		
2	***"Enter value" sheet***		
3			
4	**Variables**		
5	Total BOC and BOD pay		*(Enter value)*
6	No. of Directors (D)		*(Enter value)*
7	No. of Commissioners ©		*(Enter value)*
8	President Director (PD)	1	
9	President Commissioner / Chairman (PC)	1	
10	Directors fee (%) rD	0,9	
11	President commissioners fee (%) rPC	0,4	
12	Commissioners fee (%) rC	0,36	
13			
14	**Calculation**		
15	President Director pay	=B5/((B6*B10)+(B9*B11)+(B7*B12)+1)	=B15
16	Director pay	=B15*B10	
17	All directors pay		=(B15*B10)*B6
18	**Total BOD pay**		**=C15+C17**
19	President Commissioner pay	=B15*B11	=B19
20	Commissioner pay	=B15*B12	
21	All commissioners pay		=(B15*B12)*B7
22	**Total BOC pay**		**=C19+C21**
23	**Total BOC and BOD pay**		**=C18+C22**

BOC and BOD | BOD | BOC

The CEO-pay extraction equation in Excel

EXAMPLE:

Extracted from **Modern Internasional Tbks'** notes to Financial Statements;

> "*Salaries and allowances incurred for the Company's directors and commissioners totaled Rp5,162,001,000 and Rp5,848,255,512 in 2009 and 2008, respectively.*"

In the example we will focus on the 2009 figure.

In 2009, the composition of the boards wore as follows; 1 President Director (CEO), 3 Directors, 1 President Commissioner and 2 Commissioners.

From *Equation 1*:

$$5\ 162\ 001\ 000 = n + (3 \times 0{,}9n) + (0{,}40n) + (2 \times 0{,}36n)$$

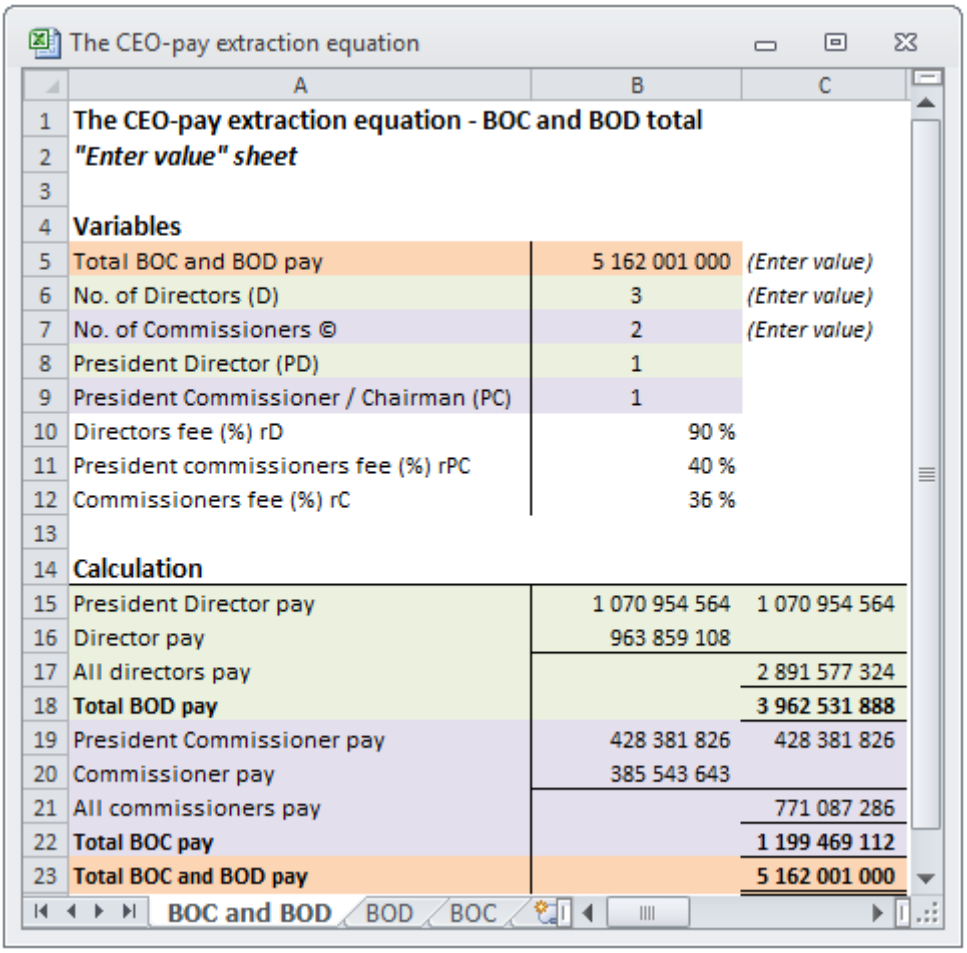
Solve for *n;*

$$n = \frac{5\ 162\ 001\ 000}{[(3 \times 0{,}90) + (1 \times 0{,}40) + (2 \times 0{,}36) + 1]}$$

$$n = 1\ 070\ 954\ 564$$

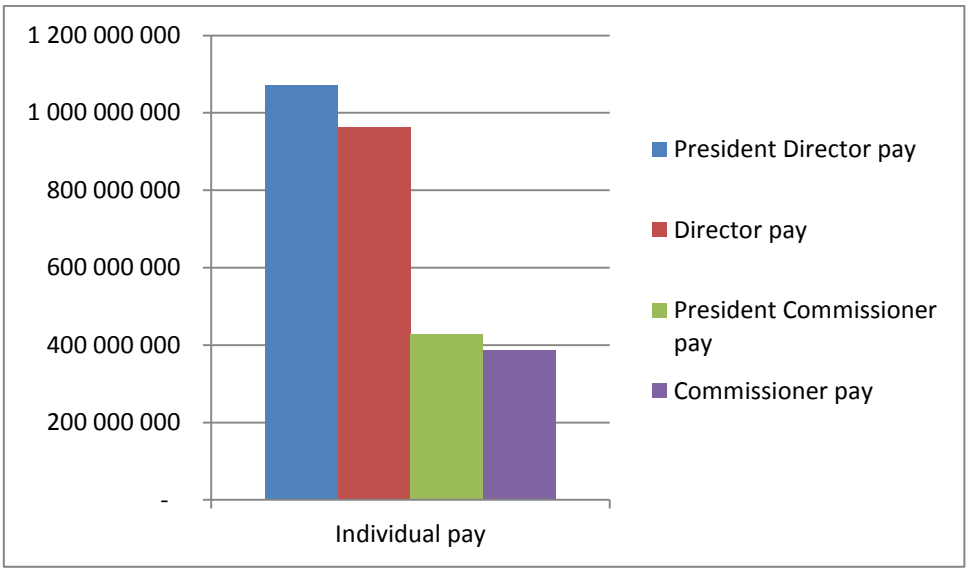
According to this approximation the CEO are compensated with Rp 1,07 billion. We can further solve for the other variables. Each director will be compensated with Rp 963,9 million, the President Commissioner with Rp 428,4 million and each commissioner will receive Rp 385,5 million.

Feeding the numbers in to the Excel sheet:



	A	B	C
1	**The CEO-pay extraction equation - BOC and BOD total**		
2	***"Enter value" sheet***		
3			
4	**Variables**		
5	Total BOC and BOD pay	5 162 001 000	*(Enter value)*
6	No. of Directors (D)	3	*(Enter value)*
7	No. of Commissioners ©	2	*(Enter value)*
8	President Director (PD)	1	
9	President Commissioner / Chairman (PC)	1	
10	Directors fee (%) rD	90 %	
11	President commissioners fee (%) rPC	40 %	
12	Commissioners fee (%) rC	36 %	
13			
14	**Calculation**		
15	President Director pay	1 070 954 564	1 070 954 564
16	Director pay	963 859 108	
17	All directors pay		2 891 577 324
18	**Total BOD pay**		**3 962 531 888**
19	President Commissioner pay	428 381 826	428 381 826
20	Commissioner pay	385 543 643	
21	All commissioners pay		771 087 286
22	**Total BOC pay**		**1 199 469 112**
23	**Total BOC and BOD pay**		**5 162 001 000**

Graphically we can illustrate the distribution in a bar chart:



Appendix 3 – SPSS Output from Correlation Analysis 2009

Correlation 2009

Descriptive Statistics

	Mean	Std. Deviation	N
lnCEOpay2009	20.9823	.94816	46
lnCEOtenure2008	.9768	1.25628	46
lnFirmsize2008	7.0033	2.08551	46
MeanROE070809	20.2990	67.70207	46
Family owned (yes/no) 2008	.41	.498	46
CPY owned by Government (YES=1, NO=0) 2008	.22	.417	46
BOC size 2008	4.65	1.828	46
Percentage of Independent BOC members 2008	39.17%	16.501%	46

		lnCEOpay2009	lnFirmsize2008	MeanROE070809	Family owned (yes/no) 2008	CPY owned by Government (YES=1, NO=0) 2008	BOC size 2008	Percentage of Independent BOC members 2008
lnCEOpay2009	Pearson Correlation	1	.721**	.069	-.322*	.447**	.410**	.229
	Sig. (2-tailed)		.000	.648	.029	.002	.005	.126
	N	46	46	46	46	46	46	46
lnFirmsize2008	Pearson Correlation	.721**	1	.149	-.522**	.442**	.478**	.045
	Sig. (2-tailed)	.000		.323	.000	.002	.001	.765
	N	46	46	46	46	46	46	46
MeanROE070809	Pearson Correlation	.069	.149	1	-.199	.025	-.030	-.070
	Sig. (2-tailed)	.648	.323		.185	.867	.844	.645
	N	46	46	46	46	46	46	46
Family owned (yes/no) 2008	Pearson Correlation	-.322*	-.522**	-.199	1	-.442**	-.083	-.013
	Sig. (2-tailed)	.029	.000	.185		.002	.584	.932
	N	46	46	46	46	46	46	46
CPY owned by Government (YES=1, NO=0) 2008	Pearson Correlation	.447**	.442**	.025	-.442**	1	.160	.156
	Sig. (2-tailed)	.002	.002	.867	.002		.289	.300
	N	46	46	46	46	46	46	46
BOC size 2008	Pearson Correlation	.410**	.478**	-.030	-.083	.160	1	.005
	Sig. (2-tailed)	.005	.001	.844	.584	.289		.976
	N	46	46	46	46	46	46	46
Percentage of Independent BOC members 2008	Pearson Correlation	.229	.045	-.070	-.013	.156	.005	1
	Sig. (2-tailed)	.126	.765	.645	.932	.300	.976	
	N	46	46	46	46	46	46	46

Appendix 4 - SPSS Output from Correlation Analysis 2008

Correlation 2008

Descriptive Statistics

	Mean	Std. Deviation	N
lnCEOpay2008	20.8965	.93163	46
lnCEOtenure2007	1.1053	1.33035	46
lnFirmsize2007	6.8043	1.80732	46
MeanROE0708	22.4162	86.92279	46
Family owned (yes/no) 2007	.39	.493	46
CPY owned by Government (YES=1, NO=0) 2007	.22	.417	46
Kolonne1BOC size 2007	4.65	1.622	46
Percentage of Independent BOC members 2007	39.40%	13.172%	46

		lnCEOpay2008	lnFirmsize2007	MeanROE0708	Family owned (yes/no) 2007	CPY owned by Government (YES=1, NO=0) 2007	Kolonne1BOC size 2007	Percentage of Independent BOC members 2007
lnCEOpay2008	Pearson Correlation	1	.742**	.074	-.256	.415**	.215	.078
	Sig. (2-tailed)		.000	.624	.086	.004	.151	.609
	N	46	46	46	46	46	46	46
lnFirmsize2007	Pearson Correlation	.742**	1	.129	-.458**	.512**	.333*	.072
	Sig. (2-tailed)	.000		.394	.001	.000	.024	.634
	N	46	46	46	46	46	46	46
MeanROE0708	Pearson Correlation	.074	.129	1	-.166	-.001	-.048	-.138
	Sig. (2-tailed)	.624	.394		.271	.994	.750	.359
	N	46	46	46	46	46	46	46
Family owned (yes/no) 2007	Pearson Correlation	-.256	-.458**	-.166	1	-.423**	-.076	-.006
	Sig. (2-tailed)	.086	.001	.271		.003	.615	.969
	N	46	46	46	46	46	46	46
CPY owned by Government (YES=1, NO=0) 2007	Pearson Correlation	.415**	.512**	-.001	-.423**	1	.213	.159
	Sig. (2-tailed)	.004	.000	.994	.003		.156	.291
	N	46	46	46	46	46	46	46
BOC size 2007	Pearson Correlation	.215	.333*	-.048	-.076	.213	1	.173
	Sig. (2-tailed)	.151	.024	.750	.615	.156		.249
	N	46	46	46	46	46	46	46
Percentage of Independent BOC members 2007	Pearson Correlation	.078	.072	-.138	-.006	.159	.173	1
	Sig. (2-tailed)	.609	.634	.359	.969	.291	.249	
	N	46	46	46	46	46	46	46

Appendix 5 – SPSS Output from Regression Analysis 2009

Model 1, 2, 3 and 4

Model 1:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.556[a]	.310	.086	.90638
2	.851[b]	.724	.557	.63138

a. Predictors: (Constant), CEO2008EducationLevel, Property/Real estate, Misc ind., Basic ind., Agriculture, Mining, Manufacture, Consumer goods, Infrastructure, Utilities & Transportation, lnCEOtenure2008, Trade, Service & Inv.

b. Predictors: (Constant), CEO2008EducationLevel, Property/Real estate, Misc ind., Basic ind., Agriculture, Mining, Manufacture, Consumer goods, Infrastructure, Utilities & Transportation, lnCEOtenure2008, Trade, Service & Inv., Percentage of Independent BOC members 2008, MeanROE070809, BOC size 2008, CPY owned by Government (YES=1, NO=0) 2008, Family owned (yes/no) 2008, lnFirmsize2008

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.523	11	1.138	1.386	.224[a]
	Residual	27.932	34	.822		
	Total	40.455	45			
2	Regression	29.293	17	1.723	4.322	.000[b]
	Residual	11.162	28	.399		
	Total	40.455	45			

a. Predictors: (Constant), CEO2008EducationLevel, Property/Real estate, Misc ind., Basic ind., Agriculture, Mining, Manufacture, Consumer goods, Infrastructure, Utilities & Transportation, lnCEOtenure2008, Trade, Service & Inv.

b. Predictors: (Constant), CEO2008EducationLevel, Property/Real estate, Misc ind., Basic ind., Agriculture, Mining, Manufacture, Consumer goods, Infrastructure, Utilities & Transportation, lnCEOtenure2008, Trade, Service & Inv., Percentage of Independent BOC members 2008, MeanROE070809, BOC size 2008, CPY owned by Government (YES=1, NO=0) 2008, Family owned (yes/no) 2008, lnFirmsize2008

c. Dependent Variable: lnCEOpay2009

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	21.125	.313		67.507	.000		
	Mining	-.555	.967	-.086	-.574	.570	.899	1.113
	Agriculture	.720	.968	.112	.744	.462	.897	1.115
	Consumer goods	-.098	.542	-.030	-.181	.857	.766	1.306
	Misc ind.	.228	.710	.050	.321	.750	.853	1.172
	Infrastructure, Utilities & Transportation	-.646	.431	-.261	-1.498	.143	.669	1.494
	Manufacture	.813	.604	.214	1.344	.188	.802	1.247
	Trade, Service & Inv.	.118	.448	.048	.263	.794	.619	1.616
	Basic ind.	.526	.602	.139	.874	.388	.807	1.239
	Property/Real estate	-.412	.515	-.148	-.800	.429	.594	1.684
	lnCEOtenure2008	-.223	.130	-.295	-1.716	.095	.685	1.460
	CEO2008EducationLevel	.257	.296	.137	.869	.391	.816	1.225
2	(Constant)	17.966	.574		31.293	.000		
	Mining	-.198	.730	-.031	-.271	.788	.764	1.309
	Agriculture	1.030	.709	.160	1.454	.157	.811	1.233
	Consumer goods	-.099	.394	-.030	-.251	.804	.703	1.422
	Misc ind.	.155	.527	.034	.294	.771	.750	1.333
	Infrastructure, Utilities & Transportation	-.285	.354	-.115	-.805	.427	.482	2.075
	Manufacture	.184	.459	.048	.400	.692	.675	1.481
	Trade, Service & Inv.	.693	.347	.280	2.000	.055	.502	1.992

	Basic ind.	.202	.444	.053	.455	.653	.721	1.387
	Property/Real estate	-.187	.392	-.067	-.476	.638	.497	2.010
	lnCEOtenure2008	-.013	.100	-.017	-.131	.897	.564	1.772
	CEO2008EducationLevel	.035	.221	.019	.157	.876	.710	1.408
	lnFirmsize2008	.288	.073	.633	3.937	.000	.381	2.621
	MeanROE070809	-7.743E-5	.002	-.006	-.050	.961	.799	1.252
	Family owned (yes/no) 2008	.217	.276	.114	.787	.438	.469	2.131
	CPY owned by Government (YES=1, NO=0) 2008	.398	.295	.175	1.350	.188	.587	1.704
	BOC size 2008	.082	.069	.158	1.182	.247	.550	1.818
	Percentage of Independent BOC members 2008	.009	.006	.157	1.510	.142	.915	1.093

a. Dependent Variable: lnCEOpay2009

Model 2:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.765[a]	.585	.521	.65602

a. Predictors: (Constant), Percentage of Independent BOC members 2008, BOC size 2008, MeanROE070809, Family owned (yes/no) 2008, CPY owned by Government (YES=1, NO=0) 2008, lnFirmsize2008

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.671	6	3.945	9.167	.000[a]
	Residual	16.784	39	.430		
	Total	40.455	45			

a. Predictors: (Constant), Percentage of Independent BOC members 2008, BOC size 2008, MeanROE070809, Family owned (yes/no) 2008, CPY owned by Government (YES=1, NO=0) 2008, lnFirmsize2008

b. Dependent Variable: lnCEOpay2009

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	18.150	.508		35.754	.000		
	lnFirmsize2008	.298	.066	.656	4.498	.000	.499	2.002
	MeanROE070809	2.590E-5	.001	.002	.017	.986	.939	1.065
	Family owned (yes/no) 2008	.192	.248	.101	.774	.443	.627	1.595
	CPY owned by Government (YES=1, NO=0) 2008	.367	.277	.161	1.326	.193	.719	1.391
	BOC size 2008	.041	.063	.078	.649	.520	.727	1.375
	Percentage of Independent BOC members 2008	.010	.006	.175	1.668	.103	.967	1.034

a. Dependent Variable: lnCEOpay2009

Model 3:

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.556[a]	.310	.086	.90638
2	.847[b]	.718	.577	.61673

a. Predictors: (Constant), CEO2008EducationLevel, Property/Real estate, Misc ind., Basic ind., Agriculture, Mining, Manufacture, Consumer goods, Infrastructure, Utilities & Transportation, lnCEOtenure2008, Trade, Service & Inv.

b. Predictors: (Constant), CEO2008EducationLevel, Property/Real estate, Misc ind., Basic ind., Agriculture, Mining, Manufacture, Consumer goods, Infrastructure, Utilities & Transportation, lnCEOtenure2008, Trade, Service & Inv., Percentage of Independent BOC members 2008, BOC size 2008, CPY owned by Government (YES=1, NO=0) 2008, lnFirmsize2008

c. Dependent Variable: lnCEOpay2009

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.523	11	1.138	1.386	.224[a]
	Residual	27.932	34	.822		
	Total	40.455	45			
2	Regression	29.044	15	1.936	5.091	.000[b]
	Residual	11.411	30	.380		
	Total	40.455	45			

a. Predictors: (Constant), CEO2008EducationLevel, Property/Real estate, Misc ind., Basic ind., Agriculture, Mining, Manufacture, Consumer goods, Infrastructure, Utilities & Transportation, lnCEOtenure2008, Trade, Service & Inv.

b. Predictors: (Constant), CEO2008EducationLevel, Property/Real estate, Misc ind., Basic ind., Agriculture, Mining, Manufacture, Consumer goods, Infrastructure, Utilities & Transportation, lnCEOtenure2008, Trade, Service & Inv., Percentage of Independent BOC members 2008, BOC size 2008, CPY owned by Government (YES=1, NO=0) 2008, lnFirmsize2008

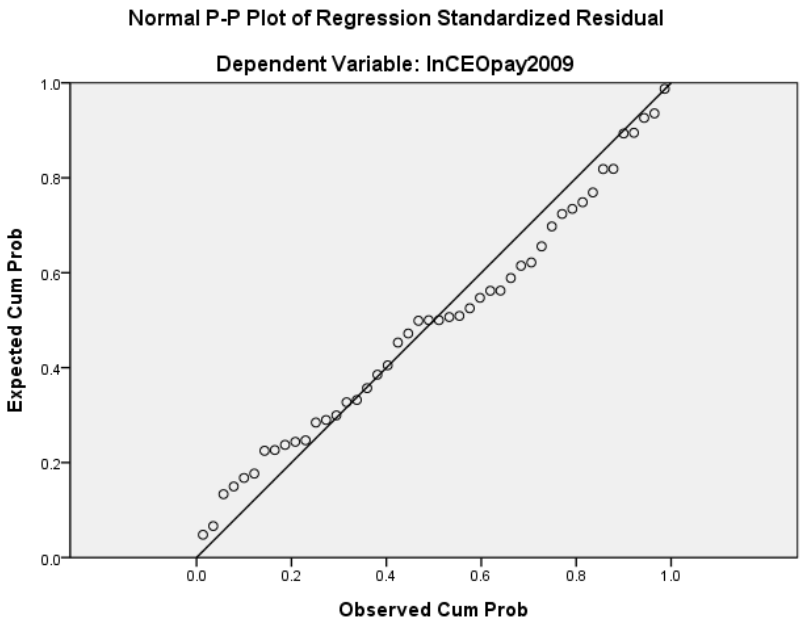
c. Dependent Variable: lnCEOpay2009

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	21.125	.313		67.507	.000		
	Mining	-.555	.967	-.086	-.574	.570	.899	1.113
	Agriculture	.720	.968	.112	.744	.462	.897	1.115
	Consumer goods	-.098	.542	-.030	-.181	.857	.766	1.306
	Misc ind.	.228	.710	.050	.321	.750	.853	1.172
	Infrastructure, Utilities & Transportation	-.646	.431	-.261	-1.498	.143	.669	1.494
	Manufacture	.813	.604	.214	1.344	.188	.802	1.247
	Trade, Service & Inv.	.118	.448	.048	.263	.794	.619	1.616
	Basic ind.	.526	.602	.139	.874	.388	.807	1.239
	Property/Real estate	-.412	.515	-.148	-.800	.429	.594	1.684
	lnCEOtenure2008	-.223	.130	-.295	-1.716	.095	.685	1.460
	CEO2008EducationLevel	.257	.296	.137	.869	.391	.816	1.225
2	(Constant)	18.087	.529		34.201	.000		
	Mining	-.032	.679	-.005	-.047	.963	.843	1.186
	Agriculture	1.024	.681	.159	1.503	.143	.838	1.193
	Consumer goods	-.075	.375	-.023	-.200	.843	.741	1.350
	Misc ind.	.221	.500	.048	.442	.662	.795	1.258
	Infrastructure, Utilities & Transportation	-.213	.320	-.086	-.664	.512	.561	1.782
	Manufacture	.189	.441	.050	.430	.670	.699	1.431

	Trade, Service & Inv.	.755	.325	.305	2.324	.027	.545	1.835
	Basic ind.	.229	.427	.060	.535	.597	.742	1.347
	Property/Real estate	-.107	.364	-.038	-.294	.771	.551	1.816
	lnCEOtenure2008	-.009	.095	-.012	-.091	.928	.588	1.700
	CEO2008EducationLevel	.085	.206	.045	.413	.683	.776	1.288
	lnFirmsize2008	.264	.064	.580	4.092	.000	.469	2.134
	CPY owned by Government (YES=1, NO=0) 2008	.368	.278	.162	1.326	.195	.629	1.590
	BOC size 2008	.097	.065	.187	1.488	.147	.598	1.673
	Percentage of Independent BOC members 2008	.009	.006	.157	1.549	.132	.915	1.093

a. Dependent Variable: lnCEOpay2009


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: lnCEOpay2009
Expected Cum Prob
Observed Cum Prob
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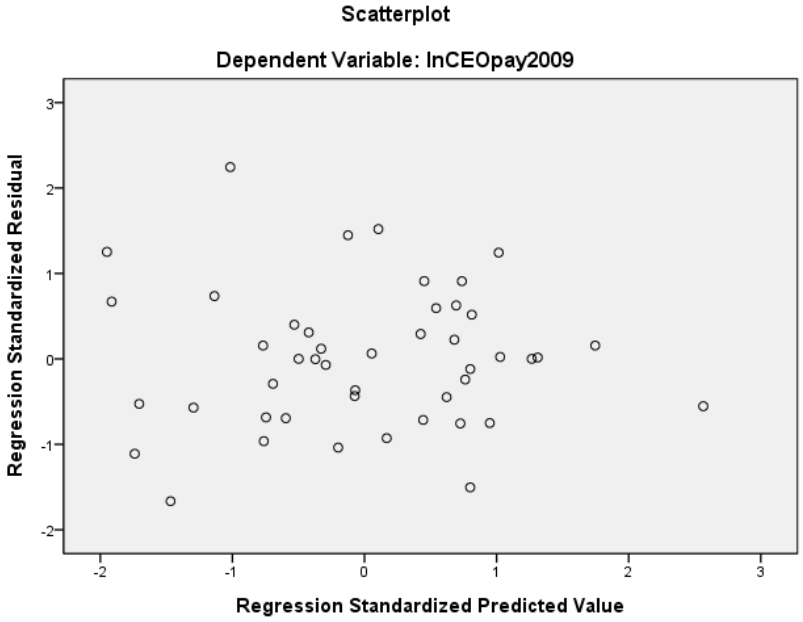
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: lnCEOpay2009
Regression Standardized Residual
Regression Standardized Predicted Value
-2
-1
0
1
2
3

Model 4:

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.756[a]	.571	.541	.64266

a. Predictors: (Constant), Percentage of Independent BOC members 2008, lnFirmsize2008, CPY owned by Government (YES=1, NO=0) 2008

b. Dependent Variable: lnCEOpay2009

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.109	3	7.703	18.651	.000[a]
	Residual	17.346	42	.413		
	Total	40.455	45			

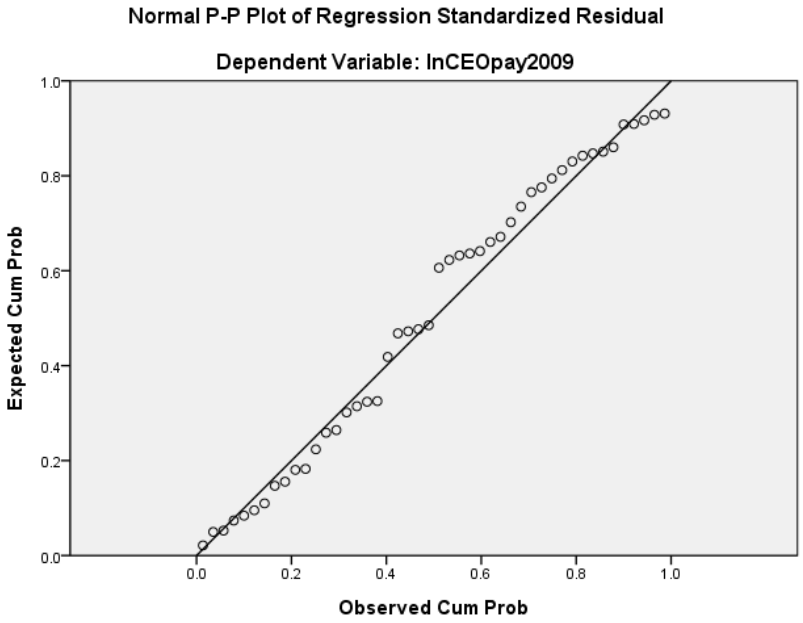
a. Predictors: (Constant), Percentage of Independent BOC members 2008, lnFirmsize2008, CPY owned by Government (YES=1, NO=0) 2008

b. Dependent Variable: lnCEOpay2009

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.428	.420		43.851	.000
	lnFirmsize2008	.298	.051	.656	5.818	.000
	CPY owned by Government (YES=1, NO=0) 2008	.293	.259	.129	1.132	.264
	Percentage of Independent BOC members 2008	.010	.006	.179	1.749	.088

a. Dependent Variable: lnCEOpay2009


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: lnCEOpay2009
Expected Cum Prob
Observed Cum Prob
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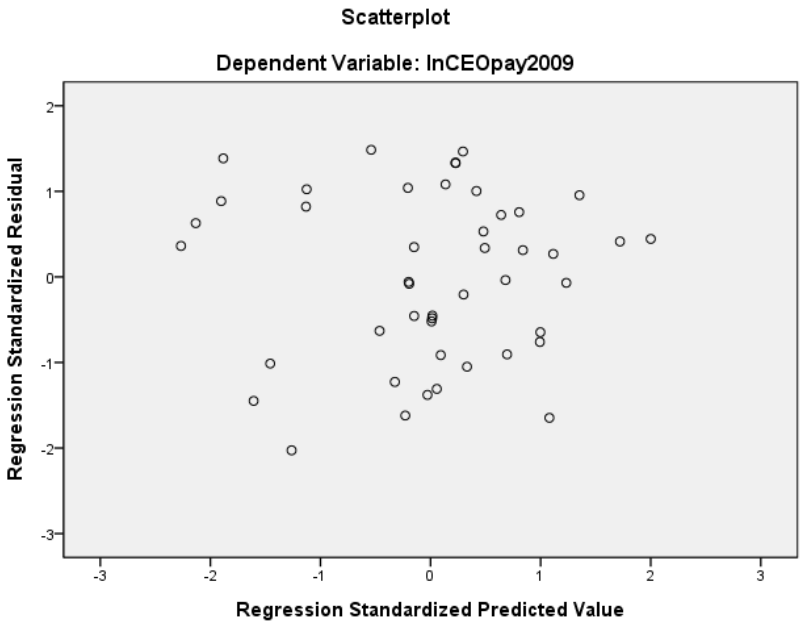
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: lnCEOpay2009
Regression Standardized Residual
Regression Standardized Predicted Value
-3
-2
-1
0
1
2
3

Appendix 6 - SPSS Output from Regression Analysis 2008

Model 1, 2, 3 and 4

Model 1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.495[a]	.245	.000	.93147
2	.823[b]	.678	.482	.67070

a. Predictors: (Constant), CEO2007EducationLevel, Misc ind., Basic ind., Manufacture, Mining, Agriculture, Property/Real estate, Infrastructure, Utilities & Transportation, Consumer goods, lnCEOtenure2007, Trade, Service & Inv.

b. Predictors: (Constant), CEO2007EducationLevel, Misc ind., Basic ind., Manufacture, Mining, Agriculture, Property/Real estate, Infrastructure, Utilities & Transportation, Consumer goods, lnCEOtenure2007, Trade, Service & Inv., Percentage of Independent BOC members 2007, MeanROE0708, lnFirmsize2007, Kolonne1BOC size 2007, Family owned (yes/no) 2007, CPY owned by Government (YES=1, NO=0) 2007

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.558	11	.869	1.001	.465[a]
	Residual	29.499	34	.868		
	Total	39.057	45			
2	Regression	26.462	17	1.557	3.460	.002[b]
	Residual	12.595	28	.450		
	Total	39.057	45			

a. Predictors: (Constant), CEO2007EducationLevel, Misc ind., Basic ind., Manufacture, Mining, Agriculture, Property/Real estate, Infrastructure, Utilities & Transportation, Consumer goods, lnCEOtenure2007, Trade, Service & Inv.

b. Predictors: (Constant), CEO2007EducationLevel, Misc ind., Basic ind., Manufacture, Mining, Agriculture, Property/Real estate, Infrastructure, Utilities & Transportation, Consumer goods, lnCEOtenure2007, Trade, Service & Inv., Percentage of Independent BOC members 2007, MeanROE0708, lnFirmsize2007, Kolonne1BOC size 2007, Family owned (yes/no) 2007, CPY owned by Government (YES=1, NO=0) 2007

c. Dependent Variable: lnCEOpay2008

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	21.234	.363		58.522	.000		
	Mining	-.554	1.001	-.088	-.554	.583	.886	1.129
	Agriculture	.533	.992	.084	.538	.594	.901	1.109
	Consumer goods	-.362	.573	-.111	-.632	.531	.723	1.383
	Misc ind.	.207	.724	.046	.287	.776	.866	1.155
	Infrastructure, Utilities & Transportation	-.746	.464	-.307	-1.609	.117	.610	1.640
	Manufacture	.488	.643	.131	.759	.453	.749	1.336
	Trade, Service & Inv.	-.020	.458	-.008	-.044	.965	.625	1.599
	Basic ind.	.390	.653	.105	.597	.554	.725	1.379
	Property/Real estate	-.689	.486	-.252	-1.418	.165	.705	1.418
	lnCEOtenure2007	-.099	.124	-.141	-.793	.433	.704	1.420
	CEO2007EducationLevel	-.072	.320	-.039	-.225	.823	.740	1.351
2	(Constant)	18.099	.674		26.837	.000		
	Mining	-.368	.803	-.058	-.458	.650	.713	1.403
	Agriculture	.557	.735	.088	.758	.455	.852	1.174
	Consumer goods	-.352	.433	-.108	-.813	.423	.657	1.523
	Misc ind.	.167	.580	.037	.289	.775	.699	1.430
	Infrastructure, Utilities & Transportation	-.227	.393	-.093	-.577	.569	.440	2.273
	Manufacture	.492	.500	.132	.983	.334	.641	1.560

	Trade, Service & Inv.	.481	.398	.198	1.209	.237	.429	2.331
	Basic ind.	.280	.510	.075	.549	.587	.616	1.623
	Property/Real estate	-.301	.399	-.110	-.754	.457	.541	1.849
	lnCEOtenure2007	.013	.099	.019	.135	.893	.578	1.729
	CEO2007EducationLevel	-.240	.250	-.129	-.960	.345	.633	1.581
	lnFirmsize2007	.382	.077	.741	4.968	.000	.517	1.933
	MeanROE0708	.000	.001	.022	.178	.860	.752	1.330
	Family owned (yes/no) 2007	.357	.276	.189	1.294	.206	.540	1.854
	CPY owned by Government (YES=1, NO=0) 2007	.207	.333	.092	.620	.540	.518	1.932
	Kolonne1BOC size 2007	-.009	.077	-.015	-.113	.911	.636	1.573
	Percentage of Independent BOC members 2007	.003	.008	.046	.394	.696	.859	1.164

a. Dependent Variable: lnCEOpay2008

Model 2:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.752[a]	.566	.499	.65938

a. Predictors: (Constant), Percentage of Independent BOC members 2007, Family owned (yes/no) 2007, Kolonne1BOC size 2007, MeanROE0708, CPY owned by Government (YES=1, NO=0) 2007, lnFirmsize2007

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.101	6	3.683	8.472	.000[a]
	Residual	16.956	39	.435		
	Total	39.057	45			

a. Predictors: (Constant), Percentage of Independent BOC members 2007, Family owned (yes/no) 2007, Kolonne1BOC size 2007, MeanROE0708, CPY owned by Government (YES=1, NO=0) 2007, lnFirmsize2007

b. Dependent Variable: lnCEOpay2008

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	18.133	.570		31.835	.000		
	lnFirmsize2007	.400	.070	.776	5.718	.000	.604	1.656
	MeanROE0708	-4.984E-5	.001	-.005	-.043	.966	.937	1.068
	Family owned (yes/no) 2007	.242	.235	.128	1.030	.310	.719	1.390
	CPY owned by Government (YES=1, NO=0) 2007	.179	.288	.080	.621	.538	.669	1.495
	Kolonne1BOC size 2007	-.031	.066	-.054	-.470	.641	.854	1.170
	Percentage of Independent BOC members 2007	.001	.008	.018	.167	.868	.935	1.070

a. Dependent Variable: lnCEOpay2008

Model 3:

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.495[a]	.245	.000	.93147
2	.819[b]	.671	.537	.63416

a. Predictors: (Constant), CEO2007EducationLevel, Misc ind., Basic ind., Manufacture, Mining, Agriculture, Property/Real estate, Infrastructure, Utilities & Transportation, Consumer goods, lnCEOtenure2007, Trade, Service & Inv.

b. Predictors: (Constant), CEO2007EducationLevel, Misc ind., Basic ind., Manufacture, Mining, Agriculture, Property/Real estate, Infrastructure, Utilities & Transportation, Consumer goods, lnCEOtenure2007, Trade, Service & Inv., lnFirmsize2007, Family owned (yes/no) 2007

c. Dependent Variable: lnCEOpay2008

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.558	11	.869	1.001	.465[a]
	Residual	29.499	34	.868		
	Total	39.057	45			
2	Regression	26.188	13	2.014	5.009	.000[b]
	Residual	12.869	32	.402		
	Total	39.057	45			

a. Predictors: (Constant), CEO2007EducationLevel, Misc ind., Basic ind., Manufacture, Mining, Agriculture, Property/Real estate, Infrastructure, Utilities & Transportation, Consumer goods, lnCEOtenure2007, Trade, Service & Inv.

b. Predictors: (Constant), CEO2007EducationLevel, Misc ind., Basic ind., Manufacture, Mining, Agriculture, Property/Real estate, Infrastructure, Utilities & Transportation, Consumer goods, lnCEOtenure2007, Trade, Service & Inv., lnFirmsize2007, Family owned (yes/no) 2007

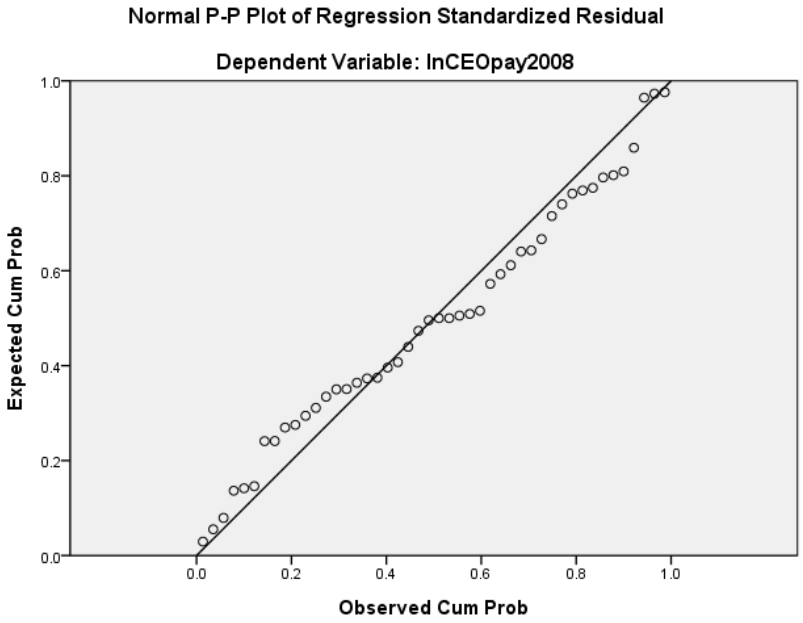
c. Dependent Variable: lnCEOpay2008

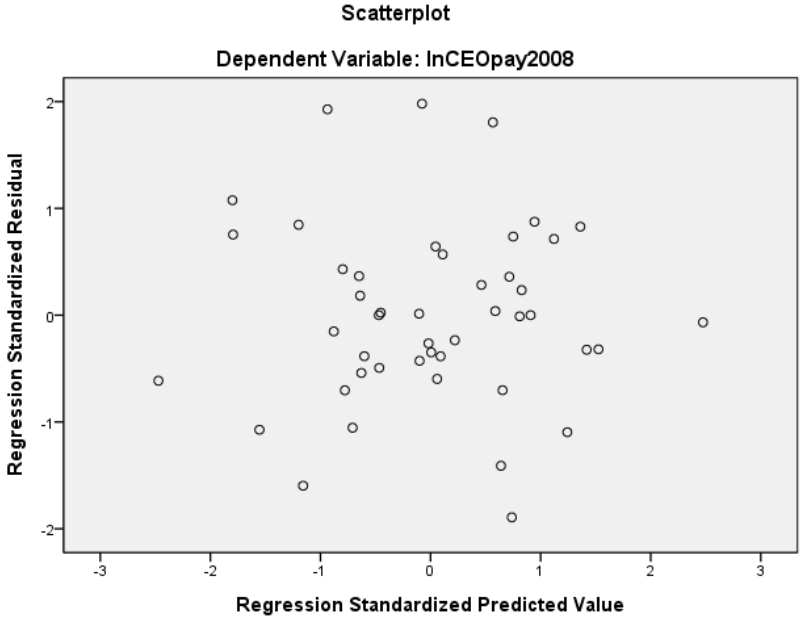
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	21.234	.363		58.522	.000		
	Mining	-.554	1.001	-.088	-.554	.583	.886	1.129
	Agriculture	.533	.992	.084	.538	.594	.901	1.109
	Consumer goods	-.362	.573	-.111	-.632	.531	.723	1.383
	Misc ind.	.207	.724	.046	.287	.776	.866	1.155
	Infrastructure, Utilities & Transportation	-.746	.464	-.307	-1.609	.117	.610	1.640
	Manufacture	.488	.643	.131	.759	.453	.749	1.336
	Trade, Service & Inv.	-.020	.458	-.008	-.044	.965	.625	1.599
	Basic ind.	.390	.653	.105	.597	.554	.725	1.379
	Property/Real estate	-.689	.486	-.252	-1.418	.165	.705	1.418
	lnCEOtenure2007	-.099	.124	-.141	-.793	.433	.704	1.420
	CEO2007EducationLevel	-.072	.320	-.039	-.225	.823	.740	1.351
2	(Constant)	18.191	.537		33.876	.000		
	Mining	-.489	.711	-.077	-.688	.496	.814	1.228
	Agriculture	.459	.675	.073	.679	.502	.901	1.110
	Consumer goods	-.391	.395	-.120	-.991	.329	.707	1.415
	Misc ind.	.029	.505	.006	.057	.955	.825	1.211
	Infrastructure, Utilities & Transportation	-.317	.336	-.130	-.944	.352	.539	1.854

	Manufacture	.411	.438	.110	.938	.355	.748	1.337
	Trade, Service & Inv.	.403	.337	.166	1.194	.241	.534	1.871
	Basic ind.	.195	.452	.052	.431	.669	.701	1.426
	Property/Real estate	-.369	.355	-.135	-1.041	.305	.613	1.633
	lnCEOtenure2007	-.003	.087	-.004	-.031	.976	.671	1.490
	CEO2007EducationLevel	-.200	.224	-.108	-.892	.379	.702	1.424
	lnFirmsize2007	.399	.063	.774	6.344	.000	.691	1.447
	Family owned (yes/no) 2007	.327	.251	.173	1.305	.201	.584	1.712

a. Dependent Variable: lnCEOpay2008


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: lnCEOpay2008
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: lnCEOpay2008
Regression Standardized Residual
Regression Standardized Predicted Value
-3
-2
-1
0
1
2
3

Model 4:

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.748[a]	.559	.538	.63297

a. Predictors: (Constant), Family owned (yes/no) 2007, lnFirmsize2007

b. Dependent Variable: lnCEOpay2008

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.829	2	10.915	27.242	.000[a]
	Residual	17.228	43	.401		
	Total	39.057	45			

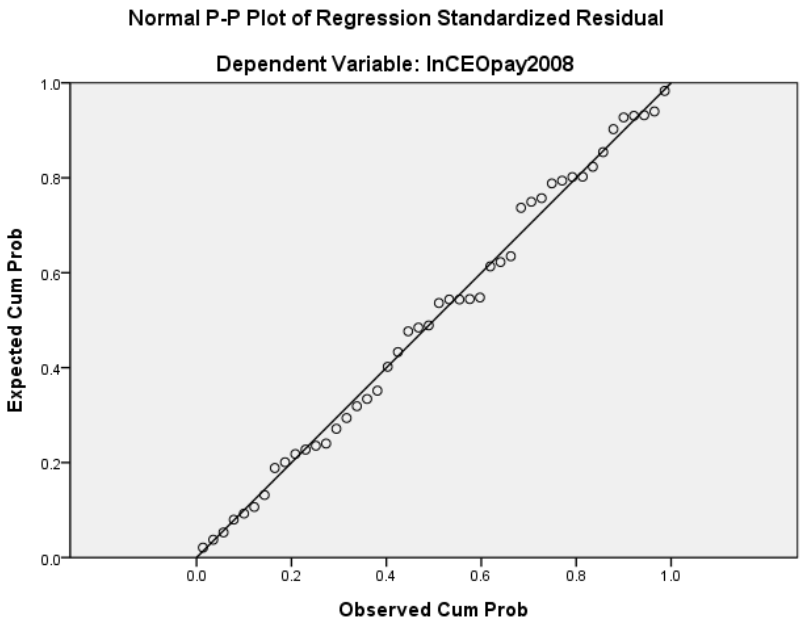
a. Predictors: (Constant), Family owned (yes/no) 2007, lnFirmsize2007

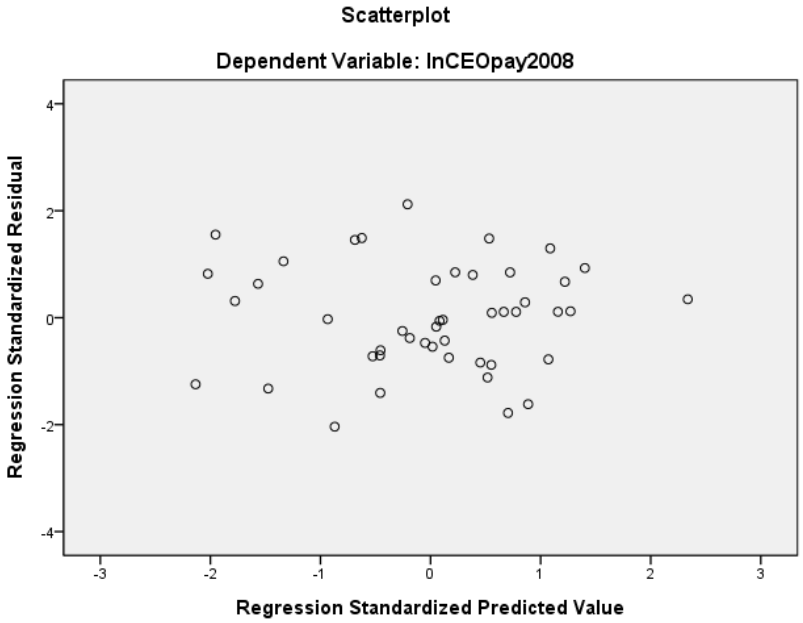
b. Dependent Variable: lnCEOpay2008

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	18.049	.454		39.749	.000		
	lnFirmsize2007	.407	.059	.790	6.934	.000	.791	1.265
	Family owned (yes/no) 2007	.198	.215	.105	.923	.361	.791	1.265

a. Dependent Variable: lnCEOpay2008


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: lnCEOpay2008
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: lnCEOpay2008
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-4
-3
-2
-1
0
1
2
3