

ANTOINETTE RIJSENBILT

CEO Narcissism

Measurement and Impact



CEO NARCISSISM

MEASUREMENT AND IMPACT

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CEO Narcisme
Meting en Impact

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Preface

The study business economics at the Erasmus University provided me the Dutch title doctorandus in 1991. The study and the title give ample opportunities for interesting jobs in business. The interest in education however remained. Teaching economics at pre-university schools to adolescents made me realize that continuing learning is a prerequisite for personal development. The business jobs may appear challenging at first, but become operational in no time.

The Dutch title doctorandus may have provided me interesting job challenges, but also implies that the study is not finished yet. The Latin for the word doctorandus means “he who has to become a doctor”. It took me 18 years to start this process to become a promovendus and finish my study. In august 2009, I started the mature talent program to write my PhD within 2 years. These two years can be characterized by an enormous learning process in corporate governance, psychology and statistics. It is this mature talent program that enabled me to move forward and present this thesis.

Writing this thesis has been like sitting in a rollercoaster; full of excitement, energy and a drive to move forward. But also the thought the wagon did not have sufficient speed to make the looping within two years. With the enthusiastic and motivational guidance of my promoters I was able to find the highest gear and accelerator on the wagon. This experience is a textbook example of the Pygmalion effect.

My thanks to my promoter Angelien Kemna for her wise advice to stick to my core competence and focus on the psychological processes, in particular the alpha male, within corporate governance. I wish to acknowledge the fruitful support of my mentor and second promoter Harry Commandeur, who inspired me and helped me with his experienced advice.

I am grateful that Philip Hans Franses helped me with my statistical struggles to construct a narcissism score for CEOs, the subsequent regression analyses and probit analyses.

Moreover, I would like to thank my colleagues from the Erasmus University for the good and amiable work environment.

I sincerely hope you will enjoy reading this thesis about the narcissistic personality dimension of CEOs and its impact on organizational outcomes.

Antoinette Rijsenbilt
Baarn, May 2011

Chapter 1 Introduction

Executive directors are responsible for the organizational strategy of a company, which is related to the organizational performance. Existing empirical research provides evidence that the chief executive officer (CEO) plays a central role within the top executive team. CEOs can have disproportionate and sometimes dominating influences. The personal characteristics of CEOs help to determine the extent of the CEO influence within the top executive team. The narcissistic personality dimension is an important personal characteristic of CEOs because of its inherent capability to exercise power and to manipulate others. There is a wide variation among CEOs concerning their narcissistic tendencies. Narcissism is a necessary requirement for effective leadership and can have productive influences, but also forms a potential threat. The central research question concerns the objective measurement of the CEOs narcissistic personality dimension and its impact on organizational outcomes.

This chapter describes the research objectives (1.1) and the research structure (1.2).

1.1 Research Objectives

This research has three primary objectives. The first objective is to develop a framework of the causes and consequences of CEO narcissism. Narcissism is not a stable construct but rather a dynamic personality dimension that is nourished by the environment and the situation. The narcissistic personality has the potential to grow in the absence of countervailing power and self-reflection. The framework, which will be presented on page 56, visualizes the causes and consequences of CEO narcissism and the vicious circle in which CEOs end up in the absence of self-reflection and countervailing power.

The second objective is to document the CEOs narcissistic personality with objective variables. The empirical analysis of this research is based on a sample which consists of all S&P500 CEOs from 1992 to 2008 with tenures of more than three years. The narcissism construct is measured using a massive dataset regarding the CEOs media exposure, compensation, power, growth and perquisites. This data collection reflects the four factor solution of narcissism, being authority/leadership (I like to be the center of attention), superiority/arrogance (I am better than others), self-admiration (I am preoccupied with how extraordinary and special I am) and entitlement (I insist upon getting the respect that is due to

me). The final dataset consists of 15 variables for 953 S&P500 CEOs, which provides the opportunity to score all CEOs according to their narcissistic personality dimension. The methodology consists of a principal components analysis over the 15 variables which captures the CEOs narcissistic personality. The principal components analysis avoids the problem of multicollinearity and reduces the dimensionality. The four extracted principal components have an interpretation conform Emmons' four factor solution of narcissism. The factor loadings are used to score the 953 S&P500 CEOs on the four dimensions. The four scores are normalized and summed in order to obtain one narcissism score for each individual CEO. This CEO narcissism score shows the varying narcissistic personalities of CEOs. CEOs with a high narcissism score in this empirical research have already been identified as narcissists by leading psychologists, which forms some evidence for the construct validity.

The third objective is to examine the impact of CEO narcissism. The narcissistic personality dimension determines the individual CEO-effects, which are defined as the proportion of variance in organizational outcomes which can be attributed to the CEO. The CEO narcissism score is subsequently used to investigate the individual CEO-effects on three organizational outcomes.

The first impact study looks at the relationship between CEO narcissism and the financial performance of a company. The CEO narcissism score is used as an explanatory variable for the accounting based measure (the Return On Assets) and the market based measure (the Tobin's Q) in order to investigate the relationship between CEO narcissism and financial performance. The main finding is the existence of a curvilinear relation between CEO narcissism and financial accounting performance measures. This empirical research confirms the psychological perspective that some level of narcissism is required for effective leadership, while high levels of narcissism result into destructive behavior.

The second impact study investigates whether high narcissistic CEOs have less countervailing power of the board of directors. The countervailing power is measured using two proxies: the size of the board and the number of board changes. A large board size is easier to control by the CEO and individual board members are less likely to be held accountable. The countervailing power reduces as the board size increases. The number of board changes determines the interdependency of board members. The interdependent board members are less likely to monitor the CEO due to their reciprocity feelings and the time needed to get

acquainted with the board and the company. A large board size and many board changes will reduce the countervailing power. The main findings show a statistically significant positive relation between CEO narcissism and the board size as well as a statistically significant positive relation between CEO narcissism and the number of board changes. This empirical research shows that high narcissistic CEOs have less countervailing power.

The third impact study examines the relationship between the CEO narcissism and the fraud propensity. Fraud is measured by investigating the Accounting and Audit Enforcement Releases (AAERs) of the SEC. The AAERs give detailed information about the fraud, the executives involved and the period in which the fraud took place. This detailed information provides the necessary elements to collect specific information regarding the executives' intention and involvement. The binary dependent variable model shows that high narcissistic CEOs are more likely to commit fraud. These results are statistically significant as well.

These three empirical studies confirm the framework which describes the causes and consequences of CEO narcissism and also elucidate that corporate governance research should be extended with the CEO narcissism aspect.

1.2 Research Structure

This research is organized in eight chapters and the research structure is visualized in figure 1.1 on page 5. After this chapter 1, the introduction, chapter 2 includes an overview of the corporate governance literature. The existing corporate governance theories are described as well as their practical limited applicability which is due to the assumption of the rational economic man. The literature overview elucidates that the separation between ownership and control causes persisting corporate governance problems. In order to understand the problems associated with the separation between ownership and control, the corporate governance view is extended with behavioral economics which is more capable of explaining human behavior. The behavioral economics incorporate rational as well as irrational human behavior. Personal characteristics influence the individual variances in non-standard preferences, non-standard belief and non-standard decision making. Extending the narrow economic rational view with the irrationality of human behavior, results into a better understanding of the actions carried out by executives and shareholders.

Chapter 3 documents the unique position of the CEO within corporate governance and the relevance of studying CEO narcissism. Narcissism is a complicated construct, because of its inherent positive as well as negative aspects. Leading psychologists have distinguished productive narcissism from the pathological destructive counterpart. The CEOs narcissistic personality affects organizational outcomes, which will potentially reinforce the narcissistic tendencies in the absence of self-reflection and countervailing power. This chapter presents the framework that visualizes the causes and consequences of CEO narcissism. This framework elucidates that high narcissistic CEOs end up in a vicious circle from which it is difficult to escape without losing face.

Chapter 4 documents all the narcissism indicators, the data collection, the descriptive statistics and the scale development based on an exploratory principal components analysis. This chapter ends with the CEO narcissism score, which is used in the subsequent three chapters to investigate the impact of CEO narcissism.

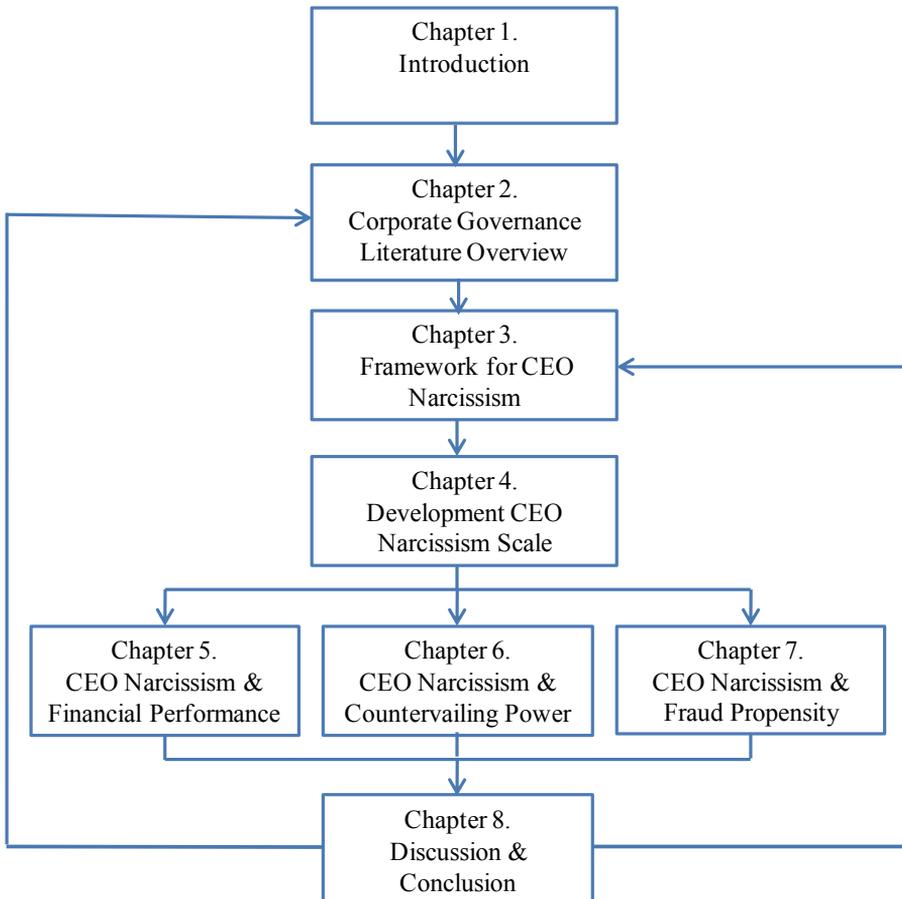
Chapter 5 explores the intricate relationship between CEO narcissism and financial performance by testing the hypothesis whether moderate levels of CEO narcissism induce higher financial performance while very low or very high levels of CEO narcissism cause lower financial performance.

Chapter 6 examines the relationship between CEO narcissism and countervailing power and tests the hypothesis whether high narcissistic CEOs have less countervailing power.

Chapter 7 investigates the relationship between CEO narcissism and fraud propensity and tests the hypothesis if high narcissistic CEOs are more inclined to commit fraud.

Chapter 8 concludes by highlighting the results of the empirical studies, which confirm the framework of CEO narcissism and demonstrate the struggles within corporate governance. This last chapter also documents the research implications and provides suggestions for future research.

Figure 1.1 Research Structure



Chapter 2 Corporate Governance Literature Review

The separation between ownership and control causes fundamental organizational problems. Corporate governance systems have been developed in order to solve these problems and to facilitate managers to pursue the objectives which are in the interest of shareholders. This chapter includes a literature overview of corporate governance in modern corporations. The mechanisms to align the managerial interests with the shareholders' interest are reviewed as well as the main corporate governance theories. The aligning mechanisms and the corporate governance theories are based on rationality. Irrationality should be incorporated into corporate governance, because of the fact that the individuals within the organization are fallible human beings. A corporate governance based solely on rational decision making fails to explain the human behavior. This chapter includes an overview of the behavioral economic theories.

2.1 Ownership and Control

The owner-managers with sole proprietorship maximize their own welfare by trading-off activities that do not contribute to the company's wealth like leisure against personal wealth. The owner-manager experiences an optimal mix of pecuniary and non-pecuniary benefits in case the marginal utility obtained from an additional dollar of expenditure is equal to the marginal utility obtained from an additional dollar purchasing wealth (Jensen & Meckling, 1976). Selling a portion of the 100% ownership to one or more outside investors raises a potential conflict of interest, because the costs and benefits will be divided between the former 100% owner-manager and the outside shareholders. The former owner-manager has become more of a manager who might prefer more leisure and less work resulting into decreasing shareholders' wealth. In this new situation a conflict between the manager with self-interested behavior and the outside shareholders causes fundamental organizational problems.

In 1602, the first publicly held company, the VOC, was born by introducing the format of shareholdings. The shareholders delegated the responsibility of controlling the organization to the managers. The management of this company, the Heeren XVII, refused to pay dividend to shareholders year after year. The shareholders formed a group, the "Dolerende Participanten",

who demanded more transparency and control and even went to court. This first publicly held company is the first in showing that problems arise when ownership and control are separated.

The corporate form exists for more than four hundred years. One might argue that the governance issues should have been settled some time ago. Adam Smith (Smith, 1937) already wrote: “the directors of such companies, however being the managers rather of other people’s money than of their own it cannot well be expected that they should watch over it with the same vigilance with which the partners in a private copartner frequently watch over their own.....negligence and profusion therefore must always prevail, more or less, in the management of the affairs of such companies”.

Although corporate governance systems have been developed, the citation of Adam Smith is still applicable. Complaints and struggles concerning corporate governance still exist.

The Modern Corporation

The first study regarding the modern organization was undertaken by Berle and Means (Berle & Means, 1932). In the paper “The Modern Corporation and Private Property”, they discuss three different types of ownership structures. The first structure is a majority control in which a large percentage of the common stock is owned by the men ultimately responsible for running the corporation and a small percentage of the common stock is largely diffused. There is a minority control in the second structure in which a shareholder holds about 10 to 20% of the common stock while the rest of the common stock is widely dispersed. The third structure is characterized by management control in which the separation of ownership and control becomes almost complete when the common stock is totally dispersed and the largest shareholder holds only a percentage of the common stock. The modern public corporation in the US is structured according to this last form.

Corporate Governance and the Modern Corporation

The modern corporation with its board, management, employees and shareholders has to be controlled and governed. Corporate governance provides the structure through which the objectives of the company are set, the means of attaining these objectives and the way in

which the monitoring is determined. Shleifer and Vishny (Shleifer & Vishny, 1997) argue that the company's objectives are based upon the shareholders' interest. In their view, corporate governance systems facilitate the board and management to pursue the objectives that are in the interest of its shareholders. They define corporate governance as "the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment" (Shleifer & Vishny, 1997, page 737) and simply quote: "we want to know how investors get the managers to give them back their money" (Shleifer and Vishny 1997, page 739).

Also Milton Friedman (Friedman, 1970) is very clear when he writes the article: "the social responsibility of business is to increase profits". Looking after other stakeholders' interest is the same as committing fraud, according to Friedman.

The quote "accountable to many is accountable to none" from Michael Jensen shows that Jensen favored pursuing shareholders' interest as well, instead of pursuing many stakeholders.

Corporate governance in the US is mainly concerned about assuring shareholders' interest. Other interest groups such as debt holders (banks and bondholders), employees, suppliers and consumers are of less importance, because their contracts have been settled. Banks receive interest and are paid off eventually, employees receive their salary, suppliers receive a fixed price for delivered goods or services and consumers get their product or service. All these compensations are more or less specified and settled. Shareholders on the contrary remain in uncertainty whether they will get their money back. This insecure position forms the basis of corporate governance.

Insider Continental versus Outsider Anglo-Saxon Systems

Regarding the interests of shareholders versus the interests of stakeholders, two corporate governance models can be distinguished: an insider Continental versus an outsider Anglo-Saxon system. Corporate governance in the Netherlands is characterized by the insider system, a Continental model, in which the board has to consider all stakeholders' interests. Corporate governance in the US and the UK on the contrary is characterized by an Anglo-American outsider system in which the board has to consider shareholders' interests. However, one may argue that other stakeholders in the Anglo-American outsider system are important as well. The Hampel committee (1998) quoted this view as follows: "The board is responsible for relations with stakeholders; but they are accountable to shareholders".

One tier versus two tier systems

The board of directors exists of executive directors and non-executive directors and is the formal link between the shareholders of an organization and the managers entrusted with the day-to-day functioning of the organization (Mintzberg, 1983).

Executive directors are responsible for setting out the organizational strategy. The non-executive directors primarily have the task of controlling and advising the executive directors. For their task, non-executive directors receive a fixed payment, dependent on the firms' size. The non-executive directors are primarily active or retired professionals who are supposed to be independent of the company.

In case executive directors and non-executive directors operate within two separate boards, the board structure is two tier. In an one tier board system, the executive directors and non-executive directors operate within one board. The one tier board structure is common in the UK, the US, Germany, Japan and other countries in Asia. In the Netherlands, a two tier board structure is more common, although several listed companies have a one tier board structure (Shell, Unilever, LogicaCMG and ArcelorMittal).

Dispersed versus Concentrated Ownership

In the US, the UK and the Netherlands, the common stock is held by a large number of shareholders. In this dispersed ownership model, all shareholders hold relatively small positions. In fact, no shareholder holds such a large stake in the company that they are structurally involved in the control of the company. In this environment, ownership and control are truly separated. The widely dispersed shareholdings give individual shareholders the opportunity to diversify their portfolio, but will also lead to free riding problems. Individual shareholders will not be willing to bear the costs to actively interfere with management, since they each make a cost-benefit analysis of the intervening costs versus a higher share price which will in turn benefit all shareholders. Free riding shareholders will benefit from higher share prices as well without bearing any costs of intervening. These free riding problems make small shareholders rationally apathetic to engage in controlling activities.

Law and Codes

The legal protection of shareholders also varies across countries. The control rights are the most important rights. With these rights to control, shareholders have the opportunity to influence important corporate decisions, such as takeovers, acquisitions, mergers, but also electing the board of directors. Investors are willing to finance corporations because of the presence of legal protection. In the Netherlands, the legal protection of shareholders is not so extensive compared to the US, for example because more takeover defenses are allowed. Shareholders in the US have the legal right to sue the corporation in case shareholders suspect that the directors of the corporation expropriate. Shareholders in the Netherlands do not have these rights.

The corporate governance code in the US is rule based, while the Dutch corporate governance code is “comply or explain” based. The “comply or explain rule” provides management an increased propensity to expropriate.

There are at least two reasons for regulatory intervention (Becht, Bolton, Röell, & Roosevelt, 2003). First of all, the shareholders are not able to write efficient rules which involve all parties concerned in comprehensive negotiations. The parties that are not present on the negotiation table will not be heard and their rights will not be incorporated. Shareholders will pursue their own interests, for example by introducing anti-takeover defenses. Secondly, shareholders may want to break or alter the rules in a later phase. In this case, problems will arise because organizations do not have the power to commit not to change or break the rules down the road afterwards.

The costs for implementing corporate governance law and codes are substantial. These costs are estimated at about 450,000 Euros a year for an average Dutch publicly held company (calculated by Ernst and Young). The costs for implementing SOX are much higher and estimated at 3 to 8 million dollars in annual compliance costs for Fortune 500 companies (calculated by the Johnson group), mainly because of the regulatory detailed internal control system (Cools, 2005). The SOX compliance costs for US medium size listed companies are estimated at 2,5 million dollars per year.

Shleifer and Vishny (Shleifer & Vishny, 1997) argue that legal protection and some form of concentrated ownership are essential elements for a good corporate governance system. The

legislative and regulatory changes have to improve corporate governance, but the greatest risk for financial markets systems now is that of overregulation (Holmstrom & Kaplan, 2003).

Codes and regulation define markers for correct behavior and moral justice but are not sufficient to prevent problems and scandals. In fact, economists have not been able to find any convincing correlation between the quality of a firm's corporate governance system and the risk of fraud or the company's profitability. A CEO: "There is nothing wrong with the codes, but they won't solve anything". The separation between ownership and control and the inherent problems remain.

Concluding Remarks about the Separation between Ownership and Control

The modern corporation is characterized by a separation of ownership and control. Corporate governance systems have emerged in order to facilitate the board and management to pursue the objectives which are in the interests of its shareholders. Certain corporate governance systems may be more appropriate in specific countries than in others. The reason why corporate governance systems vary can be found in the culture, in the efficiency of capital markets, in national law and in corporate governance codes.

2.2 Mechanisms Aligning Managerial and Shareholders' Interest

Ever since the separation of ownership and control, efforts have been made to align the managerial interest with shareholders' interest. Managers are especially able to operate in their own self interest for three reasons.

The first reason is that managers have more information than outside shareholders. This situation is called asymmetric information.

The second reason is the uncertainty, which enables managers to expropriate because shareholders are unable to link the managerial actions to the organizational outcomes. Various factors contribute to the organizational outcomes and the direct link between the managerial actions and the organizational outcomes may not be evident for outside shareholders.

Third, the shareholders' wealth in the US is widely dispersed with many shareholders holding only a small portion of the common capital. The individual shareholders are often too small to exercise their control rights.

These situations result into significant managerial control rights over shareholders' wealth. Managers can expropriate outside shareholders by pursuing their own interest and staying on the job even if they are no longer competent or qualified to manage the firm (Shleifer & Vishny, 1997).

There are five different mechanisms which can prevent managers from expropriating shareholders' wealth. These five mechanisms with accompanying criticisms are described below and summarized in table 2.1 on page 17.

1 Performance based incentive plans

Jensen and Meckling raise the question why investors don't try to bribe the manager with cash to undertake a project that is in the interest of the shareholder. Such threats would violate the managers' legal "duty of loyalty" to shareholders (Shleifer & Vishny, 1997). Granting managers a highly contingent long term incentive contracts ex ante in order to align the interests of the managers with the interests of the shareholders is a better solution. Such incentive based performance plans will encourage managers to take actions which increase shareholders' wealth.

People do react on financial incentives, especially for one-dimensional tasks as piece-wage. A famous example is the study of Lazear (Lazear, 2000) who finds that the introduction of piece-wage leads to an increase in production of 44%, while the incomes of the workers increase only by 10%. Half of the output increase is due to a productivity increase. Piece-wage labor is however something totally different from managing. Managers are able to expropriate shareholders' wealth because shareholders do not observe all individual managerial actions. In the case shareholders do observe the individual managerial actions, they are often not able to understand the causal relation between the managerial action and the organizational outcomes. Myriad factors can contribute to the organizational outcomes. In order to make an incentive contract feasible, some measure of performance that is highly correlated with the quality of the managers' actions is required. The optimal incentive

contract is therefore difficult to determine. It depends on the managers' risk aversion, the importance of managers' decision and the ability to pay for the cash flow ownership up front (Holmstrom, 1982; Hölmstrom, 1979; Mirrlees, 1999; Ross, 1973).

There are several criteria that must be fulfilled in order for incentives to work effectively.

Milgrom and Roberts (Milgrom & Roberts, 1992) sum up four criteria. First, the additional effort creates incremental shareholders' wealth. Second, the managerial activities can be quantified precisely. Third, the manager has a risk tolerance. Fourth, the manager is responsive to the incentives. In practice it will be practically impossible to fulfill all these criteria.

Performance incentives have been empirically tested by various researchers and they conclude that performance incentives do not lead to better performance (Bebchuk & Fried, 2006; Jensen & Murphy, 1990; Murphy, 2000).

Yermack (Yermack, 1997) concludes that managers receive stock option grants short before good news is announced and delay stock option grants after bad news announcements. Options are more often a covert mechanism of self-dealing instead of an incentive device. Yermack states that he cannot conclude that managers do not care about performance at all, but he can conclude that incentive contracts are not able to completely solve the conflict of interests between the managers and the shareholders.

Pay for performance can even be dysfunctional in three cases. First, people may only perform the tasks that result into a bonus. This behavior damages the organization. Financial incentives are normally not related to the quality of the work, but are merely quantitative and related to measurable output. In "The folly of paying for A while hoping for B, or getting what you pay for", Kerr (Kerr, 1975) documents the dysfunctional effects of performance incentives. Second, performances may be manipulated by creative bookkeeping, like booking revenues sooner and costs later. Third, performance related pay will increase extrinsic motivation but will destroy a part of the intrinsic motivation at the same time. This motivation crowding theory implies that performance incentives narrow the motivation to work to a pure economic view, destroying the intrinsic pleasures related to work.

2 Direct interventions by (large) shareholders

In countries like Germany, France and countries in Asia, the ownership structure is very concentrated. In Asia there are many family controlled organizations in which the owner is often also the manager or is able and willing to monitor and discipline management (Claessens, Djankov, & Lang, 2000; Claessens, 2006). These large shareholders are most likely to intervene in case managers take actions which do not increase shareholders' wealth.

Ownership is however very distributed in the UK, the US, Australia and also in the Netherlands. The numerous shareholders have virtually no control over managerial actions. The dispersed ownership structure will lead to free riding problems among shareholders. Shareholders with a very small percentage of the common stock have little incentive to intervene in case managers do not take actions which increase shareholders' wealth. The numerous shareholders individually make a cost-benefit analysis comparing the cost to intervene with the benefit of a little increase in their relatively small stock value. Mostly, the individual shareholders will not intervene and will rely on other shareholders hoping that the others will take action and will bear the cost of intervening. In case all shareholders act like this, nothing will happen. The intervention mechanism is not likely to occur in large publicly held organizations with numerous stockholders.

Large shareholders are however not diversified and hence bear risk. The fact that ownership is so concentrated in many organizations around the world suggests that the lack of diversification is not as great a private cost for large investors to bear as relinquishing control (Shleifer & Vishny, 1997). Diversification and bearing less risk is an important reason to hold only a small percentage of common stock.

There are two other reasons for dispersed ownership besides the diversification/risk argument (Becht et al., 2003).

First, the individual investors' wealth may be too small relative to the size of the common stock, so that a large stake in the company is not feasible.

Second, there will be a reduced liquidity in the secondary market, because large stakes are harder to sell. The efficiency in which capital markets differ among countries will lead to differences in international corporate ownership. The US, the UK and the Netherlands have large efficient capital markets and no restrictions on cross-border capital flows. The diversification costs in order to cut down risk are lower in efficient capital markets.

Institutional investors such as pension funds and insurance companies have in many countries significant shareholdings in the companies in which they invest (Mallin, 2008). If the institutional investors have a large enough share in the common stock, they may be able to influence the selection of managers and influence the firms' policy due to their large voting rights. Large shareholders are basically able to influence managerial decisions because of their powerful voice. Their tools of governance include one to one meetings, voting lists and rating systems. In practice however, large shareholders do not use these rights frequently (De Jong, Mertens, & Roosenboom, 2006).

Becht en Röell (Becht et al., 2003) state that this mechanism of partially concentrated ownership and control is among the five mechanisms the most favored one, but also notice the potential collusion of large shareholders with management against smaller investors. Large shareholders represent their own interest which need not coincide with the interests of the other investors in the firm or with the interests of employees and managers.

3 Board of directors

The board of directors, in particular the non-executive directors, have the task to monitor the executive directors. Mintzberg (Mintzberg, 1983) considers the board of directors as the formal link between the shareholders of the organization and the managers entrusted with the day-to-day functioning of the organization. Fama and Jensen (Fama & Jensen, 1983) describe the board of directors as "the apex of the firms' decision control system" (Fama & Jensen, 1983, page 311). The board of directors takes strategic decisions but is not involved in carrying out the day-to-day activities resulting from their strategic decisions. The nature of the boards' output is cognitive. The board of directors is vulnerable to process losses due to their size, the various backgrounds of board members and their interdependence (Forbes & Milliken, 1999). The structure (one tier board structure versus the two tier board structure), composition and exact role of boards vary between organizations.

An obstructing factor for board monitoring is the independence paradox (Bezemer, Peij, Maassen, & van Halder, 2010; Hooghiemstra, Van Manen, & PricewaterhouseCoopers, 2004). The independence paradox implies that the non-executive directors need information to monitor the executive directors while in the mean time the non-executive directors depend

on executive directors to give them the necessary information, resulting into information asymmetry.

Hermalin and Weisbach (Hermalin & Weisbach, 1998) state that the independence of the supervisory board tends to diminish as the firm performs better and the power of the CEO increases. The longer the CEOs are on the job, the less closely they are monitored by the supervisory board. The effectiveness of the boards will erode over time and the researchers conclude that boards of directors are weak and ineffective monitors of managers (Hermalin & Weisbach, 1998). Becht (Becht et al., 2003) argues as well that boards are widely perceived to be ineffective. An example of an ineffective board is Enron, which is documented by Coffee (Coffee Jr, 2001). Coffee's paper "Understanding Enron: it's about the gatekeepers stupid" describes the ineffectiveness Enron's board. His vision about boards is best explained by quoting him: "why did the watchdogs not bark in the night when it now appears in hindsight that a massive fraud took place?" (Coffee Jr, 2001, page 11).

4 The threat of firing

The threat of firing may withhold managers to act in their own self interest. Shareholders can take a direct approach by threatening managers with dismissal in case managers put their own self interest above maximizing shareholders' wealth. In practice, managers are not often replaced. Poor managers who are not being replaced might be one of the costliest manifestations of governance problems (Jensen, Ruback, Field, & Park, 1983).

5 The threat of (hostile) takeover

Takeovers are most likely to occur in case the stock of the firm is undervalued. Hostile takeovers are powerful mechanisms because they bypass the current management and take over the control of the organization. Managers will be disciplined to take actions that maximize shareholders' wealth because of this threat of a (hostile) takeover.

Shleifer and Vishny (Shleifer & Vishny, 1997) document important reasons why takeovers fail as a governance mechanism. First, takeovers are expensive because acquirers have to pay for the expected increase in profits to target firms' shareholders. Shareholders will otherwise

Table 2.1 Mechanisms Aligning Managerial and Shareholders' Interests

Mechanism	Benefit	Drawback	Remarks
Performance incentives	people do react on financial incentives	shareholders often do not observe individual managerial actions shareholders are often not able to understand the causal relation between managerial actions and outcomes myriad factors can contribute to organizational outcomes	performance incentives can be dysfunctional if: (i) people only perform tasks that result into a bonus (ii) performances may be manipulated by creative bookkeeping (iii) performance incentives may (partly) destroy intrinsic motivation
Large shareholders	large shareholders have a powerful voice, which can influence managerial decisions	potential collusion of large shareholders with management against small shareholders reduced liquidity of the secondary markets no risk diversification for large shareholders impossible if individual investors' wealth is limited	difficult in countries with dispersed ownership structures large shareholders do not use their rights frequently
Board of directors	the board is the formal link between the shareholders and the directors	effectiveness of board monitoring depends on power balance	board vigilance required
Threat of firing	it can withhold managers to act in their own self interest	succession problems negative publicity	seldom applied
Threat of a (hostile) takeover	powerful because it bypasses the current directors disciplines directors market cap not undervalued	takeovers are expensive takeovers require a liquid capital market opposed by managerial lobbies	unlikely to occur if stock price is overvalued

not tender and simply hold on to their shares which will automatically become more valuable if the takeover succeeds. Second, takeovers require a liquid capital market which gives acquirers access to amounts of capital on short notice. Third, takeovers, especially hostile ones, are politically an extremely vulnerable mechanism since they are opposed by managerial lobbies.

Concluding remarks about ownership versus control

The format of shareholdings exists nowadays for more than four hundred years without being able to align managerial actions with shareholders' interests. Each of the above described five mechanisms is practiced but none of these mechanisms have proved to be sufficient to align managerial interests with shareholders' interests. Complaints and struggles concerning corporate governance still exist. Without the presence of an effective and efficient mechanism, researchers keep on developing theories to develop improved corporate governance systems. These theories are documented in the following chapter.

2.3 Corporate Governance Theories

The issue of how an organization should be governed is central in corporate governance studies ever since Berle and Means (Berle & Means, 1932) identified the separation between ownership and control. This chapter discusses four corporate governance theories, which describe corporate governance from an economic, rational point of view. The first theory, the principal-agent theory, is probably the most well-known and the most cited corporate governance theory explaining the conflict between managers and shareholders. The principal-agent theory is based upon the assumption of goal incongruence and information asymmetry. The second theory is transaction costs economics which suggests that economic transactions are associated with difficulties and problems that might favor organizational structures instead of markets. The third theory, the stewardship theory, criticizes the principal-agent theory on its main assumption of goal incongruence and explains the relationship between the manager and the shareholder from a totally different point of view. According to this theory, there is no potential source of conflict, because the managers take actions which contribute to shareholders' wealth. Finally, the fourth theory, the stakeholder theory, will be described.

Contrary to the other three theories, stakeholder theory takes all interested parties into account.

The four theories are described below and summarized in table 2.2 on page 29. Some theories are, due to their complexity, more extensively discussed than others.

1. Principal-Agent Theory

The principal agent theory originates from the 1970th and has influenced the development of corporate governance the most (Mallin, 2008).

The agency relationship is defined by Jensen and Meckling as: “a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent” (Jensen & Meckling, 1976, page 308). A potential goal conflict arises when both parties strive for maximizing their own utility. The self-interested agent will not act in the best interest of the principal, resulting into a principal-agent problem.

Jensen and Meckling (Jensen & Meckling, 1976) argue that these goal conflicting problems have at least three causes. The first cause is the separation between ownership and control. The second cause is the perspective that self serving managers maximize their own private benefits without considering the interest of anyone else. The third cause is that the minority shareholders have the incentive to free ride on the monitoring activities of other shareholders.

The principal-agent theory views the firm as a nexus of contracts. This contractual view is developed by Jensen Meckling (Jensen & Meckling, 1976) and Fama and Jensen (Fama & Jensen, 1983). Contracts can be designed in such a way that the agent has an incentive to act in a way in which the principals’ utility is maximized. Individual contracts form a major method of restructuring incentives. All available information about employee performance and the compensation for the performance must be related and defined in the individual contract. Prendergast (Prendergast, 1999) argues that individual contracts vary widely and might include differing incentives like options, bonuses, deferred compensation, promotions and profit sharing. The individual contracts are the result of the information availability, the individual tendencies of risk bearing and the individual possibilities to manipulate

performance evaluation. Incentive structures may also vary because of individual differences in psychological intrinsic satisfaction.

The Agency costs

In the absence of transparency, the separation of ownership and control will lead to moral hazard¹. Shareholders will be faced with agency costs in order to reduce moral hazard. Agency costs are those costs to encourage managers not to behave in their own self-interest but to maximize shareholders' wealth (Jensen & Meckling, 1976). The agency costs can be divided into three main categories.

The first category includes the monitoring costs, which are the costs made for monitoring managerial activities, like audit costs. The costs spend to monitor the self-serving managers are aimed to limit their aberrant activities.

The second category contains the bonding costs which are made to (re)structure the organization. The organization must be (re)structured in such a way that managers will limit undesirable behavior. Introducing management hierarchy and restructuring business units are examples of bonding managers to strive for maximizing shareholder wealth.

The third and last category includes the opportunity costs which are incurred when shareholders' wealth is not maximized. In most agency relationships the manager and the shareholders will incur divergences between the decisions of managers and those decisions that would maximize shareholders' wealth. The dollar equivalent of the reduction in wealth experienced by the shareholders as a result of this divergence is also a cost of the agency relationship and is called the residual loss.

Two extreme positions regarding the principal-agent conflict exist. At the one extreme, agency costs can become extremely high in case shareholders attempt to ensure that all managerial actions lead to an increase in shareholders' wealth. At the other extreme, shareholders do not attempt to alter managerial action at all and a substantial amount of shareholders' wealth might be lost. The principals will to some extent monitor the agents, implying that the agency costs will be positive. A tradeoff exists between the amount of

¹ Moral hazard occurs when an individual insulated from risk behaves differently compared to a situation when an individual is fully exposed to risk.

agency costs and shareholders' wealth and the optimal solution lies between the two extremes.

If managers take actions that are in their own self interest, the value of the firm will probably decrease. This situation is non-optimal or inefficient compared to a situation in which the principal could obtain total compliance from the agent to act in the interest of the principal while the principal in pursuing this compliance would not incur any costs. This latter situation is a very hypothetical one, since principals induce costs, monitoring and bonding costs as well as some residual loss. These costs are an unavoidable result of the agency relation. Finding positive agency costs and therefore concluding that the agency relationship is not optimal or inefficient is characterized as the Nirvana² form of analysis by Demsetz (Demsetz, 1969).

The Main Assumptions of the Principal-Agent Theory

The principal-agent theory is based on the assumptions of asymmetric information and goal incongruence between the principal and the agent. These two assumptions form “the spark plugs that power the theory” (Waterman & Meier, 1998, page 177).

Goal Incongruence

The goal incongruence assumption implies that the agent and the principal both have different goals. The principal and the agent have the tendency to act in their own self-interest which results into goal incongruence. Aligning the interest of the agent with the interest of the principal and motivating an agent to act on behalf of the principal is the core principal-agent problem.

The assumptions of the principal-agent theory stating that managers are opportunistic and self-serving in nature have been argued to constitute a simplistic view of human nature (Daily, Dalton, & Cannella Jr, 2003). The principal-agent theory holds a very negative view over

² The Nirvana fallacy is an error of comparing actual things with unrealistic idealized alternatives. The problem with this form of analysis is that the comparison of actual versus ideal is invalid and yields no practical information, because the ideal will never be available.

managers. There are many critics on these assumptions and alternative theories have emerged, notably the stewardship theory. Stewardship theory has a constraint assumption by stating that managers tend to be good stewards of the organization, striving to act in the best interest of the shareholders. This stewardship theory will be described later in this chapter.

Jensen developed a Resourceful Evaluative Maximizing Model (REMM), which argues that managers may not always act in their own self interest. The individuals in REMM are “resourceful evaluative maximizers responding creatively to the opportunities the environment presents to them and they work to loosen constraints that prevent them from doing what they wish to do” (Jensen & Meckling, 1994, page 4). This REMM model summarizes all the positive elements from the economic, the psychological, the sociological and the political models. From the economic model, REMM copies that individuals are resourceful maximizers, but REMM rejects that individuals are only interested in money.

From the psychological model, REMM takes the basis of Maslow’s pyramid of hierarchical needs into account by acknowledging demand regularities for various goods around the world. The pyramid of Maslow is designed in such a way that underlying needs must be met before higher needs can be satisfied. The hierarchical needs are: physiological, safety, social (love, belonging), self-esteem and self actualization.

From the sociological model, REMM takes the view that society imposes costs on people who violate the norms. The sociological model considers behavior largely as acculturation in which individuals develop as a product of their environment.

From the political model, REMM copies the concept that individuals are altruistically seeking to maximize the public interest rather than their own welfare.

In other words, Jensen assumes that individuals will look out for their own utility, but this does not mean that individuals will not derive benefits from helping others. Individuals are willing to help others, because it increases their own utility. The pursuit of self interest in no way rules out or devaluates altruistic behavior. The REMM framework accepts the self-interest of individuals as assumed by the principal-agent theory, but rejects the goal incongruence.

Information Asymmetry

The assumption of information asymmetry implies that the agents have more information than the principals. In the case executives take actions that cannot be observed by shareholders, a true moral hazard problem arises. Outside shareholders in publicly traded firms are not able to notice all managerial actions or are just not that good informed as managers are. In these situations, in which there is asymmetric information and uncertainty, problems arise which can be characterized as moral hazard. The agent behaves differently than would have been the case if both, the principal and the agent, have perfect information. The outcome results into economic inefficiency.

The manager, as the agent, has information about the actions, the outcome and random variables. The shareholder, as the principal, can observe the outcome X , which is a function of the managers' action A and random variables O . The outcome X can be defined as $X=f(A, O)$. Two cases are possible (Rees, 1985).

In the first case, the shareholder (principal) can observe the outcome X and he can observe either O or A . The principal is able to extract the other ex post and further information Z is now redundant. The principal now chooses a payment schedule for the manager, as agent, which maximizes the utility of the shareholder, subject to the constraint that the manager receives at least some minimum expected utility, the reservation utility. This reservation utility is usually taken as market determined (Grossman & Hart, 1983).

In the second case, the shareholder can neither observe the action A nor the random variables O and a true moral hazard problem arises. The manager will choose an action A to maximize his own utility while the shareholder cannot correct this action directly. The shareholder chooses an income Y which will determine the action A . The shareholder will incorporate any additional extra information Z into the contract and make the income Y contingent on it. These results would probably be modified if the additional information were too costly to acquire.

Akerlof received the Nobel Prize in economics for his contribution to the importance of the principal-agent problem. Akerlof was awarded for his paper "The market for Lemons" (Akerlof, 1970) in which he uses the market for used cars to demonstrate a clear case of asymmetric information.

Akerlof divided the market for used cars in oranges and lemons, good cars and bad cars respectively. A buyer on the market for used cars doesn't know whether the seller is selling an orange or a lemon. The buyer is willing to pay a certain price for an orange but is certainly not willing to pay the same amount for a lemon. The market for used cars is dominated by lemons since good cars are unlikely to be sold. Akerlof concludes that the information asymmetry in this market scenario only trades low quality goods.

The application of the market for lemons in organizations implies that the directors will deliver low quality services to the shareholders.

The asymmetric information and the goal incongruence are both treated as constant in the principal-agent theory, with little change over time or across settings. As a result, the principal-agent theory becomes rather static than dynamic (Waterman & Meier, 1998).

The principal-agent theory argues that managers are risk averse and that the amount of risk aversion is also a constant. Wiseman et al. (Wiseman & Gomez-Mejia, 1998) introduce a behavioral agency model in which managers' risk taking behaviors vary across and within different forms of monitoring. Principals are considered risk neutral because principals can diversify their shareholdings across multiple organizations. Agents on the other hand, are assumed to be risk averse since their income and employment security are tied to one firm. The principal-agent theory restricts risk taking behavior of agents as either risk averse or risk neutral and tends to neglect the possibility of risk seeking behavior. The risk concept in the principal-agent theory is too restrictive and underdeveloped (Wiseman & Gomez-Mejia, 1998) and should allow for the possibility of varied risk preferences over time.

2. Transaction Costs Theory

Coase uses the transaction costs³ economics to develop a theoretical framework for predicting in which cases the market will perform certain economic tasks and in which cases firms will emerge and take over the tasks from the markets. He explains the existence of firms and argues that production can be carried out without any form of organization as long as the

³ The transaction cost theory is frequently mentioned together with the name Coase. Coase (Coase, 1937) discusses "the costs of using the price mechanism". During the 1950th the term transaction costs economics is first used, probably because of Williamson's paper "Transaction Cost Economics". Coase starts using the term transaction cost in the 1970th.

production can be regulated by price movements. The most obvious cost of organizing the production through the price mechanism is that of discovering what the relevant prices are. Firms will expand as long as the costs of organizing an extra transaction become equal to the costs of carrying out this extra transaction by means of an exchange on the open market or the costs of organizing in another firm (Coase, 1937). This implies that someone can organize a transaction on the open market if the transaction costs are below the costs of market exchange. Transaction costs economics explains both the existence of firms and their optimal size.

The mainstream literature before the 1930th treats firms as entities that compete in the market without having an “inside” look. The firms are black boxes with inputs and outputs and are assumed to have complete information and efficient production. The only governance issue is maximizing profit. This view does not explain why individuals are organized in business structures rather than making their own contracts and remaining independent.

Coase introduces the transaction costs economics and puts emphasis on the inside relationships within the firm by emphasizing multi-person hierarchy. The very nature of the firm lies in the employment contract between employee and employer. The savings in transaction costs is the only reason why employees choose to work under the authority of employers.

Transaction costs economics views companies as a sum of contracts in order to organize and regulate transactions. The output of an employee working in a team may be difficult to observe which can lead to shirking behavior.

Firms carry out effective and efficient economic transactions within a given governance structure which are tailored beforehand in order to carry out the economic transactions. Firms and markets are just alternative governance modes. Firms are only seen as substitutes or as alternative coordination mechanisms for the market. The choice between the firm and the market as a coordination mechanism depends on the efficiency of both (Coase, 1937).

3. Stewardship theory

The third theory explaining ownership structures is the stewardship theory. This theory is developed during the 1970th and regards managers as good stewards of the company’s assets. The stewardship theory is contrary to the principal-agent theory by criticizing the assumption

of goal conflict between the shareholder and the manager. The managers are not assumed to be self interested opportunistic shirkers, but are rather seen as trustworthy stewards of the resources trusted to them.

The interests of the managers are aligned with that of the corporation and owner (Davis, Schoorman, & Donaldson, 1997). Managers perceive that serving shareholders' interests is also in their own interest, making the problem of executive motivations non-existing in the stewardship theory.

The main corporate governance issue in the stewardship theory is designing an organizational structure with effective coordination (Donaldson, 1990).

Donaldson and Davis (Donaldson & Davis, 1991) argue that facilitative authority structures will benefit shareholders' returns. In the principal-agent theory the organizational structure emphasizes control of managerial opportunism by separating the CEO and the board chair positions and by using incentives to bind the CEOs interests to those of the shareholders.

Donaldson and Davis examined the effects of CEO duality on shareholders returns and they find a positive relationship between CEO duality and shareholders' wealth. The ROE is improved by combining the roles rather than by separating the roles. These researchers wrote: "the safeguarding of returns to shareholders may be along the track, not by placing management under greater control by owners, but by empowering managers to take autonomous actions" (Donaldson & Davis, 1991, page 62). The stewardship theory advocates CEO duality which will enhance effectiveness and will produce superior shareholder returns compared to separated roles of board chair and CEO. Donaldson and Davis find results that fail to support the principal-agent theory and find limited support for the stewardship theory (Donaldson & Davis, 1991). Organizations must be structured in such a way that they facilitate and empower managers. Stewardship theory favors a governance structure that will empower managers to take autonomous actions in order to safeguard the shareholders' return. Compared to the principal-agent theory, the stewardship theory takes a complete different point of view by pertinently not placing management under stricter control.

The conclusion can be drawn that stewardship theory is diametrically opposed to the principle-agent theory. In the principal-agent theory, the managerial work is characterized by an organizational structure based on monitoring and controlling. In the stewardship theory, the managerial work is characterized by an organizational structure focusing on facilitation and empowerment.

4. Stakeholder theory

The focus in the stakeholder theory is not purely based on maximizing shareholders' wealth, but takes a much wider range of constituencies into account. Managers are able to take actions that relate to shareholders' wealth as in the principal-agent theory and stewardship theory, but managers may also pursue the interests of other stakeholders. Stakeholders are individuals or groups which are directly or indirectly involved in the organization. Direct stakeholders may include managers, shareholders, employees, customers, suppliers and investors. Indirect stakeholders may include the government and local communities. In the stakeholder theory, managers are supposed to take actions that encourage the development and maintenance of all stakeholder relationships. The stakeholder theory directs managers to serve many masters, leading to different corporate governance structures and different monitoring mechanisms. In case managers consider all stakeholders, there will be no conceptual specification of how to make the tradeoffs among the stakeholders' interests.

To give managers a clear oversight, Kaplan and Norton (Kaplan & Norton, 1996) developed the "Balanced Scorecard" which can be considered as a dashboard or instrument panel with information on many specific facts and figures. The balanced scorecard includes the long term as well as the short term, financial as well as non-financial measures and the needs of various individuals and multiple groups. The balanced scorecard arose from the belief that pure financial measures are not sufficient to yield effective management decisions. Kaplan and Norton aimed at capturing both past performance as well as future performance into scorecards with multiple financial and non-financial measures.

Jensen (Jensen, 2010) criticizes the balanced scorecard because it does not give a single dimensional objective to decision makers, which in turn will lead to managerial confusion, conflict and inefficiency. Without a specification what the trade offs are among the various measures, the balance in scorecards is absent and decision makers will not be able to make rational choices. The balanced scorecard can however be seen as a useful analytic tool as it is a mean to help decision makers understand which decision creates value.

Jensen also criticizes the pure stakeholder approach by stating that the managers should take all stakeholders into account, while theorists refuse to define the trade-offs against the interest of each stakeholder (group). His quote: "Accountable to many is accountable to none"

summarizes his thinking. Jensen therefore advocates the Enlightened Stakeholder Theory, also called Enlightened Value Maximization. The enlightened stakeholder approach is based on the structure of the stakeholder theory but takes the maximization of shareholder value as the primary objective for decision makers and therefore solves the problem that arises from multiple objectives related to the stakeholder theory.

Managers are able to destroy shareholders' wealth, while considering other stakeholders. Managers "may be using stakeholder claims as a smokescreen to obscure what is really their inability to deliver value to the company's shareholders" (Healey, 2003, page 24). In this way, the popularity of stakeholder theory can be explained because managers seek personal short term interest and without having any criteria of how to perform, managers cannot be evaluated. Managers are in the stakeholder theory able to use the firms' resources for their own personal wealth without being held accountable for unnecessary or extraordinary expenditures. Organizations in which managers operate in stakeholder theory can unproductively increase their power and use the firms' resources very inefficiently, leading to enormous agency costs.

Concluding Remarks about Corporate Governance Theories

This chapter reviews four corporate governance theories, comprising the principal-agent theory, the transaction costs economics, the stewardship theory and the stakeholder theory. Table 2.2 on the next page includes a summary of the characteristics of these four theories. These rational theories may be able to explain certain situations and may be more appropriate in some countries than in others. The literature on corporate governance has been dominated by the principal-agent theory that continues to have a profound influence on governance reform and governance practice (Roberts, McNulty, & Stiles, 2005). The corporate governance theories describe corporate governance from an economic, rational point of view. The individuals in these rational act models are self-interested utility maximizers with stable and consistent preferences and capable of rational decision making. The next chapter describes these assumptions which are subject to criticism in behavioral economics.

Table 2.2 Main Characteristics of Corporate Governance Theories

	Principal-agent Theory	Transaction Costs Economics	Stewardship Theory	Stakeholder Theory
Main principle	The shareholders (principals) delegate the control of the organization to the managers (agents)	The firm itself forms the governance structure and aligns the interest of shareholders and managers	The managers are seen as good stewards over the firms' assets	There are many constituents taken into account
Author(s)	Fama & Jensen, 1985; Jensen & Meckling, 1976	Coase, 1937 Williamson, 1975, 1984	Donaldson & Davis, 1991	Freeman, 1984
Focus	Ensuring a match between managers (agents) and shareholders (principals)	Costs associated with organizational structure	Facilitative Authority Structures	Multilateral agreements between the organization and multiple stakeholders
Primary role of the board	The board has to control and monitor directors	The board is concerned with mechanisms reducing costs	The board provides the directors the necessary resources	Control the multiple relationships that create and restrain strategic possibilities
Unit of analysis	Individual	Transaction	Coordination	Stakeholders
Limitations of theory	Narrow assumptions	Narrow assumptions	Limited empirical support	Accountable to many stakeholders

2.4 Towards Behavioral Economics

The corporate governance theories are based on the normative and classical assumption of perfectly optimizing behavior and rational actors. The rational actors are self-interested utility maximizers with stable and consistent preferences and capable of rational decision making. Critics argue that the rational model does not give an accurate description of the actual decision making process.

Keynes is the first economist in recognizing the individuals' irrational behavior. Keynes introduced the term "animal spirits" to indicate the irrationality of human behavior. The

animal spirits are the ideas and feelings of individuals and form the underlying factors of the thought processes. Keynes wrote: “even apart from the instability due to speculation, there is the instability due to the characteristics of human nature that a large proportion of our positive activities depend on spontaneous optimism rather than mathematical expectation, whether moral or hedonistic or economic. Most probably, of our decisions to do something positive, the full consequences of which will be drawn out of many days to come, can only be taken as the result of animal spirits – a spontaneous urge to action rather than inaction and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities” (Keynes, 1936, page 144).

Akerlof and Shiller (Akerlof & Shiller, 2009) have recently reintroduced the term animal spirits and distinguish five different aspects: confidence, fairness, corruption and anti-social behavior, money illusion and stories. These aspects can explain economic decision making. Akerlof and Shiller argue that mainstream economists focus mainly on rational behavior. The central theme in their book is a better understanding of reality by giving more attention to the animal spirits.

Prospect Theory

Kahneman and Tversky (Kahneman & Tversky, 1979) introduce the prospect theory as an alternative for the expected utility theory. Prospect theorists criticize the rational theories and argue that individuals often make irrational decisions. Rational decision making is based on the expected utility theory in which individuals evaluate final assets by multiplying quantitative benefits by quantitative probabilities. Instead, prospect theorists like Tversky and Kahneman argue that individuals assign value to gains and losses. The prospect theory is therefore psychologically more realistic. The decision models are clearly presented in the textbook of Wakker (Wakker, 2010).

Prospect theorists separate two phases in the decision process.

First, individuals edit and frame their choices. In this phase, individuals define gains and losses to final assets relative to a certain reference point. The location of this reference point affects whether the outcome is seen as a gain or a loss. This process can be labeled as framing or reference dependence. The way in which economic agents frame the outcome in their minds influences the expected utility.

Second, individuals evaluate the edited and framed choices and choose accordingly. Empirical research of the evaluating phase illuminates that individuals value losses heavier than gains. Kahneman and Tversky labeled this valuation difference as loss aversion, meaning that losses matter more than gains. Loss aversion implies that individuals are risk averse when faced with gains and risk seeking when faced with losses⁴.

Individuals are also myopic when they evaluate projects one at a time, rather than as part of an overall portfolio. When the gains and losses increase in size, the marginal value that individuals assign to these gains and losses will diminish which is labeled “diminishing sensitivity” (Kahneman & Lovallo, 1993).

The value function will be concave for gains, implying risk aversion and convex for losses, implying risk seeking. The value function is defined on reference dependency, loss aversion and diminishing sensitivity. Executives can have complete different reference points compared to shareholders, leading to different values for the incorporated gains and losses.

Behavioral economics

Behavioral economics is based upon the cognitive psychology and challenges the dominating assumption of a rational actor. The recent corporate governance scandals provide evidence that individuals are not playing their neoclassical role as rational utility maximizers.

As Kahneman (Kahneman, 2003) wrote: “the psychological theories of intuitive thinking cannot match the elegance and precision of formal normative models of belief and choice, but this is just another way of saying that rational models are psychologically unrealistic” (Kahneman, 2003, page 1449). Behavioral economics therefore takes the view that behavior and decision making are subject to heuristics⁵ and cognitive biases (Kahneman & Tversky, 1979). Heuristics are useful, but can also result into systematic biases (Tversky & Kahneman,

⁴ Loss aversion implies that an individual will prefer option A (a positive outcome of 100 for certain) instead of option B (50% chance of getting 210 en 50% of getting nothing) while in fact the expected value of option B (105) exceeds the expected value of option A (100). There is a reflection effect in case the outcome is negative; individuals will prefer option B (50% chance of losing 210 en 50% of losing nothing) instead of option A (losing 100 for sure).

⁵ A heuristic is a mental shortcut that serves as a simplifying strategy for quickly coping with complicated situations.

1974). Individuals are subjected to biases, even when the bias is understood and its operation demonstrated (Babcock, Loewenstein, Issacharoff, & Camerer, 1995).

Biases

Biases are an essential part of human nature and form systematic deviations from the rational model. Besides the above described principles of the prospect theory, several biases have to be considered in order to understand economic decision making. Psychologists identified numerous biases, which have the potency to impact business decisions. The following biases impact business decisions: the certainty effect, the endowment effect, groupthink, escalation of commitment, sensations seeking, the isolation effect, retention of the status quo and diversification bias. The below described biases are not meant to be limitative, but serve for illustration only.

The certainty effect is based on an overweighting of certainty. Executives will choose a certain positive outcome over an uncertain outcome, even while the uncertain outcome yields a far better outcome than the certain one. Executives are risk averse and will therefore choose outcomes that are certain. Other choices with uncertain outcomes might be far more attractable for shareholders, because shareholders are not risk averse since they are able to diversify their portfolio.

The endowment effect occurs when the utility gain associated with receiving a good or service is less than the utility associated with giving up the good or service. These utility differences are a direct consequence of loss aversion. The endowment effect implies that executives are not willing to sell their shares at the purchase price, because they allocate a higher value to their shares once their property right has been established.

Janis (Janis, 1989) introduces the concept of “group think”, which refers to faulty decision making within groups because of group pressures. The group pressures deteriorate “the mental efficiency, reality testing and moral judgment” (Janis 1989, page 9). For a group member, it is not comforting to be the sole dissident in a group. Janus therefore argues that bright people can make very bad decisions once they enter a cohesive group. Janis argues that members of a group are not motivated to evaluate alternative courses of actions because all

members strive for unanimity. Staying committed to the groups' decisions is the easiest way to obtain unanimity. Janis also argues that groups exhibit an illusion of invulnerability and collective rationalization of their decisions. If negative feedback reaches the group, the group may still feel invulnerable and rationalize their decisions. A group may for example still feel that "we can turn this thing around" and thereby collectively rationalize the decisions.

Langevoort (Langevoort, 2001) describes how the boards' emphasis on teamwork and conflict avoidance can be evidence of CEO capture, which makes the board susceptible to groupthink and its including (negative) consequences. Marnet states that the "very psychology of the board is tilted towards supporting the chief executive" (Marnet, 2008, page 13). The board is a group and faces the group dynamics of group thinking: feelings of invulnerability, commitment and unanimity. Moreover, groups make riskier decisions than the mean of individual decisions (Stoner, 1968). Board meetings promote consensus decisions and strive for unanimous majorities, while the ideal board is supposed to be skeptical, independent and loyal to their shareholders.

Decision makers often commit themselves to a course of action and spend additional resources when faced with unfavorable outcomes in order to justify the previous investment decision (Bazerman, Giuliano, & Appelman, 1984; Staw, 1976; Staw, 1981). This justification is called escalation of commitment and has serious implications for financial and managerial decisions. Empirical research by Staw has elucidated two basic preconditions for escalation of commitment to occur. First of all, individuals are committed to the behavioral consequences which are irrevocably or not easily changed. In case it is possible to reverse own initial behavior, individuals tend to take this course of action to reduce or evaporate the negative outcomes. Second, the individual must feel personally responsible for the negative outcomes. In practice this means that a manager who is given negative feedback concerning his investment decision, will allocate additional resources to this investment if he himself, rather than anyone else of the organization, made the initial investment decision (Bazerman et al., 1984). Staw concluded that the mechanism underlying the escalation of commitment is a cognitive dissonance or self-justification process in which the increase in allocation following the negative outcome is an attempt to make previous behavior appear rational. Executives can become overcommitted to prior decisions, for example when they increase resources to failing projects. Executives set goals for the company in order to increase performance, while the goal setting can also lead to risk seeking behavior, escalation of commitment and might even result into unethical behavior. Executives can be highly committed to a course of action and

therefore actively committing or passively condone corporate fraud in order to reach their previously set goals. Executives do acquiesce to corporate fraud despite the irrationality and the potential devastating effects on their reputation.

Zuckermann (Zuckerman, 1979) introduces the concept of sensation seeking which identifies the need for varied, novel and complex sensations and experiences with the willingness to take physical and social risk for the sake of such experiences. Zuckermann develops the sensation seeking scale which categorizes individuals on their willingness to seek risk. Zuckermann finds that individuals show different levels of risk seeking behavior, whereby high sensation seekers are more likely to engage in risky behavior. These high sensation seekers also label their behavior as less risky. The sensation seeking bias has implications for corporate governance, because high sensation seeking executives value economic decisions as less risky and engage in risk seeking behavior that might be destructive for the organization.

The isolation effect implies that individuals generally disregard components which are shared by all prospects under consideration. If a component is part of all considerations, individuals disregard this component. This isolation effect can be viewed as a simplification, which is also a common effect regarding decision making. The simplification effect implies that individuals clarify prospects to make their decision simpler.

The retention of the status quo is another bias in economic decision making. Executives tend not to change an existing behavior, unless there is a compelling incentive to change. This behavior is the status quo bias and can be the result of loss aversion and the endowment effect. The status quo bias elicits that companies anchor and commit to their traditions even in case the related activities and behaviors become obsolete.

The diversification bias occurs when there is a difference in preference. Biases occur in case individuals are faced with a simultaneous choice process instead of a sequential choice condition. In simultaneous choice conditions, individuals show much more variety in choice compared to cases when the choices are made sequentially. Bernatzi and Thaler (Benartzi & Thaler, 1999) find that employees allocate their retirement funds evenly across various investment funds offered and indeed show more variety in choice.

Non-Standard Preferences, Non-Standard Beliefs and Non-Standard Decisions.

DellaVigna (DellaVigna, 2009) provides an overview of the literature on behavioral economics and clarifies why individuals deviate from the standard rational model. He suggests that individuals deviate from the economic rational model in three respects: individuals have non-standard preferences, have non-standard beliefs and make non-standard decisions.

Regarding the non-standard preferences, DellaVigna distinguishes time, risk and social preferences. The time preferences imply that individuals are time-inconsistent. The risk preferences depend on reference points and framing and are established in the prospect theory by Kahneman and Tversky. Individuals define their value function by referring to a certain reference point. Individuals concern for the welfare of others and incorporate this form of social dependence into their utility function.

Regarding the non-standard beliefs, DellaVigna sums up three reasons why individuals have systematically incorrect beliefs. First, individuals are overconfident and overestimate their performance leading to frequent and large acquisitions for which a substantial premium will be paid. Overconfident CEOs refuse to exercise their stock options which is an indication of the CEOs overestimation of the company's future performance. Executives for example overestimate their own skills. The studies of Malmendier and Tate (Malmendier & Tate, 2005; Malmendier & Tate, 2008) show that overconfident CEOs are more likely to engage in M&A deals, because they are convinced they can do a far better job than the CEO of the target company. Second, the law of small numbers reflects the tendency of individuals to expect small numbers to exhibit large-sample statistical properties. The gambler's fallacy⁶ and over inference are two elucidating phenomena. The third reason why individuals have systematic incorrect beliefs is the projection bias, implying that individuals expect their future preferences to resemble the present preferences. Individuals project their current preferences onto the future.

⁶ The future probability of a random event x is less likely to happen after event x occurred. This is an erroneous line of thinking because past events don't change the future probabilities.

Regarding the non-standard decisions, DellaVigna argues that individuals use heuristics for decision making. Decision making is often very complicated and individuals therefore simplify the decision making process. Several heuristics help individuals in their decision making: framing, the under/overweighting of information due to limited attention, social pressure and emotions.

With regard to the decision process, Kahneman (Kahneman, 2003) presents two different modes: intuition and reasoning. Intuition is effortless and comes spontaneously into mind without conscious search or computation. Reasoning on the other hand, is done deliberately and effortful. The intuition mode and reasoning mode are two different processes of fast versus slow, automatic versus controlled, effortless versus effortful, associative versus rule governed etc. Intuition is governed by habit and is therefore difficult to modify or control. Intuitions resemble perceptions but are not based on stimuli but on conceptual representation. While intuition might be associated with poor performance, it can also be a powerful and accurate tool. In case individuals are asked a difficult question, they might answer an easier question instead. The judgments and choices that individuals make are mostly made by intuition and are reasonably successful (Epstein & Knight, 2003; Klein, 1999).

In general, individuals do not think intensively and most judgments are reviewed only lightly in the reasoning mode. Accessibility to the reasoning mode will be impaired by: time pressure, concurrent involvement in a cognitive task, being in a good mood and performing the task in the morning or evening for “evening people” respectively “morning people”. The overall capacity for mental effort is limited and individuals therefore cannot combine many reasoning tasks. People, who are busy with a demanding mental activity such as attempting to hold in mind several digits, are much more inclined to respond to another task by “blurting out whatever comes to mind” (Gilbert, 1989).

Due to the limited capacity of the reasoning mode, managerial action will partly be based on intuition, a fast, automatic and effortless process. Basing corporate governance structures on the idea that decisions are made with reasoning ignores the fact that decisions are mostly processed using intuition. Even if there are several important decisions to be made simultaneously, the result might be that important decisions do not process the reasoning mode and will not be sufficiently thought through.

The economic theory describes an agent with just one single cognitive system, while Kahneman proposes a model of an agent with a different architecture, which can be characterized as consisting of a two system structure with a large role for intuition. The central characteristic outlined in the paper of Kahneman is that agents often act intuitively. A better understanding of our cognitive system will lead to improved decision making.

Nature-Nurture

Behavioral economic research focuses on the above described deviations from the rational act model. A thorough understanding of how individuals make their decisions is crucial for developing optimal corporate governance systems. Traditionally, individuals have remained agnostic to the origins of human preferences and usually assume their stability over time and context. Chen et al. (Chen, Lakshminarayanan, Santos, & Foundation, 2005) have studied capuchin monkeys for their sophisticated and evolutionary proximity to individuals in order to reveal the nature or nurture of decision making. When faced with decisions involving simple gain-loss frames, the capuchin monkeys show many of the biases the individuals have, including reference dependent choices and loss aversion. Capuchin monkeys demonstrate little to no social learning. The researchers therefore suggest that biases as loss aversion are an innate function rather than learned behavior.

Concluding Remarks Behavioral Economics

Executives all have their own non-standard beliefs, non-standard preferences and non-standard decision making. The executives' decisions are made in a specific context, probably within a group or influenced by a group. Moreover, the executives' decisions are frequently processed using intuition (spontaneous and effortless) instead of reasoning (deliberately and effortful). In practice, executives frequently engage in suboptimal behavior which questions the applicability of the rational act model.

Behavioral economics explains the human decision making by incorporating cognitive and judgmental shortcuts and illuminates various systematic decision making biases. The findings from behavioral economics undermine the assumption of individuals as rational utility maximizers.

A thorough understanding of our inner animal spirits, being the irrationality of human behavior, and the subsequent incorporation into corporate governance theories will lead to a better understanding of the actions carried out by executives and shareholders.

2.5 Corporate Governance Research

The literature review elucidates that solving the principal-agent problem is one of the key challenges of corporate governance. The corporate governance systems have changed during the past decades in order to protect the interest of shareholders. The changes in corporate governance include separating the CEO and board chair positions and installing independent board committees. The non-executive directors are pressured to exercise independent control over management. The changes in corporate governance also pressure non-executive directors to dismiss the CEO in case of underperformance and to prevent takeover defenses aimed to protect managerial interests. The underlying theoretical rationale for these changes are grounded in the agency theory of corporate governance in which boards play a central role controlling and monitoring management. However, the progress in making changes in corporate governance has stagnated (Westphal, 1999; Zajac & Westphal, 1998) and solving the principal-agent problem remains a key challenge.

The corporate governance research focuses on finding a relation between board attributes and financial performance and takes the same corporate governance attributes into account, like the number of inside and outside board members. These corporate governance studies concentrate on quantitative data from regular databases of published sources. Quantitative research about boards has often been criticized for not addressing the most important research questions. As Langley et al. wrote: “decision gets studied; behavior gets lost” (Langley, Mintzberg, Pitcher, Posada, & Saint-Macary, 1995, page 266). The data from regular databases simply cannot describe actual board behavior. Beside the ineffectiveness of corporate governance studies, researchers (Leblanc & Schwartz, 2007) also suggest that the lack of conclusive results might be due to researchers studying the wrong corporate governance aspects.

The main part of corporate governance research is based on input-output studies. Pettigrew observes that “great inferential leaps are made from input variables to output variables such as

board performance with no direct evidence on the processes and mechanisms which presumably link the input and output” (Pettigrew, 1992, page 171). Pettigrew argues that researchers should focus their future research on the actual behavior of boards and hereby supplementing board demography with actual board behavior.

Board research fails to establish any clear consensus of which board attribute leads to which board outcome and has not provided conclusive answers (Forbes & Milliken, 1999; Hermalin & Weisbach, 1991; Zahra & Pearce, 1989).

There is however development in the field of researchers moving away from the abstract input-output studies and instead showing an increasing interest in the role of leadership and behavioral dynamics in the boardroom (Huse, 2008). The interest in the role of leadership is grounded in the strategic choice perspective, stating that executives play a major role in shaping the organizational strategic choices and ultimately company performance (Bertrand & Schoar, 2003; Child, 1972; Crossland & Hambrick, 2007; Zajac, 1990). The strategic choice perspective includes individual CEO-effects⁷ and is opposite from the view that internal and external environmental forces constrain CEOs in their functioning. This research incorporates the strategic choice perspective and will respond to the increasing interest in the role of leadership by studying the CEO personality.

The mainstream corporate governance research has studied the board attributes in detail but these input-output studies do not include the effect of the CEOs personal characteristics. The CEO has an important central position which is often neglected.

There are three factors why the CEO plays a major role in the corporate governance system. First, the CEO plays a crucial role in the directors’ selection procedure. Second, the board depends on the information provided by the CEO. Third, the CEO has influence on the remuneration. These three factors weaken the board and elucidate the important role of the CEO (Pearce & Zahra, 1991).

⁷ The CEO-effect is defined as “the proportion of variance in a level outcome variable that is statistically associated with, or can be attributed to, the presence of individual CEOs” (Crossland and Hambrick 2007, page 769 and 770).

The CEO and the CEO personal characteristics are therefore important corporate governance factors. This research first documents how to measure the personal characteristics and proceeds with investigating the impact of the CEO personal characteristics (the CEO-effects).

Concluding Remarks Corporate Governance Research

The mainstream corporate governance studies concentrate on quantitative data from regular databases and are input-output based. These abstract input-output studies examine the relationship between board attributes and firm performance but they have not been able to provide conclusive answers (Forbes & Milliken, 1999; Hermalin & Weisbach, 1991; Zahra & Pearce, 1989). The underlying reason for providing inconclusive results might be that researchers focus on board demography (Pettigrew, 1992) and are studying the wrong corporate governance aspects (Langley et al., 1995; Leblanc, & Schwartz, 2007).

The central position of the CEO is an often neglected variable in corporate governance research (Pearce & Zahra, 1991). Researchers should pay attention to actual board behavior (Pettigrew, 1992) and study the role of leadership (Huse, 2008).

This research concentrates on the CEO personal characteristics, in particular the CEOs narcissistic personality. The focus is on investigating whether CEO narcissism is a neglected corporate governance variable.

Chapter 3 The Framework of the Causes and Consequences of CEO Narcissism

Executive directors are responsible for the organizational strategy of a company, which is directly related to the performance. The CEO plays a central role within the top executive team and the CEO personality defines the extent to which the CEO is capable of exerting his influence within the top executive team.

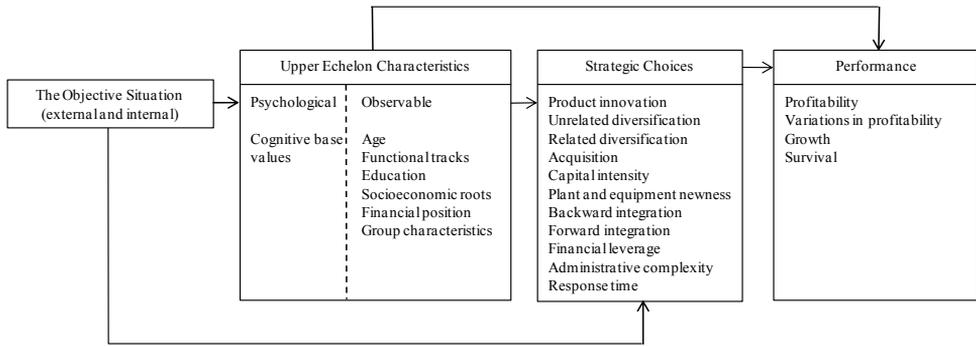
Chapter 3.1 first describes the literature regarding the influence of executives and the special role of the CEO in the top executive team. This chapter describes the upper echelon theory of Hambrick and Mason to elucidate the influence of executive directors on the organizational strategy and the organizational performance. Subsequent literature and empirical observations show that CEOs have disproportionate and sometimes dominating influences in the top management team which demonstrates the relevance to investigate CEO personal characteristics. Chapter 3.2 elaborates on the personal characteristics of the CEO with a focus on the narcissistic personality. The chapter explores why narcissism is an essential element for effective leadership. The framework of the causes and consequences of CEO narcissism is developed in chapter 3.3.

3.1 The Influence of Executives

Executives play a major role in shaping the organizational strategic choices and ultimately the company performance (Bertrand & Schoar, 2003; Child, 1972; Crossland & Hambrick, 2007; Zajac, 1990). The influence of the personal characteristics of executives on the organizational strategy and the organizational performance is grounded in the upper echelon theory of Hambrick and Mason (Hambrick & Mason, 1984). The upper echelon theory postulates that the perceptions, cognitions and values of executives manifest themselves in the decision making process.

The upper echelon theory is based on the theory of Child (Child, 1972) which in turn is based on the strategic choice approach by assuming that the top management decisions affect the organizational performance. Figure 3.1 depicts the upper echelon theory of organizations.

Figure 3.1 The Upper Echelon Theory of Hambrick and Mason (1984)



The executives in the upper echelon theory make their decisions based on the personal interpretations of the situations they face. The personal interpretations are based on the executives’ experiences, values and personalities. The characteristics of executives filter and distort information in three subsequent ways. The first way is the field of vision (executives look and listen in a certain direction). The second way is the selective perception⁸ (what executives actually see and hear). The third way is the interpretation (the way in which executives attach a meaning to what they say and hear).

The upper echelon theory is based on the premise of bounded rationality, which is introduced by Simon (Simon, 1955). Bounded rationality implies that decision makers are faced with too much complexity to act completely rational. The decision makers therefore decide on the basis of the available information and time and within the boundaries of their limited cognitive mind. The decision makers in the bounded rationality model are “intended rational, but only limitedly so” (Simon, 1955, page 24). The upper echelon theory assumes that executives are fallible human beings, susceptible to cognitive biases, selfishness, boredom and fatigue. Top executives take decisions that are based on the past experiences, on the present situation and on the future aspirations (Carpenter, Geletkanycz, & Sanders, 2004) and they focus not only on managerial self-interest, but also on personal ambition and hubris⁹ (Hayward & Hambrick, 1997). Executives often act irrational on the basis of their personal interpretations, which are based on their personal characteristics. Personal characteristics influence executives’ rational and irrational beliefs and actions.

⁸ Starbuck and Milliken (Starbuck & Milliken, 1988) call this “noticing”.

⁹ Hubris can be defined as excessive overconfidence, arrogance and pride, resulting into overestimated abilities.

Upper Echelon Proxies

The upper echelon theory argues that demographic variables of executives are proxies for executives' perceptions, cognitions and values, which in turn influence the organizational strategy and organizational performance positive or negative. The influence of the executives' perceptions, cognitions and values on the organizational strategy and organizational performance is a black box, in which there is no knowledge about the internal processes from inputs to outputs. The biases and propositions of top executives as the most powerful actors must be examined in order to understand the functioning of organizations. Hambrick and Mason argue that "organizations become reflections of their top executives" (Hambrick & Mason, 1984, page 193).

Critics Upper Echelon Proxies

The demographic variables are used as a proxy for underlying constructs. The demographic variables are publicly available and have been widely used in research. The critics argue that data are entirely archival (Pettigrew, 1992) and inferences are based on unmeasured variables (Lawrence, 1997). Using these proxies is only a matter of methodological convenience. Priem, Lyon and Dess criticize the use of demographic variables and raise questions about the construct validity (Priem, Lyon, & Dess, 1999). Boal and Hooijberg even go a step further by calling "a moratorium on the use of demographic variables as surrogates for psychological constructs" (Boal, Hooijberg, 2001, page 523).

Hambrick and Mason recognized from the start of their research the serious limitations using demographic variables as proxies for executives' perceptions, cognitions and values. Psychological measures are potentially more direct in assessing the executives' perception, cognition and values compared to an exclusive focus on demographic variables (Finkelstein & Hambrick, 1996; Hambrick & Mason, 1984). Personal characteristics contain less noise compared to pure demographic variables and are more suitable to explain the black box. This research therefore proceeds using personal characteristics to explain the black box.

The unique position of the CEO

Critics also argue that the top management team concept is not well defined and that individual members of the top management team can contribute more or less to the groups' output. The upper echelon theory considers the CEO as an average member in the group, while literature and empirical observations show that CEOs have disproportionate and even sometimes dominating influence on the groups' output. This strategic choice perspective incorporates individual CEO-effects.

The literature documents the individual executive effects in which the CEO is a major determinant shaping the organizational strategy. The top management team members serve the CEO (Finkelstein, 1992; Shen & Cannella Jr, 2002) and feel a strong obligation towards the CEO and are unwilling to challenge the CEO (Lorsch & MacIver, 1989).

Various researchers state that the CEO has a unique position in the company. Daily and Johnson (Daily & Johnson, 1997) consider the CEO to be "THE corporate leader" who will impact organizational performance. Vancil (Vancil & McDonald, 1987) argues that the CEO is the top manager of the company and the most powerful and influential member. Other researchers consider the CEO as the architect of the top executive team (Finkelstein, 1992; Shen & Cannella Jr, 2002) or the figurehead (Cannella & Holcomb, 2005).

Finkelstein (Finkelstein, 1992) argues that the CEO power influences the ability of a CEO to affect strategic choices. Finkelstein (Finkelstein, 1992) develops a methodology for executives' power measurement in which it becomes clear that some executives have more power than other executives.

The distribution of power in the top management team is crucial: in some teams the power may be dispersed and in other teams the power may reside within one key individual, mostly the CEO. The position, the remuneration and the titles of CEOs vary from other executives which reflects the power difference.

Finkelstein points out how "power may emanate from a managers' personality" (Finkelstein 1992, page 523). Carpenter et al. (Carpenter et al., 2004) argue that the power variance in top management teams influences upper echelon relationships.

Other researchers elucidate that the CEO personal characteristics affect strategic actions (Hambrick, 2007; Henderson, Miller, & Hambrick, 2006) and influence the organizational performance, measured by sales growth, return on investment and return on assets (Peterson, Smith, Martorana, & Owens, 2003).

For an autocratic or intolerant CEO, only the opinions and perspectives of one person matter, i.e. the CEO himself. In this case, the CEOs psychological profile, preferences and biases provide stronger predictions about strategic decision making compared to a team level analysis (Cannella & Holcomb, 2005). Leaders with a dark side personality show more dysfunctional performance with consequent adverse impact on followers and the organization (Benson & Campbell, 2007).

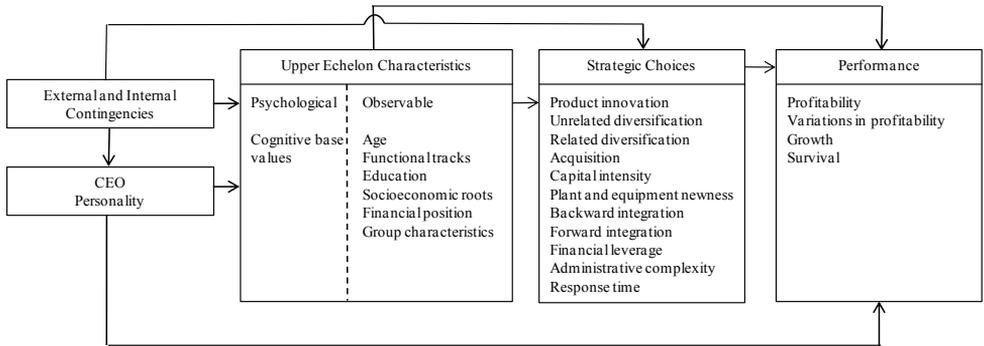
Nohria et al. (Nohria, 2003) find that 14% of the performance' variance is accountable to CEOs. Crossland and Hambrick (Crossland & Hambrick, 2007) provide evidence that especially US CEOs have substantial impact on company's performance. US CEOs have fewer constraints than CEOs in other countries, looking at the national values of individualism, the prevailing ownership structure of widely dispersed well diversified shareholders and the governance structures.

The top management team does not jointly experience the strategic issues, but meets only for a few hours a week and discusses questions that already have been raised (Cannella & Holcomb, 2005). The studies of Dutton and colleagues postulates that it is the CEO who identifies and defines the strategic issues as an opportunity or as a threat and who communicates accordingly to the other top management team members (Dutton, Fahey, & Narayanan, 1983; Dutton & Duncan, 1987; Dutton & Jackson, 1987; Dutton & Ashford, 1993). These studies on the strategic issue diagnosis assume that the top management team considers the issues that have already been identified and researched by the CEO. Dutton and colleagues argue that this effect is strong enough to justify the selection of the CEO as their unit of analysis.

This brief literature overview makes clear that CEOs have disproportionate and even sometimes dominating influences. The personal characteristics of CEOs lead to individual executive effects. The existence of powerful CEOs becomes relevant because CEOs are influential shapers of the company's performance. Ergo, the CEO personality is a central

determinant influencing the upper echelon which ultimately affects organizational economic outcomes.

Figure 3.2 Central position of the CEO



Upper Echelon Theory (Hambrick and Mason, 1984), amended

Concluding Remarks Influence of Executives

The upper echelon theory of Hambrick and Mason documents the influence of executives’ personalities on the organizational strategy and the organizational performance. The literature confirms that the CEO plays a major role within the top executive team which invalidates the assumption that all executives matter. The CEO is a major determinant shaping the organizational strategy and determining the organizational performance. The focus will be on psychological constructs, which are potentially more direct in assessing the executives’ perceptions, cognitions and values compared to demographic variables. This research is based on the assumption that organizations become reflections of their Chief Executive Officers.

3.2 Influential Personal Characteristics of CEO Leadership

The literature overview of the previous chapter documents the disproportionate and sometimes dominating influence of the CEO. The personal characteristics of the CEO define the extent to which the CEO is capable of exerting influence in defining the organizational strategy which ultimately affects the organizational performance. This chapter first elaborates on the concept of CEO leadership (3.2.1) and the narcissism construct (3.2.2.) and proceeds with the relevance of narcissism as a requisite for effective leadership (3.2.3).

3.2.1 CEO Personality and Leadership

There are different definitions of leadership, but leadership is generally defined as a process of social influences in which one person can enlist another to accomplish certain tasks. Leaders can motivate followers to set aside their selfish pursuits and work for the groups' interests (Hogan & Kaiser, 2005) and are able to exert influence over others by motivating, by being an example, by inspiring or merely by exercising status and power. The power¹⁰ of the CEO results from formal and informal sources. The formal power of the CEO is associated with the rank in the organization, and the ability to award and punish the subordinates. The CEO holds the highest position within the organization, which implies that the CEO has high formal power. Informal power is associated with the individual, rather than the formal, official position within the organization. Reference power is a form of informal power and implies a desire of subordinates to be identified with the CEO. Effective leaders know how the Pygmalion¹¹ effect works to get subordinates involved doing their utter best. Leaders hereby impose their informal power.

Kets de Vries argues that the most effective global leaders play the charismatic (informal) role and the instrumental (formal) role simultaneously (Kets de Vries, 1994). The informal charismatic role implies that the leader is able to motivate his followers merely by envisioning, empowering and energizing. Leaders should be able to develop, to articulate and to enact a vision (Kets de Vries, 1998; Nadler & Heilpern, 1998), which will affect the

¹⁰ Power is defined as "the capacity of individual actors to exert their will" (Finkelstein, 1992, page 506). This definition is consistent with the view of other researchers (Pfeffer, 1981).

¹¹ The Pygmalion effect, or Rosenthal effect, implies that performance improves as greater expectations are placed upon people.

decision making context of the top executive team (Gabarro, 1987; Kotter, 1990; Vancil & McDonald, 1987). The charisma of the CEO leads to reduced heterogeneity among top executives (Cannella & Holcomb, 2005; Waldman & Yammarino, 1999).

The leaders must also play a formal instrumental role in which they implement processes in order to improve the design of the organization and the appropriate control. A leader who is capable of aligning the informal charismatic role with the formal instrumental role ends up being a great effective leader.

The Big Five Personality Traits

Peterson et al. (Peterson, Smith, Martorana, & Owens, 2003) elucidate that the CEO personality impacts top management team dynamics. The individual personality cannot easily be described, but psychologists do agree on five influential personality traits: neuroticism, extraversion, openness, agreeableness and conscientiousness. These five genetic personality traits are called the “Big Five” and are observable from infancy (Maccoby, 2007).

Peterson et al. (Peterson et al., 2003) measure the CEO personality based on these five personality traits and conclude that the CEO personality affects the dynamics of a top management team, which in turn ultimately affects organizational performance, measured by sales growth, return on investment and return on assets. Judge et al. also use the five personality traits as an organizing framework to investigate the relations between personality and leadership and these researchers find that extraversion is the most important trait for leadership (Judge, 2002). CEOs should have specific skills and personal characteristics in order to become an effective leader. The research of Peterson et al. and Judge et al. investigate the impact of behavioral traits that measure the normal personality. This research does not focus on these behavioral traits, but rather focuses on the psychoanalytic narcissism trait. The underlying reason for using a psychoanalytical trait is twofold according to Maccoby (Maccoby, 2003). First, personality types must be analyzed from the point of view of social character. The behavioral traits are innate temperaments that are neither learned nor learnable. Although the psychoanalytic traits may also be part of the innate personality, they are mainly influenced by socialization. Second, the psychoanalytic traits have proven to be useful to understand and predict leadership styles. The narcissism construct is relevant in the context of the impact of the CEO personality. This research focuses on narcissism, because of these two arguments and because of its inherent leadership capabilities (Lubit, 2002; Maccoby, 2003).

3.2.2 The Narcissism Concept

The term narcissism is widely used and its origin goes back to the 19th century when the term was first used by Havelock Ellis (Ellis, 1898) to describe a clinical condition of perverse self-love. The concept had a profound influence on the work of Freud (Freud, 1914) who identified various specifications of narcissism. These specifications include self-admiration and a tendency to see others as an extension of one's self. Freud argued that some narcissism is an essential part of all of us from birth.

The etymological origin of the word narcissism comes from the beautiful, proud and unfeeling Greek Narcissus who refused the love of a nymph. Aphrodite, the goddess of love punishes Narcissus with self-love. Narcissus then falls in love with a reflection in a pool, not realizing it was his own reflection, reaches out for the beautiful reflection, bows further and further and drowns in his own image.

Narcissism reflects the personality trait of self-love which includes a set of character traits like vanity, hubris, selfishness, self esteem, self confidence, egoism, dominance, ambition and lack of empathy. Self esteem, self confidence on the outside, because when looking at the real inside the opposite occurs. Narcissistic individuals usually lack self esteem and self confidence and try to compensate these shortcomings by presenting themselves as being more important than others and are constantly looking for affirmation. This is called the narcissistic paradox. In order to protect themselves from being criticized by others, narcissistic people tend to ignore the feelings, sayings and behaviors of others and therefore cultivate underdeveloped feelings of empathy.

Narcissism can be measured on a dimensional or a categorical scale. The categorical approach implies that individuals are assigned in the categories normal and abnormal, assuming a difference exists between normality and abnormality. The dimensional scale connects the two categories as polar positions along a line, locating individuals along this dimension. Narcissism has been seen as a clinical disorder (the categorical approach) by clinicians and by early research up to the end of the 1980th. Later researchers (Emmons, 1987; Raskin & Terry, 1988) have shown that narcissism can be seen as a personality dimension on which individuals can score from low to high. This confirms Freud's argument that narcissism is to some extent part in all people.

Narcissism can be classified according to DSM-IV (Diagnostic and Statistical Manual of Mental Disorders). Appendix I includes the criteria according to the APA¹². According to the DSM IV, narcissism is "a pervasive pattern of grandiosity (in fantasy or behavior), need for admiration, and a lack of empathy, beginning by early adulthood and present in a variety of contexts" (DSM-IV, page 717). Narcissistic individuals are preoccupied with fantasies of unlimited success, they believe they are special and unique, have a sense of entitlement, are interpersonally exploitive, lack empathy and are arrogant and haughty. Narcissists hold unrealistic exaggerated beliefs about themselves and show a greater tendency towards self-enhancement bias (John, & Robins, 1994).

High levels of narcissism can be dysfunctional and are labeled as Narcissistic Personality Disorder. Approximately 0.7% to 1% of human beings score high on the narcissistic personality disorder as described by DSM IV. Taking the DSM as a base, Raskin and Hall (Raskin & Hall, 1979) have developed the Narcissistic Personality Inventory (NPI), a 54 item forced choice scale based on 220 DSM items.

Emmons (Emmons, 1984; Emmons, 1987) has further reduced the 54 items NPI using factor analysis into 4 components (the factor loadings are included in appendix II) with evidence for construct validity and internal consistency:

- I authority/leadership (I like to be the center of attention);
- II superiority/arrogance (I am better than others);
- III self-admiration (I am preoccupied with how extraordinary and special I am);
- IV entitlement (I insist upon getting the respect that is due to me).

The above literature on narcissism and the 4 components of Emmons form the bases for this research.

¹² The APA (American Psychiatric Association) develop the DSM (Diagnostic and Statistical Manual of Mental Disorders). Narcissism is described in cluster 301.81

3.2.3 Narcissism as a Requisite for Effective Leadership

An important personal characteristic in terms of leadership is narcissism because of its inherent capabilities to exercise power, to manipulate others and the drive to attain power and prestige (Lubit, 2002). Throughout history there have been many narcissistic business leaders, like Steve Jobs of Apple Incorporation, Michael Eisner of the Walt Disney company, David Geffen of Geffen Records and Henry Ford of Ford Motor Company. These leaders have been able to drive the organization towards a magnificent future because they have a great vision and because they are able to attract followers (Maccoby, 2003).

There are several skills related to the rise and prospering of narcissistic leaders in business organizations. Among these skills fall their drive and enthusiasm as well as their ability to charm and to manipulate others. Narcissistic CEOs have an intense continuous need for affirmation and display highly visible (Chatterjee & Hambrick, 2007), even bold actions (Kets de Vries, 1994; Lubit, 2002).

Productive and Destructive Narcissism

The presence of narcissistic CEOs and their subsequent fall suggests that there must be positive as well as negative aspects of narcissism. A literature review elucidates that researchers advert to these positive and negative elements of narcissism.

Maccoby (Maccoby, 2003) lists characteristics of narcissistic leaders that make their leadership effective: they are great visionaries with charisma and they can inspire a great number of followers. Exaggerated beliefs about their own capabilities and achievements, supreme self-confidence and dominance are in a certain context needed to inspire a group of followers. Leaders are selected with their existing narcissistic personality traits, because their upside potential is enormous. According to this productive school, narcissistic CEOs will lead to positive organizational outcomes. Maccoby (Maccoby, 2003) draws a distinction between positive (productive) and negative (destructive) narcissism and argues that strategic intelligence makes the difference between productive narcissism and its pathological destructive counterpart. Strategic intelligence includes five elements: foresight, systems

thinking, visioning, motivating, and partnering. If the narcissistic leader lacks strategic intelligence, the results will be disastrous.

Rosenthal and Pittinsky (Rosenthal & Pittinsky, 2006) consider narcissism as a motivational mechanism driven by personal egoistical needs for power and admiration. These researchers document several components underlying narcissism which lead to the downside of narcissism: arrogance, need for recognition and superiority, hypersensitivity, anger, lack of empathy, amorality and paranoia.

Lubit (Lubit, 2002) also documents negative and positive aspects of narcissism and distinguishes between a healthy versus a destructive form of narcissism. Healthy narcissism is based upon a secure self-esteem. Self-esteem is a necessary mechanism to cope with own frustrations and to relate with others. The healthy narcissist will experience some frustration if the desired goals are not attained, but it will not threaten the self-image of being worthwhile and valuable. This solid self-esteem of healthy narcissists secures the rights and wellbeing of others. A healthy narcissist is not obsessed with power, while a destructive narcissist is obsessed with power. The destructive narcissists do not respect others' rights and wellbeing and are arrogant, devaluing and are interpersonally exploitative. Both the healthy and the destructive narcissist show self-confidence on the outside, but the destructive narcissist has a fragile self-esteem on the inside. This low inside self-esteem is compensated by developing a grandiose self-image on the outside and by devaluing others.

Kets de Vries (Kets de Vries, 1994) distinguishes constructive narcissism from reactive narcissism. Constructive narcissists are able to use their narcissism effectively and are well-balanced and are capable of introspection and emphatic feelings, while reactive narcissists do not have these capabilities. Reactive narcissists are constantly trying to patch up their sense of self-esteem, preoccupy themselves with negative emotions like jealousy, triumph and revenge and have a tendency of enormous self-importance. Reactive narcissists treat human beings as objects and are totally self-centered which forms the most important indicator for defective leadership.

The above described literature documents both positive and negative aspects of narcissism. The positive aspects have been labeled productive (Maccoby), healthy (Lubit) or constructive (Kets de Vries). The upside potential of CEO narcissism is enormous, but the lack of

empathy, the power obsession, the interpersonal exploitativeness and the fragile self-esteem may lead to destructive behavior.

CEO Narcissism

The social learning theory views narcissism as a response of overvaluation in which an individual is treated as a special person who is perfect and lovable. The unrealistic overvaluation leads to self illusions which cannot be sustained. CEOs are treated as special persons because of the highest position they hold within the organization. A response to overvaluation is likely to occur. Like all other individuals, CEOs are fallible human beings scoring higher or lower on the narcissistic dimension. CEOs have influential and powerful positions which give them an inflated self-esteem (Raskin, Novacek, & Hogan, 1991). Therefore, the average CEO will score higher on the narcissism scale compared to the average population (Chatterjee & Hambrick, 2007). A leader scoring high on the narcissistic scale has a continuous goal of external self-affirmation. The requirement of a continuous stream of self-image reinforcement implies the need for appraisal at frequent intervals. Appraisals for the long run are not sufficient for the narcissistic leader (Buss & Chiodo, 1991). In order to obtain frequent appraisal, the CEO must undertake challenging and bold actions which the audience can easily observe.

There is not much empirical research about narcissistic business leaders, but the few existing articles document the importance of CEO narcissism for organizational outcomes (Chatterjee & Hambrick, 2007; Kets de Vries & Miller, 1984).

Chatterjee and Hambrick (Chatterjee & Hambrick, 2007) sum up three reasons for excluding narcissism from research. First, narcissism has been seen as a personality disorder instead of a personality dimension. Second, the occurrence of narcissism has been seen as incidental. Third, massive data collection of CEO narcissism is problematic. The first two reasons have become obsolete, evidenced by recent psychological literature. The last barrier can be solved by measuring narcissism with objective variables. Data collection through survey research is a common method for obtaining data on personality traits. This method is inappropriate because individuals are very reluctant to engage in a survey research and the sensitive questions mostly yield very low response rates. Therefore, massive data collection through survey research for CEOs is impossible. Moreover, the answers from survey research are influenced

by a social desirability bias. It is possible to capture the narcissism concept for a large sample of CEOs using theoretically-grounded indirect measures (Raskin & Shaw, 1988). Therefore, this research is based on objective variables, as laid out by Webb (Webb & Weick, 1979; Webb, Campbell, Schwartz, & Sechrest, 1966).

Concluding Remarks Influential Personal Characteristics of CEO Leadership

The personal characteristics of CEOs influence their central role within the top executive team. An important personal characteristic is narcissism, because of its inherent capabilities to exercise power, to manipulate others and the drive to attain prestige. Narcissistic individuals have informal power, a great vision and are able to attract followers. These properties are necessary elements for effective leadership and desirable for CEOs (Maccoby, 2001).

The presence of narcissistic CEOs, their success and their subsequent fall demonstrate the positive as well as negative elements of narcissism. Narcissists experience the low inner self esteem as a shortcoming and will try to compensate this shortcoming by developing a grandiose self-image, by devaluing others and by presenting themselves as being very important, which results into a lack of empathy and exploitative behavior. This reactive narcissism can result into destructive behavior.

Narcissism is a necessary element for effective leadership but also an addictive drug with the potential danger of a destructive overdose. The link between narcissism and effective leadership is intricate.

Survey research as the common method for assessing personality traits is inappropriate for a massive CEO population because of the low response rates and the social desirability bias. This research therefore uses objective variables to assess the narcissistic personality dimension of 953 S&P500 CEOs. The data collection, presented in chapter 4, will reflect the four components of Emmons (Emmons, 1984; Emmons, 1987).

3.3 Framework of the Causes and Consequences of CEO Narcissism

Narcissism is related to leadership positions, but it does not predict leadership effectiveness (Rosenthal & Pittinsky, 2006). The level of narcissism of a successful CEO is the real issue. Success leads to profit and rising stock prices but success also leads to power and status that both need to be monitored constantly. The success and the increasing power lead to a crossroad: either the CEO has a personality scoring high on the narcissistic scale and attributes the success to himself (internally) or the CEO has a personality scoring low on the narcissistic scale and attributes the success externally to the company, his team or others.

The high narcissistic CEOs are continuously trying to patch up the low inner self-esteem, are interpersonally exploitative and lack empathy. They are incapable of self-reflection and refuse countervailing power. A successful CEO acquires increasing power and might begin to exhibit the characteristics of a Sun King¹³. The people around the CEO follow him blindly and accept and adore every word the CEO says. The high narcissistic CEO surrounds himself with followers and sycophants. The bold actions of the high narcissistic CEO result in (feelings of) success which leads to hubris and cultivates the CEO status.

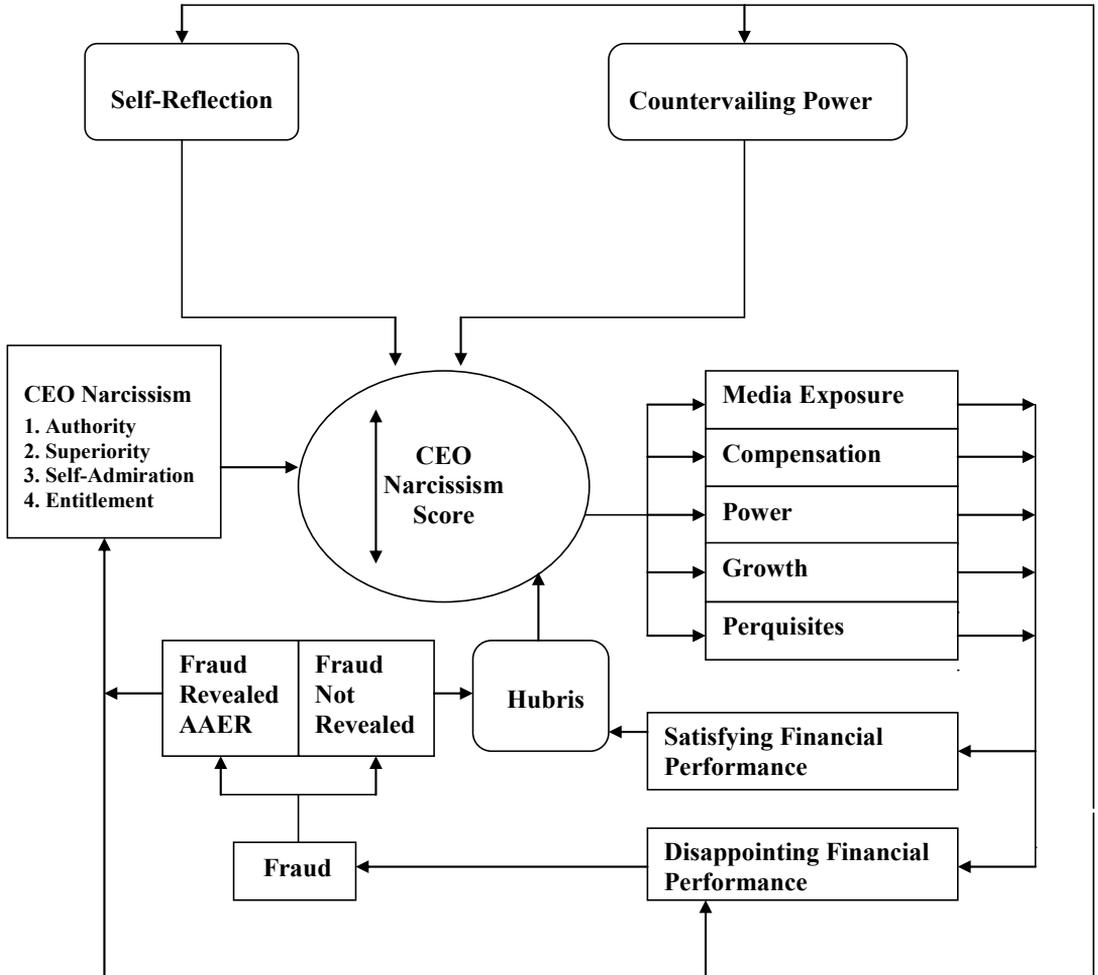
The greater the success, the greater the power of the high narcissistic CEO. The CEO power increases and the countervailing power of the most important parties decreases. Overconfidence, hubris, comes into being. The successful leader loses his sense of reality, thinks it is all about his personality instead of his function, falls in love with his own portrait in magazines and newspapers, flies higher and higher in the sky, just like Icarus.

In the scenario of failure, the possibility still remains to hold on to the CEO status by committing fraud and intend that business prospers. In case the failure is acknowledged, the CEO falls from the thrown, just like Icarus smashed to earth.

Figure 3.3 visualizes the causes and consequences of CEO narcissism.

¹³ The legendary example of a sun king is Louis XIV who reigned France from 1643 to his death in 1715. When he personally started governing in 1661, he gave himself "droit divin", implying that God gave him his throne. He did not accept any countervailing power and therefore no prime minister was installed. Under his reign, various wars were fought and France became the leading European power. After his death in 1715, Louis XIV had left France with extended borders and an oversea empire, but in a deplorable situation with a lot of corruption, many dept and an unfair tax system.

Figure 3.3: Framework of the causes and consequences of CEO narcissism¹⁴



¹⁴ Ranking the CEOs narcissistic personality in chapter 4; Financial performance tested in chapter 5; Countervailing power tested in chapter 6; Fraud tested in chapter 7

The upper echelon theory provides an indication of how narcissism may be translated in actions (Higgs, 2009): by investigating the engagement of grandiose acts and bold actions undertaken to attract attention. Narcissism is a multi-dimensional concept which is able to predict attitudes (cognitive aspect), to predict behaviors (motivational aspect) and to predict the way narcissistic individuals behave towards others (interpersonal aspect) (Aktas, De Bodt, & Roll, 2009).

CEOs leave traces behind in their daily functioning. These traces can be systematically followed by looking at 5 determinants: media exposure, compensation, power, growth and perquisites. These 5 determinants are subdivided into 15 quantitative variables and listed in table 3.1 below.

Table 3.1 Determinants and variables of CEO narcissism

Determinant	Variable
Media Exposure	<ol style="list-style-type: none"> 1. Number of Publications in Newspapers, Business magazines 2. Number of Awards 3. Number of lines in the Marquis who's who entry 4. Presence and size of the Photo in Annual Report
Compensation	<ol style="list-style-type: none"> 1. Cash Compensation (Salary & Bonus) 2. Total Compensation (TDC1) 3. Ratio Cash Compensation CEO/Second Best Paid Executive 4. Ratio Total Compensation CEO/Second Best Paid Executive 5. Executive Rank by Salary and Bonus
Power	<ol style="list-style-type: none"> 1. CEO Duality 2. Governance Index of Gompers 3. Number of official formal titles of the CEO
Growth	<ol style="list-style-type: none"> 1. Number of Acquisitions 2. Size of Acquisitions
Perquisites	<ol style="list-style-type: none"> 1. Private Use of the Corporate Jet

The five determinants and the fifteen variables all reflect the four components of Emmons (Emmons, 1984; Emmons, 1987). The next chapter 4 gives a detailed description of the determinants, the variables, the data collection and the subsequent data analysis which scores the CEOs according to their narcissistic tendencies.

Just like Icarus, high narcissistic CEOs fly higher and higher in the sky. Chapter 5 investigates the intricate relationship between CEO narcissism and the financial performances. The CEO narcissism score is offset against financial performance measures.

The comparison between high narcissistic CEOs and Icarus continues: Icarus had his father warning him not to fly too high, but unfortunately, Icarus didn't listen. Once ascended, Icarus could not hear his father anymore and had no one left to warn him. Likewise, high narcissistic CEOs don't listen and refuse any countervailing power. High narcissistic CEOs surround themselves with followers and sycophants and have no one left to monitor. Chapter 6 tests the hypothesis whether high narcissistic CEOs have less countervailing power.

Chapter 7 investigates the fraud propensity of CEOs by collecting data about AAERs: The Accounting and Audit Enforcement Releases. These data are necessary to test the hypothesis if high narcissistic CEOs are more inclined to commit fraud in order to keep up appearances.

3.4 Summary and Conclusion Framework CEO Narcissism

This chapter starts with describing the upper echelon theory of Hambrick and Mason which documents the influence of executives' personalities on the organizational performance. The focus is on the CEOs narcissistic personality with its inherent productive and destructive elements. Narcissistic CEOs are able to drive the organization towards a magnificent future, because they are visionaries and attract a great number of followers. Narcissism is a prerequisite for effective leadership, but the bold actions of a narcissistic CEO also form a potential threat. The framework of the causes and consequences of CEO narcissism (visualized in figure 3.3 on page 56) elucidates that CEOs may end up in a vicious circle from which it is difficult to escape in the absence of self-reflection and countervailing power.

Chapter 4 Development of a CEO Narcissism Score

The narcissistic personality dimension of CEOs is characterized by five determinants which can be quantified with fifteen variables. These variables are analyzed in order to score the S&P500 CEOs according to their narcissistic personality. Chapter 4.1 describes the five determinants and the fifteen variables which measure CEO narcissism. Chapter 4.2 documents the data collection process and provides the descriptive statistics for each quantitative variable. The data analysis and narcissistic score development is documented in chapter 4.3. Chapter 4.4 concludes. The subsequent chapters 5, chapter 6 and chapter 7 use the CEO Narcissism Score (CNS) to investigate the impact on financial performance, countervailing power and fraud propensity respectively.

4.1 Description of Quantitative Determinants

The high narcissistic CEO has distinctive patterns of behavior which result into different strategic actions. These distinctive patterns of behavior are decomposed into five groups of determinants which are indicators of the CEOs narcissistic personality. The five groups of determinants can be further decomposed into fifteen quantitative variables. The five determinants and fifteen variables are described in chapter 4.1.1 to 4.1.5 with the related literature that explains the use of each determinant and variable. The determinants and the fifteen variables reflect the 4 components of Emmons.

4.1.1 Determinant Media Exposure

The media provides information on organizations and their leaders with a focus on persons and characteristics of leaders. The media reinforces the image of strong CEOs who can act as saviors (Chen & Meindl, 1991). The CEO status is enhanced through the media exposure and the myth of a great leader and savior continues. There are 4 variables in the category media exposure. The underlying reason to strive for high media exposure is the fact that the high narcissistic CEO constantly needs affirmation of his grandiosity.

The media exposure determinant reflects CEO narcissism and corresponds to the four components of Emmons. The media exposure determinant corresponds to specific NPI items (included in Appendix II) which are listed in the bottom row of table 4.1. The highest number of corresponding NPI items is found in the self-admiration component of Emmons.

Table 4.1 Media exposure determinant, Emmons and NPI items

Factor Determinant	Authority	Superiority	Self-admiration	Entitlement
Media Exposure	I have a high media exposure because I am a good leader	I have a high media exposure because I am better than others	I have a high media exposure because I am extraordinary and special	I deserve a high media exposure and insists on the respect due to me
NPI Item	12,15,44,46	9,10,32,49	7,14,21,26,42,48,54	20,28,35,52

1 Publications in major newspapers and business magazines

Newspapers and business publications provide facts and information about organizations and their leaders. Simply reporting the bear facts would not achieve a large public and the media therefore deepens the information. Looking at the covers of Fortune and Business week over the last decades shows that most CEOs in the myths have fallen from their throne. The media helps to create the CEO status but can also destroy these CEOs.

Chen and Meindl (Chen & Meindl, 1991) examine image construction and subsequent reconstruction of Donald Burr of People Express. The image of Donald Burr in the media is reconstructed in such a way to account for the dramatic performance failure of the company. The research of Chen and Meindl demonstrates the influence of the media.

Being published in major business publications and newspapers is the beginning of the end if CEOs believe their own press clips. It cultivates hubris and narcissism.

There are various researchers (Francis, Huang, Rajgopal, & Zang, 2008; Milbourn, 2003; Rajgopal, Shevlin, & Zamora, 2006) who use the number of press articles citing the CEO. Milbourn (Milbourn, 2003) uses the CEO publicity as a proxy for CEO reputation and

concludes that compensation contracts for CEOs with more media-counts exhibit greater pay-for-performance sensitivity. Rajgopal et al. (Rajgopal et al., 2006) find that compensation for CEOs with more media counts is systematically subject to lower relative performance evaluation. Francis et al. (Francis et al., 2008) also use publicity as a proxy for CEO reputation and find that more reputed CEOs are associated with poorer earnings quality compared to less-reputed CEOs. Cools (Cools, 2005) investigates the number of publications of CEOs of the twenty five companies facing financial scandals. Cools counts the number of CEO quotes in newspapers for the five years prior to the announcement of the financial scandal. Cools concludes that the twenty five companies facing financial scandals all have CEOs with an enormous popularity and are quoted three times more than CEOs in comparable healthy companies. This research uses the number of publications in major news and business publications citing the CEO, consistent with the above mentioned research of Milbourn, Cools, Rajgopal et al. and Francis et al.

2 Awards

Malmendier and Tate (Malmendier & Tate, 2009) study award winning CEOs. The researchers look at various awards the CEOs can win and compare the award winning CEOs with non-award winning CEOs. These researchers hand-collected the awards data from various sources, like business magazines, CNN and Ernst & Young. The results of this research show higher executive compensation packages for award winning CEOs while the company is underperforming. The measures of performance, ROA and stock prices, show a 15 –26 % decline. The award winning CEO has a substantial effect on the compensation of the CEO only, leaving the compensation package of other executives mainly unchanged. This implies that the award winning CEO is more entitled to a high compensation than other executives. The researchers also demonstrate that winning an award increases the likelihood that CEOs engage in private benefit tasks as penning a book. The chances of penning a book doubles in case the CEO wins an award while winning five awards makes CEOs four times more likely to sit on five or more outside boards. The resplendent profile has a real effect on CEOs. The high narcissistic CEOs with their feelings of grandiosity require the awards to fulfill their constant need for affirmation.

3 Number of Lines in the Who's Who Entry

Individuals can nominate themselves for inclusion into most who's who volumes. Following the research of Chatterjee and Hambrick (Chatterjee & Hambrick, 2007), the entry into the who's who content is taken as a determinant of the CEOs narcissistic personality. The content and length of the entry is under the control of the individual. The high narcissistic CEO utilizes the opportunity to appear in the who's who volumes with a large biography.

4 Photograph(s) in the annual report

Most annual reports comprise one or more photographs of the executive and non-executive directors. However, the presence of a CEO photograph shows a considerable variance. On the one side, the CEO and the board may not be portrayed at all. On the other side, the annual report may contain a picture of the CEO alone, comprising a whole page of the annual report. Publishing a photograph in the annual report is an opportunity for the CEO to show off as the companies' leader (Chatterjee & Hambrick, 2007). CEOs are very attentive to the content of the annual report. Moreover, CEOs have strong opinions and control over how they must be portrayed in the annual report. The CEO seeks a great deal of visibility in the annual report, as a proof that the CEO is more important than anybody else in the company. The inflated ego of the high narcissistic CEO is reflected into a large photograph of the CEO alone in the annual report. Hence, the way in which CEOs present themselves with photographs in the annual reports provides an indication of the CEOs narcissistic personality.

4.1.2 Determinant Compensation

The compensation is the result of the contractual relationship between the principal and the agent (Grossman & Hart, 1983; Jensen & Meckling, 1976; Jensen & Murphy, 1990). The CEO compensation can be considered as a classical principal-agent issue which is described in chapter 2. Researchers have concluded that CEOs have considerable influence over their own compensation (Bebchuk & Fried, 2003; Mace, 1971). The research of Hambrick and D'Aveni (Hambrick & D'Aveni, 1992) states that compensation can be considered as an important indicator of formal power and these researchers use the compensation ratio as a

proxy for executive dominance. Hayward and Hambrick (Hayward & Hambrick, 1997) use compensation ratios as a proxy for self importance of the CEO and use it as an indicator of large acquisition premiums paid. Cools (Cools, 2005) investigates CEO compensation and concludes that twenty five companies facing financial scandals all have a CEO with enormous variable compensation.

The compensation consists of five variables: cash compensation, total compensation, cash compensation ratio, total compensation ratio and compensation rank. These five are separately described and measured. The compensation determinant corresponds to specific NPI items (included in Appendix II) which are listed in the bottom row of table 4.2. The highest number corresponding NPI items is found in the entitlement component of Emmons.

Table 4.2 Compensation determinant, Emmons and NPI items

Factor Determinant	Authority	Superiority	Self-admiration	Entitlement
Compensation	I am a born leader who deserves a high compensation	I deserve a high compensation because I am better than others	I deserve a high compensation because I am extraordinary and special	I deserve a high compensation because I insists upon the respect due to me
NPI Item	2,46	10,49	7,14,48,54	11,19,20,28,35,40,53

1 Cash Compensation

The absolute amount of CEO compensation can be divided into two categories: cash compensation and total compensation. This research takes both categories into account by calculating the absolute amount of cash and total compensation for each CEO for every tenure year. The absolute amount of cash compensation consists of two elements, salary and bonus, and is used as a measure of the CEOs narcissistic personality.

2 Total Compensation

The absolute amount of total compensation is the sum of all compensation elements. These elements are: Salary, Bonus, Total Value Restricted Stock Granted, Total Value of Stock Options Granted, Long Term Incentive Payouts, and All Other Total. These absolute amounts are calculated for each individual CEO and used as a measure of the CEOs narcissistic personality.

3 Ratio CEO Cash Compensation

When individuals in a social community receive the same income increase, the feeling of happiness resulting from the income increase, is minimal. It is like is a hedonic treadmill in which one walks very fast striving for increasing compensation and material consumption, but subjectively speaking the well-being scale remains the same, because everybody in your neighborhood experiences and receives the same. A high narcissistic CEO with feelings of superiority and grandiosity strives for a much higher compensation than the second best paid executive in the organization. The ratio of cash and total compensation of the CEO relative to the cash and total compensation of the second best paid executive is used as a measure of the CEOs narcissistic personality. Hambrick and D'Aveni (Hambrick & D'Aveni, 1992) use this ratio as a proxy for executive dominance. Hayward and Hambrick (Hayward & Hambrick, 1997) use this determinant as a proxy for self importance of the CEO and relate it to the acquisition premiums paid. Because CEOs are able to set out their compensation (Bebchuk & Fried, 2006; Mace, 1971), the ratio of CEO compensation versus the compensation of the second best paid executive reflects the gap between the CEOs assessment of his worth versus the others' worth to the company.

In case the CEO is the best paid executive, the compensation is related to the second best paid executive, resulting into a ratio greater than one. If the compensation of the CEO is not the first ranked, the compensation of the CEO is related to the best paid executive in the company. Since the Execucomp database gives information about the compensation of at least five top executives, the ratio of the CEO cash compensation versus the second best paid executive can be calculated for each CEO. This ratio is used as a measure of the CEOs narcissistic personality.

4 Ratio CEO Total Compensation versus Second Best Paid

There are many other elements in the total compensation beside the salary and bonus components. High narcissistic CEOs will grant themselves the highest total compensation as possible. The total compensation of the CEO with elements like stock options and long term incentive payouts can be compared to the total compensation of the second best paid executive. The Execucomp database gives information about the total compensation of at least five top executives. The total compensation ratio is calculated for each individual CEO. The total compensation ratio is used as a measure of the CEOs narcissistic personality.

5 Rank of the CEO Compensation

The compensation for corporate executives can be defined according to the superstar system of Rosen (Rosen, 1981; Rosen, 1986). The superstar system explains why a relative small amount of individuals earn huge amounts of compensation. The enormous compensation of CEOs can be seen as a type of tournament prize. Tournaments in executive compensation are based on their ordinal rank and provide incentives. In this superstar system, the income distribution is highly skewed which implies that few individuals earn a major part of the total income. The Lorenz curve for this income distribution is moving away from the line of perfect equality and directing towards the line of perfect inequality. The Gini coefficient as a measure of statistical dispersion moves towards 1 for a high narcissistic CEO. The executive rank by salary and bonus is used as an indication of the CEOs narcissistic personality. In case the CEO compensation is lower than the compensation of the best paid executive, the CEO has a rank scoring 2 or higher.

4.1.3 Determinant Power

The ability of a CEO to influence the strategic choices depends on the level of power¹⁵ the CEO possesses. The distribution of power in the top management team differs. In some teams the power may be dispersed and in other top management teams the power may reside with

¹⁵ Power is defined as “the capacity of individual actors to exert their will” (Finkelstein, 1992). This definition is consistent with the view of other researchers (Pfeffer, 1981).

one key individual. The power of the CEO results from formal and informal sources. The legitimate formal power of the CEO is related to the rank in the organization and the ability to award and punish subordinates. Informal power is related to the individual, rather than the formal, official position within the organization. An example of informal power is the referent power of the CEO, implying the subordinates' desire to be identified with the CEO.

Bebchuk, Cremers, and Peyer (Bebchuk, Cremers, & Peyer, 2010) decompose the power of the CEO into three components: structural power, ability-based power, and ownership-related power. The first component, structural power, is based on formal organizational structure and the hierarchical authority. The second component, ability-based power, is what Finkelstein (Finkelstein, 1992) calls expert and prestige power. Expert power implies the possession of superior expertise. Special expertise and prestige are both forms of the individuals' ability to contribute to the organizational success. The third component, ownership-related power, can be executed through share ownership. A non-linear function exists between share ownership and the ownership-related power, because exerting ones voting rights effectively requires a minimum threshold. CEOs holding a relatively small number of shares don't have ownership-related power.

Table 4.3 Power determinant, Emmons and NPI items

Factor Determinant	Authority	Superiority	Self- admiration	Entitlement
Power	I strive for high power that puts me in the middle of the attention because I am a born leader	I deserve high power because I am better than others	I deserve high power because I am extraordinary and special	I deserve high power because I owe the respect
NPI item	2,6,12,15,16,17,44,46,47,	8,9,50	14,23,48,54	11,19,20,35,38,53

The power determinant corresponds to specific NPI items (included in Appendix II) which are listed in the bottom row of table 4.3. The highest number corresponding NPI items is found in the authority component of Emmons.

The power determinant consists of the three variables CEO duality, the governance index and the number of role titles.

1 CEO Duality

CEO duality implies that the CEO also acts as chairman of the board. The board of directors is the formal link between the shareholders of an organization and the managers entrusted with the day-to-day functioning of the organization. The CEO as “head” of the board plays an important role within this link. The dual role of the CEO reinforces the CEO power, especially if the ownership of companies is dispersed. The ownership of large US publicly owned organizations is widespread with numerous shareholders holding a small percentage of the common stock and are not able to exercise their shareholding rights. The US CEOs with a dual role have influential powerful positions.

There are two extreme perspectives looking at CEO duality. At the one hand of the extreme stands the agency theory which argues CEO duality results into unbalanced power at the corporate top, because the CEOs possess excessive power. This power imbalance focuses on the need to secure shareholders’ value by good corporate governance (Fama & Jensen, 1983). On the other site of the extreme stands the stewardship theory by emphasizing that duality might lead to encouraging CEOs to act in the interest of the shareholders (Davis et al., 1997). Irrespective of the theoretical view, CEO duality leads to increased power for the CEO which can be used for opportunistic behavior and pursuing their self-serving agenda. Jensen argues that agency problems are severe in case of high CEO power. Cyert et al. (Cyert, Kang, & Kumar, 2002) show that the CEO compensation is higher in case of CEO duality. The balance of power between the board and the CEO disappears, leaving the board with restricted possibilities to monitor the managerial actions.

2 Governance Index

Gompers et al. (Gompers, Ishii, & Metrick, 2003) use twenty-four governance provisions to construct a “Governance Index” as a proxy for the level of shareholder rights. Shareholder rights vary across companies and may look like democrats on the one extreme and dictatorships on the other extreme. For democratic companies, the ultimate authority rests

with the shareholders who can vote. These voters elect representatives (directors) who delegate most decisions to bureaucrats (managers). There is limited power for managers while shareholders are allowed to quickly and easily replace directors. The dictatorship reserves extensive power for management and places strong restrictions on shareholders' ability to replace directors.

The Investor Responsibility Research Center (IRRC) database follows governance provisions that are beneficial to management. The governance index is constructed using twenty-four governance rules which can be divided into five thematic groups.

The first is the "Delay" group and includes four provisions designed to discourage a (hostile) takeover bidder. Examples are special meetings (requirement to call a special meeting beyond that specified by state law, adding extra time to proxy fights, since bidders must wait until the regularly scheduled annual meeting) and classified boards (only part of the board can be replaced each year so that an outsider who gains control of a corporation may have to wait a few years before being able to gain total control of the board). These provisions are crucial weapons during takeover battles.

The second is the "Voting" group which contains six provisions, all related to shareholders' rights in elections. For example supermajority requirements for approval of mergers, requiring a higher threshold than the state law, like 75 percent, and often exceed attendance at the annual meeting.

The third is the "Protection" group containing six provisions designed to insure officers and directors against job-related liability or to compensate them following a termination. Golden parachutes are examples of protection agreements that provide compensation to senior executives upon an event such as termination following a change in control. They do not require shareholder approval.

The fourth group is "Other" and includes the six remaining company-level provisions, like anti-greenmail which prevents shareholders to sell the stock back to the company, usually at a premium, in exchange for the promise not to seek control of the company for a specified period of time.

The fifth and last dimension is the "State" which includes state laws like control-share acquisition which require a majority of disinterested shareholders to vote on whether a newly qualifying large shareholder should have voting rights. A complete description of all twenty-four variables can be found in Gompers et al. (Gompers, Ishii, & Metrick, 2003) and the definitions of the provisions are included in Appendix III.

The broad governance index consists thus of twenty-four IRRC provisions with equal weight to each provision. A high governance index represents weak shareholder rights and strong managerial rights and vice versa. The governance index is negatively related to performance, as measured by Tobin's Q, as well as stockholder returns during the decade of the 1990th (Gompers, Ishii, & Metrick, 2003).

Bebchuk, Cohen, and Ferrell (Bebchuk et al., 2009) questioned whether all the twenty-four IRRC provisions contributed to the negative relation between the twenty-four provisions and the Tobin's Q, as well as the stock returns in the 1990th. Some provisions might be more or less relevant. These researchers find that six provisions fully drive the correlation between the twenty-four provisions and company valuation and stock returns as documented by the research of Gompers et al. (2003). Bebchuk, Cohen, and Ferrell (2009) call this the entrenchment index or E-index. Although these six provisions account for the negative correlation with company valuation and stock returns, the 24 provisions are indicative for corporate governance. In this research, the governance index is more relevant, because the primary interest is in managerial power.

A high narcissistic CEO does not tolerate countervailing power and therefore strives for a dictatorship. In this dictatorship structure, the shareholder rights are minimized while the CEO holds extensive power and places strong restrictions on shareholders' rights and abilities to act. This research uses the governance index of Gompers as a proxy for the CEOs narcissistic personality. High narcissistic CEOs will have a high governance index.

3 Number of Formal Titles

CEOs differ in the number of titles. Several CEOs simply call themselves "CEO", while other CEOs call themselves "CEO, Chairman, President and Principal Executive". The CEO may enhance one's power in case the CEO holds multiple titles (Daily & Johnson, 1997; Harrison, Torres, & Kukalis, 1988). Hambrick refers to CEOs holding multiple titles as the Idi Amin phenomenon, referring to the former Ugandan leader who assigned himself a dozen formal titles. Hambrick quotes that the multiple titles of the CEO "tends to be a sign of power accumulation and power hoarding" (Fortune, 1991, p. 13).

An example of a CEO with role title inflation is the CEO of Vivendi, Jean Marie Messier, who has been identified by psychologists as highly narcissistic. Messier signed his emails with “J6M”, which is an abbreviation of Jean Marie Messier Moi-Même Maitre du Monde. The number of role titles is an indication of the feelings of authority, superiority, self-admiration and entitlement.

4.1.4 Determinant Growth

A high growth target is a sign of hubris. Just like Icarus believed he could fly to the sun, so will high narcissistic CEOs believe the company can grow with 15% per year. The high growth percentages can be achieved through acquisitions. The implemented strategy might work for some time, but ongoing growth figures of 15 % per year are practically impossible.

Acquisitions result into a substantial growth for an acquiring company. More than 12,000 acquisitions took place in the US during the past 20 years and shareholders' wealth should have increased if CEOs would have acted in the best interest of the shareholders. Executives use the acquisition strategy for company growth and to increase the stock price. Executive directors often take the share price as an input variable for strategy determination. Taking the share price as an input variable inevitably leads to problems for low share prices as well as for high share prices (Boot, 2009). In case the share price is too low, executives have to determine a strategy to raise the share price. If executives fail to raise the share price, the organization can be a candidate for a (hostile) takeover. On the other hand, if the share price is too high, executive directors have to determine a strategy which increases the value of the organization. If not, a substantial drop in share price is to be expected. The stock price must remain at the same level or increase in order not to damage the reputation of the high narcissistic CEO. Executives use the acquisition strategy to increase the stock price, but unfortunately, the opposite often occurs.

The research of Moeller, Schlingemann and Stulz (Moeller et al., 2005) shows a loss of 240 billion dollars in shareholder value for acquiring companies directly after the announcement

of acquisitions from 1998 to 2001¹⁶. Hayward and Hambrick (Hayward & Hambrick, 1997) also argue that acquisitions generally have a neutral to negative effect on shareholder value (acquiring and target companies).

To explain the neutral to negative effect on shareholder value, Roll (Roll, 1986) developed the “hubris hypothesis”, which means that CEOs are mistakenly convinced of their idea that they can do a better job running the acquired company. Hubris leads to an overestimation that the acquiring companies can extract more value from takeover companies than the current target management. Acquiring companies are therefore willing to pay a higher premium for the takeover. Overconfident individuals have non-standard beliefs (as described in chapter 2) and deviate from the standard economic model. Hubris, overconfidence about managerial abilities, helps to explain the value destroying acquisitions (DellaVigna, 2009). Malmendier and Tate (Malmendier & Tate, 2008) find that overconfident CEOs are 65% more likely to make an acquisition. Moreover, CEOs who are classified as overconfident tend to overestimate their ability to generate higher returns and therefore pay a large acquisition premium.

Table 4.4 Growth determinant, Emmons and NPI items

Factor Determinant	Authority	Superiority	Self-admiration	Entitlement
Growth: acquisitions	I acquire, because I am a born leader	I acquire, because I can do a better job than target CEOs	I acquire, because I am a great person	I am entitled to lead many companies
NPI item	2,15,17,46,47	5,8,9,10,24,29,49,50	23,48	11,19,35,38,53

The growth determinant corresponds to specific NPI items (included in Appendix II) which are listed in the bottom row of table 4.4. The highest number corresponding NPI items is found in the superiority component of Emmons.

Even the friendliest acquisition is a contest with a winner and a loser. The high narcissistic CEO needs to be the winner in this contest. High narcissistic CEOs set the company targets

¹⁶ The total effect of the acquiring and target company may however still be positive, while the acquiring shareholders are on the losing end.

unrealistically high because they believe in their supernatural leadership. Acquisitions are highly visible and enhance the company size of the acquirer.

The incentives on goals setting for high narcissistic CEOs are not merely pecuniary. High narcissistic CEOs are also triggered by attention and applause which enhances their self-admiration. Acquiring target companies results into various pecuniary and non-pecuniary incentives for a high narcissistic CEO.

The acquisitions that high narcissistic CEOs undertake differ in size (bigger) and number (more frequent) compared to low narcissistic leaders in order to satisfy their narcissistic needs. The number of acquisitions and the value of acquisitions are the two variables which will be described below.

1 Number of Acquisitions

The high narcissistic CEOs are looking for grandiosity, constantly need attention and strive for high unrealistic goals. For this reason, high narcissistic CEOs must engage in bold actions such as acquisitions which attract the attention. Higgs (Higgs, 2009) confirms that narcissistic CEOs engage in frequent acquisition activities.

A high narcissistic CEO acquires many target companies for two reasons. First, the high narcissistic CEO holds unrealistic exaggerated beliefs about his own abilities, achievements and superiority. The high narcissistic CEO is convinced of the fact the target company will have a higher performance under his control. Second, the high narcissistic CEO is constantly looking for attention and applause. Numerous acquisitions satisfy this need for applause. The number of acquisitions is an indication for the CEOs narcissistic personality.

2 Value of Acquisitions

The CEO plays a pivotal role in initiating and approving large acquisitions. Large acquisitions are highly visible events and can materially increase the company size and ultimately the financial performance. The price paid for the acquisition is a top management decision, whereby the CEO of the acquiring company plays a major role. Acquisitions of course need the approval of the board of directors, but - referring back to Mace (Mace, 1971) - boards of

directors rely on top management. The board cannot proceed without the personal commitment of the CEO. The CEO dispositions and biases are represented in the process of large acquisitions (Hayward & Hambrick, 1997). Higgs (Higgs, 2009) argues that narcissistic CEOs engage in bold actions which attract attention and therefore undertake significant acquisition activities. The value of the acquisitions is an indication for the CEOs narcissistic personality.

4.1.5 Determinant Perquisites

The definition of perquisites is taken from the SEC: “perquisites are any other annual compensation not properly classified as salary or bonus”. The CEO uses perquisites to legitimize the status attached to the perquisites.

There are various perquisites, such as golf club memberships, life insurance, relocation costs, health checks, car allowance and the use of the corporate jet. Perquisites enforce the individual status within an organization. The compensation expert Crystal wrote: “We don’t wear crowns in this country or carry such symbols of office as a field marshal’s baton. So it is hard to tell the players apart, to spot the chairman of the board in the crowd. He’s the one wearing the Savile Row suite, but you have to be knowledgeable about clothes to pick him out. You’re more certain when you see him go by in a chauffeur driven limousine” (Crystal, 1978). The public will easily spot the CEO when they see him using the corporate jet.

Literature gives various reasons why companies provide perquisites to their executives. Jensen and Meckling (Jensen & Meckling, 1976) postulate that perquisite consumption can be viewed as a representative example of the numerous ways in which agency problems can arise between managers and shareholders. The stock price decreases in case the personal use of the corporate jet is revealed (Rajan & Wulf, 2006).

Warren Buffet recognized shareholder sensitivity to excessive perquisites when Berkshire Hathaway’s acquired the corporate jet, called “The Indefensible”. Buffet answered: “I put it in our annual report in the tiniest letter type I could find. So, I kind of tip-toed into the arena” (The Age, 24-9-2002).

Companies with weak corporate governance systems give their executives more perquisites (Andrews, Linn, Yi, 2009). These findings are consistent with the agency argument. Yermack (Yermack, 2006) adds that the perquisites might lead to a lower morale of employees when they are faced with the excesses of their management.

Perquisites do not necessarily have to be negative. Fama (Fama, 1980) states that perquisites reflect an optimal equilibrium contract between the management and the shareholders. The management compensates a perceived shortcoming in the optimal compensation contract by perquisite consumption. Perquisites can be used as a reward and as a motivational tool which both help the CEO to perform well (Yermack, 2006).

Perquisites can lead to higher productivity by supporting the CEO in the performance of his duties (Rajan & Wulf, 2006). The CEO will for example arrive fresh at a meeting after traveling with the corporate jet.

Perquisites can reflect agency problems, but can also serve a legitimate purpose, as outlined by Rajan and Wulf (Rajan & Wulf, 2006). Perquisites are rational expenditures as long as the costs of perquisites remain lower than the benefits obtained from the perquisites. The expenses on perquisites are then value expanding. Rajan and Wulf (Rajan & Wulf, 2006) use this productivity argument by stating that perquisites save time leading to a higher productivity.

The high narcissistic CEOs with feelings of superiority and grandiosity are looking for status and grandiosity. The high narcissistic CEOs perceive that they are entitled to the best rewards and therefore strive for a high perquisite consumption. The perquisite determinant corresponds to specific NPI items (included in Appendix II) which are listed in the bottom row of table 4.5. The highest number corresponding NPI items is found in the self-admiration component of Emmons.

Table 4.5 Perquisite determinant, Emmons and NPI items

Factor Determinant	Authority	Superiority	Self-admiration	Entitlement
Perquisites	I use the jet because of my authority	I use the jet because I am better than others	I use the jet because I am special	I am entitled using the corporate jet
NPI item	12,44,46	5,49	14,21,42,48,54	28,35,52

1 Private Use of the Corporate Jet

This research follows the paper of Yermack (Yermack, 2006) by focusing on the personal use of the corporate jet, instead of examining a wide range of perquisites like country club memberships, life insurance, relocation costs, health checks and so on.

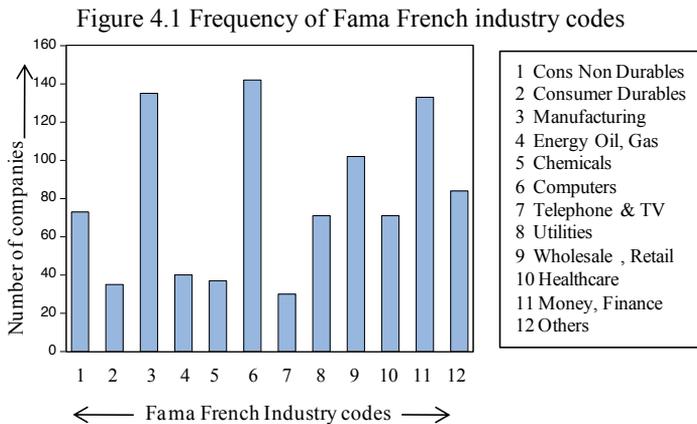
There are two reasons for focusing on the personal jet use perquisite. The first reason is that the SEC reporting rules for using the corporate jet make the data for corporate jet perquisites more reliable than data for any other perquisites. The second reason is that the use of a corporate jet is cited much more often than any other perquisite by academic and shareholder commentators as a symbol of the agency problems within companies (Yermack, 2006).

The relationship between perquisites and compensation has been researched, but the results are inconclusive. Rajan and Wulf (Rajan & Wulf, 2006) find a relationship between high paying companies and perquisites, while Yermack (Yermack, 2006) does not find a significant statistical relationship between perquisites and excess compensation. Furthermore, Yermack does not find a significant relationship between the costs of personal jet use versus the CEO fractional stock ownership relationship. However, Yermack does find a correlation between certain personal characteristics of CEOs versus the personal use of a corporate jet. The membership of a golf club, located far away from the headquarters increases the use of the corporate jet dramatically. Yermack’s research shows that the use of the corporate jet reflects personal characteristics. This research collects information on the use of the corporate jet as an objective variable that reflects the CEOs narcissistic personality.

4.2 Data collection: Quantitative Determinants

The data collection starts with selecting companies for the period 1992 to 2008 which were listed in the S&P500, using the Compustat database. The year 1992 is the earliest year that most determinants are available in digital form and 2008 the last year. For each S&P500 company, information concerning the top 5 executives are downloaded from the Execucomp database, including the name of the executive, the gender and the age. Missing data have been hand collected using the SEC Edgar database, BoardEx database and company websites.

The companies in the dataset all have a Standard Industrial Classification (SIC) code, which are translated into Fama and French industry codes. Appendix IV includes the SIC and Fama French codes. The distribution of companies across the Fama French industries varies. A higher frequency of companies is found in the sectors manufacturing (code 3), business equipment (code 6) and finance (code 11). A lower frequency of companies is found in the sectors consumer durables (code 2), energy (code 4), chemicals (code 5) and telecom (code 7). Figure 4.1 depicts the Fama French Industry classification and the number of companies.



Two filters are imposed for selecting the S&P500 CEOs.

The first filter selects only those CEOs with tenure starting as from 1992, because most data are available from 1992. This filter follows prior CEO research, such as the paper of Yermack (Yermack, 2006) and the paper of Chatterjee and Hambrick (Chatterjee & Hambrick, 2007).

The second filter selects only those CEOs with a tenure of more than 3 years. The underlying rationale for imposing this second filter is the CEO life cycle (described below) as documented by Hambrick and Fukutomi (Hambrick & Fukutomi, 1991). The newly appointed CEO needs some time to develop his personal paradigm, being the personal assumptions about the way the organization ought to be managed.

The CEO life cycle

The life cycle theory argues that the behavior, attention, interest and power of the CEO varies during discernible periods, which will ultimately impact the organizational performance. When a CEO starts the complex job, the information overload is tremendous (Mintzberg, 1983). Comprehending all relevant stimuli in a short period is impossible, leading to a beginning period in which the newly appointed CEO still has to develop his personal paradigm. Chatterjee and Hambrick (Chatterjee & Hambrick, 2007) also state that there are many anomalies with the succession. As tenure increases: “each passing year in the job tends to bring the CEO a heightened sense of correctness in his or her established way of operating and viewing the world” (Hambrick & Fukutomi, 1991). CEOs who are appointed from within the company also need some time to get used to the new role, because their position as CEO is new for them as well, facing other relations with directors, managers and stakeholders (Shen & Cannella Jr, 2002).

The CEO life cycle begins with a response to mandate: the CEO starting a commitment in a particular model. A CEO in the first tenure year is in a vulnerable position, holding relatively low power and is less likely to pursue personal interests. In the first phase, the CEO holds little knowledge of, but high interest in, the tasks involved. The newly appointed CEO faces significant changes for the tasks, the responsibilities and the skill requirements, while the board, shareholders and other stakeholders watch him closely (Shen & Cannella Jr, 2002). These newly appointed CEOs don't have any guarantee that they will continue their job until they have convincingly proved their leadership qualities.

The growing degree of power results into the second phase of experimentation in which the CEO has a moderate knowledge of the tasks while the interest in the tasks remains high.

The selection of an enduring theme takes place during the third phase in which the CEO obtains a stronger commitment to the paradigm with high interests in tasks as well as high

knowledge of tasks. Gabarro (Gabarro, 1987) argues that the increased task knowledge and enhanced understanding of the environment takes place during the third year. This year is a starting point for CEOs to undertake major strategic actions (Gabarro, 1987).

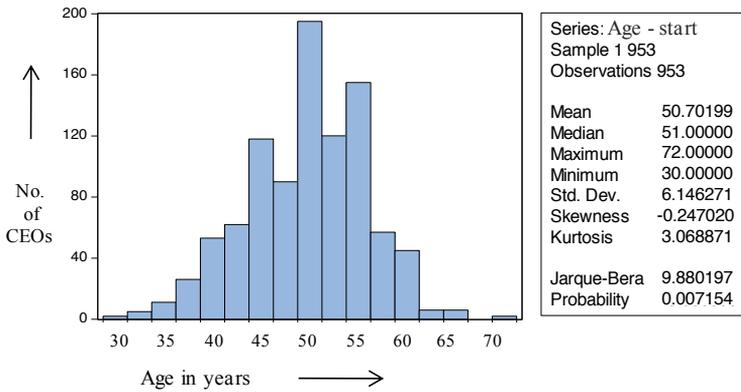
The fourth phase is one of convergence characterized by a high knowledge of tasks while the interest in the tasks is diminishing. This phase of routine and increasing power ultimately leads to the final stage in which the effectiveness of the CEO is diminished and the commitment to a certain paradigm is hardened. The CEO has fulfilled the expectations of the board and the shareholders and the CEO is now in the position to develop various sources of power. The board has increased its confidence in the CEO and may become less vigilant in monitoring. The board of directors has to understand the evolution of the leadership and the power of the CEO because of their influence on the CEO objectives and CEO behavior (Shen & Cannella Jr, 2002). The leadership of the CEO has become institutionalized within the company and the authority of the CEO is no longer questioned. In case of a negative performance the CEO uses extrinsic attribution by naming external factors and/or blaming scapegoats (Boeker, 1992). Speaking in the words of Weisbach (Weisbach, 1988), these CEOs have become entrenched.

In order to be able to investigate individual CEO-effects, the tenure must be long enough for CEOs to implement their paradigm. This research imposes this second filter following the before mentioned research of Shen (2002), Gabarro (1987), Hambrick and Fukutomi (1991) and Chatterjee and Hambrick (2007). These two filters result into 953 CEOs, with only 16 (1.68%) female CEOs.

CEO age

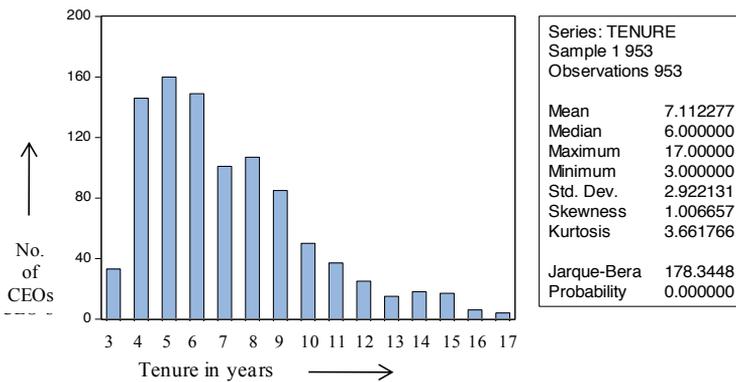
The CEOs have an average age of 50 when they start their tenure. The youngest CEO started his tenure when he was 30 years of age while the oldest CEO started his tenure when he was 72 years of age. The figure below depicts the age distribution of the CEOs when they start their tenure.

Figure 4.2 CEO age distribution at starting tenure



The average tenure is 7 years. The minimum tenure is 3 years, because of the filter imposed on the dataset. There is one CEO with 17 tenure years. Figure 4.3 depicts the tenure distribution of the CEOs.

Figure 4.3 CEO tenure distribution



4.2.1 Data-Collection Determinant Media Exposure

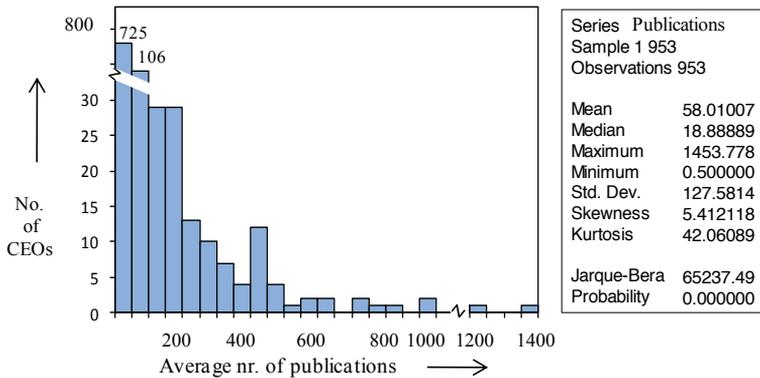
Researchers mostly rely on data from databases that can be easily downloaded. There are however various forms of relevant and interesting data that are not easily downloaded from a database. Among these data fall the variables in the media determinant. The data collection

for four variables within the media exposure determinant is time consuming because the variables can only be hand-collected.

1 Publications in Major Newspapers and Business Magazines

To count the number of publications in which the CEO is mentioned by name, the Factiva database is used. The Dow Jones Factiva database is a joint venture of Dow Jones and Reuters. The number of times the CEO name is mentioned together with the company’s name in the major news and business publications is counted for each CEO. Hereto, the start date and the end date of the CEO tenure is taken as a basis for collecting the information. The total number of publications for each CEO is divided by the number of tenure years to obtain the average number of publications per CEO. The average number of publicity varies with a minimum of 0.5 and a maximum of 1453.78 publications per tenure year. Figure 4.4 depicts the descriptive statistics for the average number of publications during CEO tenure.

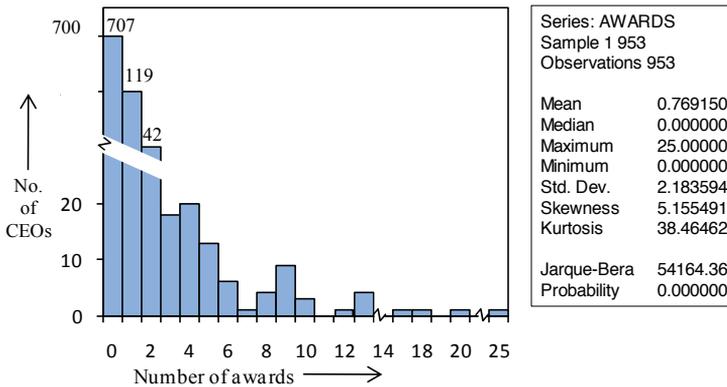
Figure 4.4 Descriptive statistics publicity



2 Awards

The award data is collected by counting the number of awards mentioned in the Marquis database. Most CEOs (707 CEOs) do not receive an award. Descriptive statistics for the number of awards are shown in figure 4.5.

Figure 4.5 Descriptive statistics awards

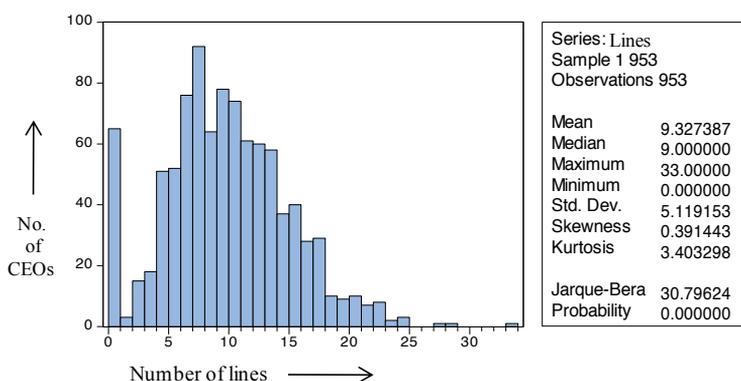


3 Lines Biography

The Who's Who database is used to collect the biographical information. The number of lines of the CEO biography is counted. The coverage in the Who's Who database is 93.2% with 888 CEOs bibliographies entered of the total of 953 CEOs.

In case the CEO entered the database, the number of lines of the CEO entry was counted. The number of lines of the CEO entry is coded 0 if there is no entry (for 65 CEOs (6.8%)). One CEO even filled the Who's Who database with 33 lines. Descriptive statistics of the number of lines are shown in figure 4.6.

Figure 4.6 Descriptive statistics number of lines biography



4 Photograph(s) in the Annual Report

The presence of an annual report with photographs implies that the CEO wants to have a showcase of the company he's leading. The annual reports are downloaded from the Company.info database, the SDC/TOB database or directly from the company's websites.

The presence and size of the photographs in the annual reports are analyzed. In case there is only a 10K filing¹⁷ and no annual report present, the score is 0. The CEOs of these companies are not looking for grandiosity, applause, self-admiration or self-enhancement.

In case there is an annual report, the photographs are studied by content and by size.

The photographs in the annual report are first scored along the dimension CEO alone on the photograph versus CEO with the whole board. A low score is appointed in case there is only a photograph of the whole board in the annual report. On this photograph, the CEO is present but not prevalent. Higher scores are appointed for photographs of the CEO alone.

The photographs in the annual report are further scored along the dimension of size. The size of the photographs differs from a small passport photograph to a full size A4-format. The points for the photograph in the annual report range from 0 to 12 as table 4.6 shows.

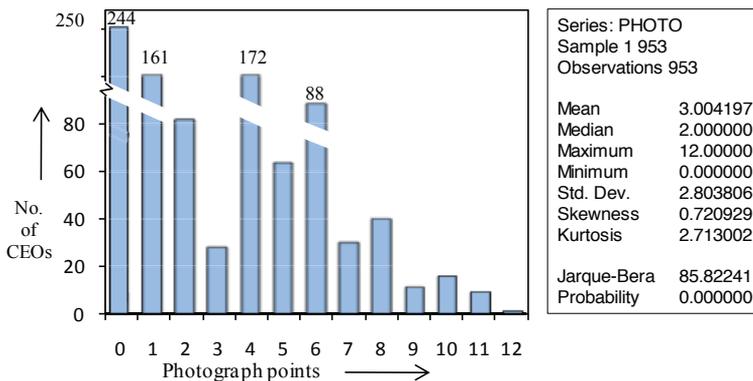
¹⁷ Form 10-K is a summary report of the company's financial performance which has to be submitted annually to the SEC. The 10-K is distinct from the glossy annual report, which serves as a marketing tool and as a financial document for investors. Public companies must disclose form 10-K and are free to release a hardcopy annual report.

Table 4.6 Photograph points

POINTS	PROPERTIES PHOTOGRAPH IN ANNUAL REPORT
0	No annual report present
1	No photographs in annual report
2	Photograph of CEO with board in annual report
3	Two photographs of CEO with board in annual report
4	Photograph of CEO alone size 1/16 – 1/8
5	Photograph of CEO alone size 1/16 – 1/8 + Photograph CEO with board
6	Photograph of CEO alone size 1/4 – 1/3 or 2 size 1/16 – 1/8
7	Photograph of CEO alone size 1/4 – 1/3 + Photograph CEO with board
8	Photograph of CEO alone size 1/2
9	Photograph of CEO alone size 1/2 + Photograph CEO with board
10	Photograph of CEO alone size 3/4 - 1/1
11	Photograph of CEO alone size 3/4 - 1/1 + Photograph CEO with board
12	Photograph of CEO alone size 3/4 - 1/1 + Photograph of CEO size 1/16 – 1/8

About 25 % of the CEOs and their companies (244) don't have an annual report, but only submit 10K filings which scores 0. The other 75% of the CEOs and their companies (709) submit an annual report. The most frequent scores are 1 (no photographs in annual report), score 4 (photograph of CEO alone size 1/16 – 1/8) and score 6 (photograph of CEO alone size 1/4 – 1/3 or 2 size 1/16 – 1/8). Descriptive statistics of the photograph are in figure 4.7.

Figure 4.7 Descriptive statistics photograph



4.2.2 Data-Collection Determinant Compensation

Details about the executive compensation are obtained from the Execucomp database. The Execucomp database includes compensation data for CEOs and for minimal four other highest paid executives. These data are downloaded from this database.

The absolute amount of CEO compensation changes over the years. Frydman and Saks (Frydman & Saks, 2010) have studied the executives' compensation from 1936 to 2005 and find that the compensation follows a J shaped pattern with only a sharp decline during the Second World War and an increase afterwards. The executive compensation changes considerably since the 1950th, as both stock options and other forms of incentive compensation became more important.

Four economic theories are able to explain the increase of executive compensation (Frydman & Saks, 2010). The first theory is based upon the so-called "managerial rent extraction" (Bebchuk & Fried, 2004). Executives are able to increase their compensation and thereby skim profits of the company due to poor corporate governance systems. The second theory states that executive compensation is related to the size of the company. Frydman and Saks (Frydman & Saks, 2010) conclude that there is a correlation between executive compensation and aggregate organizational growth in the past thirty years. The third theory is based upon the risk averse behavior of executives, which is described in chapter 2. The high executive compensation might be necessary in order to compensate the simultaneous rise in incentive compensation for the risk averse executives. Executives strive for a higher fixed compensation compared to incentive compensation, because the pay for performance is a riskier form of income. The fourth theory is based upon specific managerial skills which have become increasingly important (Murphy & Zabochnik, 2004).

In 1992 the average CEO of a S&P 500 company earns \$2.7 million. In 2000, the average compensation increases to over \$14 million: an increase of more than 400%. In 1992, CEOs are paid 82 times the average earning of an average employee and this relative compensation increases to 369 times in 2005 (Source: WRDS, M. Gine Associate Director of Research Services, 2007).

The paper of Bebchuk and Grinstein (Bebchuk & Grinstein, 2005) examines the executive compensation during 1993-2003 and they find that the executive compensation has grown much more than can be explained by the increase in company's size and performance. These

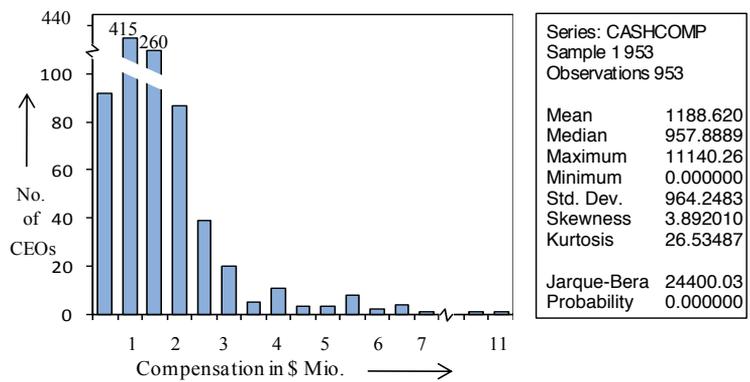
researchers find that the ratio of the executive compensation to company's earnings increased from 5% in 1993 to 10% in 2003. The high narcissistic CEOs exert their influence on the compensation through their managerial power. The raw data with the absolute amount of CEO compensation can however not be used to identify the CEO narcissism due to the selected long time frame (1992-2008). CEOs with a tenure during 1998 to 2001 would automatically get a higher narcissism score, because the CEO compensation is at the highest level during these years. Therefore, the absolute amounts of compensation are corrected per year by taking the average compensation increase of S&P500 CEOs as the base.

1 Cash Compensation

The salary and bonus for the top five executives is extracted from the Execucomp database. The cash compensation is calculated by adding salary and bonus and correcting the absolute amounts with the yearly increases for S&P500 CEOs. The absolute amounts are corrected for the yearly average increases in cash compensation in order to be able to compare the 953 CEOs throughout the time period.

The mean cash compensation is ± \$ 1.19 million, with a minimum of \$ 0 and a maximum of \$ 11.1 million. The figure 4.8 depicts the cash compensation of the 953 CEOs showing a skewed distribution.

Figure 4.8 Descriptive statistics cash compensation



2 Total Compensation

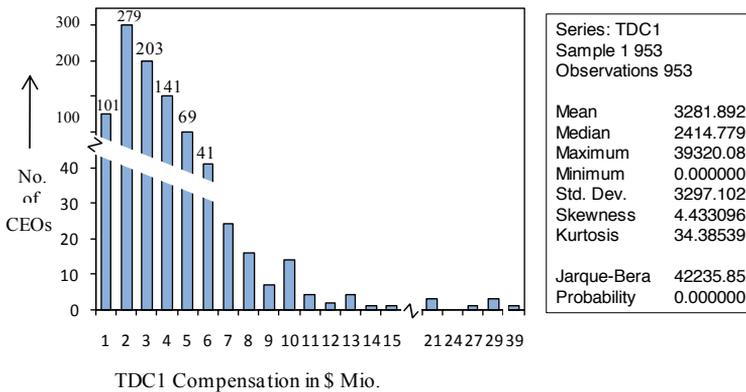
The total compensation for the top five executive is extracted from the Execucomp database using the so called tdc1 (total direct compensation) field. The total compensation tdc1 before 2006 consists of: Salary, Bonus, Total Value Restricted Stock Granted, Total Value of Stock Options Granted, Long Term Incentive Payouts and All Other Total. As from 2006, the SEC changed the disclosure rules and the tdc1 consists of Salary, Bonus, Non Equity Incentive Plan Compensation, Grant Date Fair Value Stock Awards, and Grant date fair Value of Option Awards, Deferred Compensation and Other Compensation. The changing disclosure rules do not change the value of total compensation, but only change the way how the total compensation should be reported.

For 60 CEOs and the related other executives the tdc1 was missing. These missing values in the tdc1 column in Execucomp are collected by summing all individual items of tdc1.

The mean total compensation is \$ 3.28 million, with a minimum of \$ 0 and a maximum of \$ 39.3 million. Note that the absolute amounts for tdc1 are corrected for the yearly increases in total compensation in order to be able to compare the 953 CEOs through the time period. Outliers were hand checked using the SEC Edgar database forms DEF 14a.

Figure 4.9 depicts the total compensation of the 953 CEOs and shows a skewed distribution, similar to the cash compensation distribution.

Figure 4.9 Descriptive statistics total compensation

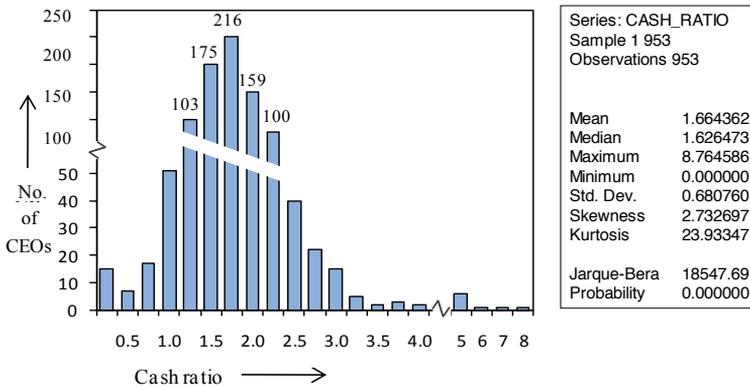


3 Ratio of Cash Compensation

The Execucomp database provides detailed compensation information of minimal five top executives of each company. With this information, the ratio of cash and total compensation of the CEO relative to the second highest paid executive can be calculated. In case the CEO is not the highest paid executive the CEO compensation is compared to the highest paid executive.

A high ratio can be viewed as an indication of potential governance problems in which considerable CEO power is being used. Because the ratios are calculated using the compensation figures for second best paid executives in the same company, it directly controls for any company-specific characteristic that affects the average level of executive compensation in the company level. Figure 4.10 depicts the ratio of cash compensation distribution of the CEOs and shows that the mean cash compensation ratio is 1.66, implying that on average a CEO earns 1.66 times the cash compensation of the second best paid executive.

Figure 4.10 Descriptive statistics cash compensation ratio



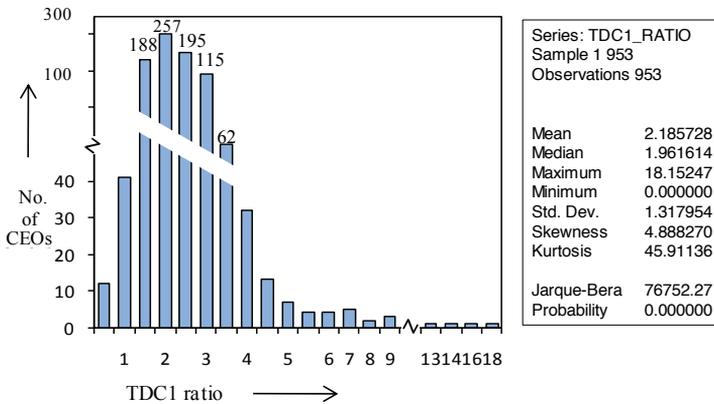
4 Ratio Total Compensation

The ratio of the total compensation is calculated in the same way as the ratio of cash compensation. The total compensation (tdc1) of the CEO is compared to the total compensation of the second best paid executive.

The mean ratio of the total compensation approximates 2.18, implying that on average a CEO earns 2.18 times the total compensation of the second best paid executive. The distribution of the ratio total compensation shows more variance compared to the ratio of cash compensation.

Figure 4.11 depicts the ratio of total compensation distribution of the CEOs.

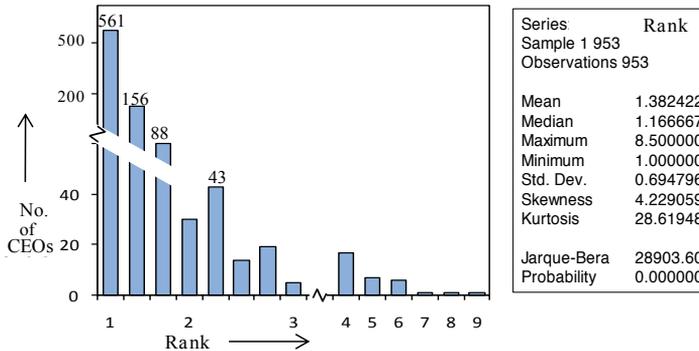
Figure 4.11 Descriptive statistics total compensation ratio



5 Executive rank by salary and bonus

In case the CEO is the highest paid, the CEO executive rank by salary and bonus is 1. In case the CEO is not the highest paid executive, the ratio is less than one and the CEO executive rank is 2 or higher. Most frequently, the CEO compensation rank is 1, but exceptions do exist as the maximum value of 8.5 elucidates. A high rank like 8 indicates that there are 7 other better paid executives in the company and this indicates a low CEO narcissism. Figure 4.12 depicts the executive rank distribution of the CEOs and shows that nearly 60% of the CEOs are the first ranked.

Figure 4.12 Descriptive statistics compensation rank



4.2.3 Data-Collection Determinant Power

The data for three power variables are collected and analyzed. These three variables are the CEO duality, the governance index and the role titles.

1 CEO Duality

A large part of the sample CEOs frequently also chair their boards, giving them a major say in important organizational decisions, like the appointment of new board members and remuneration. McKinsey conducted a survey for 2002 and concluded that 76% of S&P500 companies had CEO duality. The Washington post states that 78% of the S&P500 CEOs have a dual role (Washington post, 2003). The data in this research are completely in line with the findings of McKinsey and the Washington Post. In this research sample, 77.75% of the 953 CEOs also chair their board.

2 Governance Index

Gompers (Gompers, Ishii, & Metrick, 2003) uses a large set of governance provisions to construct a governance index. This governance index proxies the strength of shareholder

rights versus managerial rights. The Governance Index (GI) is constructed by adding one point for every provision that reduces shareholder rights. Companies in the highest deciles of the index are placed in the “Dictatorship Portfolio” and are referred to as having the “highest management power” or the “weakest shareholder rights”. Companies in the lowest deciles of the index are placed in the “Democracy Portfolio” and are described as having the “lowest management power” or the “strongest shareholder rights. The Governance Index is the proxy for the balance of power between shareholders and managers. The Governance Index is derived from publications of the Investor Responsibility Research Centre. These publications supply twenty-four distinct corporate-governance provisions for approximately 1500 companies since 1990. The WRDS gives the mean and standard deviation of the GI for the S&P1500 companies. The GI for this larger sample is included in table 4.7.

Table 4.7 WRDS mean GI for S&P1500 companies

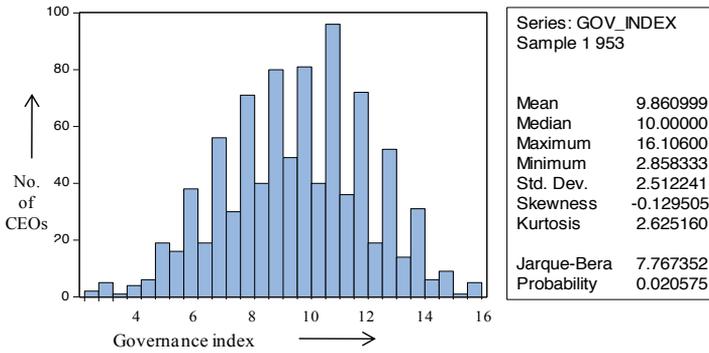
GI year	1990	1993	1995	1998	2000	2002	2004	2006
Mean	9.0	9.3	9.4	8.9	9.2	9.2	9.2	9.1
Std	2.9	2.8	2.8	2.8	2.7	2.6	2.5	2.5
Min	2	2	2	2	2	2	2	2
Max	17	17	17	18	19	18	18	18

The Investor Responsibility Research Centre (IRRC) submits updates in the years 1990, 1993, 1995, 1998, 2000, 2002, 2004 and 2006. The latest available value is used for the years where IRRC data is not updated, which is consistent with Gompers, Ishii, and Metrick and with Bebchuk, Cohen, and Ferrell (Bebchuk, Cohen, & Ferrell, 2009; Gompers Ishii, & Metrick, 2003). A linear trend analysis provides the data for 2007 and 2008.

These S&P1500 companies are on average smaller compared to the S&P500 companies in this research sample. Figure 4.13 depicts the descriptive statistics for the governance index in this research sample. The companies in this sample have an average governance index of 9.86, slightly higher than the mean governance index from S&P1500 companies as listed above.

The higher governance index can be explained by the bigger size of S&P500 companies which will lead to more shareholding dispersion and ultimately less shareholders’ rights.

Figure 4.13 Descriptive statistics governance index



3 Number of role titles

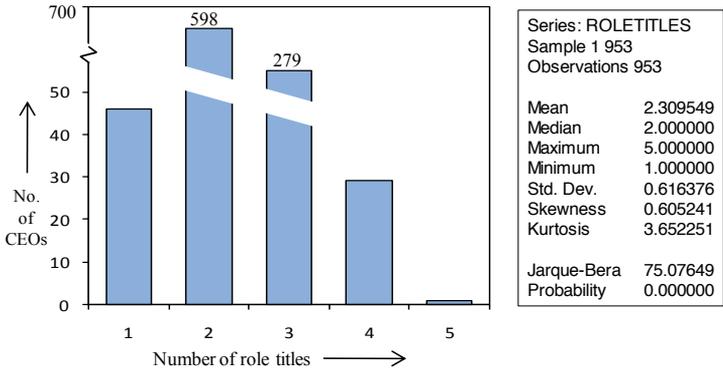
The number of role titles is an indication of the CEO feelings of superiority and self-admiration. CEOs differ in the use of their role titles. There are 46 out of 953 CEOs (4.8%) with just one role title, calling themselves only “CEO”. A showcase of superiority and self-admiration is the role title President, Chairman, CEO and Principal Executive. Table 4.8 shows the 7 different role titles and the 11 categories (possible combinations of the 7 role titles).

Table 4.8 Frequency of role titles

Sample: 1 953			
Included observations: 953			
Number of categories: 11			
Category	Count	Percentage	Legend
C	46	4,83%	C CEO
C+CH	451	47,32%	CH Chairman
C+CH+P	229	24,03%	COO Chief Operating Officer
C+CH+P+PE	29	3,04%	D Director
C+CH+P+PE+F	1	0,10%	F Founder
C+CH+PE	31	3,25%	P President
C+P	143	15,01%	PE Principal Executive
C+P+COO	1	0,10%	
C+P+D	1	0,10%	
C+P+PE	17	1,78%	
C+PE	4	0,42%	
Total	953	100%	

The table shows that nearly half of the sample CEOs have the combination of the CEO and Chairman titles, nearly 25 % have the titles CEO, Chairman and President and 15% have the titles CEO and President. Figure 4.14 shows the descriptive statistics of the number of role titles.

Figure 4.14 Descriptive statistics role titles



4.2.4 Data-Collection Determinant Growth

The SDC/TOB (Securities Data Company/Thompson One Banker) database is used to obtain Merger and Acquisition (M&A) information for completed deals. SDC/TOB M&A database covers financial data, containing information on M&A transactions from 1979 to present for public and private US companies. Data is disclosed according to the SEC disclosing rules.

Following prior research of Malmendier and Tate (Malmendier & Tate, 2008), two requirements are imposed for including an acquisition. The first requirement includes deals in which the acquiring company acquires more than fifty percent of the target shares. Acquiring less than fifty percent means that the acquiring company doesn't control the targeted company and is not a determinant of a high narcissistic CEO. Acquiring fifty percent or more implies control over the targeted company. This will be the aim of a high narcissistic CEO. The second requirement excludes acquisitions with deal values less than ten million dollars. These small acquisitions are omitted, because they do not require the active involvement of the acquirer's CEO (Morck, Shleifer, & Vishny, 1990).

The M&A data have been extracted from the SDC database for the period 1992 to 2008, imposing the two before mentioned filters. The extracted M&A data is matched with the 953 sample CEOs which result into 2653 deals.

Two M&A variables proxy the CEOs narcissistic personality. The first variable is the number of acquisitions per CEO during his tenure. The second variable is the value of the acquisitions.

1 Number of Acquisitions

Most deals are closed during the third and fourth tenure year. This is in line with Gabarro¹⁸ (Gabarro, 1987) who argues that CEOs start to undertake major strategic actions during the third tenure year due to increased task knowledge and enhanced understanding of the environment.

Table 4.9 Number of acquisitions per tenure year

Tenure Year	1	2	3	4	5	6	7	8	9	>10
Number of Acquisitions	166	359	387	411	358	267	225	161	111	208

The 1.68% female CEOs account for 56 acquisitions (2%) with an average value of \$ 959 million. The female CEOs acquire during their tenure on average a bit more with a slightly lower deal value compared to male CEOs.

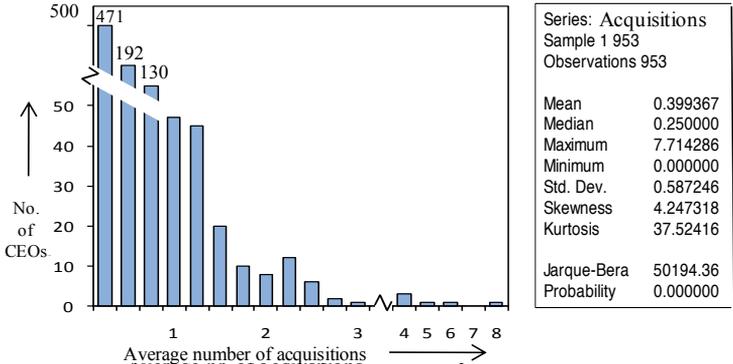
Table 4.10 Acquisition activity for male and female CEOs

	Female CEOs	Male CEOs
Number of acquisitions	56	2597
Average number per CEO	3.5	2.77
Average deal value	\$ 959 million	\$ 1,008 million
Average share %	95.7%	97.08%

¹⁸ The research of Gabarro is described in chapter 4.2

Most of the CEOs ($\pm 50\%$) don't acquire other companies. There are however CEOs with many acquisitions, even one CEO (Chambers of Cisco Systems Inc) with an average number of acquisitions of 7.71 during his tenure. The figure 4.15 below shows the average number of acquisitions.

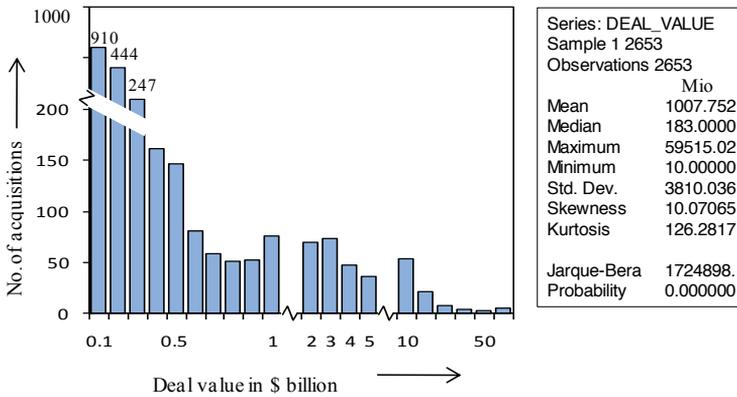
Figure 4.15 Descriptive statistics number of acquisitions



2 Value of Acquisitions

The value of acquisitions determines the growth of the acquiring company. The average deal value for M&A deals is \$ 1 billion. The minimum deal value is \$ 10 million because of the imposed filter. Acquisitions worth less than \$ 10 million are omitted, because the CEO is not actively involved (Morck et al., 1990). The maximum deal value is nearly \$ 60 billion (Pfizer Inc acquiring Pharmacia Corp in 2003). The 2653 deals have varying deal values as the figure below depicts.

Figure 4.16 Descriptive statistics deal value acquisitions



4.2.5 Data-Collection Determinant Perquisites

Data for corporate jet use is included in the SEC EDGAR database, the central source for electronically filed proxies. The data collection for the corporate jet use can be found in cases where companies comply with itemization and fill the SEC’s Edgar database chapter 229.402.b.2.iiiC form DEF14a. The total value of perquisites must be disclosed according to the SEC regulations if the total value exceeds a threshold. The companies ‘compliance with this itemization requirement provides the data used in this study. The disclosing regulations became effective at the end of 1992, and most companies started applying them to their proxy filings in 1993. Coverage in the SEC’s EDGAR database begins one year later in 1994. There are no missing values for the corporate jet use, since this research collects data on perquisites of the last tenure year and CEOs are filtered from 1992 with a minimum tenure of 3 years.

The total value of perquisites must be disclosed based upon their “aggregate incremental cost” to the company, but only if the total exceeds a threshold. Perquisites below the threshold may not be observed directly, because some companies disclose the perquisite total only after aggregating it with other data items reportable in the same column of the table.

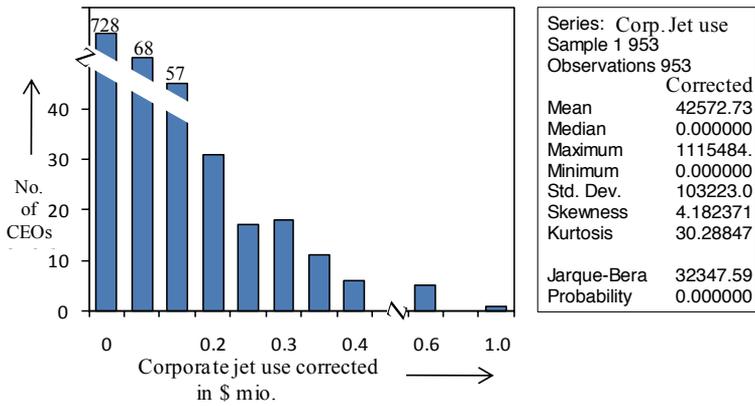
The corporate jet is used by 318 CEOs (33%). Most CEOs (67%) don't use a corporate jet (or the perquisite is not disclosed, because the amount does not exceed the threshold). This finding is in line with the research of Yermack (Yermack, 2006) who finds that 30% of the Fortune 500 CEOs use the corporate jet for personal use.

The Threshold

The threshold is adjusted several times which complicates the data collection. From 15 December 2006, companies are required to identify perquisites in case the aggregate amount is \$10,000 or higher. Prior to this date, the threshold requirement was 10 percent of total salary and bonus or \$50,000 in value. The individual perquisite had to exceed 25% of the total perquisites in order for an individual perquisite to be described in a footnote under the compensation table. Many companies were allowed to only disclose the total amount in the "Other Annual Compensation" column without itemization the individual perquisites. The lower threshold of \$10,000 forces companies to disclose a majority of their perquisites. With 2006 compensation being the first period subject to the new rules, year-over-year value comparisons show an explosion in disclosures which can be attributed to the differences in reporting requirements between these years.

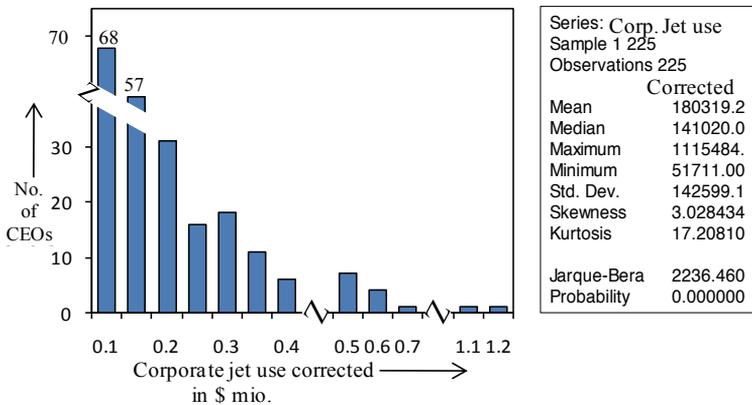
In order to compare the individual CEOs with a tenure between 1992 and 2008 with changing disclosure rules, the disclosure threshold is reset at 50,000 dollar. There are 93 disclosures that fall in the range between \$ 10,000 and \$ 50,000, which implies that 225 (318-93) CEOs have personal jet use disclosures above \$ 50,000, while 728 CEOs do not disclose corporate jet use. Figure 4.17 shows the descriptive statistics for the private use of the corporate jet. Appendix VII gives more information about the changing disclosure rules.

Figure 4.17 Descriptive statistics corporate jet use



Resetting the threshold back to \$ 50,000 results into 225 (318-93) disclosures with a mean value of \$ 180,319. These 225 disclosures are included in the final dataset and these 225 disclosures reflect the CEO narcissistic personality. Figure 4.18 includes the value of these 225 disclosures.

Figure 4.18 Descriptive statistics value of 225 disclosures of corporate jet use



4.3 Data Analysis: Developing a CEO Narcissism Score

The underlying premise of this research is the upper echelon theory which is based on a combination of executive demographic constructs and psychological characteristics to predict organizational outcomes (Hambrick & Mason, 1984). The upper echelon theory assumes that the variance in executives' personal characteristics yields differences in executives' behavior. Narcissism is a personality dimension, implying that CEOs can score from low to high. The narcissism score of the 953 CEOs in this research sample must thus have a variance in order to be a useful addition to the research on top executives. This chapter documents the construction of the CEO Narcissism Score (CNS) for the 953 CEOs.

4.3.1 CNS development

The before mentioned fifteen variables are used as a proxy for CEO narcissism. Appendix VI includes the correlation matrix for the fifteen variables. The highest correlation (0.64) is found between the ratios of cash compensation and the ratio of total compensation.

A Principal Components Analysis is performed on these fifteen variables (based on the correlation matrix). Principal Components Analysis (further PCA) is a mathematical procedure that transforms possible correlated variables into a smaller number of uncorrelated variables called principal components. PCA has two main applications. The first application is to reduce the number of variables. The second application is to detect structure in the relationships between variables.

There are a number of criteria to decide upon the number of components to extract. The first is the Kaiser criterion which retains only factors with Eigenvalues greater than one, implying that they have more explanatory power than any of the variables by itself. Principal components 1 through 4 have Eigenvalues greater than one (ranging from 1.26 to 2.81).

The second criterion is the scree test which tries to find the place where the smooth decrease of Eigenvalues appears to level off to the right of the plot. The Scree test shows that the smooth decrease of Eigenvalues levels off after the fifth principal component. The fifth principal component however has a small Eigenvalue and small factor loadings for the variables which have already appeared in the first four principle components with higher factor loadings. The third criterion is to look at the cumulative variance explained. The fourth

criterion is the extent to which a solution is interpretable. The interpretation of the four principle components is described under “naming the four principle components” on the next page.

Following the last important argument of an interpretable solution and the Kaiser criterion, four principal components are selected. The 15 variables return in the first four principal components and appear only once in case factor loadings above 0.20 are considered. Table 4.11 lists the factor loadings (above 0.20) used in order to score the CEOs.

Table 4.11 Factor loadings four principal components (unrotated)

Eigenvectors (loadings):				
Variable	PC 1	PC 2	PC 3	PC 4
Publicity	0.406			
Awards	0.361			
Lines Biography	0.325			
Corporate Jet Use Corrected	0.251			
Cash Compensation	0.402			
Total Compensation	0.474			
Ratio Cash Compensation		0.608		
Ratio Total Compensation		0.479		
Rank Compensation		-0.432		
CEO Duality			0.617	
Role Titles			0.509	
Governance Index			0.261	
Photograph				0.408
Value of Acquisitions				0.604
Number of Acquisitions				0.514
Eigenvalues	2.81	1.95	1.46	1.26

The exploratory PCA on the fifteen variables shows satisfying results. The principal components have the expected signs and factor loadings which can be explained.

Naming the Four Principal Components

The work of Emmons and his four components are used to name the 4 principal components. The first principal component shows high factor loadings for 3 media exposure determinants (publicity, awards and lines biography), the corporate jet use and the absolute amounts of compensation (cash compensation and total compensation). Most corresponding NPI items for the media exposure and the perquisite determinant are found in the self-admiration component of Emmons. For this reason, the first principal component is named “Self-admiration”.

The second principal component shows high factor loadings for the compensation ratio’s (ratio of cash compensation and the ratio of total compensation) and the rank compensation. The rank compensation variable is supposed to have a negative sign¹⁹. Most corresponding NPI items for the compensation determinant are found in the entitlement component of Emmons. For this reason, the second principal component is named “Entitlement”.

The third principal component shows factor loadings for CEO duality, role titles and the governance index of Gompers. Most corresponding NPI items for the power determinant are found in the authority component of Emmons. For this reason, the third principal component is named “Authority”.

The fourth principal component shows factor loadings for the photo and the acquisitions in value and number. Most corresponding NPI items for the growth determinant are found in the superiority component of Emmons. For this reason, the fourth principal component is named “Superiority”.

The fifteen variables are used as narcissism indicators, based on the four components of Emmons and the same four principle components are retrieved with a PCA on the 15 variables.

Narcissism Score Development

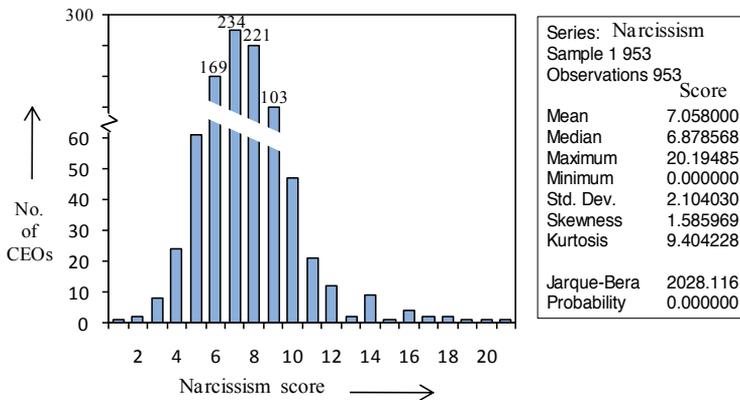
In order to develop the CEO Narcissism Score, the factor loadings of the four principal components are used. The factor loadings are multiplied by every variable for every individual CEO observation, resulting into four scores (one score per principal component)

¹⁹ A high rank implies that the CEO is not the best paid executive, which is a sign for low narcissism. The high narcissistic CEO will probably have a low rank (1), meaning that he is the best paid executive. A high ratio and a low rank imply that the CEO is the best paid executive.

for every CEO. These four scores are each normalized by subtracting the mean of the principal component and dividing it by the standard deviation of the principal component. The four standardized scores are added per CEO which results into one score.

The CEO Narcissism Score (CNS) ranges from 0 to 20, with a mean of approximately 7. The score shows that CEOs differ in their narcissistic tendencies (standard deviation is 2.1). Figure 4.19 depicts the descriptive statistics of the CEO Narcissism Score.

Figure 4.19 Descriptive statistics CNS



The 953 S&P500 CEOs differ in their narcissistic personal characteristics. The necessary condition of variance is fulfilled.

The CEO narcissism score is in line with the estimate of psychologists that about 0.7% to 1% score extremely high on the narcissistic personality disorder (described in chapter 3.2). There are 11 CEOs (1.1%) with an extreme score that causes the skewness on the right hand sight.

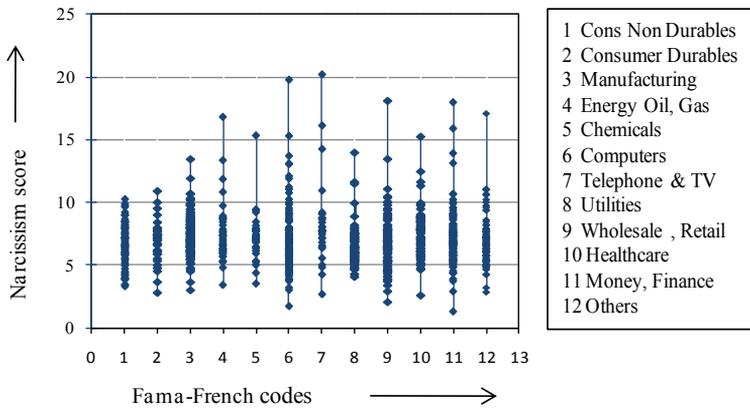
4.3.2 CNS and Fama French Industry Code

The Fama French (FF) industry codes (included in Appendix IV) show varying narcissistic scores. Some industries have higher narcissistic scores, like FF code 6 (Business Equipment -- Computers, Software, and Electronic Equipment) and 9 (Shops Wholesale, Retail, and Some

Services). FF Industries codes with lower narcissism scores are 4 (Energy, Oil, Gas, and Coal Extraction and Products), 5 (Chemicals and Allied Products) and 8 (Utilities). Figure 4.20 depicts the score per FF industry code.

The lower and higher narcissism scores per industry can be explained by the research of Hambrick and Finkelstein. These researchers argue that executives do not always have latitude over their actions. The CEO actions and characteristics are more predictive in high discretion environments as the computer industry (FF code 9). In cases of low discretion, like gas (FF code 4), managerial actions become less important, because organizational and environmental factors influence the organizational outcome significantly.

Figure 4.20 CNS and FF



4.3.3 CNS and Gender

The research sample contains 16 female CEOs (1.68%), compared to 937 male CEOs. The narcissistic scores of female CEOs can be compared to male CEOs.

Table 4.12 Male and Female CEO Narcissism Score

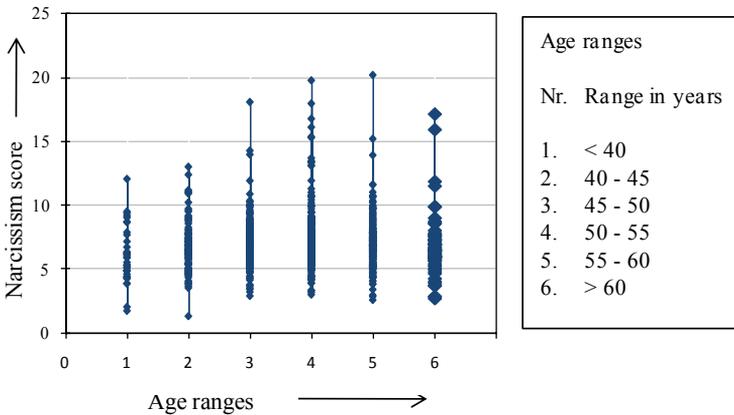
	Range	Mean	St.dev
MALE	0 - 20	7.1	2.1
FEMALE	3.4 - 10.3	6.7	1.8

Female CEOs have a slightly lower narcissism scores compared to male CEOs. The results of a t-test show no significant difference in narcissism between male and female CEOs based on the relatively small number of female CEOs (16) in this research sample.

4.3.4 CNS and Age

The narcissistic scores can be detailed per age²⁰ category. The age of the CEO starting the tenure is divided into 6 categories. The scores vary among the age categories as the figure 4.21 depicts.

Figure 4.21 CNS and CEO age



The age categories 3 and 4 (45 to 55 years) show the highest scores, while the first and last categories (younger than 40 or older than 60) show the lowest scores.

4.3.5 CNS and Tenure

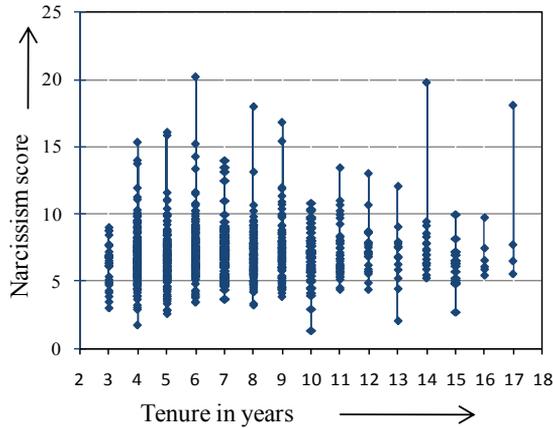
The tenure²¹ varies for CEOs from 3 years to 17 years (mean 7.1 years). The theory of CEOs life cycle, which argues that CEOs need time to incorporate their paradigm, holds here as well. The score increases for CEOs with more than four tenure years. CEOs with a tenure

²⁰ Descriptive statistics of age in chapter 4.2

²¹ Descriptive statistics of tenure in chapter 4.2

longer than 12 years have a lower score. The underlying rationale might be that these CEOs are entrenched with the company (Weisbach, 1988). Another reason might be that CEOs with a very long tenure might have different personalities compared to CEOs with short tenures. The narcissistic scores vary with regard to the length of the tenure as figure 4.22 depicts.

Figure 4.22 CNS and tenure



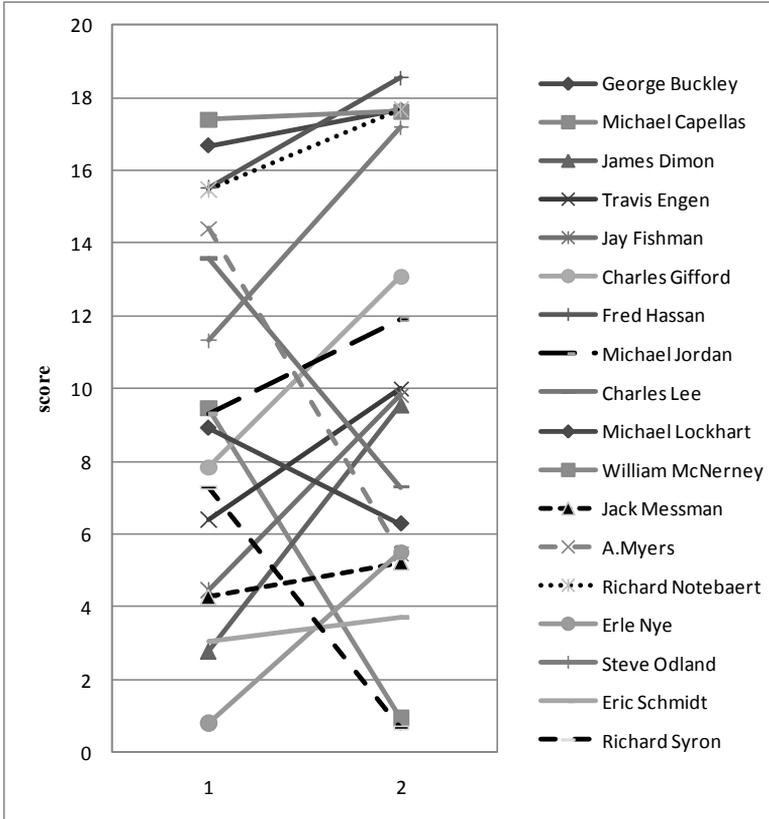
4.3.6 Scores for CEOs Serving Two Companies

The research sample contains 18 CEOs who served two companies. These 18 CEOs have two narcissism scores which can be compared. If narcissism is a stable construct, depending on the CEO only, the scores should remain the same. Figure 4.23 below shows that the narcissism scores of the 18 CEOs (serving at the first (1) and the second (2) company) are not stable when CEOs change companies.

The fundamentals for personal characteristics are established in early adulthood according to the DSM, but experiences may exert influence on the level of the personal characteristics. Narcissism scores fluctuate if external factors have influence. The narcissism level increases with every success which reinforces the sense of self-admiration (Hiller & Hambrick, 2005). If the CEOs successfully incorporate their paradigm and the financial performance increases, the self-admiration is further bolstered. Being nominated in a second S&P500 company reflects the CEOs success. This success bolsters the sense of self-admiration which should result into increasing narcissism scores. Figure 4.23 shows the CNS for 18 CEOs during the

first (1) and the second (2) S&P500 company. For 13 CEOs, the CNS is increasing, while the CNS decreases for 5 CEOs.

Figure 4.23 CNS for CEOs serving two companies



The narcissism increases with the success of 13 CEOs (72%). Alternative explanations are investigated for the 5 CEOs with a decreasing narcissism score. Table 4.13 lists the 5 CEOs with a decreasing CNS.

Table 4.13 shows changing FF industry codes²² for two CEOs. For the other three CEOs, the FF industry code remains the same. The CNS does not show large variance across the FF industry types 6 and 7. Although the sample size is small, the type of industry has probably no influence on the decreasing narcissism scores.

²² FF industry codes and scores described in chapters 4.2 and 4.3.2

Table 4.13 Investigation decreasing CNS for 5 CEOs

CEO	FF industry	Tenure	ROA	Tobin's Q
Capellas	FF 6 → 7	T=3→3	50% lower	25% lower
Lee	FF same: 7	T=8→3	25% lower	17% lower
Lockhart	FF same: 3	T=3→6	82% lower	38% lower
Myers	FF same: 12	T=4→6	23% higher	42% higher
Syron	FF 6 → 11	T=4→5	same	27% lower

The narcissism scores can decrease because of a shorter tenure or a very long tenure at the second company²³. The tenure only decreases in one case which makes the influence of tenure length as an explanation for the decreasing narcissism scores unlikely.

In case the CEO is the founder of a company or the holder of substantial shares, the narcissism score might be lower. None of the five double CEOs are a founder or a substantial shareholder.

The CEO narcissism scores might diminish under conditions of economic adversity. The five CEOs switch jobs in complete different years, so that economic adversity can be excluded as a possible explanation for the decreasing narcissism scores.

Severe financial performance problems can reduce the narcissism level. This hypothesis can be tested by looking at the narcissism score for the CEO in the two different settings and investigating the financial performance of these companies. The ROA is lower for three CEOs in the second company, equals for one CEO and increases for one CEO in the second company. The Tobin's Q is lower in four out of five cases.

The low financial performance could be the underlying reason for the lower narcissism score. The decreasing narcissism score for CEO Meyers (with the exception of a higher Tobin's Q at the second company) can alternatively be explained by the fact that CEO Meyers entered the second company (Waste Management Inc) after it faced an accounting scandal in 1998. It could be that this accounting scandal influenced the compensation ratio's, resulting in a CEO compensation that does not differ substantial from the second best paid and thus Meyers

²³ FF tenure and scores described in chapters 4.2 and 4.3.5

scoring lower on principle component 2. The same line of reasoning applies to the power determinant: accounting scandals may lead to a lower governance index and the absence of CEO duality and thus Meyers scoring lower on principle component 3.

The narcissism score increases for 13 out of 18 CEOs (72%) who served two companies during the sample period. The narcissism scores go together with lower financial performance (4 out of five cases have substantial lower Tobin’s Q). Further investigation with a larger sample is necessary.

4.3.7 CNS and the NPI

Leading psychologists (Maccoby, Kets de Vries) have identified a number of narcissists through interviews and inventories, like the NPI²⁴. These well-known cases are compared to the narcissistic score developed in this research. These CEOs are also mentioned in chapter 2. Rosenthal and Pittinsky (2006) identify many narcissistic business leaders, including Steve Jobs, Michael Eisner, David Geffen and Kenneth Lay. Maccoby identifies Mike Armstrong, Joseph Nacchio, Carly Fiorina, Jack Welch, Sandy Weil and Conrad Black. The research sample contains Mike Armstrong, Carly Fiorina, Steve Jobs, Joseph Nacchio and Sandy Weil²⁵. Four of these five CEOs have a top CEO narcissism score.

Table 4.14 Identified narcissistic CEOs and the CNS

CEO Name	Narcissism Score	Number	Top
Mike Armstrong	20	953 (highest score)	1%
Carly Fiorina	8.9	827	15%
Steve Jobs	13.1	934	2%
Joseph Nacchio	14.3	943	1%
Sandy Weil	15.9	947	1%

²⁴ Narcissistic Personality Inventory

²⁵ The other 5 mentioned narcissistic business leaders are not included in this research sample because of the focus on S&P500 companies and the imposed filter of a tenure starting from 1992.

Although the test sample size is small, it confirms the theory that personal characteristics can be measured with objective variables. Construct validity can be further evidenced by later psychological inventory investigation or collecting the objective variables for narcissistic CEOs not included in the sample as Michael Eisner, David Geffen and Kenneth Lay.

4.4 Summary and Conclusion CEO Narcissism Score

This part of the research empirically examines the construction of a CEO narcissism score.

The first objective of this chapter is to collect variables which reflect CEO narcissism (4.1). Chapter 4.1 lists and analyses the fifteen variables for the narcissistic personality dimension of CEOs based on the 4 components of Emmons: I authority / leadership (I like to be the center of attention); II superiority / arrogance (I am better than others); III self-admiration (I am preoccupied with how extraordinary and special I am) and IV exploitativeness / entitlement (I insist upon getting the respect due to me).

The second objective of this chapter is to describe the data collection and descriptive statistics of the fifteen variables (4.2).

The third objective of this chapter is to score the CEOs according to their narcissistic personality dimension. An exploratory principal components analysis first reduces the fifteen variables into four principal components. The factor loadings have the expected signs and the 15 variables return in four principal components. The four components are extracted based on the Kaiser criterion and on the base of an interpretable solution. The four components of Emmons are retrieved in the extracted four principal components and are named accordingly. The factor loadings are multiplied by the original individual CEO variables to obtain four scores per CEO. These scores are further normalized and summed in order to construct one narcissism score. The CEO narcissism score has the required variance.

The scores are analyzed per Fama French Industry group, per CEO age category, per tenure and per gender.

The research sample contains 18 CEOs who served two companies. These 18 CEOs have two narcissism scores for their first and second S&P500 company which can be compared. CEO narcissism is not stable, but rather dynamic as psychological literature suggests. The CNS for these 18 CEOs in their first and second S&P500 company differs. For 13 CEOs the CNS increases which can be explained by their success and the inherent reinforcement of self-

admiration (Hiller & Hambrick, 2005). For 5 CEOs, the CNS decreases which might be due to a low financial performance in their second S&P500 company which prevents a further bolstering of self-admiration.

Leading psychologists have identified narcissists through interviews and inventories. It is reassuring to conclude that these narcissistic CEOs have a top score in this research as well. This finding provides evidence for the construct validity of the narcissism score established with objective variables.

Chapter 5 CEO Narcissism and Financial Performance

The upper echelon theory argues that the top executives affect the organizational performance. The CEO is the most powerful member of the top executive team and can therefore have a profound influence on the organizational performance (Daily & Johnson, 1997; Harrison et al., 1988; Pearce & Zahra, 1991). Daily and Johnson (Daily & Johnson, 1997) regard the CEO as “THE corporate leader” who will impact organizational performance. This chapter investigates whether the CEOs narcissistic personality influences the financial performance.

5.1 Positive or Negative Influence of CEO Narcissism on Financial Performance

High narcissistic CEOs use their organizations as tools for achieving the highest possible narcissistic needs, being grandiosity, attention and applause. The narcissism construct is described in chapter 3 and Appendix I lists the narcissism criteria according to DSM-IV. High narcissistic CEOs initiate more changes, are looking for grandiosity and undertake bold actions which attract the attention the CEO needs (Finkelstein & Hambrick, 1996). The question arises whether the net effect of CEO narcissism influence the financial performance positively or negatively.

The actions of narcissistic CEOs result into positive financial outcomes if the productive narcissist theory of Maccoby (Maccoby, 2001; Maccoby, 2003) is taken as a basis (Higgs, 2009). According to this productive theory, high narcissistic CEOs will show positive organizational outcomes. However, the presence of narcissistic CEOs and their subsequent decline suggests that there must be negative aspects of narcissism as well.

Several researchers elaborate on these positive and negative elements of narcissism. Chapter 3.2 includes the literature review regarding these positive and negative aspects. The positive aspects have been labeled productive (Maccoby, 2003), healthy (Lubit, 2002) or constructive (Kets de Vries, 1997; Kets de Vries, 1994). The negative aspects have been labeled destructive or reactive. According to Kets de Vries, narcissism is the real problem for many CEOs, because narcissism is a necessary ingredient for effective leadership but also an addictive drug with the potential danger of a destructive overdose.

The bold actions of the high narcissistic CEOs affect the financial performance, although the direction is not a priori clear. This chapter investigates the hypothesis whether a high narcissistic CEO shows a diverging financial performance compared to a low narcissistic CEO. This first research question explains the overall average effect of CEO narcissism on the financial performance. The second research question investigates the productive versus destructive forms of narcissism. The performance measures are first described.

Two Performance Measures

The Tobin's Q and the Return on Assets are two performance measures that have been widely used to investigate the CEO-effects (Bertrand & Schoar, 2003; Crossland & Hambrick, 2007).

The Tobin's Q is a market based measure which is used to proxy the organizational performance. Tobin's Q is used by Morck, Shleifer, and Vishny (Morck, Shleifer, & Vishny, 1990), Yermack (Yermack, 1997), Kaplan and Zingales (S. N. Kaplan & Zingales, 1997), Gompers, Ishii, and Metrick (Gompers, Ishii, & Metrick, 2003) and various other researchers. Tobin's Q is equal to the market value of assets divided by the book value of assets (Compustat item 6). Market value is defined as the book value of assets (Compustat item 6) + market value of common equity (Compustat item 24 * Compustat item 25) - sum of book value of common equity (Compustat item 60).

Return on Assets (ROA) is an accounting based measure which gives an indication of the efficiency of generating income with the available assets. The ROA is calculated by dividing the net income (Compustat item 172) by the total assets (Compustat item 6).

ROA is together with Return on Equity (ROE) the most explanatory criterion with respect to financial performance (Tosi, Werner, Katz, & Gomez-Mejia, 2000). The ROE is used to check the robustness of the results. Paul (Paul, 1992) argues that ROA is the best informative performance measure for executives' value addition.

The Tobin's Q and ROA are two different measures. The Tobin's Q is a measure of the market expectation and is therefore by definition forward looking. Due to the fluctuation of the market capitalization, the Tobin's Q is a very hybrid performance measure.

The accounting measures ROA, ROE and ROS provide a view of the actual managerial achievements and is by definition backward looking (Devinney, Yip, & Johnson, 2010; Tanriverdi & Venkatraman, 2005).

The two measures, Tobin's Q and ROA, are used in order to test the relationship between CEO narcissism and the financial performance. All financial data are downloaded from Compustat.

The long term impact of CEO narcissism

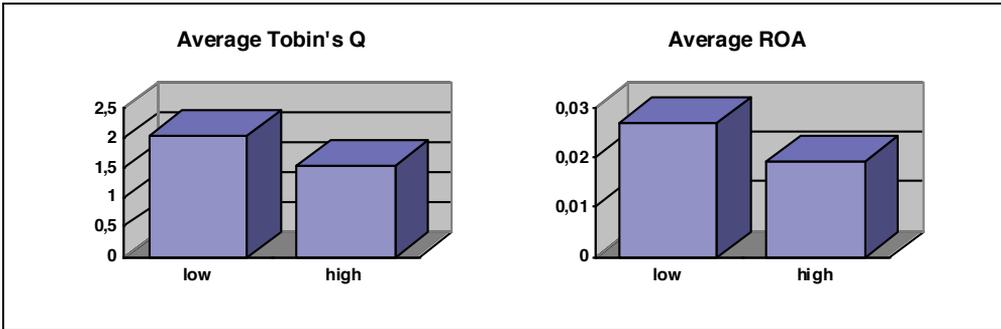
Leadership research is often too static (Hunt & Dodge, 2000) while performance linkages to leadership should be based on a long-term view (Lord & Maher, 1994).

Most studies measure certain managerial characteristics and focus on the following year's financial performance. However, the important question regarding CEO-effects is the persistence of profits. The CEO-effect of the narcissistic personality on the financial performance has a long term impact. The financial performance is averaged per CEO over the tenure.

Financial Performance for Low and High Narcissistic CEOs

The CEO is the most powerful member of the top executive team and impacts the organizational performance (Daily & Johnson, 1997). The direction to which CEO narcissism affects financial performance is not a priori clear due to the positive as well as negative aspects of CEO narcissism. The question arises whether narcissistic CEOs show on average a higher or lower financial performance. The CEO Narcissism Score (CNS) developed in chapter 4 is used as a degree of CEO narcissism and the scores of the 953 CEOs are divided into deciles. CEOs are categorized as high narcissistic if their scores fall into the top deciles. CEOs are categorized as low narcissistic if their scores fall into the bottom deciles. Figure 5.1 shows the average performance measured in Tobin's Q and ROA for low and high narcissistic CEOs.

Figure 5.1 Average Tobin's Q and ROA for top/bottom deciles



The top deciles CEOs score on average lower than the CEOs in the bottom deciles when Tobin's Q and ROA are used as performance measures. The average Tobin's Q for low and high narcissistic CEOs is 2.04 and 1.51 respectively. The average ROA for low and high narcissistic CEOs is 0.027 and 0.019 respectively. The figures show that low narcissistic CEOs perform on average better (measured in Tobin's Q as well as in ROA).

Hypothesis 1a

The average financial performance indicates a negative relation between CEO narcissism and financial performance. Therefore, this research tests the following hypothesis.

Hypothesis 1a: high narcissistic CEOs show lower financial performances than low narcissistic CEOs.

5.2 Methodology CEO Narcissism and Financial Performance

The CEO Narcissism Score (CNS), developed in chapter 4, proxies the CEO narcissism and is used as an independent variable. The performance measures ROA and Tobin's Q are averaged over the tenure for each CEO and used as dependent variables. The underlying reason for averaging the performance variables over the tenure is the fact that narcissistic leadership has a long term impact on the financial results.

Control Variables

There are four control variables included in the model, because these variables are potentially able to influence the financial performance measures.

The first control variable is CEO tenure, because financial performance can be affected by life-cycle learning.

The second control variable is the CEO age, because the bold and strategic actions of CEOs vary with age.

The third control variable is the company size, proxied by the log of sales. The log of sales is preferred above the log of assets to control for company size for two reasons. First, the log of sales is a better indicator of organizational size in case the human capital provides the turnover. In these companies, e.g. service companies, few assets are activated on the balance sheets while a substantial turnover is possible through the utilization of human capital. Second, the dependent variable Tobin's Q is the ratio of market value of total assets and book value of total assets. Tobin's Q already contains the total assets variable. A mechanical relation arises if the book value of total assets is used in the dependent variable on the left hand side of the equation and as a control variable on the right hand side of the equation (Coles, Daniel, & Naveen, 2008).

The fourth control variable includes the 12 Fama French industry groups. The industry control variables take specific economic environments into account. Companies operating in the same industry have the same production technologies and market conditions.

Model

The financial performance measures are regressed using OLS on the following equations.

$$\text{Tobin's Q} = \alpha [\text{CNS}] + \beta [\text{TENURE}] + \phi [\text{CEO AGE}] + \gamma [\text{SALESLOG}] + \delta [\text{FF-Ind}] + C$$

$$\text{ROA} = \alpha [\text{CNS}] + \beta [\text{TENURE}] + \phi [\text{CEO AGE}] + \gamma [\text{SALESLOG}] + \delta [\text{FF-Ind}] + C$$

Where CNS is the CEO Narcissism Score developed in chapter 4, TENURE is the number of years the CEO serves on the job, CEO AGE is the age of the CEO starting the tenure, SALESLOG is the average log of sales during the CEO tenure and FF-Ind represents the 12 Fama French industries as outlined in appendix IV.

Results

The regressions are performed for the Tobin's Q and ROA respectively. The results are listed in table 5.1 on page 117.

Tobin's Q:

The CEO narcissism score has the hypothesized negative effect ($\alpha=-0.027$) on financial performance measured in Tobin's Q. This effect is statistically insignificant with a p-value of 0.2751. The hypothesized negative effect of CEO narcissism is present but statistically insignificant. Hence, the hypothesis is not be accepted using Tobin's Q.

ROA:

The CEO narcissism score has again the hypothesized negative effect ($\alpha=-0.0041$) on financial performance measured in ROA. This effect is statistically significant with a p-value of 0.0217. CEO narcissism has a negative effect of on performance measured in ROA. The hypothesis is accepted using ROA as performance measure.

Robustness Checks

A number of additional tests are performed in order to validate the robustness of the results.

The first robustness check includes two additional financial performance measures: Return on Equity (ROE) and Return on Sales (ROS). The ROE and the ROS are commonly applied measures in the evaluation of firm performance (Waldman, Javidan, & Varella, 2004).

ROE is a measure of the profitability of the shareholders' invested capital and is derived by dividing net income (Compustat item 172) by shareholders' equity (Compustat item 60). The ROE is an indicator of the effective use of shareholders' wealth. The ROS is a measure of the profitability of sales and is derived by dividing net income (Compustat item 172) by sales (Compustat item 12).

The ROS and the ROE are related measures, but have varying results. A high capital intensive company can have a low ROE and a high ROS at the same time, while a service provider with low capital requirements can show a high ROE and a low ROS simultaneously.

The accounting based measures ROA, ROE and ROS are widely used in prior research on CEO-effects (Bertrand & Schoar, 2003; Crossland & Hambrick, 2007; Dalton, Daily, Johnson, & Ellstrand, 1999).

The regression of the CNS on financial performance measures are iterated with the two other performance measures using OLS on the following equations.

$$\begin{aligned} \text{ROE} &= \alpha [\text{CNS}] + \beta [\text{TENURE}] + \phi [\text{CEO AGE}] + \gamma [\text{SALESLOG}] + \delta [\text{FF-Ind}] + C \\ \text{ROS} &= \alpha [\text{CNS}] + \beta [\text{TENURE}] + \phi [\text{CEO AGE}] + \gamma [\text{SALESLOG}] + \delta [\text{FF-Ind}] + C \end{aligned}$$

The results of the regression analysis are included in table 5.1 on page 117.

The CEO narcissism score has the hypothesized negative effect on financial performance measured in ROE with a negative parameter of $\alpha=-0.0017$. This effect is statistically significant with a p-value of 0.0335.

For ROS, the results are similar. CNS is again negatively related with financial performance with a parameter $\alpha=-0.0306$ and a p-value of 0.

The significant effect of CEO narcissism on the financial performance is robust when the performance measure ROA is substituted with ROE or ROS.

The second robustness check is performed by adding additional control variables, such as the calendar year or omitting control variables such as CEO age and CEO tenure. The adding or omitting of control variables does not change the statistically significant negative relationship between the CNS and the financial accounting performance measures.

Table 5.1 Linear regressions on ROA, Tobin's Q, ROS and ROE

Variable	ROA	Tobin's Q	Variable	ROS	ROE
CNS	-0.0041** (0.0018)	-0.0270 (0.0248)	CNS	-0.0306*** (0.0079)	-0.0017** (0.0008)
CEO Tenure	0.0031** (0.0013)	0.0588*** (0.0176)	CEO Tenure	0.0088 (0.0056)	0.0017*** (0.0006)
CEO Age	-0.0002 (0.0006)	-0.0133 (0.0085)	CEO Age	-0.0021 (0.0027)	0.0001 (0.0003)
SalesLog	0.0072** (0.0031)	-0.2093*** (0.0438)	SalesLog	0.0419*** (0.0140)	0.0029** (0.0014)
FF1	0.0383** (0.0174)	0.2667 (0.2450)	FF1	0.0169 (0.0782)	0.0201** (0.0079)
FF2	-0.0071 (0.022)	-0.2845 (0.3089)	FF2	-0.0188 (0.0986)	0.0010 (0.0099)
FF3	0.0086 (0.0152)	-0.3149 (0.2134)	FF3	0.0095 (0.0682)	0.0145** (0.0068)
FF4	0.0112 (0.0211)	-0.2836 (0.2963)	FF4	0.0131 (0.0946)	0.0206** (0.0095)
FF5	0.0366 (0.0215)	0.0390 (0.3021)	FF5	0.0372 (0.0965)	0.0251*** (0.0097)
FF6	-0.0311** (0.0151)	1.0677*** (0.2121)	FF6	-0.1712** (0.0677)	-0.0113* (0.0068)
FF7	-0.0024 (0.0234)	0.0918 (0.3291)	FF7	-0.0609 (0.1051)	0.0034 (0.0105)
FF8	-0.0132 (0.0176)	-0.6849*** (0.2478)	FF8	0.0034 (0.0791)	0.0087 (0.0079)
FF9	0.0126 (0.0162)	0.1799 (0.2277)	FF9	-0.0433 (0.0727)	0.0114 (0.0073)
FF10	0.0384** (0.0176)	1.0672*** (0.2477)	FF10	0.0876 (0.0791)	0.0141* (0.0079)
FF11	-0.0137 (0.0152)	-0.5944*** (0.2138)	FF11	0.0735 (0.0683)	0.0042 (0.0069)
C	-0.0087 (0.0423)	4.2374*** (0.5937)	C	-0.0492 (0.1896)	-0.0198 (0.0190)
R ²	0.0541	0.2019	R ²	0.0474	0.0608
Standard Errors in Parentheses, n=953, *p<0.10, ** p<0.05, ***p<0.01					

Concluding Remarks Concerning the Linear Relation

The first research question tests the hypothesis whether high narcissistic CEOs show on average lower financial performances compared to low narcissistic CEOs. The results indicate that CEO narcissism is negatively related to all financial performance measures. This effect is statistically significant for the accounting performance measure ROA. The additional analyses using ROE and ROS and other sensitivity checks show that the results are robust. The negative effect of CEO narcissism on the Tobin's Q is statistically insignificant, which may be due to the hybrid character (due to fluctuation of the market capitalization) of this performance measure. The hypothesis is accepted using the accounting performance measures. CEOs with a high narcissistic personality show a lower financial performance.

5.3 Productive versus Reactive Narcissism

The presence of narcissistic CEOs and their subsequent decline elucidates the existence of positive as well as negative aspects of CEO narcissism. Researchers (Kets de Vries, 1997; Kets de Vries, 1994; Lubit, 2002; Maccoby, 2003) acknowledge that the positive aspects of narcissism can be outweighed by the negative aspects of narcissism. These productive and destructive aspects of narcissism are described in chapter 3.2.3.

Productive narcissism might result into higher performance (Maccoby, 2003) whereas non-productive (destructive) narcissism might result into lower performance (Rosenthal and Pittinsky, 2006).

According to Kets de Vries, narcissism is a real problem for many CEOs, because narcissism is a necessary ingredient for effective leadership but also an addictive drug with the potential danger of an overdose. Without some level of narcissism, leadership will remain ineffective or even impossible. A high level of narcissism can become a real problem in case leaders loose contact with reality, start living in their own lives, and cultivate hubris and an obsession for greed.

5.4 Methodology Productive/Destructive CEO Narcissism and Financial Performance

The results of the first research question indicate a negative linear relationship between CEO narcissism and financial performance without considering the potential positive outcomes of CEO narcissism. A positive influence on the financial performance is to be expected because narcissism is a requisite for effective leadership as outlined in chapter 3. In addition hereto, the second research question concerns the psychological perspective whether some level of narcissism indeed forms a necessary ingredient for effective CEO leadership.

Hypothesis 1b: moderate levels of CEO narcissism will be positively related to the financial performance, whereas very low or very high levels of CEO narcissism will be negatively related to the financial performance.

The linear regression equation documented in chapter 5.3 is therefore changed into a quadratic regression.

$$\text{ROA} = \alpha_1 [\text{CNS}^2] + \alpha_2 [(\text{CNS})] + \beta [\text{TENURE}] + \phi [\text{CEO AGE}] + \gamma [\text{SALESLOG}] + \delta [\text{FF-Ind}] + C$$

Table 5.2 on page 121 shows the results of this regression. Included in table 5.2 are the sequential regressions on the accounting performance measures: first the regression with control variables only (model 1); second the linear regression with CNS (model 2) and third the quadratic regression with CNS² (model 3).

The results of the quadratic regression show a negative sign for α_1 (-0.0011) and a positive sign for α_2 (0.0156). The p-values are 0.0008 and 0.0104 respectively. The sign for α_1 is negative and the sign for α_2 is positive, which indicates a concave parabola. The quadratic regression gives a better fit than the linear regression: the R² increases from 5.4 to 6.6%.

The R² change = .01, $F_{(1,936)} = 11.42$, $p = .001$.

ROS and ROE

The quadratic regression is also performed for the Tobin's Q and the other two accounting performance measures ROE and ROS. The results for the Tobin's Q are not displayed because the fit of the model and the significance decrease substantial. Again, the hybrid character (due to fluctuation of the market capitalization) of this performance measure might be the underlying reason. The results for the two accounting performance measures ROE and ROS are included in table 5.2. The quadratic regressions for ROE and ROS give a better fit than the linear regression: the R^2 increases and the results are statistically significant. For ROS: R^2 change = .01, $F_{(1,936)} = 10.95$, $p = .001$. For ROE: R^2 change = .01, $F_{(1,936)} = 12.04$, $p = .001$. For ROE, the parameter α_1 is negative and statistically significant (p-value is 0.0005) and the parameter α_2 is positive and statistically significant (p-value is 0.007). For ROS, the parameter α_1 is negative and statistically significant (p-value is 0.001) and the parameter α_2 is positive and statistically significant (p-value is 0.041).

CNS Optimum

The parabola gives information about the saturation point up to where narcissism is productive and thereafter reactive. The saturation point is at the optimum of the parabola. The optimum can be derived by differentiating the parabola and setting the derivative to zero. For ROA, the optimal CNS will be at $[2 \cdot -0.0011 \text{ (CNS)}] = -0.0156 \rightarrow \text{CNS} = 7.0909$ which is slightly above the mean CNS. On average, companies know well how to estimate CEO narcissism. There are 508 CEOs (53%) scoring below the optimum and 445 CEOs (47%) scoring above the optimum. The turning point of 7.09 for ROA is close to the mean CNS which is an indication of the reliability of the findings (Meyer, 2009).

Table 5.2 Linear and Quadratic Regressions on ROA, ROE and ROS

	ROA			ROE			ROS		
	1	2	3	1	2	3	1	2	3
CNS^2			-0.0011*** (0.0003)			-0.0005*** (0.0001)			-0.0049*** (0.0015)
CNS		-0.0041** (0.0018)	0.0156*** (0.0061)		-0.0017** (0.0008)	0.0074*** (0.0027)		-0.0306*** (0.0079)	0.0557** (0.0272)
CEO Tenure	0.0029** (0.0013)	0.0031** (0.0013)	0.0033*** (0.0012)	0.0016*** (0.0006)	0.0017*** (0.0006)	0.0018*** (0.0006)	0.0071 (0.0057)	0.0088 (0.0056)	0.0095* (0.0056)
CEO Age	-0.0002 (0.0006)	-0.0002 (0.0006)	-0.0001 (0.0006)	0.0001 (0.0003)	0.0001 (0.0003)	0.0001 (0.0003)	-0.0024 (0.0027)	-0.0021 (0.0027)	-0.0018 (0.0027)
SalesLog	0.0054* (0.0030)	0.0072** (0.0031)	0.0069** (0.0031)	0.0021 (0.0014)	0.0029** (0.0014)	0.0028** (0.0014)	0.0286** (0.0137)	0.0419*** (0.0140)	0.0407*** (0.0139)
FF1	0.0397** (0.0175)	0.0383** (0.0174)	0.0383** (0.0174)	0.0207*** (0.0079)	0.0201** (0.0079)	0.0201** (0.0078)	0.0273 (0.0788)	0.0169 (0.0782)	0.0168 (0.0778)
FF2	-0.0063 (0.0220)	-0.0071 (0.022)	-0.0085 (0.0219)	0.0013 (0.0099)	0.0010 (0.0099)	0.0003 (0.0098)	-0.0103 (0.0994)	-0.0188 (0.0986)	-0.0249 (0.0981)
FF3	0.0070 (0.0152)	0.0086 (0.0152)	0.0050 (0.0152)	0.0138** (0.0068)	0.0145** (0.0068)	0.0128* (0.0068)	-0.0030 (0.0686)	0.0095 (0.0682)	0.0116 (0.0941)
FF4	0.0103 (0.0211)	0.0112 (0.0211)	0.0109 (0.0210)	0.0202** (0.0095)	0.0206** (0.0095)	0.0205** (0.0094)	0.0061 (0.0953)	0.0131 (0.0946)	-0.0067 (0.0680)
FF5	0.0352 (0.0216)	0.0366 (0.0215)	0.0345 (0.0214)	0.0246** (0.0097)	0.0251*** (0.0097)	0.0242** (0.0096)	0.0270 (0.0971)	0.0372 (0.0965)	0.0282 (0.0960)
FF6	-0.0317** (0.0151)	-0.0311** (0.0151)	-0.0288* (0.0150)	-0.0115* (0.0068)	-0.0113* (0.0068)	-0.0102 (0.0067)	-0.1754** (0.0682)	-0.1712** (0.0677)	-0.1612** (0.0674)
FF7	-0.0064 (0.0234)	-0.0024 (0.0234)	0.0026 (0.0234)	0.0017 (0.0105)	0.0034 (0.0105)	0.0057 (0.0105)	-0.0912 (0.1056)	-0.0609 (0.1051)	-0.0388 (0.1048)
FF8	-0.0116 (0.0177)	-0.0132 (0.0176)	-0.0137 (0.0175)	0.0094 (0.0079)	0.0087 (0.0079)	0.0084 (0.0079)	0.0151 (0.0796)	0.0034 (0.0791)	0.0009 (0.0787)
FF9	0.0143 (0.0162)	0.0126 (0.0162)	0.0146 (0.0161)	0.0121* (0.0073)	0.0114 (0.0073)	0.0123* (0.0072)	-0.0300 (0.0732)	-0.0433 (0.0727)	-0.0343 (0.0724)
FF10	0.0354** (0.0176)	0.0384** (0.0176)	0.0359** (0.0176)	0.0129 (0.0079)	0.0141* (0.0079)	0.0130 (0.0079)	0.0651 (0.0795)	0.0876 (0.0791)	0.0765 (0.0788)
FF11	-0.0138 (0.0153)	-0.0137 (0.0152)	-0.0141 (0.0151)	0.0042 (0.0069)	0.0042 (0.0069)	0.0040 (0.0068)	0.0730 (0.0688)	0.0735 (0.0683)	0.0718 (0.0679)
C	-0.0183 (0.0422)	-0.0087 (0.0423)	-0.0887* (0.0483)	-0.0238 (0.0189)	-0.0198 (0.0190)	-0.0567*** (0.0217)	-0.1218 (0.1901)	-0.0492 (0.1896)	-0.4006* (0.2164)
R^2	0.0488	0.0541	0.066	0.0563	0.0608	0.0728	0.0321	0.0474	0.0584
n=953	Standard Errors in Parentheses			* p < 0.10	** p < 0.05	*** p < 0.01			

5.5 Summary and Conclusion CEO Narcissism and Financial Performance

This chapter first performs a linear regression analysis of the CEO narcissism score on the financial performance in order to test the hypothesis whether high narcissistic CEOs show lower financial performances compared to low narcissistic CEOs. The results show a negative relationship between CEO narcissism and the financial performance measures. The effect is statistically insignificant for the Tobin's Q, which may be due to the hybrid character (due to fluctuation of the market capitalization) of this market performance measure. The effect is statistically significant for the three used accounting measures ROA, ROE and ROS.

CEOs with a high narcissistic personality affect the financial performance positively if the productive narcissist school of Maccoby is taken as a basis. However, the presence of narcissistic CEOs and their subsequent decline suggests the existence of positive as well as negative aspects of CEO narcissism. Several researchers advert to the potential productive and destructive aspects of narcissism. Narcissism is a necessary element for effective leadership but also an addictive drug with the potential danger of an addictive overdose which may result into destructive behavior. This intricate connection between narcissistic leadership and performance is analyzed by performing a quadratic regression. The results show that a concave parabola forms a better fit than the linear model.

The saturation point up to where narcissism is productive and thereafter destructive is slightly above the mean CNS which is an indication of the reliability of the findings (Meyer, 2009).

The CEO narcissism and its productive influence on the financial performance are on average well estimated by the S&P500 companies in the CEO selection.

The conclusion can be drawn that moderate levels of CEO narcissism show higher financial performances while very low or very high levels of CEO narcissism show lower financial performances. An intricate connection between leadership and narcissism exists: having too little narcissism can destruct the CEO effectiveness; having too much may destroy the CEO ability as well.

The empirical results are in line with the psychological perspective, stating that some narcissism is required for effective leadership, while high levels of narcissism can become destructive. The equilibrium must be found and constantly monitored. The next chapter explores whether this equilibrium is monitored by the board of directors.

Chapter 6 CEO Narcissism and Countervailing Power

The board size and the board composition determine the board structure and affect the monitoring capabilities of the board. The board's monitoring capabilities influence the extent to which the board is able to exercise power and to control the managerial actions. The board structure reflects the countervailing power²⁶ of the board.

The board structure varies per company, because the board has to accommodate to the organizational size, the monitoring and managerial characteristics (Daily & Johnson, 1997). The research about optimal board structures remains inconclusive, because unexplained determinants or idiosyncratic factors affecting board structures have not been investigated (Boone, Casares Field, Karpoff, & Raheja, 2007).

The variance of managerial characteristics can be an unexplained determinant or idiosyncratic factor affecting the board structure. This chapter focuses on whether the managerial characteristics, in particular the CEOs narcissistic personality, affect the board structure and therewith the countervailing power of the board. The following first elaborates on the power balance between the CEO and the board and the relevance of managerial characteristics on board composition.

6.1 The Power Balance between the Board and the CEO

The board of directors has various functions. The board has to select, evaluate and replace (if necessary) the CEO, approve the financial statements and advice, determine executive compensation and take care of succession planning. All these functions of the board can be divided into monitoring and advising functions (Adams, & Ferreira, 2007). The monitoring function includes all activities aimed at preventing managerial harmful behavior. The advising function includes all activities aimed at improving managerial decision making. The board has, in theory, the ability to hire and fire executives and is therefore a powerful actor. In practice however, CEOs exert considerable influence over the boards, for example by limiting specific information to the board (Mace, 1971). This influence may prevent effective board monitoring.

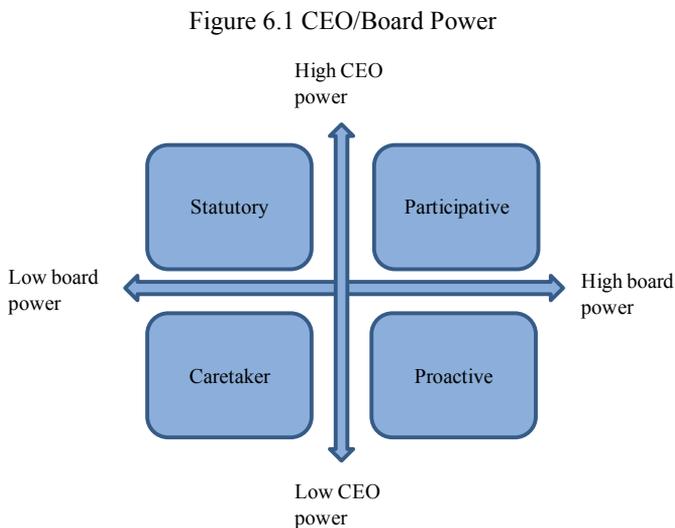
²⁶ Countervailing power is defined as the power of one individual/group to check or restrain the actions made by another individual/group.

The extent to which CEOs can exert their influence depends on the power balance between the CEO and the board.

CEOs might strive to maximize their personal benefits in case they have the ability to exert their influence and to pack their boards. A principal-agent dilemma lies in wait.

Powerful boards are a necessary ingredient for effective performance because of four reasons (Pearce & Zahra, 1991). First, a powerful board provides business contacts which can be useful. Second, a powerful board determines the organizational mission. Third, a powerful board provides the “checks and balances”. Fourth, a powerful board create a corporate identity by being the “brain and soul” of the organization.

Pearce and Zahra developed a typology of CEO power (vertical y-as) versus board power (horizontal x-as), resulting into a 2x2 matrix as depicted in figure 6.1.



Source: Pearce et al. (1991) amended

If neither the CEO nor the board have power, the board is merely a legal necessity and incapable of decision making power. In these caretaker boards, the process of decision making can be viewed as a formality and these boards will therefore not contribute to effective performance.

High board power combined with low CEO power is the proactive situation. The power of the board surpasses the power of the CEO. The proactive board type is a basis for good corporate governance.

Participative boards are characterized by high power of CEO and board, which will lead to debate, disagreement and many discussions.

In the statutory typology, the CEO holds all the power and the board functions as “rubber stamps”. The board’s monitoring of executives serves merely a ceremonial function which will keep up the false appearance of legitimate managerial decisions.

Although four types of CEO versus board power exist that have been empirically validated, the CEO is the real power broker (Pearce & Zahra, 1991). The CEO is able to influence the board structure and a high narcissistic CEO will direct towards the statutory type.

Towards the Statutory Type

Narcissistic CEOs have the drive to attain power and prestige (Lubit, 2002; Rosenthal & Pittinsky, 2006). The power of the CEO with its board members influences the board structure (Hermalin and Weisbach, 1998) and is defined as the negotiation hypothesis by Boone (Boone et al., 2007). The power gives high narcissistic CEOs a pivotal role to move towards the statutory type.

A high narcissistic CEO starting in a caretaker board with low board power, will directly get a hold on the power and move towards a statutory situation.

The proactive situation is difficult for a high narcissistic CEO, because the power of the board surpasses the power of the CEO. The proactive board will probably not select a high narcissistic CEO in the first place. In rare cases, the CEO can develop a star status because of good financial performance which is attributed to the CEO combined with good publicity and awards. After a few tenure years, the CEO has fulfilled the expectations of the board and the shareholders and the CEO is now in the position to develop various power competences. The board has increased its confidence in the CEO and may become less vigilant in monitoring, while the CEO gains more influence in selecting directors. The selected board members may be sympathetic to the CEO or passive in monitoring (Zajac & Westphal, 1996). The selection process will in turn again strengthen the power of the CEO. The CEO will be capable of

ultimately reducing the relative power of the board, opening the way to become a high narcissistic CEO and directing towards a statutory typology.

Participative boards will lead to debate, disagreement and many discussions. The high narcissistic CEO, attributing the success to himself (internal attribution) is inclined to replace the powerful board by board directors who follow him in the debate and discussions. The CEO will hereby undermine the power position of the board and direct towards the statutory type.

The biggest problem for high narcissistic CEOs is not their tendency for glory and honor, but rather the fact they will not tolerate contradiction. The checks and balances hereby disappear and the power of the CEO is no longer monitored. The high narcissistic CEO will have more power than the board. The board will have less monitoring power and will fail to function as a critical instrument of corporate governance.

The board and the high narcissistic CEO tend to have the statutory typology, since the CEO has all the power, leaving the board to function as “rubber stamps” of his decisions. The board’s monitoring of executives serves merely a ceremonial function which will keep up the false appearance of legitimate managerial decisions.

6.2 CEO Narcissism and Countervailing Power

The framework²⁷ of the causes and consequences of CEO narcissism hypothesized that countervailing power is a necessary ingredient for CEOs to restrain their narcissistic tendencies. The absence of countervailing power enables CEOs to act in their own self-interest, from shirking to fraud.

The high narcissistic CEO can be compared with Icarus who had his father warning him not to fly too high when he was still on the ground. Unfortunately, Icarus didn’t listen. High in the sky, Icarus had no one left to warn him. Likewise, high narcissistic CEOs do not listen to their board members and try to reduce the countervailing power by appointing board members who will not thwart them in any way. In time, the countervailing power will be minimized, because the high narcissistic CEOs are surrounded by followers and sycophants.

²⁷ The framework of the causes and consequences of CEO narcissism is developed in chapter 3 and visualized in figure 3.3 on page 56

Hypothesis

This chapter tests the relationship between the CEO narcissism score and countervailing power. The narcissistic personality dimension of 953 S&P500 CEOs is scored in chapter 4 and this score is used as a proxy for the CEOs narcissistic tendencies. In case the narcissistic tendencies of CEOs are potentially able to influence the board structure, a significant difference in board size and board composition is to be expected. The following hypothesis is formulated.

Hypothesis 1: High narcissistic CEOs have substantial less countervailing power in their boards compared to low narcissistic CEOs.

Various interviews with (former) board members confirm the hypothesis that CEOs develop a star status in case the CEOs exhibit a certain level of narcissistic personality traits combined with the failure of self-reflection and the absence of countervailing power. The absence of reality checks could be disastrous. The countervailing power is often suboptimal since the “very psychology of the board is tilted towards supporting the chief executive” (Marnet, 2008, page 134). High narcissistic CEOs take advantage of this situation by increasing their power.

The board size and the board composition is investigated in order to test the hypothesis that high narcissistic CEOs have less countervailing power in their boards. The board size and the board compositions of high narcissistic CEOs must have distinctive patterns compared to the board size and the board compositions of low narcissistic CEOs.

6.2.1 Board Size

Effective board monitoring is reduced in case of many board members, because individual board members are less likely to be held accountable (Jensen, 1993; Lipton & Lorsch, 1992; Yermack, 1996). A large board increases the agency problems like free riding. Jensen (Jensen, 1993) argues that larger boards are less effective compared to smaller boards because of the coordination costs and free-rider problems. A large board also leads to extra compensation

costs. Mintzberg (Mintzberg, 1983) suggests that board members of large boards are more likely to be manipulated by top management. Smaller boards are more cohesive, more productive and more capable in monitoring (Coles, Daniel, & Naveen, 2008).

These considerations do not explain the presence of large boards in practice. Speaking in the words of Hermalin and Weisbach (Hermalin & Weisbach, 2003): economic Darwinism has not eliminated large boards as unfit organization forms. The underlying reason for the presence of large boards can be found in the increased information requirements of large organizations (Dalton et al., 1999; Fama & Jensen, 1983). This implies the need to include the organizational size as a control variable in the analysis which will be described later.

A board with 8 or fewer members has greater focus and participation, genuine interaction and debate (Firstenberg & Malkiel, 1994). Lipton and Lorsch (Lipton & Lorsch, 1992) suggest that a board size of 8 or 9 members is most effective, giving all board members enough time to express their opinions during board meetings. Jensen (Jensen, 1993) comes to approximately the same conclusion when he suggests a board size of 7 or 8 to be effective. Jensen argues that a larger board size is easier to control by the CEO. The countervailing power is thus reduced when the board size increases. Therefore the following hypothesis is formulated.

Hypothesis 1a: High narcissistic CEOs have larger board sizes than low narcissistic CEOs.

6.2.2 Board Composition

The extent to which the board members are independent of the CEO determines the composition of the board (Dalton, Daily, Johnson, & Ellstrand, 1999). According to agency theorists, boards can only be effective in monitoring in case board members are independent (Fama, 1980). Research concerning board independency is mostly based on the number of outside directors versus inside directors. The functions of inside and outside directors vary; outside directors monitor management and advise the CEO, inside directors are supposed to inform the outside directors (Mace, 1971). Outside directors are assumed to be more independent compared to inside directors.

The appointment of directors is voted upon by the shareholders in a general meeting. The available directors to vote on are largely selected by either the whole board or a nominating committee. Directors are in practice not selected by the shareholders, but by the top executives they are supposed to monitor. The existence of a nominating committee does not change the CEO influence in the selection process, because the nominating committee receives their input from the CEO (Shivdasani & Yermack, 1999). Mace (Mace, 1991) provides anecdotal evidence of CEOs who select board candidates. Similarly, Lorsch and MacIver (Lorsch & MacIver, 1989) and Shivdasani and Yermack (Shivdasani & Yermack, 1999) provide survey evidence of CEO influence in the selection of new board members.

High narcissistic CEOs select followers on their boards. These followers might be inside as well as outside directors, e.g. acquaintances or former college friends of the CEO. The independency of outside directors hereby disappears. This research therefore uses another distinction of independent versus interdependent directors.

Board Interdependency

Interdependent directors are appointed by the current CEO and independent directors are not appointed by the current CEO (Daily & Dalton, 1994). CEOs have an important role in appointing individual board members (Lorsch & MacIver, 1989). These board directors are assumed to be more sympathetic to the CEO. The interdependent directors feel loyal to their CEO because of their appointment (Boeker, 1992).

The feelings of loyalty can be explained by the norm of reciprocity as explained by Gouldner (Gouldner, 1960). The norm of reciprocity implies that interdependent board members feel a reciprocal obligation to the CEO which will reduce overt criticism towards the CEO. As a consequence, these interdependent board members fail to monitor the CEO effectively and become followers.

The loyalty of interdependent board members towards the CEO affects the critical monitoring, because the interdependent board members are more likely to tolerate managerial opportunism at the expense of shareholders' wealth. The power of the CEO increases as board members feel loyal to their CEO (Boeker, 1992). The countervailing power of the board

decreases and the likelihood of CEO dismissal diminishes in case the board consists of many interdependent board members.

Several papers document the importance of interdependency. Mace (Mace, 1971) argues that the selection of board members by the CEO affects the independence of the board. Wade, O'Reilly and Chandratat (Wade, O'Reilly III, & Chandratat, 1990) state that CEOs feel comfortable with interdependent board members, enabling the CEOs to (further) increase their power over the board. It is in this line of reasoning that critics of corporate boards have strong doubts about the value of board directors, because the web of personal and business connections with the CEO reduces the board's independence (Yermack, 2006). Shivdasani and Yermack (Shivdasani & Yermack, 1999) conclude that interdependent directors are less likely to monitor the CEO which gives the CEO more power.

This research tests whether high narcissistic CEOs have significantly more interdependent directors on their boards than low narcissistic CEOs. The number of board changes during the tenure of the CEO is counted in order to measure how many directors have been replaced by the CEO. Many board changes imply that board members are less likely to monitor the CEO due to their feelings of reciprocity and the time needed to get acquainted with the board and the company. The more board changes, the more interdependent directors constitute the board.

Hypothesis 1b: High narcissistic CEOs have more board changes than low narcissistic CEOs.

6.3 Data Collection

The RiskMetrics (formerly IRRC) director database is used to collect data about board sizes. RiskMetrics covers the period 1996 to 2006. The companies of the research sample are matched with the RiskMetrics database which results into a match of 723 CEOs (76% of the CEOs are included in the RiskMetrics database). For these 723 CEOs the board size is averaged over the tenure.

The research sample contains CEOs with a tenure of more than three year, which assures that this sample reviews every board directors' candidacy at least once²⁸. This way of reasoning is in line with the research of Shivdasani and Yermack (Shivdasani & Yermack, 1999).

The start and end dates of the board members are included in the RiskMetrics database as well. The start dates of the board members are compared to the start dates of the CEO tenure. In several cases CEOs and directors start approximately at the same time. The board director change can therefore not be attributed to all CEOs. Excluding these cases, the number of board changes amounts 689 CEOs.

6.4 Results for High and Low Narcissistic CEOs

The bottom deciles CEOs score on average 4.18 on the narcissistic scale and the top deciles CEOs score on average 11.10 on the narcissistic scale.

The top deciles high narcissistic CEOs have on average larger boards than the CEOs in the bottom deciles. The average board size for low and high narcissistic CEOs is 9.79 and 11.24 respectively.

The average board change for low and high narcissistic CEOs is 1.96 and 3.02 respectively. Figure 6.2 shows the board size and board change for low and high narcissistic CEOs.

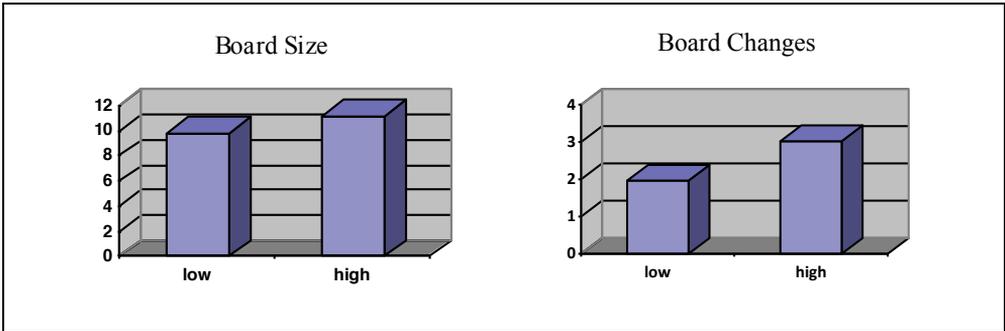
The results of a t-test of the board size show statistically significant larger boards for high narcissistic CEOs (p-value 0.0007).

The results of a t-test of the number of board changes also show statistically significant more board changes for high narcissistic CEOs (p-value 0).

High narcissistic CEOs have a larger board size and more board changes, resulting into differing board structures with less countervailing power. The analysis is extended with control variables in chapter 6.5, because several control variables are potentially able to influence the board size and the number of board changes.

²⁸ Board directors of classified boards usually serve a three year period (Shivdasani and Yermack, 1999).

Figure 6.2 Top and Bottom Deciles of Average Board Size and Average Board Changes



6.5 Methodology

The presence of large boards can be explained by the increased information requirements of large complex organizations. Boone et al. (Boone et al., 2007) argue that an increasing organizational size results into larger boards with more independent board members. The log of sales is included to control for the organizational size.

Specific industries can have diverging board structures. Financial and utility companies are for example excluded in the research of Shivdasani and Yermack (Shivdasani & Yermack, 1999). The authors argue that the boards of these financial and utility companies are typically larger.

The average board size is calculated per Fama French industry classification to test the hypothesis of Shivdasani and Yermack that boards of financial and utility companies are larger. The average board size per Fama French industry is included table 6.1.

The results show indeed larger average boards sizes for the Fama French Industry codes 8 (utility) and 11 (finance) which is in line with Shivdasani and Yermack (Shivdasani & Yermack, 1999). The Fama French Industry codes 7 (telephone) also show larger average boards sizes. In order to assure that board size and board composition is not driven by a specific industry type, the Fama French industry classification is taken as a control variable.

Table 6.1 Average Board Size Per Fama French Industry Code

FF	Description	Average
1	Consumer Non Durables -- Food, Tobacco, Textiles, Apparel, Toys	10.8915
2	Consumer Durables -- Cars, TV's, Furniture, Household Appliances	10.3333
3	Manufacturing -- Machinery, Trucks, Planes, Paper, Com Printing	10.7471
4	Energy Oil, Gas, and Coal Extraction and Products	10.9477
5	Chemicals and Allied Products	10.8151
6	Business Equipment -- Computers, Software, and Electronic Equipment	9.04912
7	Telephone and Television Transmission	12.1758
8	Utilities	11.8013
9	Wholesale, Retail, and Some Services (Laundries, Repair Shops)	10.6503
10	Healthcare, Medical Equipment, and Drugs	10.0496
11	Money Finance	12.8490
12	Other -- Mines, Construction, Trans, Hotels, Bus Service, Entertainment	10.4667

Hermalin and Weisbach (Hermalin & Weisbach, 1998) show that the CEO has more influence over the board as the tenure years increase. In case the influence of the CEO on the board increases, the board structure will be more likely set up according to the CEO personal requirements. The CEO tenure is included as a control variable.

The CEO influence over the board also increases in case the CEO chairs the board. The CEO duality is included as a control variable.

The number of board changes depends on the board size. Therefore, the board size is included as a control variable in the regression of the narcissism scale on the number of board changes.

The CEO narcissism is included in the model because it affects the board size and the number of board changes positively as hypothesized. The CEO narcissism score (CNS) developed in chapter 4 is used as an independent variable. The board size and the number of board changes are used as dependent variables. Control variables are included in the model to test the hypothesis 1a and 1b, using the following regression equations.

$$\text{Board Size} = \alpha [\text{CNS}] + \beta [\text{TENURE}] + \phi [\text{CEO DUALITY}] + \gamma [\text{SALESLOG}] + \delta [\text{FF-Ind}] + C$$

$$\text{Board Changes} = \alpha [\text{CNS}] + \beta [\text{TENURE}] + \phi [\text{CEO DUALITY}] + \gamma [\text{SALESLOG}] + \delta [\text{FF-Ind}] + \mu [\text{BOARD SIZE}] + C$$

Results Including Control Variables

A statistically significant positive relationship ($\alpha = 0.0958$ with p-value =0.0236) exists between the CEO Narcissism Score (CNS) and the board size. The results are listed in table 6.2 and hypothesis 1a is accepted.

A statistically significant relationship ($\alpha = 0.1269$ with p-value 0) exists between the CNS and the number of board changes. The results are listed in table 6.2 and hypothesis 1b is also accepted.

The robustness of the relationship is tested by excluding the control variables one by one and including additional control variables as CEO age. The statistically significant positive relationships do not change. High levels of CEO narcissism result into larger boards and more frequent board changes, reducing the countervailing power for high narcissistic CEOs.

Table 6.2 Regression Analysis Board Size and Board Changes

Variable	Board Size	Board Changes
CNS	0.0958** (0.0422)	0.1269*** (0.0269)
CEO Duality	0.4401** (0.2004)	-0.1913 (0.1296)
CEO Tenure	-0.0630** (0.0271)	-0.1074*** (0.0174)
SalesLog	0.0029*** (0.0004)	0.001*** (0.0002)
Board Size		0.1306*** (0.0245)
FF1	0.6478* (0.3682)	-0.1136 (0.2319)
FF2	-0.5045 (0.4961)	-0.8954*** (0.3152)
FF3	0.1827 (0.3371)	-0.3963** (0.2143)
FF4	-0.0444 (0.4635)	-0.2718 (0.2971)
FF5	0.1035 (0.4627)	-0.1176 (0.3008)
FF6	-1,291*** (0.3284)	-0.2975 (0.2114)
FF7	0.9019* (0.5366)	0.2334 (0.3502)
FF8	1.4028*** (0.3835)	0.1584 (0.2445)
FF9	-0.0124 (0.3586)	-0.1957 (0.2268)
FF10	-0.5032 (0.4060)	-0.3358 (0.2582)
FF11	2.0878*** (0.3430)	0.1678 (0.2270)
C	9,5872*** (0.4260)	1.0720*** (0.3583)
R²	0,2856	0.2343

n=723	n=689
* p<0.10	**p<0.05 *** p<0.01

6.6 Summary and Conclusion CEO Narcissism and Countervailing Power

This chapter tests whether the CEOs narcissistic personality is an unexplained determinant affecting the board structure. The board structure is determined by the board size and the board composition and influences the board's countervailing power.

The board size and the board structure are investigated in order to test the hypothesis if high narcissistic CEOs have less countervailing power from their boards. The statistically significant results of the analyses show that high narcissistic CEOs have a larger board size and have more frequent board changes compared to low narcissistic CEOs. A large board size and frequent board changes result into less countervailing power. High narcissistic CEOs have substantial less countervailing power compared to low narcissistic CEOs. The effectiveness of the board mechanism (the third described mechanism in chapter 2.2) decreases as CEO narcissism increases.

These results show that high narcissistic CEOs are indeed real power brokers who will move towards the statutory type. One of the unexplained determinants affecting board structures and hereby reducing the board's countervailing power is the CEOs narcissistic personality.

Chapter 7 CEO Narcissism and Fraud Propensity

The firm's ethical climate is to a large extent defined by the actions of top executives, especially the CEO (Zahra, Priem, & Rasheed, 2005). The fraud propensity increases as top executives lack ethical norms and values. The framework²⁹ of the causes and consequences of CEO narcissism hypothesizes that high narcissistic CEOs engage in fraudulent behavior to keep up appearances and retain their status. This chapter documents whether high narcissistic CEOs are more inclined to commit fraud.

7.1 Relation between CEO Narcissism and Fraud Propensity

High narcissistic CEOs are reluctant to report disappointing financial performances, because this will jeopardize their status. The role of the CEO in the fraud propensity also increases with the CEO charisma (Ashforth & Anand, 2003). Charisma leads to a greater identification and reflexive obedience of followers. The hypothesized relationship between narcissism and fraud propensity will be positive, since narcissism is related to charismatic leadership (House & Howell, 1992; Howell, 1992; Maccoby, 2001; Humphreys, Zhao, Ingram, Gladstone, & Basham, 2010).

In case the financial performances do not coincide with the expectations, there still remains the possibility to pretend that business prospers by committing fraud, which will secure the CEO status as long as the fraud remains undetected. The following hypothesis is formulated:

Hypothesis: High narcissistic CEOs are more inclined to commit fraud than low narcissistic CEOs.

The fraud concept is first explained in order to test the above hypothesis of a positive relationship between CEO narcissism and fraud propensity.

²⁹ The framework is documented in chapter 3.3 and visualized in figure 3.3 on page 56

7.2 The Fraud Concept

This chapter focuses on the occurrence of managerial fraud, which is also called white-collar crime or corporate wrongdoing. Intentionality is the keyword for managerial fraud whereby top executives willfully deceive or manipulate the financial figures with the risk of losing everything when the fraud is revealed. Managerial fraud is characterized by the absence of physical violence and has far reaching consequences for shareholders, employees, and other stakeholders. The individuals involved in the fraud are considered to be respectable members of the society, which makes the fraud even more repelling.

There are various forms of managerial fraud whereby executives intentionally manipulate the financial figures. The managerial fraud consists mainly of financial reporting fraud, bribery and backdating stock options. These three forms of managerial fraud are described below.

Financial reporting fraud is intentionally misstating financial statements or financial disclosures, which often starts with minor earnings management and is most likely to remain undetected. Earnings management is a strategy to deliberately manipulate the company's earnings in order to match the figures with the expected figures or a prior defined target. The most common form of earnings management is improper revenue recognition. If performance does not improve in the next period, the executives can choose to manage earnings in an increasing amount or to confess the prior period earnings management. The last option will destroy the executives' reputation which is disastrous for a high narcissistic CEO. The high narcissistic CEO will choose to manage the earnings in an increasing amount which will eventually escalate. The escalation of continuing earnings management represents managerial fraud (Schrand & Zechman, 2009).

Another form of managerial fraud is bribing foreign officials, often occurring in Asia and Africa. The bribery falls under the Foreign Corrupt Policy Act (FCPA) of 1977 which makes it illegal for entities to make payments to foreign government officials in order to obtain or retain business.

Backdating stock options for personal gain is also a form of managerial fraud.

7.3 Literature on Fraud Propensity

The research on corporate fraud concentrates on finding relationships with corporate governance structures or compensation plans. There is less research investigating relationships with executives' personal characteristics. The following summarizes relevant literature regarding unethical behavior, earnings management and fraud.

Unethical behavior

The literature about unethical behavior argues that individuals engage in unethical and illegitimate behavior if they fall short on their goals (Schweitzer, Ordonez, & Douma, 2004). Jensen (Jensen, 2001) states that breaking the link between goal setting and incentives will reduce the likelihood of immoral behavior. The likelihood of immoral behavior increases as rewards depend on reaching the goals. High narcissistic CEOs have however also non-pecuniary incentives, like their need for success, glory, honor and affirmation. Breaking the link between goal setting and incentives will therefore not reduce the likelihood of immoral behavior for high narcissistic CEOs.

Earnings Management

The literature about earnings management argues that firms are more likely to manipulate earnings if there is a weak corporate governance system (Dechow, Ge, & Schrand, 2010), a less independent board (Klein, 2002) or if CEO compensation is more closely tied to the value of stock and option holdings (Barton, 2001; Bergstresser & Philippon, 2006). The last mentioned researchers also find that CEOs exercise unusual large amounts of stock options during periods of high accruals. Earnings management is motivated by executives' desire to disguise a disappointing financial performance (Dechow et al., 2010). Earnings management increases in order to cover up the prior period reversals and escalates in case the future financial performance continues to decline.

Fraud

The scarce research investigating relationships between executives' personalities and fraud elucidates the key role of personal characteristics in the likelihood of financial reporting fraud (COSO³⁰ report, 1999). COSO recommends the monitoring of individual executives' behavior. The Statement on Auditing Standards (SAS) No. 99 suggests that "attitudes" are a potential risk factor for fraud.

The individual characteristic of low self-control induces risk taking behavior and increases the likelihood of conducting fraud (Gottfredson & Hirschi, 1990).

Overconfident executives are more likely to commit fraud, because of their unrealistic beliefs in positive future financial performances which in turn will compensate the earnings management and avoid detection (Schrand & Zechman, 2009). The future financial performance is however frequently insufficient to cover up the prior earnings management which forces the overconfident executives to engage in even more serious earnings management. Earnings management starts with overconfidence and proceeds with more serious earnings management if overconfident executives are faced with continuing ex post negative financial performances. This aggravating earnings management leads to a slippery slope of fraud which is likely to be discovered and prosecuted by the SEC.

Schrand and Zechman (Schrand & Zechman, 2009) measure overconfidence by using the narcissism proxies of Chatterjee and Hambrick (Chatterjee & Hambrick, 2007): the CEO photograph in the annual report and compensation ratios. These indicators are also included in the narcissism score of this research.

Schrand and Zechman find evidence of a positive relation between overconfidence and fraud propensity. The cash and total compensation ratio's are significant at the 1% and 10% level respectively. This finding is in line with the conclusion of Cools (Cools, 2005) who finds an exorbitant variable compensation for CEOs who served a fraudulent company.

This research measures the narcissism construct with 15 indicators, including the CEO photograph and the compensation ratios. Taking the above research into perspective, a positive relationship between CEO narcissism and fraud occurrence is to be expected.

³⁰ Committee Of Sponsoring Organizations is a private-sector organization formed in 1985 to sponsor the National Commission on Fraudulent Financial Reporting.

Narcissistic CEOs have the skill to silence critical and dissent behavior and are able to build a coalition of followers and sycophants. The before mentioned empirical results and several practical examples of corporate fraud committed by narcissistic CEOs, like the cases of Enron, Tyco and Ahold, suggest a positive relation between the fraud propensity and CEO narcissism.

7.4 Fraud Proxies

Three external indicators of managerial fraud exist. These are the restatements of financial figures, the internal controls and the SEC's Accounting and Auditing Enforcement Releases (Dechow et al., 2010).

Restatements

Restatements of financial figures can be found in the Government Accountability Office (GAO) restatement database. The GAO restatement database contains information of approximately 2300 restatements from 1997 to 2005, but cannot be used as a proxy for managerial fraud in this research, because of the following four reasons.

First, the time period does not overlap the research sample period 1992-2008. There are 8 years of missing data. Second, the GAO database contains information about the year in which the restatement was published and not the specific accounting period which a restatement refers to. The restatement cannot be matched with the responsible CEO. Third, the GAO database contains restatements which are materially insignificant and therefore have little economic relevance. Fourth, the GAO database contains all restatements, regardless of the executives' intent. The database does not give any information on the nature and intend of the restatement. The restatements of financial figures are often earnings restatements that are mostly due to accounting errors, whether intentional or unintentional. The unintentional accounting errors are not included in the managerial fraud concept.

These four arguments clarify the inapplicability of the GAO restatement database as a proxy for the managerial fraud concept.

Internal Controls

The Sarbanes Oxley Act of 2002 requires that executives certify the effectiveness of the internal control procedures. The internal control deficiencies measure the propensity for misstatements. These SOX requirements became effective as from 2002 which again cause conflicting timing problems with the research sample period 1992-2008. Moreover, the use of this proxy is based on the assumption that disclosures of internal control weaknesses are correlated with the managerial incentives to discover and disclose internal control deficiencies (C. E. Hogan & Wilkins, 2008). A high narcissistic CEO will never disclose internal control weaknesses. Hence, the disclosure of internal control deficiencies cannot be used in this research as a proxy for managerial fraud.

The AAER as Proxy of Fraud

The SEC reports fraud in an AAER: Accounting and Auditing Enforcement Release. The AAERs provide details on the nature of the alleged misconduct and can involve multiple accounting periods. The AAER website of the SEC was established in 1995. The alleged fraud in the AAERs relate to previous periods with a time lag of approximately three years. Starting in 1995 therefore does not cause problems for the sample period.

The AAERs only include intentional misstating and give detailed information about the fraud, the executives involved and the period in which the fraud took place. This detailed information provides the necessary elements to collect specific information regarding the executives' intention and involvement. The AAERs are a good proxy for managerial fraud.

7.5 Fraud Frequency

The laws and regulations are extensive and complex which results into sophisticated managerial fraud which is hard to reveal. Berenson (Berenson, 2003) even argues that the complex laws en regulations, implemented to protect the shareholders' wealth, even

contribute to the growing incidence of managerial fraud. Table 7.1 shows that the number of AAERs increases to 2003 and decreases thereafter³¹.

Table 7.1 The number of AAERs per year

RELEASE YEAR	NUMBER OF AAERs	Percentage
1994	120	4.48
1995	107	3.99
1996	120	4.48
1997	132	4.93
1998	99	3.69
1999	119	4.44
2000	144	5.37
2001	126	4.70
2002	213	7.95
2003	240	8.96
2004	220	8.21
2005	201	7.50
2006	172	6.42
2007	232	8.66
2008	150	5.60
2009	179	6.68
2010	106	3.96
TOTAL	2680	100%

Misstatements in AAERs occur more often in larger companies for two reasons. First, the SEC is more inclined to review large companies. Second, large companies are closely watched by the press, public and investors. Therefore, potential more signals can trigger the SEC to start an investigation.

³¹ The decreasing number of AAERs after 2003 could be an effect of the SOX implementation

Misstatements in AAERs are rare events. Dechow et al. (Dechow et al., 2010) find 0.5 percent of Compustat companies misstating. This research sample contains the S&P500 companies, which are larger than an average Compustat company. Therefore, the percentage of misstating companies is expected to be larger than 0.5 percent.

Fraud Bias

The data regarding the financial restatement fraud might be biased because of the constrained resources of the SEC. The SEC selects companies for enforcement investigation if there is sufficient manipulation evidence. This evidence can be an accounting restatement or substantial depreciations, like in the case of Enron and Xerox. The SEC can also be informed by insider whistleblowers. Whistleblowers can provide the SEC with original information about a violation of federal laws which will lead to a successful enforcement. The SEC recently proposed a rule to award whistleblowers with 10 to 30% of the financial penalty charged by the SEC, which may increase the number of fraud allegations.

It is often difficult to reveal and prove the sophisticated managerial fraud. The enforcement procedure of the SEC might lead to selection biases, which is however a general concern when analyzing managerial fraud (Dechow et al., 2010). The AAERs are the best available source to investigate financial fraud.

7.6 Data Collection and Sampling

The AAERs of the SEC are the basis of the data collection. The AAERs are downloaded from the SEC website starting 1995 and ending November 2010. The 2680 AAERs are listed per year in table 7.1. The years 2002 to 2007 show the largest number of AAERs.

The period during which the fraud takes place shows a wide variance: from one single incidence to a fraud period persisting more than a decade as in the Enron and Worldcom case. Most alleged frauds overlap at least two fiscal periods with an average of 23.7 months (The COSO report, 1999).

The SEC issues another AAER in case of additional information on the fraud case and/or if the allegations are settled. This implies that there may be multiple AAERs for the same fraud

case. AAERs can relate to individuals, particular business units, the whole organization and third parties.

All 2680 AAERs are examined to document whether companies within this research sample are involved. In case a S&P500 company appears in an AAER, the AAER is reviewed to identify the period in which the fraud took place. This information is compared with the tenure years of the CEO in the research sample. In case of a match, the individual AAER is further studied in order to identify the cause of the alleged fraud.

For several matches, the AAER clearly states that a certain person (e.g. a division president) committed the fraud and acted on his own account, without involving top executives. These AAERs are not included in the analysis, since the CEO is by no means involved. In most of these cases, the CEO has taken immediate actions to prevent these shortcomings in internal control.

Sampling

The 2680 AAERs are studied in order to identify if the alleged fraud concerns a sample S&P500 company. It turns out that 189 AAERs relate to companies in the research sample. The 189 AAERs are further examined to identify the period of the fraud and the CEO involvement. Table 7.2 summarizes the results.

Table 7.2 Matched AAERs

AAERs in SEC Database	Number of AAERs	Number of CEOs
AAERs found	189	
AAERs other period	-66	
AAERs where CEO is not involved	-10	
Relevant AAERs	113	54³²
AAERs where CEO is accused	37	8
AAERs where CEO is involved	44	29
AAERs where CEO is likely involved	32	20

³² The number of CEOs (54) is not the sum of 8+29+20, because there are 3 CEOs with multiple AAERs in which the CEO involvement differs. These CEOs are James Rohr (PNC), David Komansky (Merrill Lynch) and Sanford Weil (Citigroup).

For 66 AAERs the fraud period does not coincide with the CEO tenure. For example when the fraud period is 1992 and the CEO starts his tenure in 1993. These 66 AAERs are excluded. An additional 10 AAERs are excluded, because there is no link between the allegation and the CEO. The AAER reports for example the overstatement of revenue with (only) \$70,000 within a specific division by a Brazilian director. There are 10 AAERs in which the CEO is clearly not involved and these AAERs are excluded as well. This results into 113 relevant AAERs relating to 54 CEOs.

Fraud Causes

The details about the fraud causes for the 113 AAERs are investigated. Table 7.3 summarizes the fraud causes. Earnings management is the largest category (63.7%). The other six categories all have low frequencies (3.5% to 8.9%).

Table 7.3 Fraud Categories

Category	Description	Description	Frequency
1	FCPA	Foreign Corrupt Policy Act	8 (7.1%)
2	Earnings Management	Deliberate manipulation of earnings to match a pre-determined target.	72 (63,7%)
3	Round Trips	Selling and at the same time agreeing to buy back at approximately the same price	10 (8.9%)
4	Backdating Stock Options	Option dating prior to the date that the company gave the option, so that the exercise price is set lower	4 (3.5%)
5	Criminal Charges	Like private loan with zero interest	7 (6.2%)
6	Accounting Procedures	Change of accounting procedures without disclosing	5 (4.4%)
7	Other	For example improper health reimbursements	7 (6.2%)
Total			113(100%)

CEO involvement

Fraud is obvious in case the CEO is personally accused. CEOs who are not personally accused can be involved by rewarding, ignoring or condoning the fraud (Ashforth & Anand, 2003; Baucus, 1994). These CEOs have played a substantial role in the fraud. Companies appearing in an AAER without CEO personal allegations are included in the analysis.

The 32 AAERs in which the CEO is likely involved includes for example an AAER in which a sales director is alleged for inflating revenues by signing a site letter with another company in order to overcome low sales during a specific period. This improper revenue recognition might be the responsibility of the sales director alone, but the magnitude of the improper transaction makes the CEO vulnerable to suspicion. Another example concerns not disclosing the change of accounting procedures which resulted into an inflation of earnings and a higher share price. These practices are very convenient for a CEO with stock options. The CEOs in the above two examples authorize the fraud by informal encouraging or tacitly condoning the fraud (Ashforth & Anand, 2003).

The percentage of misstating research companies is $[54/953]*100 = 5.67$ percent. The percentage of misstating where the CEO is accused or involved is $[(29+8)/953]*100 = 3.88$ percent. The percentage of accused CEOs is $[8/953]*100 = 0.84$ percent which is larger than the expected 0.5% that Dechow et al. (Dechow et al., 2010) find in their sample of Compustat companies. The percentage is higher due to the use of larger companies in this research sample which are more likely to be investigated by the SEC.

There are 8 CEOs personally accused and convicted. These 8 CEOs have served S&P500 companies in varying industries; have different tenure lengths and have various ages.

An investigation of director interlocks found one remarkable combination: Kozlowski serves as supervisory director at Raytheon from 1997 to 2002 taking a seat in the audit committee at the same time as Burnham serves as CEO.

The 8 accused CEOs are listed in table 7.4 below with the company name, industry code, tenure length, age and description of the AAER allegation.

Table 7.4 CEOs accused and convicted

CEO / Company	FF	Tenure	Age	AAER Allegation
Battenberg Delphi Corp	2	8	56	Fraudulent accounting, net income inflating of \$300 million for personal gain
Burnham Raytheon Co	6	6	52	Fraudulent revenue recognition of \$200 million & undisclosed risks with \$77 million operating income impact
Fisher Nicor Inc	8	11	51	Earnings Management by LIFO layers inventory liquidation without disclosure for \$50 million
Hoaglin Huntington Bancshares	11	8	52	Fraudulent earnings overstatements to meet analyst expectations and internal targets of \$25 million
Kozlowski Tyco International	12	11	46	Loans and loans forgiveness's not disclosed & undisclosed perquisites (apartment NYC), worth \$400 million
Kumar CA Inc	6	5	39	Fraudulent revenue recognition of \$3.3 billion for personal gain
Nacchio Qwest Communication Inc.	7	6	48	Fraudulent revenue recognition of \$3 billion resulting into a personal gain of \$52 million insider stock trading
Ustian Navistar Int. Corp	2	6	53	Fraudulent accounting: undisclosed vendor rebates, manipulation of reserves and deferred expenses of \$137 million

7.7 Methodology

The CEO Narcissism Score (CNS) of chapter 4 is used to identify whether high narcissistic CEOs are more inclined to engage in unethical behavior. The dependent variable is binary, with a value of 0 in case fraud is absent and 1 in case fraud is present.

The logit and the probit model are the two most commonly used alternatives of the Limited probability model. The logit and probit model give similar characterizations of the data, except in cases where the split between 0 and 1 is very unbalanced. In the latter case, non-negligible differences may occur (Brooks, 2008, page 518). The split for the limited dependent variable AAER between 0 and 1 is unbalanced in this research sample. Therefore, both the logit model and the probit model are used to test the hypothesis if high narcissistic

CEOs are more inclined to commit fraud. The logit and probit model are not linear and cannot be estimated using OLS. Instead, maximum likelihood (ML) is used.

Two analyses are performed.

First, the logit and probit analyses are tested using the number of accused (n=8) and involved (n=29) CEOs. The split for the limited dependent variable AAER between 0 and 1 is therefore 916 versus 37.

Second, the logit and probit analyses are performed using the 54 CEOs appearing in an AAER. The split for the limited dependent variable AAER between 0 and 1 is therefore 899 versus 54.

Control Variables

There are several variables potentially able to influence managerial fraud.

The CEO tenure length can affect the fraud propensity. CEOs with a long tenure are entrenched with the company (Weisbach, 1988) and become stale in the saddle (Miller, 1991) and therefore less likely to actively or passively acquiesce to fraud (Zahra et al., 2005). The CEO tenure is taken as a control variable.

Age influences an individual's degree of risk seeking and the ability to evaluate the long term consequences of fraudulent behavior (Gottfredson & Hirschi, 1990). Maturity is associated with moral development, accurate decision making and increased willingness for reconsideration (Child, 1972). Older CEOs are supposed to dampen the fraud propensity, which necessitates the inclusion of the CEO age as a control variable.

ROA is also taken as a control variable because low returns might increase the fraud propensity.

Specific industries might create conditions that potentially encourage managerial fraud. The Fama French Industry codes are therefore taken as control variables.

7.8 Results

The two analyses are performed to test the hypothesis that narcissistic CEOs are more inclined to commit fraud.

The first analysis (model 1) uses the 37 CEOs who are accused of fraud or are involved in the allegations. The results of the logit and probit analysis are enclosed in table 7.5. The narcissism score is positively related to the occurrence of fraud (the parameter for the logit model is 0.164 with a p-value of 0.0081; the parameter for the probit model is 0.0765 with a p-value of 0.0117).

The second analysis (model 2) uses the 54 CEOs with a company appearing in an AAER. The results of the probit analysis are enclosed in table 7.5. The narcissism score is positively related to the occurrence of fraud (the parameter for the logit model is 0.165 with a p-value of 0.0009; the parameter for the probit model is 0.0847 with a p-value of 0.0012).

The logit and probit model give similar results, although the split between 0 and 1 is unbalanced. Both results indicate a statistically positive relation between CEO narcissism and fraud propensity. The hypothesis is accepted.

Table 7.5 Logit and Probit Analyses Fraud Propensity

	Model 1		Model 2	
	Logit	Probit	Logit	Probit
CNS	0.1641*** (0.0619)	0.0765*** (0.0303)	0.1650*** (0.0498)	0.0847*** (0.0262)
CEO Tenure	-0.0307 (0.0623)	-0.0082 (0.0264)	-0.0222 (0.0452)	-0.0084 (0.0213)
CEO Age	-0.0245 (0.0290)	-0.0107 (0.0124)	-0.0210 (0.0229)	-0.0098 (0.0106)
ROA	-0.2273 (0.6469)	-0.1808 (0.3784)	0.2852 (0.5856)	0.1178 (0.3443)
FF1	0.2373 (1.0297)	0.0651 (0.4283)	0.2166 (0.8440)	0.0739 (0.3724)
FF2	1.7002* (0.8989)	0.7696* (0.4104)	1.2892 (0.7986)	0.6029 (0.3827)
FF3	-0.0765 (0.9345)	-0.0599 (0.3870)	0.0217 (0.7474)	-0.0076 (0.3302)
FF4	-0.0149 (1.2840)	0.0207 (0.5431)	0.2724 (0.9649)	0.1322 (0.4407)
FF5	0.1120 (1.2467)	0.0428 (0.5221)	-0.3272 (1.1789)	-0.1458 (0.5024)
FF6	0.9345 (0.8149)	0.3924 (0.3486)	1.1952* (0.6632)	0.5548* (0.3013)
FF7	-0.0320 (1.1885)	-0.0892 (0.5044)	-0.4400 (1.1482)	-0.2719 (0.4966)
FF8	-0.4324 (1.2527)	-0.1824 (0.5008)	0.2837 (0.8468)	0.1217 (0.3786)
FF9	0.7629 (0.8572)	0.3027 (0.3656)	0.3370 (0.7528)	0.1299 (0.3360)
FF10	-0.6282 (1.2480)	-0.2503 (0.4957)	0.0700 (0.8448)	0.0244 (0.3743)
FF11	0.8004 (0.8188)	0.3248 (0.3491)	0.5306 (0.6966)	0.2242 (0.3130)
C	-3.4322** (1.8092)	-1.9004** (0.7821)	-3.2773** (1.4685)	-1.8478*** (0.6712)
McFadden R²	0.0585	0.0573	0.0498	0.0500

n=953 Standard Errors in parentheses
 * p < 0.10 ** p < 0.05 *** p < 0.01

7.9 Summary and Conclusion CEO Narcissism and Fraud Propensity

High narcissistic CEOs engage in fraudulent behavior to keep up appearances and retain their status. This chapter investigates whether a statistically significant positive relationship exists between CEO narcissism and fraud propensity.

The hypothesis is tested whether high narcissistic CEOs are more inclined to commit fraud than low narcissistic CEOs.

The managerial fraud is measured by investigating the AAERs on the SEC's website. The SEC has issued 2680 AAERs from 1995 to November 2010 and all these AAERs of the SEC are examined. A match exists with this research sample S&P500 companies/CEOs for 113 AAERs. The SEC allegations in the 113 AAERs are investigated to document whether the CEO is accused and/or involved. The 113 AAERs relate to 54 CEOs of the total 953 CEOs.

The binary dependent models show that there is indeed a positive statistically significant relationship between CEO narcissism and the occurrence of fraud. The results hold for all 54 CEO/Company combinations appearing in an AAER as well as for the 37 CEOs who are accused or involved in the fraud.

The conclusion can be drawn that high narcissistic CEOs have an increased fraud propensity. The results of these empirical analyses confirm that the firm's ethical climate is indeed defined by the actions of top executives, especially the CEO (Zahra, Priem, & Rasheed, 2005).

Chapter 8 Summary and Conclusion

The individual chapters already contain a summary. The emphasis in this chapter will be on the main findings of this research (8.1), the practical implications of this research (8.2), the contributions to the existing research (8.3) and the directions for future research (8.4).

8.1 Main Findings of this Research

The findings of this research document the influence of the CEOs narcissistic personality on organizational outcomes and confirm the strategic choice perspective by finding individual CEO-effects. The empirical results indicate an extension of the upper echelon theory with personal characteristics, in particular the CEOs narcissistic personality.

The first finding is that CEO narcissism can be measured by looking at five determinants, comprising media exposure, compensation, power, growth and perquisites. These five determinants consist of 15 variables which can be collected objectively. The narcissism score of the CEOs is constructed based on these 15 variables. A principal components analysis shows that these 15 variables can be reduced to four principal components which are in line with the four extracted narcissism components of Emmons. The CEO narcissism score is computed by multiplying the factor loadings of the four principle components with the original variables and adding the four normalized component scores into one score per CEO. The CEO narcissism score has the required variance and the CEOs who have been identified as narcissists by leading psychologists have a top score in this research.

The second finding confirms the psychological perspective of narcissism as a two-edged sword. Several researchers (Kets de Vries, 1994; Lubit, 2002; Maccoby, 2003; Rosenthal & Pittinsky, 2006) document the upside (productive) and the downside (destructive) potential of narcissism. The distinction between productive and destructive narcissism is confirmed by the empirical results of the quadratic regressions. The relationship between the CEO narcissism score and the financial accounting measures is intricate and can be visualized by a concave parabola. The turning point is close to the mean CNS which is an indication of the reliability of the findings (Meyer, 2009). Generally, the narcissism construct has a negative connotation. This research however confirms the psychological perspective of productive narcissism and

its inherent upside potential. CEO narcissism is a requisite for effective leadership and can be value-adding to the shareholders' wealth, but high levels of narcissism become destructive.

The third finding confirms the negative relationship between CEO narcissism and countervailing power of the board. The countervailing power of the board is proxied by looking at the board size and the board changes. A large board is easier to control by the CEO and more board changes imply that board members are less likely to monitor the CEO due to their feelings of reciprocity and the time needed to get acquainted with the board and the company. The statistically significant results show larger board sizes and more frequent board changes for high narcissistic CEOs. The board has less monitoring power and fails to function as a critical instrument of corporate governance. The high narcissistic CEOs have less countervailing power.

The fourth finding relates to the fraud propensity of high narcissistic CEOs. The managerial fraud is measured with the Accounting and Audit Enforcement Releases (AAER) of the SEC. Of the total sample of 953 CEOs, 54 CEOs (5.7%) are involved in an AAER. The binary dependent model tests whether high narcissistic CEOs are more inclined to commit fraud. The results of the logit and probit analyses confirm the increased fraud propensity for high narcissistic CEOs.

The findings relate to the corporate governance theories described in chapter 2.

The lower financial performance, the reduced countervailing power and the higher fraud propensity for high narcissistic CEOs elucidates the severe principal-agent problems for high narcissistic CEOs.

Donaldson and Davis argue that CEO duality will enhance effectiveness and will produce superior performance (Donaldson & Davis, 1991), because CEO duality empowers CEOs to take autonomous actions. This line of reasoning supports the stewardship theory as outlined in chapter 2.3. The dataset used in this research provides information whether CEO duality results into higher financial performances. The 741 CEOs who serve a dual role show lower financial performances, compared to the 212 CEOs not having a dual role. The ROA is 0.039 versus 0.045 and the Tobin's Q is 2.079 versus 2.275. This finding does not support the theoretical lens of the stewardship theory that financial performance increases by combining the two roles of CEO and chairman, but provides some evidence of a severe principal-agent dilemma.

8.2 Practical Implications of this Research

This empirical research shows that moderate levels of CEO narcissism can be productive and value adding to the company. Narcissism is an essential element for effective leadership, but all parties should be aware of the potential destructive behavior of high levels of CEO narcissism. The individual CEOs narcissistic personality should be carefully monitored and incorporated into corporate governance codes. The findings are relevant for shareholders, executive and non-executive board members, accountants and society in general.

This research has to create awareness among shareholders that moderate levels of narcissism can be value adding while very low or very high levels of narcissism can become destructive. Assertiveness and immediate actions are required in case shareholders suspect an increasing level of CEO narcissism. These suspicions can be instigated by looking at the 5 determinants and 15 variables used in this research in order to establish the CEO narcissism score.

Placing the CEO under greater control of the board as a mechanism to align managerial interests with shareholders' interests (described in chapter 2.2 and summarized in table 2.1) can be effective as long as the CEO narcissism is restraint. In case the CEO possesses a narcissism overdose, the statutory type will be applicable in which the power of the CEO surpasses the power of the board. The board's monitoring of the CEO in this statutory typology serves merely a ceremonial function in which the high narcissistic CEO holds all the power, leaving the board to function as "rubber stamps".

The executive and non-executive board members should be informed about the productive and destructive narcissism impact. The board is a group and faces the dynamics of a group by promoting consensus decisions, striving for unanimous majorities and supporting the CEO. The boards' emphasis on teamwork and conflict avoidance can be evidence of CEO capture, which makes the board more susceptible to groupthink. Staying committed to the groups' decisions and to a specific course of action is the easiest way to obtain unanimity. The executive and non-executive directors are susceptible to the biases which are described in chapter 2, such as groupthink, escalation of commitment and the status quo bias. The individual board member does not feel comfortable being the sole dissident in the board, but should always be aware that the ideal board is supposed to be skeptical, independent and loyal to the shareholders.

The empirical results of chapter 6 show that high narcissistic CEOs have less countervailing power. The non-executive board members should be aware that the board mechanism doesn't function properly. Other ways of appointing board members, external advisors with no link to the CEO, could alleviate the board mechanism problems and reinforce the countervailing power.

Accountants should be aware of the increased fraud propensity of high narcissistic CEOs. Suspicious contracts and large income fluctuations must be monitored carefully. The suspicions about destructive forms of CEO narcissism can also be checked at social media sites. The expropriating behavior of Enron's directors and the creative bookkeeping was a hot topic on several forums in the late 1990th, long before the SEC initiated the allegations. Internal accountants are potential whistleblowers to provide the SEC with original information about a violation of GAAP. The recent proposal to award whistleblowers with 10 to 30% of the financial penalty charged by the SEC may increase the willingness of internal accountants to report improper accounting procedures.

8.3 Contributions of this Research

The first contribution is that this research shows how CEO narcissism can be measured with one overall measure which reflects the four main conceptual dimensions of narcissism (Emmons, 1987) by focusing on fifteen objective variables within five determinants of CEO behavior, comprising media exposure, compensation, power, growth and perquisites. The existing literature documents the importance of CEO narcissism for organizational outcomes (Chatterjee & Hambrick, 2007; Kets de Vries & Miller, 1984), but little empirical research exists about the impact of narcissistic CEOs, mainly due to the fact that CEO narcissism is difficult to measure on a large scale. One empirical study exists, written by Chatterjee and Hambrick (Chatterjee & Hambrick, 2007) who measure CEO narcissism for the computer industry only, which yields 111 CEOs. The computer industry is selected because it is a high discretion industry in which executives have latitude over their actions.

This research includes all low and high discretion industries and finds some variance in CEO narcissism across the industry types, as outlined in chapter 4.3.2. Higher narcissistic scores are indeed found in the Business Equipment industry with Computers, Software, and Electronic Equipment (FF code 6), but also in Shops Wholesale and Retail (FF code 9).

This research extends the work by Chatterjee and Hambrick (2007) in two ways: by measuring narcissism with fifteen instead of only five indicators and by broadening the sample to 953 CEOs of the S&P500 companies from all different types of industries instead of 111 CEOs from the computer industry only. This large sample size increases the generalizability of the findings.

The measure shows strong content validity and overlap with the narcissism scale developed by Emmons (1987). The principal components analysis shows that four principal components underlie these fifteen variables, which are comparable to the four narcissism components of Emmons (1987). The CEOs who have been identified as narcissists by leading psychologists also have a top score in this research, which is another confirmation of its construct validity.

The second theoretical contribution is that this study is the first to confirm empirically within organizations the psychological perspective of narcissism as a double-edged sword. Several researchers (Kets de Vries, 1994; Lubit, 2002; Maccoby, 2003; Rosenthal & Pittinsky, 2006) document the upside (productive) and the downside (destructive) potential of narcissism. This essential distinction was missing in the Chatterjee and Hambrick (2007) study. The distinction between productive and destructive narcissism is confirmed by the empirical results of the quadratic regressions. The relationship between the CEO narcissism score and the financial accounting measures is intricate and can be visualized by a concave parabola. Intriguingly, and adding to the reliability of our findings, is that the ideal level of narcissism is around the mean. Although the narcissism construct has a negative connotation, this research confirms the psychological perspective of productive narcissism and its inherent upside potential. A balanced level of CEO narcissism could well be a requisite for effective leadership and can add value to the shareholders' wealth. Too low as well as too high levels of narcissism can become counterproductive.

The third contribution is to the Upper Echelon Theory. The impact of the CEOs narcissistic personality on the organizational outcomes confirms the strategic choice perspective by finding individual CEO-effects. The results confirm the view of various researchers (Boal & Hooijberg, 2000; Finkelstein, 1992; Priem, Lyon, & Dess, 1999) that personal characteristics should be taken into account for a complete test of the upper echelon theory. The demographic variables as proxies are too indirect measures for the executive's values, beliefs and perceptions. The findings indicate that the upper echelon theory must be expanded with narcissistic personal characteristics as shown in figure 3.2.

8.4 Directions for Future Research

Suggestions for future research include aspects as an extension of the dataset, the construct validity, other samples, other dependent variables which can be influenced by CEO narcissism, the productive versus destructive influences and the measurement of a tipping point.

Extensions of the Dataset

The dataset can be extended with a number of additional variables. The following variables are mentioned without aiming to be limited.

The first variable is related to the countervailing power in the family situation. It is commonly known that the first wife has more potential to contradict the CEO, which leads to an increased countervailing power and an increased propensity for self-reflection. The CEO will remain businesslike and level-headed. The countervailing power from the family situation will be lower in case the CEO is divorced and engaged in a second relationship. This second wife is often called a “trophy wife” (Cools, 2005) who is mostly younger and probably looking in awe at her hero and glorify him. The “trophy wife” variable can extend the dataset. A variable related to the family situation includes the adolescents who can give their father a reality check. The CEO of Philips Lightning already wrote in 1966 that “the best and most rough critic is given at home by the family and the family is therefore the ultimate correcting force regarding vanity” (own translation).

The second variable is related to the growth determinant. The growth determinant in this research includes the number and the value of the acquisitions. Besides acquisitions, companies can also grow autonomously by increasing sales and market share. The “Autonomous growth” variable can extend the dataset.

Other relevant variables are related to the perquisites. High narcissistic CEOs will build new headquarters and spend huge amounts on the interior and decoration of the building. The perquisite determinant can be extended with these variables.

The dataset can also be extended with variables related to the CEOs prior job(s). This research studies 18 double CEOs with different tenures at different companies, as outlined in chapter 4.3.6. Most CEOs have a higher narcissistic personality dimension during the second tenure. The narcissism level increases with every success which reinforces the sense of self-admiration (Hiller & Hambrick, 2005). Subsequently being nominated as CEO in a company can further bolster the self-admiration. A larger sample of CEOs serving multiple companies could result in more information on the dynamic narcissism construct and could test the hypothesis whether CEO narcissism increases with subsequent successions.

The Construct Validity

Future research should compare the CEO narcissism score of this research with different CEO narcissism measures in order to further assess the construct validity. The construct validity of the narcissism score using objective variables can be tested in two ways.

The first test of the construct validity is to compare the CEO narcissism score with extensive survey research of (former) CEOs. Chapter 4.3.7 documents top scores for 5 S&P500 CEOs who have been identified as narcissists by psychologists. These results provide some evidence for the construct validity, but the small test sample requires further investigation. The construct validity can be further evidenced by collecting the objective variables and constructing the CEO narcissism score for identified narcissistic CEOs who are not included in the current sample, such as Michael Eisner, David Geffen and Kenneth Lay.

The second test of the construct validity is to compare the narcissism score with a more psychological inner narcissism measure which is used in psychology, being the number of times the CEO uses the words “me, myself and I” in publications instead of “us, ourselves and we”. Aktas, de Bodt and Roll (Aktas et al., 2009) use this measure as the only input variable for their narcissism score. Using the first person singular pronouns in speech is correlated with direct measures of narcissism (Raskin & Shaw, 1988). The narcissism score constructed with the fifteen variables can be further validated by a comparison with this psychological narcissism measure.

Other Samples

Future research can compare the narcissism score of the S&P500 CEOs with CEOs from other countries. Comparing the US CEOs with CEOs from other countries provides the opportunity to study cultural differences.

The CEO narcissism score for Asian CEOs might differ from the S&P500 CEOs due to the large family controlled businesses in Asia. The comparison can elucidate whether large shareholders (one of the five mechanisms to align managerial interest with shareholders' interests which have been described in chapter 2 and summarized in table 2.1) can restrain the CEO narcissism. Moreover, a study that compares the S&P500 CEOs with Dutch CEOs provides insight into the influence of operating in the one tier or a two tier model.

Other Dependent Variables

The CEOs narcissistic personality may affect other organizational outcomes as the sales growth or the strategic dynamism. Strategic dynamism can be measured by investigating the changes in key resource allocation indicators (Chatterjee & Hambrick, 2007; Westphal, Seidel, & Stewart, 2001). These indicators are advertising intensity (Advertising/Sales), research and development intensity (R&D/Sales), Selling General and Administrative expenses (SGA/Sales) and financial leverage (Debt/Equity). Chatterjee and Hambrick base their findings on a limited sample and find a positive relationship between CEO narcissism and these four indicators.

Distinction between productive versus destructive influences

Several psychologists identified the productive versus the destructive influences of narcissism. The answer concerning the origin of destructive behavior are however inconclusive. A lack of empathy, interpersonal exploitative behavior and a fragile self esteem are frequently mentioned in psychological research as underlying elements of destructive narcissism. Maccoby (Maccoby, 2003) focuses on the positives aspects of narcissism and argues that strategic intelligence forms the basis for productive narcissists. Strategic intelligence consists of foresight, system thinking, visioning, motivating and partnering. This

strategic intelligence of productive narcissists can be further analyzed and compared to the group of destructive narcissists. This research measures narcissism with 15 variables on a continuous scale and finds productive and destructive influences of CEO narcissism. Future research should further investigate this continuous scale and the distinguishing elements of productive and reactive narcissism.

Tipping Point

Chapter 4 shows that CEOs with a tenure between 5 and 10 years have higher narcissism scores compared to CEOs having less than 5 or more than 10 tenure years. It could be that low narcissistic CEOs prefer short (<5 years) or long (>10 years) tenures. Another explanation is an increasing level of narcissism throughout the tenure. This last option provokes the question whether there is a certain tipping point where narcissism becomes destructive. The time dependent variables in this research sample are analyzed to identify a potential tipping point. The time series show a steady increase during tenure years and do not give an indication for a global tipping point at which narcissism becomes destructive. The preliminary results of these first analyses provide indications that narcissism growth is dependent on the context and the individual CEO.

The empirical findings highlight various opportunities for future research and provide shareholders, directors and other stakeholders new insights into the importance of incorporating the CEOs narcissistic personality within corporate governance.

References

- Adams, R. B., Almeida, H., & Ferreira, D. (2005). Powerful CEOs and their impact on corporate performance. *Review of Financial Studies*, 18(4), 1403-1432.
- Adams, R. B., & Ferreira, D. (2007). A Theory of friendly boards. *The Journal of Finance*, 62(1), 217-250.
- Akerlof, G. A. (1970). The market for "lemons": Quality uncertainty and the market mechanism. *The Quarterly Journal of Economics*, 84(3), 488-500.
- Akerlof, G. A., & Shiller, R. J. (2009). *Animal spirits* Princeton University Press.
- Aktas, N., De Bodt, E., & Roll, R. (2009). Learning, hubris and corporate serial acquisitions. *Journal of Corporate Finance*, 15(5), 543-561.
- Andrews, A.B, Linn, SC, Yi, H. (2009). Corporate governance and executive perquisites: Evidence from the new SEC disclosure rules. *AAA 2009 Financial Accounting and Reporting Section (FARS) Paper*,
- Ashforth, B. E., & Anand, V. (2003). The normalization of corruption in organizations. *Research in Organizational Behavior*, 25, 1-52.
- Babcock, L., Loewenstein, G., Issacharoff, S., & Camerer, C. (1995). Biased judgments of fairness in bargaining. *The American Economic Review*, 85(5), 1337-1343.
- Barton, J. (2001). Does the use of financial derivatives affect earnings management decisions? *Accounting Review*, 76(1), 1-26.
- Baucus, M. S. (1994). Pressure, opportunity and predisposition: A multivariate model of corporate illegality. *Journal of Management*, 20(4), 699-721.
- Bazerman, M. H., Giuliano, T., & Appelman, A. (1984). Escalation of commitment in individual and group decision making. *Organizational Behavior and Human Performance*, 33(2), 141-152.

- Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance. *Review of Financial Studies*, 22(2), 783-827.
- Bebchuk, L., & Grinstein, Y. (2005). The growth of executive pay. *Oxford Review of Economic Policy*, 21(2), 283-303.
- Bebchuk, L. A., Cremers, M., & Peyer, U. (2010). The CEO pay slice. *Journal of Financial Economics*, Forthcoming.
- Bebchuk, L. A., & Fried, J. (2006). *Pay without performance: The unfulfilled promise of executive compensation* Harvard Univ Pr.
- Bebchuk, L. A., & Fried, J. M. (2003). Executive compensation as an agency problem. *Journal of Economic Perspectives*, 17(3), 71-92.
- Becht, M., Bolton, P., Röell, A., & Roosevelt, A. F. D. (2003). Corporate governance and control. *Handbook of the Economics of Finance*, 1(1), 1-109.
- Benartzi, S., & Thaler, R. H. (1999). Risk aversion or myopia? choices in repeated gambles and retirement investments. *Management Science*, 45(3), 364-381.
- Benson, M. J., & Campbell, J. P. (2007). To be, or not to be, linear: An expanded representation of personality and its relationship to leadership performance. *International Journal of Selection and Assessment*, 15(2), 232-249.
- Berenson, S. K. (2003). The duty defined: Specific obligations that follow from government lawyers' duty to serve the public interest. *Brandeis Law Journal*, 42(1), 13-70.
- Bergstresser, D., & Philippon, T. (2006). CEO incentives and earnings management. *Journal of Financial Economics*, 80(3), 511-529.
- Berle, A. A., & Means, G. (1932). *The modern corporation and private property*. New York: Macmillan.
- Bertrand, M., & Schoar, A. (2003). Managing with style: The effect of managers on firm policies*. *Quarterly Journal of Economics*, 118(4), 1169-1208.

- Bezemer, P. J., Peij, S. C., Maassen, G. F., & van Halder, H. (2010) The changing role of the supervisory board chairman: The case of the netherlands (1997–2007). *Journal of Management and Governance*, 1-19.
- Boal, K. B., & Hooijberg, R. (2000). Strategic leadership research:: Moving on. *The Leadership Quarterly*, 11(4), 515-549.
- Boeker, W. (1992). Power and managerial dismissal: Scapegoating at the top. *Administrative Science Quarterly*, 37(3), 400-421.
- Boone, A. L., Casares Field, L., Karpoff, J. M., & Raheja, C. G. (2007). The determinants of corporate board size and composition: An empirical analysis. *Journal of Financial Economics*, 85(1), 66-101.
- Boot. (2009). *De onwortelde onderneming*. Assen: van Gorcum.
- Boyd, B. K., Gove, S., & Hitt, M. A. (2005). Construct measurement in strategic management research: Illusion or reality? *Strategic Management Journal*, 26(3), 239-257.
- Brooks, C. (2008). *Introductory econometrics for finance* Cambridge Univ Pr.
- Buss, D. M., & Chiodo, L. M. (1991). Narcissistic acts in everyday life. *Journal of Personality*, 59(2), 179-215.
- Cannella, A. A., & Holcomb, T. R. (2005). A multi-level analysis of the upper-echelons model. *Multi-Level Issues in Strategy and Methods*, 4, 197-237.
- Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, 30(6), 749-778.
- Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly*, 52(3), 351-386.

- Chen, C. C., & Meindl, J. R. (1991). The construction of leadership images in the popular press: The case of donald burr and people express. *Administrative Science Quarterly*, 36(4), 521-551.
- Chen, K., Lakshminarayanan, V., Santos, L., & Foundation, C. (2005). The evolution of our preferences: Evidence from capuchin monkey trading behavior.
- Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1), 1-22.
- Claessens, S. (2006). Corporate governance and development. *The World Bank Research Observer*, 21(1), 91-122.
- Claessens, S., Djankov, S., & Lang, L. H. P. (2000). The separation of ownership and control in east asian corporations* 1. *Journal of Financial Economics*, 58(1-2), 81-112.
- Coase, R. (1937). The nature of the firm. *Economica*, 4(16), 386-405.
- Coffee Jr, J. C. (2001). Understanding enron: It's about the gatekeepers, stupid. *Business Law*, 57, 1403-1420.
- Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Boards: Does one size fit all. *Journal of Financial Economics*, 87(2), 329-356.
- Cools, K. (2005). *Controle is goed, vertrouwen nog beter: Over bestuurders en corporate governance*. Assen: Uitgeverij Van Gorcum.
- Crossland, C., & Hambrick, D. C. (2007). How national systems differ in their constraints on corporate executives: A study of CEO effects in three countries. *Strategic Management Journal*, 28(8), 767-769.
- Crystal, G. (1978). *Executive compensation: money, motivation, and imagination*, New York: Amacom
- Cyert, R. M., Kang, S. H., & Kumar, P. (2002). Corporate governance, takeovers, and top-management compensation: Theory and evidence. *Management Science*, 48(4), 453-469.

- Daily, C. M., & Dalton, D. R. (1994). Bankruptcy and corporate governance: The impact of board composition and structure. *Academy of Management Journal*, 37(6), 1603-1617.
- Daily, C. M., Dalton, D. R., & Cannella Jr, A. A. (2003). Corporate governance: Decades of dialogue and data. *The Academy of Management Review*, 28(3), 371-382.
- Daily, C. M., & Johnson, J. L. (1997). Sources of CEO power and firm financial performance: A longitudinal assessment. *Journal of Management*, 23(2), 97-117.
- Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal*, 42(6), 674-686.
- Davis, J. H., Schoorman, F. D., & Donaldson, L. (1997). Toward a stewardship theory of management. *The Academy of Management Review*, 22(1), 20-47.
- De Jong, A., Mertens, G., & Roosenboom, P. (2006). Shareholders' voting at general meetings: Evidence from the netherlands. *Journal of Management and Governance*, 10(4), 353-380.
- Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2-3), 344-401
- DellaVigna, S. S. (2009). Psychology and economics: Evidence from the field. *The Journal of Economic Literature / Publ. by the American Economic Association*, 47(2), 315-372.
- Demsetz, H. (1969). Information and efficiency: Another viewpoint. *Journal of Law and Economics*, 12(1), 1-22.
- Devinney, T. M., Yip, G. S., & Johnson, G. (2010). Using frontier analysis to evaluate company performance. *British Journal of Management*, 21(4), 921-938.
- Donaldson, L. (1990). The ethereal hand: Organizational economics and management theory. *The Academy of Management Review*, 15(3), 369-381.

- Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16(1), 49-64.
- Dutton, J. E., & Ashford, S. J. (1993). Selling issues to top management. *Academy of Management Review*, 18(3), 397-428.
- Dutton, J. E., & Duncan, R. B. (1987). The creation of momentum for change through the process of strategic issue diagnosis. *Strategic Management Journal*, 8(3), 279-295.
- Dutton, J. E., Fahey, L., & Narayanan, V. K. (1983). Toward understanding strategic issue diagnosis. *Strategic Management Journal*, 4(4), 307-323.
- Dutton, J. E., & Jackson, S. E. (1987). Categorizing strategic issues: Links to organizational action. *Academy of Management Review*, 12(1), 76-90.
- Ellis, H. (1898). Auto-eroticism: A psychological study. *Alienist and Neurologist*, 19, 260-299.
- Emmons, R. A. (1984). Factor analysis and construct validity of the narcissistic personality inventory. *Journal of Personality Assessment*, 48(3), 291-300.
- Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology*, 52(1), 11-17.
- Epstein, L., & Knight, J. (2003). *The Pioneers of Judicial Behavior* In: W.F. Murphy: The interactive nature of judicial decision making. University of Michigan Press, 197-227.
- Fama, E. F. (1980). Agency problems and the theory of the firm. *The Journal of Political Economy*, 88(2), 288-307.
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26(2), 301-349.
- Finkelstein, S. (1992). Power in top management teams: Dimensions, measurement, and validation. *The Academy of Management Journal*, 35(3), 505-538.

- Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadership: Top executives and their effects on organizations*. Minneapolis: West Publishing Company St. Paul.
- Fistenberg, P.B., Malkiel, B.G. (1994). The twenty-first century boardroom: who will be in charge. *Sloan Management Review*, 36(1), 27-35.
- Forbes, D. P., & Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *The Academy of Management Review*, 24(3), 489-505.
- Francis, J., Huang, A. H., Rajgopal, S., & Zang, A. Y. (2008). CEO reputation and earnings quality. *Contemporary Accounting Research*, 25(1), 109-147.
- Freud, S. (1914). On narcissism: An introduction. *Standard Edition*, 14, 73-102.
- Friedman, M. (1970). The social responsibility of business is to increase its profits. *New York Times Magazine*, 32(13), 122-126.
- Frydman, C., & Saks, R. E. (2010). Executive compensation: A new view from a long-term perspective, 1936–2005. *Review of Financial Studies*, 23(5), 2099-2138.
- Gabarro, J. J. (1987). *The dynamics of taking charge* Harvard Business Press.
- Gilbert, D. T. (1989). Thinking lightly about others: Automatic components of the social inference process. In: J. Uleman & J. Bargh *Unintended Thought*, 189–211.
- Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices*. *Quarterly Journal of Economics*, 118(1), 107-155.
- Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime* Stanford Univ Press.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25(2), 161-178.
- Grossman, S. J., & Hart, O. D. (1983). An analysis of the principal-agent problem. *Econometrica*, 51(1), 7-45.

- Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32(2), 334-343.
- Hambrick, D. C., & D'Aveni, R. A. (1992). Top team deterioration as part of the downward spiral of large corporate bankruptcies. *Management Science*, 38(10), 1445-1466.
- Hambrick, D. C., & Fukutomi, G. D. S. (1991). The seasons of a CEO's tenure. *The Academy of Management Review*, 16(4), 719-742.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *The Academy of Management Review*, 9(2), 193-206.
- Harrison, J. R., Torres, D. L., & Kukalis, S. (1988). The changing of the guard: Turnover and structural change in the top-management positions. *Administrative Science Quarterly*, 33(2), 211-232.
- Hayward, M. L. A., & Hambrick, D. C. (1997). Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, 42(1), 103-127.
- Healey, J. (2003). Is the corporate governance debate out of control. *Management Magazine*, 68-71.
- Henderson, A. D., Miller, D., & Hambrick, D. C. (2006). How quickly do CEOs become obsolete? industry dynamism, CEO tenure, and company performance. *Strategic Management Journal*, 27(5), 447-460.
- Hermalin, B. E., & Weisbach, M. S. (1991). The effects of board composition and direct incentives on firm performance. *Financial Management*, 20(4), 101-112.
- Hermalin, B. E., & Weisbach, M. S. (1998). Endogenously chosen boards of directors and their monitoring of the CEO. *The American Economic Review*, 88(1), 96-118.
- Hermalin, B. E., & Weisbach, M. S. (2003). Boards of directors as an endogenously determined institution: A survey of the economic literature. *Economic Policy Review*, 9(1), 17-26.

- Higgs, M. (2009). The good, the bad and the ugly: Leadership and narcissism. *Journal of Change Management*, 9(2), 165-178.
- Hiller, N. J., & Hambrick, D. C. (2005). Conceptualizing executive hubris: The role of (hyper-) core self-evaluations in strategic decision-making. *Strategic Management Journal*, 26(4), 297-319.
- Hogan, C. E., & Wilkins, M. S. (2008). Evidence on the audit risk model: Do auditors increase audit fees in the presence of internal control deficiencies?*. *Contemporary Accounting Research*, 25(1), 219-242.
- Hogan, R., & Kaiser, R. (2005). What we know about leadership. *Review of General Psychology*, 9, 169-180.
- Holmstrom, B. (1982). Moral hazard in teams. *The Bell Journal of Economics*, (13(2), 324-340.
- Holmstrom, B. (1979). Moral hazard and observability. *The Bell Journal of Economics*, 10(1), 74-91.
- Holmstrom, B. & Kaplan, S. N. (2003). The State of US Corporate Governance: What's Right and what's Wrong?, *Journal of Applied Corporate Finance*, 15(3), 8-20.
- Hooghiemstra, R., Van Manen, J., & PricewaterhouseCoopers, L. (2004). The independence paradox:(im) possibilities facing non-executive directors in the netherlands. *Corporate Governance: An International Review*, 12(3), 314-324.
- House, R.J., Howell JM, (1992). Personality and charismatic leadership. *Leadership Quarterly*, 3(2), 81-108.
- Howell J.M., (1992). Socialized and personalized charisma: An essay on the bright and dark sides of leadership. *Unpublished Manuscript*,

- Humphreys, J., Zhao, D., Ingram, K., Gladstone, J., & Basham, L. (2010). Situational narcissism and charismatic leadership: A conceptual framework. *Journal of Behavioral Applied Management, 11*(2), 118-136.
- Hunt, J. G., & Dodge, G. E. (2000). Leadership déjà vu all over again. *The Leadership Quarterly, 11*(4), 435-458.
- Huse, M. (2008). *The value creating board: Corporate governance and organizational behaviour*. London: Routledge.
- Janis, I. L. (1989). *Groupthink*. Houghton Mifflin RM Productions/McGraw-Hill
- Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems, *Journal of Finance, 48*(3), 831-880.
- Jensen, M. C. (2001). Corporate budgeting is broken. *Harvard Bus Review, 79*(6), 94-101.
- Jensen, M. C. (2010). Value maximization, stakeholder theory, and the corporate objective function. *Journal of Applied Corporate Finance, 22*(1), 32-42.
- Jensen, M. C., Field, S., & Park, T. C. (2003). Paying people to lie: The truth about the budgeting process, *European Financial Management, 9*(3), 379-406.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360.
- Jensen, M. C., & Meckling, W. H. (1994). The nature of man. *Journal of Applied Corporate Finance, 7*(2), 4-19.
- Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of Political Economy, 98*(2), 225-264.
- Jensen, M. C., Ruback, R. S., Field, S., & Park, T. C. (1983). The market for corporate control: The scientific evidence. *Journal of Financial Economics, 11*, 5-50.
- John, O.P., Robins, R.W. (1994). Accuracy bias in self-perception. *Journal of Personality and Social Psychology, 66*(1), 206-219.

- Judge T.A., Ilies, R., Bono, J.E., Gerhatrdt, M.W. (2002). Personality and Leadership: a qualitative and Quantitative review. *Journal of Applied Psychology*, 87(4), 765-780.
- Kahneman, D. (2003). Maps of bounded rationality: Psychology for behavioral economics†. *American Economic Review*, 93(5), 1449-1475.
- Kahneman, D., & Lovallo, D. (1993). Timid choices and bold forecasts: A cognitive perspective on risk taking. *Management Science*, 39(1), 17-31.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-291.
- Kaplan, R. S., & Norton, D. P. (1996). *The balanced scorecard: Translating strategy into action* Harvard Business School Press.
- Kaplan, S. N., & Zingales, L. (1997). Do investment-cash flow sensitivities provide useful measures of financing constraints?. *Quarterly Journal of Economics*, 112(1), 169-215.
- Kerr, S. (1975). On the folly of rewarding A, while hoping for B. *The Academy of Management Journal*, 18(4), 769-783.
- Kets de Vries, M. (1998). Vicissitudes of leadership. In: *Navigating Change*, Harvard Business School Press, Boston, 38-69.
- Kets de Vries, M. (1996). Leaders who make a difference. *European Management Journal*, 14(5), 486-493.
- Kets de Vries, M.F.R., Miller, D., (1997) Narcissism and leadership: An object relations perspective. In: *Leadership: Understanding the Dynamics of Power and Influence in Organizations*, University of Notre Dame Press, Notre Dame, 194-214.
- Kets de Vries, M.F.R. (1985) Narcissism and leadership: An object relations perspective. *Human Relations*, 38(6), 583-601.
- Kets de Vries, M. F. R. (1994) The leadership mystique. *Academy of Management Executive*, 8(3), 73-89.

- Kets de Vries, M. F. R., & Miller, D. (1984). *The neurotic organization*. San Francisco: Jossey Bass Inc.
- Keynes, J. M. (1936). *The general theory of interest, employment and money*. Macmillan Cambridge University Press.
- Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33(3), 375-400.
- Klein, G. A. (1999). *Sources of power: How people make decisions*. The MIT Press.
- Kotter, J. P. (1990). *A force for change: How leadership differs from management*. New York: Free Press.
- Langevoort, D. C. (2001). The human nature of corporate boards: Law, norms, and the unintended consequences of independence and accountability. *Geo.LJ*, 89, 797-2593.
- Langley, A., Mintzberg, H., Pitcher, P., Posada, E., & Saint-Macary, J. (1995). Opening up decision making: The view from the black stool. *Organization Science*, 6(3), 260-279.
- Lawrence, B. S. (1997). The black box of organizational demography. *Organization Science*, 8(1), 1-22.
- Lazear, E. P. (2000). Performance pay and productivity. *The American Economic Review*, 90(5), 1346-1361.
- Leblanc, R., & Schwartz, M. S. (2007). The black box of board process: Gaining access to a difficult subject. *Corporate Governance: An International Review*, 15(5), 843-851.
- Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *Business Lawyer*, 48, 59-59.
- Lord, R. G., & Maher, K. J. (1994). *Leadership and information processing: Linking perceptions and performance*. New York: Routledge.
- Lorsch, J. W., & MacIver, E. (1989). *Pawns or potentates: The reality of america's corporate boards*. Boston: Harvard Business Press.

- Lubit, R. (2002). The long-term organizational impact of destructively narcissistic managers. *The Academy of Management Executive (1993)*, 16(1), 127-138.
- Maccoby, M. (2001). *Narcissistic leaders*. In: W.E. Rosenbach & R.L. Taylor, Contemporary Issues in Leadership, Massachusetts Westview Press, 281-295.
- Maccoby, M. (2003). *The productive narcissist: The promise and peril of visionary leadership*. New York: Broadway.
- Maccoby, M. (2007). *The leaders we need: And what makes us follow* Harvard Business School Press.
- Mace, M. (1971). *Directors: Myth and reality*. Boston: Harvard University Press.
- Mallin, C. (2008). Institutional shareholders: Their role in the shaping of corporate governance. *International Journal of Corporate Governance*, 1(1), 97-105.
- Malmendier, U., & Tate, G. (2005). CEO overconfidence and corporate investment. *Journal of Finance*, 60(6), 2661-2700.
- Malmendier, U., & Tate, G. (2008). Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics*, 89(1), 20-43.
- Malmendier, U., & Tate, G. A. (2009). Superstar CEOs. *The quarterly Journal of Economics*, 124(4), 1593-1638.
- Marnet, O. (2008). Behaviour and rationality in corporate governance. *International Journal of Behavioural Accounting and Finance*, 1(1), 4-22.
- Meyer, K.E. (2009). Erratum: Motivating, testing and publishing curvilinear effects in management research. *Asian Pacific Journal of Management*, 26(2), 187-193
- Milbourn, T. T. (2003). CEO reputation and stock-based compensation* 1. *Journal of Financial Economics*, 68(2), 233-262.
- Milgrom, P., & Roberts, J. (1992). *Economics, organization, and management:: Instructor's manual*. New York: Prentice-Hall Englewood Cliffs.

- Miller, D. (1991). Stale in the saddle: CEO tenure and the match between organization and environment. *Management Science*, 37(1), 34-52.
- Mintzberg, H. (1983). *Structure in fives: Designing effective organizations* New york: Prentice-Hall Englewood Cliffs.
- Mirrlees, J. (1999). The theory of moral hazard and unobservable behaviour: Part I. *The Review of Economic Studies*, 66(1), 3-21.
- Moeller, S. B., Schlingemann, F. P., & Stulz, R. M. (2005). Wealth destruction on a massive scale? A study of acquiring-firm returns in the recent merger wave. *Journal of Finance*, 60(6), 757-782.
- Morck, R., Shleifer, A., & Vishny, R. W. (1990). Do managerial objectives drive bad acquisitions? *Journal of Finance*, 45(1), 31-48.
- Murphy, K. J. (2000). Performance standards in incentive contracts. *Journal of Accounting and Economics*, 30(3), 245-278.
- Murphy, K. J., & Zabojnik, J. (2004). CEO pay and appointments: A market-based explanation for recent trends. *American Economic Review*, 94(2), 192-196.
- Nadler, D. A., & Heilpern, J. D. (1998). The CEO in the context of discontinuous change. In: *Navigating Change: How CEOs, Top Teams, and Boards Steer Transformation*, 3-27.
- Nohria, N., & Roberson, B. (2003) 'What really works'. *Harvard Business Review*, July, 42-52
- Paul, J. M. (1992). On the efficiency of stock-based compensation. *Review of Financial Studies*, 5(3), 471-502.
- Pearce, J. A., & Zahra, S. A. (1991). The relative power of CEOs and boards of directors: Associations with corporate performance. *Strategic Management Journal*, 12(5), 135-153.
- Peterson, R. S., Smith, D. B., Martorana, P. V., & Owens, P. D. (2003). The impact of chief executive officer personality on top management team dynamics: One mechanism by

- which leadership affects organizational performance. *Journal of Applied Psychology*, 88(5), 795-808.
- Pettigrew, A. M. (1992). On studying managerial elites. *Strategic Management Journal*, 13, 163-182.
- Pfeffer, J. (1981). *Power in organizations*. Cambridge Mass
- Prendergast, C. (1999). The Provision of Incentives in Firms. *Journal of Economic Literature*, 37, 7-63.
- Priem, R. L., Lyon, D. W., & Dess, G. G. (1999). Inherent limitations of demographic proxies in top management team heterogeneity research. *Journal of Management*, 25(6), 935-953.
- Rajan, R. G., & Wulf, J. (2006). Are perks purely managerial excess? *Journal of Financial Economics*, 79(1), 1-33.
- Rajgopal, S., Shevlin, T., & Zamora, V. (2006). CEOs' outside employment opportunities and the lack of relative performance evaluation in compensation contracts. *Journal of Finance*, 61(4), 1813-1844.
- Raskin, R., Novacek, J., & Hogan, R. (1991). Narcissistic self-esteem management. *Journal of Personality and Social Psychology*, 60(6), 911-918.
- Raskin, R., & Shaw, R. (1988). Narcissism and the use of personal pronouns. *Journal of Personality*, 56(2), 393-404.
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the narcissistic personality inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54(5), 890-902.
- Raskin, R. N., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports*, 45(2), 590.

- Rees, R. (1985). The theory of principal and agent, parts 1 and 2. *Bulletin of Economic Research*, 37(2), 46-49.
- Roberts, J., McNulty, T., & Stiles, P. (2005). Beyond agency conceptions of the work of the non-executive director: Creating accountability in the boardroom. *British Journal of Management*, 16(1), 5-26.
- Roll, R. (1986). The hubris hypothesis of corporate takeovers. *The Journal of Business*, 59(2), 197-216.
- Rosen, S. (1981). The economics of superstars. *The American Economic Review*, 71(5), 845-858.
- Rosen, S. (1986). Prizes and incentives in elimination tournaments. *The American Economic Review*, 76(4), 701-715.
- Rosenthal, S. A., & Pittinsky, T. L. (2006). Narcissistic leadership. *The Leadership Quarterly*, 17(6), 617-633.
- Ross, S. A. (1973). The economic theory of agency: The principal's problem. *The American Economic Review*, 63(2), 134-139.
- Schrand, C. M., & Zechman, S. L. C. (2009). Executive overconfidence and the slippery slope to fraud. *SSRN eLibrary*,
- Schweitzer, M. E., Ordóñez, L., & Douma, B. (2004). Goal setting as a motivator of unethical behavior. *Academy of Management Journal*, 47(3), 422-432.
- Shen, W., & Cannella Jr, A. A. (2002). Revisiting the performance consequences of CEO succession: The impacts of successor type, postsuccession senior executive turnover, and departing CEO tenure. *Academy of Management Journal*, , 717-733.
- Shivdasani, A., & Yermack, D. (1999). CEO involvement in the selection of new board members: An empirical analysis. *The Journal of Finance*, 54(5), 1829-1853.

- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52(2), 737-783.
- Simon, H. A. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics*, 69(1), 99-118.
- Smith, A. (1937). *An inquiry into the nature and causes of the wealth of nations*, (1776)
London: Methuen & Co.
- Staw, B. M. (1976). Knee-deep in the big muddy: A study of escalating commitment to a chosen course of action. *Organizational Behavior and Human Performance*, 16(1), 27-44.
- Staw, B. M. (1981). The escalation of commitment to a course of action. *Academy of Management Review*, 6(4), 577-587.
- Stoner, J. A. F. (1968). Risky and cautious shifts in group decisions: The influence of widely held values* 1. *Journal of Experimental Social Psychology*, 4(4), 442-459.
- Tanriverdi, H., & Venkatraman, N. (2005). Knowledge relatedness and the performance of multibusiness firms. *Strategic Management Journal*, 26(2), 97-119.
- Tosi, H. L., Werner, S., Katz, J. P., & Gomez-Mejia, L. R. (2000). How much does performance matter? A meta-analysis of CEO pay studies. *Journal of Management*, 26(2), 301-339.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases, science. *New Series*, 185(4157), 1124-1131.
- Vancil, R. F., & McDonald, A. L. (1987). *Passing the baton: Managing the process of CEO succession*. Boston: Harvard Business School Press.
- Wade, J., O'Reilly III, C. A., & Chandratat, I. (1990). Golden parachutes: CEOs and the exercise of social influence. *Administrative Science Quarterly*, 35(4), 587-603.
- Wakker, P. P. (2010). *Prospect theory: For risk and ambiguity* Cambridge Univ Press.

- Waldman, D. A., Javidan, M., & Varella, P. (2004). Charismatic leadership at the strategic level: A new application of upper echelons theory. *The Leadership Quarterly*, 15(3), 355-380.
- Waldman, D. A., & Yammarino, F. J. (1999). CEO charismatic leadership: Levels-of-management and levels-of-analysis effects. *Academy of Management Review*, 24(2), 266-285.
- Waterman, R. W., & Meier, K. J. (1998). Principal-agent models: An expansion? *Journal of Public Administration Research and Theory*, 8(2), 173-202.
- Webb, E., & Weick, K. E. (1979). Unobtrusive measures in organizational theory: A reminder. *Administrative Science Quarterly*, 24(4), 650-659.
- Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. (1966). Unobtrusive measures: Nonreactive research in the social sciences. Chicago: Rand McNally.
- Weisbach, M. S. (1988). Outside directors and CEO turnover. *Journal of Financial Economics*, 20(1), 431-460.
- Westphal, J. D. (1999). Collaboration in the boardroom: Behavioral and performance consequences of CEO-board social ties. *The Academy of Management Journal*, 42(1), 7-24.
- Westphal, J. D., Seidel, M. D. L., & Stewart, K. J. (2001). Second-order imitation: Uncovering latent effects of board network ties. *Administrative Science Quarterly*, 46(4), 717-747.
- Wiseman, R. M., & Gomez-Mejia, L. R. (1998). A behavioral agency model of managerial risk taking. *The Academy of Management Review*, 23(1), 133-153.
- Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, 40(2), 185-211.

- Yermack, D. (1997). Good timing: CEO stock option awards and company news announcements. *Journal of Finance*, 52(2), 449-476.
- Yermack, D. (2006). Flights of fancy: Corporate jets, CEO perquisites, and inferior shareholder returns. *Journal of Financial Economics*, 80(1), 211-242.
- Zahra, S. A., & Pearce, J. A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, 15(2), 291-334.
- Zahra, S. A., Priem, R. L., & Rasheed, A. A. (2005). The antecedents and consequences of top management fraud. *Journal of Management*, 31(6), 803-828.
- Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108(2), 171-194.
- Zajac, E. J. (1990). CEO selection, succession, compensation and firm performance: A theoretical integration and empirical analysis. *Strategic Management Journal*, 11(3), 217-230.
- Zajac, E. J., & Westphal, J. D. (1996). Who shall succeed? how CEO/board preferences and power affect the choice of new CEOs. *The Academy of Management Journal*, 39(1), 64-90.
- Zajac, E., & Westphal, J. (1998). Toward a behavioral theory of the CEO/board relationship: How research can enhance our understanding of corporate governance practices. In: *Navigating Change: How CEOs, Top Management Teams, and Boards of Directors Steer Transformation*, Cambridge: Harvard Business School Press, 256-277.
- Zuckerman, M. (1979). *Sensation seeking; beyond the optimal level of arousal*. New York: Erlbaum Hillsdale.

Appendix I: Diagnostic Criteria for Narcissistic Personality Disorder

A pervasive pattern of grandiosity (in fantasy or behavior), need for admiration, and lack of empathy, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- (1) has a grandiose sense of self-importance (e.g., exaggerates achievements and talents, expects to be recognized as superior without commensurate achievements)
- (2) is preoccupied with fantasies of unlimited success, power, brilliance, beauty, or ideal love
- (3) believes that he or she is "special" and unique and can only be understood by, or should associate with, other special or high-status people (or institutions)
- (4) requires excessive admiration
- (5) has a sense of entitlement, i.e., unreasonable expectations of especially favorable treatment or automatic compliance with his or her expectations
- (6) is interpersonally exploitative, i.e., takes advantage of others to achieve his or her own ends
- (7) lacks empathy: is unwilling to recognize or identify with the feelings and needs of others
- (8) is often envious of others or believes that others are envious of him or her
- (9) shows arrogant, haughty behaviors or attitudes

Source: DSM IV, Diagnostic and Statistical Manual of Mental Disorders, fourth edition, 1994
p. 717

Appendix II: NPI and the four components of Emmons

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Table I
NPI Items and Factor Loadings (*n* = 451)

Item	Factor Loadings			
	I	II	III	IV
I will never be satisfied until I get all that I deserve (35).	.58	.03	.07	.14
I expect a great deal from other people (34).	.57	-.06	-.01	.02
I am envious of other people's good fortune (40).	.52	.10	-.15	.19
I find it easy to manipulate people (19).	.50	.17	.14	.09
I have a strong will to power (38).	.48	.21	.20	.06
I am apt to show off if I get the chance (28).	.46	.22	.05	.10
I get upset when people don't notice how I look when I go out in public (52).	.46	.19	-.03	.13
I insist upon getting the respect that is due me (20).	.45	.14	.06	.08
When I play a game I hate to lose (11).	.42	.01	.02	.05
I am more capable than other people (53).	.41	.07	.12	.29
People always seem to recognize my authority (46).	.35	.40	.19	.09
I would prefer to be a leader (47).	.09	.68	.05	.10
I see myself as a good leader (15).	.15	.67	.08	.00
I really like to be the center of attention (44).	.18	.59	.04	.09
I have a natural talent for influencing people (2).	.20	.57	.24	-.12
I like having authority over other people (17).	.19	.50	.60	.11
I am assertive (16).	.17	.49	.35	.04
I like to be the center of attention (12).	.25	.48	.03	.12
People always seem to recognize my authority (46).	.35	.40	.19	.09
I would be willing to describe myself as a strong personality (6).	-.20	.38	.10	.23
I can make anybody believe anything (49).	.27	.12	.51	.06
I can read people like a book (22).	.08	.02	.48	-.02
I am a born leader (50).	.18	.21	.48	.04
Everybody likes to hear my stories (32).	.12	.11	.47	.02
I would do almost anything on a dare (5).	.04	.16	.45	.07
If I ruled the world it would be a much better place (8).	.01	.08	.44	.14
I am at my best when the situation is at its worst (24).	-.30	.13	.43	.13
I always know what I am doing (29).	-.12	-.09	.42	-.03
I am assertive (16).	.17	.49	.35	.04
I can usually talk my way out of anything (10).	.33	.12	.35	-.17
People just naturally gravitate toward me (9).	.08	.17	.35	.12
I like to look at my body (26).	.15	.11	.13	.62
I like to look at myself in the mirror (42).	.11	.24	.18	.53
I think I am a special person (14).	.00	.18	.15	.53
I am an extraordinary person (54).	.06	.04	.09	.51
I am going to be a great person (48).	-.04	.09	.30	.42
I like to display my body (21).	.07	.26	.00	.38
I know that I am good because everyone keeps telling me so (7).	.27	.11	.18	.36
I like to take responsibility for making decisions (23).	.01	.22	.14	.36
I am witty and clever (43).	-.01	.22	.14	.35

Note: Item numbers are in parentheses.

Factor I = Exploitativeness/Entitlement; Factor II = Leadership/Authority; Factor III = Superiority/Arrogance; Factor IV = Self-absorption/Self-admiration.

Appendix III: IRRC Definitions of the Twenty-Four Provisions

1. *Antigreenmail provision*: a provision that prevents an entity from acquiring a block of stock in a company and selling it back to the company at an above-market price.
2. *Blank check preferred stock*: this is stock that, when authorized, gives the board broad discretion in establishing the stock's voting, dividend, and other rights when issued.
3. *Business combination law*: a law that limits the ability of an acquirer to conduct certain transactions with the acquired company post acquisition.
4. *Cash-out law*: a provision that enables shareholders to sell to a controlling shareholder, usually at the highest price recently paid by the controlling shareholder.
5. *Compensation plan*: a plan that accelerates benefits in the event of a change in control.
6. *Director duties*: a provision that permits the board to consider non shareholder interests in evaluating a possible change in control.
7. *Director indemnification*: a charter or bylaw provision indemnifying the officers and directors against certain legal expenses and judgments as a result of their conduct.
8. *Director indemnification contract*: a contract with individual officers and directors promising indemnification against certain legal expenses and judgments as a result of their conduct.
9. *Elimination of cumulative voting*: a provision eliminating shareholders' ability to apportion their votes in an election.
10. *Fair price requirements*: a requirement that a bidder pays all shareholders a "fair price," typically the highest price paid by a bidder prior to a tender offer being made.
11. *Golden parachute*: a severance agreement that provides benefits to management/board members in the event of firing, demotion, or resignation following a change in control.
12. *Limitation on amending bylaws*: a provision limiting shareholders' ability through majority vote to amend the corporate bylaws.
13. *Limitation on amending the charter*: a provision limiting shareholders' ability through majority vote to amend the corporate charter.
14. *Limitation on special meeting*: a provision limiting shareholders' ability to act by calling a special meeting (as opposed to waiting for the regularly scheduled shareholders' meeting).
15. *Limitation on written consent*: a provision limiting shareholders' ability to act via written consent (as opposed to acting through a vote at the shareholders' meeting).
16. *Limited director liability*: a provision that limits the personal liability of its directors
17. *Pension parachute*: provisions that limit the ability of an acquirer from using surplus money in a pension plan to fund the acquisition.
18. *Poison pill*: a shareholder right that is triggered in the event of an unauthorized change in control that typically renders the target company financially unattractive or dilutes the voting power of the acquirer.
19. *Secret ballot*: a system of voting that ensures management does not look at individual proxy cards.
20. *Severance agreement*: a contract which ensures executives some income protection in the event of losing their positions.
21. *Silver parachute*: a severance agreement that provides benefits to a large number of employees in the event of firing, demotion, or resignation following a change in control
22. *Staggered board*: a board in which directors are divided into separate classes (typically three) with each class being elected to overlapping terms
23. *Supermajority to approve a merger*: a requirement that requires more than a majority of shareholders to approve a merger
24. *Unequal voting rights*: a provision by which voting power changes based on certain conditions.

Appendix IV: Classification of 12 Fama French Industry Codes

- 1 NoDur Consumer NonDurables -- Food, Tobacco, Textiles, Apparel, Leather, Toys
 - 0100-0999
 - 2000-2399
 - 2700-2749
 - 2770-2799
 - 3100-3199
 - 3940-3989
- 2 Durbl Consumer Durables -- Cars, TV's, Furniture, Household Appliances
 - 2500-2519
 - 2590-2599
 - 3630-3659
 - 3710-3711
 - 3714-3714
 - 3716-3716
 - 3750-3751
 - 3792-3792
 - 3900-3939
 - 3990-3999
- 3 Manuf Manufacturing -- Machinery, Trucks, Planes, Off Furn, Paper, Com Printing
 - 2520-2589
 - 2600-2699
 - 2750-2769
 - 3000-3099
 - 3200-3569
 - 3580-3629
 - 3700-3709
 - 3712-3713
 - 3715-3715
 - 3717-3749
 - 3752-3791
 - 3793-3799
 - 3830-3839
 - 3860-3899
- 4 Enrgy Oil, Gas, and Coal Extraction and Products
 - 1200-1399
 - 2900-2999
- 5 Chems Chemicals and Allied Products
 - 2800-2829
 - 2840-2899
- 6 BusEq Business Equipment -- Computers, Software, and Electronic Equipment
 - 3570-3579
 - 3660-3692
 - 3694-3699
 - 3810-3829
 - 7370-7379
- 7 Telcm Telephone and Television Transmission
 - 4800-4899
- 8 Utils Utilities
 - 4900-4949
- 9 Shops Wholesale, Retail, and Some Services (Laundries, Repair Shops)
 - 5000-5999
 - 7200-7299
 - 7600-7699
- 10 Hlth Healthcare, Medical Equipment, and Drugs
 - 2830-2839
 - 3693-3693
 - 3840-3859
 - 8000-8099
- 11 Money Finance
 - 6000-6999
- 12 Other Other -- Mines, Constr, BldMt, Trans, Hotels, Bus Serv, Entertainment

Source: http://mba.tuck.dartmouth.edu/pages/faculty/ken_french/Data_Library/det_12_ind_port.html

Appendix V: Variable Description

VARIABLE	DESCRIPTION OF VARIABLE
AAER	Accounting and Auditing Enforcement Release (of SEC)
AWARDS	Number of awards received
BOARD_CHANGES	Number of board changes during the CEO tenure
BOARD_SIZE	Number of board members
CASH	Cash compensation, consisting of salary and bonus
CASH RATIO	The ratio of CEO cash compensation versus the second best paid executive in the company
CEO	Chief Executive Officer
CEO AGE	The age of the CEO at starting tenure
COMPUSTAT	Database with financial, statistical and market information
COSO	Committee Of Sponsoring Organizations
CNS	CEO Narcissism Score
CORP_JET	Use of the corporate jet, data collected during the last tenure year
DSM	Diagnostic and Statistical Manual of Mental Disorders
DUALITY	CEO also holds the position of chairman
EXECUCOMP	Database with information on executive compensation
FF	Fama French industry codes, ranging from 1 to 12
GI	Governance Index, measures management rights versus shareholder rights, consisting of 24 provisions which are included in appendix III
LINES_BIO	Number of lines in the marquis Who's Who database
MV	The market value of the acquirer
NPI	Narcissistic Personality Inventory
NUMBER M&A	The number of acquisitions made, averages per tenure year
PHOTO	The presence, size and content of a photograph in the annual report
PUBLICITY	Number of times the CEO has been in major news and business publications, averaged per tenure year
RANK	The rank of the CEO compensation relative to the other top executives
ROLE TITLES	Number of role titles the CEO holds
SALESLOG	The log of sales, averaged per tenure year
SEC	Securities and Exchange Commission
SEC EDGAR	Electronic Data Gathering Analysis and Retrieval System
TDC1	Total compensation, consisting of salary, bonus, incentive plan compensation, stock awards, option awards, deferred compensation and all other compensation
TDC1 RATIO	The ratio of CEO total compensation versus the second best paid executive in the company
TENURE	The number of years the CEO serves on the job
VALUE M&A	The value of the acquisitions, calculated as the ratio of deal value versus the market value of the acquirer

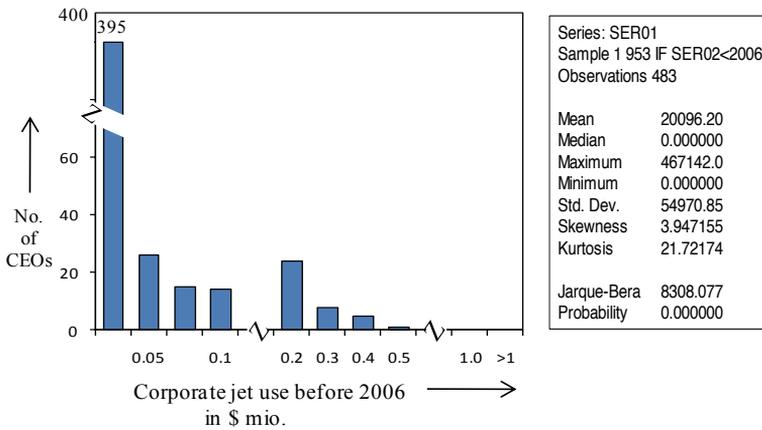
Appendix VI: Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ORDINARY CORRELATIONS															
PUBLICITY	1.000														
AWARDS	0.327	1.000													
LINES_BIO	0.267	0.465	1.000												
CORJETUSE	0.204	0.148	0.163	1.000											
CASHCOMP	0.320	0.248	0.268	0.223	1.000										
TDC1	0.455	0.301	0.219	0.229	0.596	1.000									
RATIOCASH	-0.051	-0.023	0.000	0.080	0.176	0.111	1.000								
RATIOIDC1	0.105	0.107	0.019	0.132	0.079	0.344	0.644	1.000							
RANKCOMP	0.242	0.230	0.125	0.005	-0.072	0.154	-0.404	-0.092	1.000						
CEODUALITY	-0.016	0.006	0.150	0.047	0.101	0.069	0.036	-0.018	-0.018	1.000					
ROLETITLES	-0.077	-0.064	-0.046	0.040	-0.033	-0.032	0.127	0.092	-0.037	0.379	1.000				
GOVINDEX	-0.168	-0.095	-0.042	-0.048	-0.046	-0.142	0.005	-0.030	-0.062	0.111	0.069	1.000			
PHOTO	0.051	-0.016	0.047	0.075	0.072	0.056	0.047	-0.005	-0.039	0.065	0.104	0.022	1.000		
VALUE M&A	-0.047	-0.025	-0.049	0.009	-0.043	0.035	0.011	-0.012	0.009	-0.004	-0.044	0.015	0.050	1.000	
NUMBER M&A	0.248	0.109	0.085	0.076	0.167	0.278	-0.032	0.004	0.066	-0.057	-0.078	-0.132	0.081	0.238	1.000

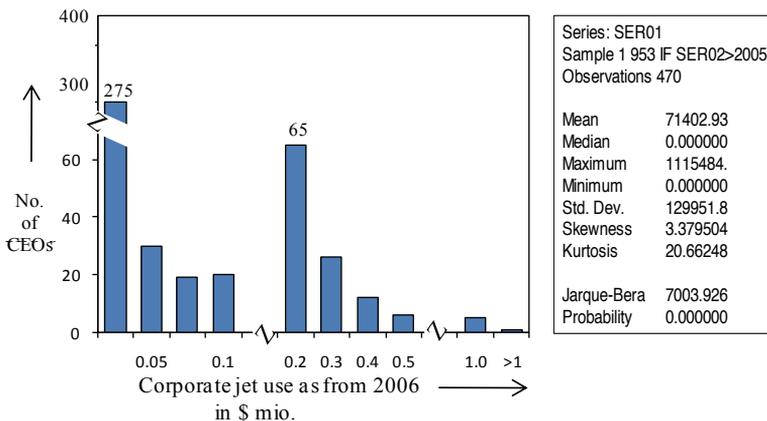
Appendix VII: Changing disclosure rules for private use of the corporate jet

The SEC changed the disclosure rules for the corporate jet in December 2006. The sample is split in two periods to compare the disclosures of the CEO personal use of the corporate jet. The first half of the sample (prior to 2006) contains all measures before the new disclosure rules of 2006, leading to 483 CEO observations with 106 disclosures (22%) and a mean disclosure of \$ 20,096. The second half (after 2006) contains 470 CEO observations with 212 disclosures (45%) with a mean of \$ 71,402. The disclosures increases in numbers and in value as the following two figures depict.

Disclosures before 2006



Disclosures as from 2006



Nederlandse Samenvatting van CEO Narcisme: meting en impact

Introductie

In dit onderzoek wordt de meting en impact van de narcistische persoonlijkheidsdimensie van bestuursvoorzitters³³ beschreven. Een zekere mate van narcisme is noodzakelijk om de top van een organisatie te bereiken. In deze zin heeft narcisme geen negatieve bijklank. Een leider zal immers moeten beschikken over zelfwaardering en de capaciteit om anderen te motiveren. Een narcistische inslag onder bestuursvoorzitters is dan ook eerder regel dan uitzondering. Aangezien narcisme een persoonlijkheidsdimensie is, kunnen bestuursvoorzitters worden ingedeeld van laag tot hoog narcistisch. De bestuursvoorzitters die op deze schaal hoog scoren vertonen het gedrag van een “Zonnekoning”³⁴.

De narcistische persoonlijkheidsdimensie van bestuursvoorzitters kan door de zucht naar macht en erkenning verstrekkende invloeden bewerkstelligen. Deze invloeden worden in de literatuur “CEO-effects”³⁵ genoemd.

Doelstellingen

Dit onderzoek heeft drie doelstellingen. Ten eerste worden de oorzaken en gevolgen van CEO narcisme beschreven en gevisualiseerd in een specifiek ontwikkeld raamwerk. Ten tweede wordt de narcistische persoonlijkheidsdimensie van bestuursvoorzitters van S&P500 bedrijven in de periode 1992 tot en met 2008 objectief gemeten. Ten derde wordt gekeken naar de impact van de narcistische persoonlijkheidsdimensie van bestuursvoorzitters op de financiële resultaten, de tegenmacht en de fraudegevoeligheid.

³³De bestuursvoorzitter/CEO wordt in dit onderzoek mannelijk aangeduid, maar kan ook vrouwelijk zijn.

³⁴Het legendarische voorbeeld van een Zonnekoning is koning Lodewijk XIV die regeerde over Frankrijk van 1643 tot aan zijn dood in 1715. Hij kende zichzelf de “droit divin” toe, hetgeen impliceert dat God de troon aan hem zou hebben toevertrouwd. Hij accepteerde geen tegenmacht en daarom was er geen premier benoemd. Onder zijn regime werden vele oorlogen gevoerd waardoor Frankrijk een leidende macht binnen Europa werd. Lodewijk XIV liet Frankrijk na zijn dood achter in een deplorabele staat met vele schulden, een onredelijk belastingsysteem en corruptie.

³⁵Crossland and Hambrick (2007) definiëren het CEO-effect als “the proportion of variance in a level outcome variable that is statistically associated with, or can be attributed to, the presence of individual CEOs”.

Hoofdstuk 2

Om deze doelstellingen te onderbouwen, wordt in hoofdstuk 2 de problematiek betreffende corporate governance behandeld. Met de term corporate governance wordt goed ondernemingsbestuur bedoeld, waarbij de onderneming efficiënt moet worden geleid en zorg gedragen wordt voor de rechten van alle belanghebbenden. De aandeelhouders zijn in het Anglo-Amerikaanse systeem de belangrijkste belanghebbenden.

De scheiding tussen eigendom en leiding heeft sinds de introductie van het aandeelhoudersformaat in 1602, de oprichting van de VOC, problemen veroorzaakt. Het management heeft niet altijd de belangen van de aandeelhouders op het oog, zodat de maximalisatie van de aandeelhouderswaarde in het geding is. De corporate governance theorieën zijn voornamelijk gebaseerd op rationeel economisch gedrag. Het verklaren van menselijk gedrag vereist echter de incorporatie van irrationaliteit in de rationele corporate governance theorieën. Hiernaast is binnen het onderzoek naar corporate governance de CEO als variabele onderbelicht gebleven. Dit onderzoek richt zich op de CEO en zijn persoonlijkheid als corporate governance variabele.

Hoofdstuk 3

In hoofdstuk 3 wordt de persoonlijkheid van de CEO en de invloed op de effectiviteit van leiderschap uitgewerkt. De CEO als belangrijke corporate governance variabele is onderbelicht gebleven, terwijl de CEO als hoofd van de organisatie juist een overwegende rol speelt. Dat de persoonlijkheid van bestuurders invloed heeft op organisatorische uitkomsten is door Hambrick en Mason vastgelegd in de “upper echelon” theorie (Hambrick & Mason, 1984). In deze theorie spelen de bestuurders een belangrijke centrale rol. De bestuurders met hun persoonlijke percepties, cognities en waarden, beïnvloeden de organisatorische strategie en resultaten. Volgens de “upper echelon” theorie wordt de organisatie een afspiegeling van haar bestuursleden. De bestuursvoorzitter speelt als hoofd van de organisatie een belangrijke rol en heeft in deze hoedanigheid een dominante machtspositie.

De “upper echelon” theorie neemt demografische indicatoren als proxy voor de persoonlijke karakteristieken. Al vanaf de introductie van de “upper echelon” theorie hebben Hambrick en

Mason erkend dat demografische indicatoren minder goed in staat zijn om de persoonlijke percepties, cognities en waarden te benaderen in vergelijking met psychologische constructen. De onderliggende reden om demografische indicatoren te gebruiken, wordt verklaard door de beschikbaarheid van deze demografische indicatoren. In dit onderzoek worden de “CEO-effects” van het psychologische construct narcisme onderzocht.

Narcisme wordt door de DSM-IV (Diagnostic and Statistical Manual of Mental Disorders) geclassificeerd als “*een pervasief patroon van grootsheid (in fantasie of gedrag), behoefte aan bewondering en gebrek aan inlevingsgevoel, meestal beginnend in de vroege volwassenheid en aanwezig in verschillende situaties*” (cursivering is eigen vertaling).

Narcisme vertegenwoordigt de karaktereigenschap zelfliefde, met de daarbij behorende persoonlijkheidskarakteristieken als ijdelheid, hybris³⁶, egoïsme, zelfachting, zelfvertrouwen, dominantie, ambitie en gebrek aan empathie. Zelfachting en zelfvertrouwen aan de buitenkant, want diep van binnen is het tegenovergestelde aan de orde. Het innerlijk van narcisten wordt over het algemeen juist gekenmerkt door een gebrek aan zelfachting en zelfvertrouwen. Narcisten trachten deze tekortkomingen te compenseren door zichzelf als zeer belangrijk te presenteren. Hierdoor zijn narcisten continue op zoek naar bevestiging van hun superioriteit. Dit wordt de narcistische paradox genoemd.

Om zichzelf tegen kritiek te beschermen hebben narcisten de neiging om de gevoelens en het gedrag van anderen te negeren, waardoor hun empathische vermogens onderontwikkeld zijn. Narcisten worden zodoende gedreven door hun eigen persoonlijke egoïstische behoeften naar macht en erkenning (Rosenthal & Pittinsky, 2006).

Op basis van DSM ontwikkelden Raskin and Hall (Raskin & Hall, 1979) de “Narcissistic Personality Inventory” (NPI) met 54 items. Emmons (Emmons, 1984; Emmons, 1987) heeft deze 54 items met behulp van factoranalyse gereduceerd tot de volgende 4 componenten:

- I autoriteit/leiderschap (Ik ben het middelpunt van de aandacht),
- II superioriteit/arrogantie (Ik ben beter dan anderen),
- III zelfbewondering (Ik ben geweldig, fenomenaal en speciaal),
- IV rechthebbend (Ik eis het respect waar ik recht op heb).

³⁶ Hybris kan worden gedefinieerd als overmatig optimisme, arrogantie en trots

Een belangrijke persoonlijke karakteristiek voor effectief leiderschap is narcisme, vanwege de inherente capaciteit om macht uit te oefenen, om anderen aan te sturen en vanwege het streven naar maatschappelijk prestige (Lubit, 2002). Maccoby beargumenteert dat de informele macht, de visie en de aantrekkingskracht op volgers noodzakelijke voorwaarden zijn voor effectief leiderschap en daarom wenselijk voor bestuursvoorzitters (Maccoby, 2001). Narcistische bestuursvoorzitters zijn hierdoor in staat om de organisatie naar een succesvolle toekomst te leiden (Maccoby, 2003). In deze betekenis heeft narcisme geen negatieve bijklank. Een leider zal immers moeten beschikken over zelfwaardering, een drang om gezag uit te oefenen en de capaciteit om anderen te motiveren. Bestuursvoorzitters hebben invloedrijke en machtige posities binnen organisaties hetgeen kan resulteren in een hoogdravende zelfachting (Raskin, Novacek, & Hogan, 1991).

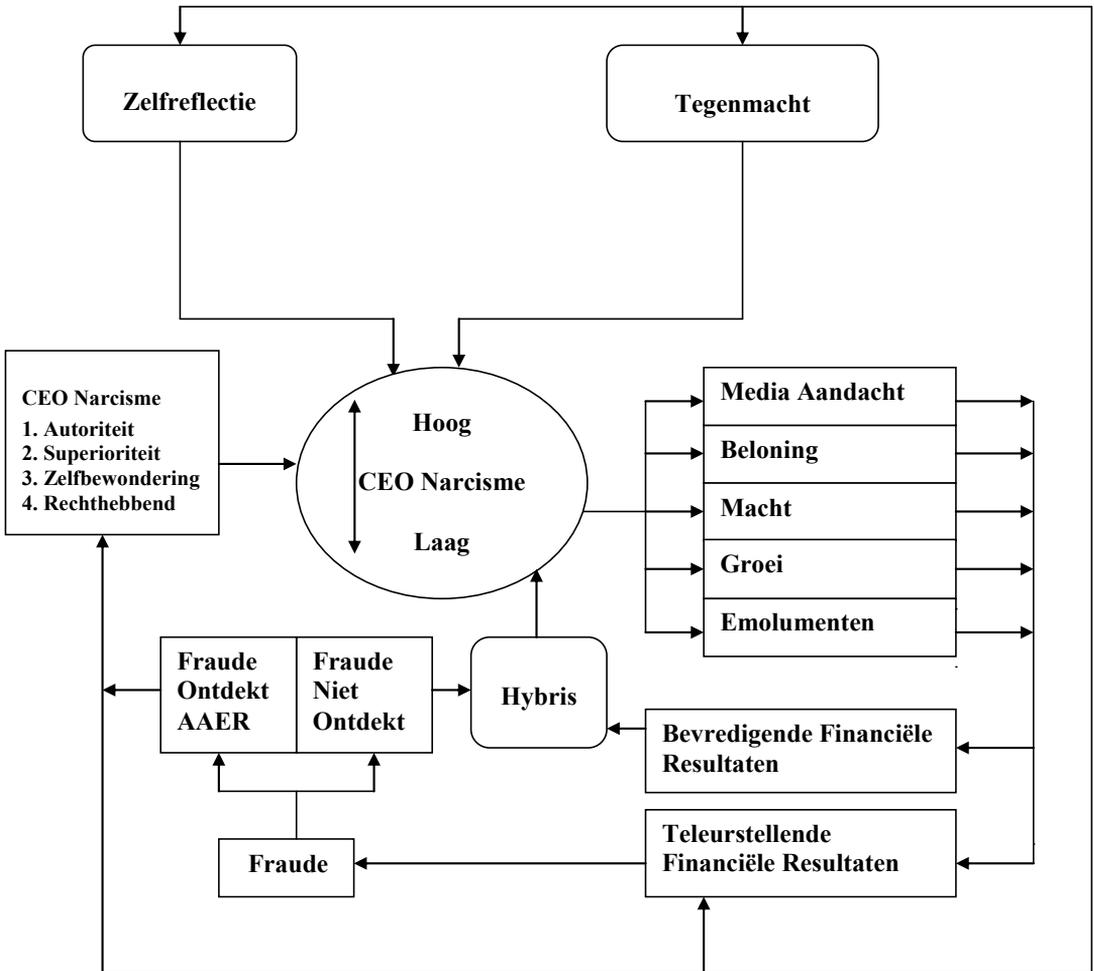
Het Raamwerk

De figuur op de volgende bladzijde visualiseert het raamwerk van een hoog narcistische bestuursvoorzitter als Zonnekoning. De narcistische inslag van de bestuursvoorzitter kan worden gemeten door te kijken naar 5 determinanten, zijnde media aandacht, beloning, macht, groei en emolumenten. Deze determinanten reflecteren de vier componenten van Emmons en worden in hoofdstuk 4 beschreven.

Door de continue behoefte aan bevestiging van hun eigen ego ondernemen hoog narcistische bestuursvoorzitters opzienbarende acties die voor zijn toeschouwers duidelijk waarneembaar zijn (Buss & Chiodo, 1991). De narcistische persoonlijkheid van de bestuursvoorzitter zal invloed uitoefenen op de financiële resultaten, de tegenmacht van de bestuursleden en de fraudegevoeligheid. Deze impact is in de figuur op de volgende bladzijde weergegeven en zal in de hoofdstukken 5, 6 en 7 worden behandeld.

Goede financiële resultaten bevestigen de Zonnekoning in zijn superioriteit en kunnen leiden tot hybris. Zelfreflectie en tegenmacht van raadsleden kunnen het Zonnekoninggedrag in toom houden. Teleurstellende financiële resultaten kunnen door fraude worden verhuld, zodat de Zonnekoningstatus intact blijft. Ingeval de teleurstellende financiële resultaten worden onthuld of de fraude wordt ontdekt, valt de Zonnekoning van zijn troon.

FIGUUR: OORZAKEN EN GEVOLGEN VAN CEO NARCISSISM



Chatterjee en Hambrick (Chatterjee & Hambrick, 2007) noemen drie bezwaren waarom er weinig empirisch onderzoek is verricht naar narcistische leiders.

Ten eerste is narcisme in het verleden beschouwd als een persoonlijkheidsstoornis in plaats van een persoonlijkheidsdimensie. Ten tweede wordt verondersteld dat narcisme slechts incidenteel voorkomt. Ten derde is narcisme moeilijk te meten.

De eerste twee bezwaren, stoornis en incidenteel, zijn door de voortschrijdende psychologische kennis achterhaald en verworpen. Onderzoekers (Emmons, 1987; Raskin & Terry, 1988) hebben namelijk aangetoond dat narcisme een persoonlijkheidsdimensie is waarop individuen van laag tot hoog kunnen scoren. Narcisme is een essentieel onderdeel van ons aller persoonlijkheid (Freud, 1914) en een hoge mate van narcisme (Narcistische Persoonlijkheid Stoornis) komt bij 0,7% tot 1% van de wereldbevolking voor.

Het derde en laatste bezwaar, de meetbaarheid, kan worden overkomen door narcisme te meten met objectieve indicatoren. Een grootschalige inventarisering naar de persoonlijke narcistische persoonlijkheidsdimensie bij bestuursvoorzitters is tot op het moment van dit onderzoek niet uitgevoerd.

De opzienbarende acties van de Zonnekoning laten sporen na die een indicatie vormen voor de narcistische inslag en die objectief kunnen worden gemeten. Deze indicatoren kunnen worden onderverdeeld in vijf determinanten: Media, Beloning, Macht, Groei en Emolumenten. Binnen deze vijf determinanten worden vijftien indicatoren geïdentificeerd die het narcisme construct meten. Deze vijf determinanten en vijftien indicatoren reflecteren de vier componenten van Emmons. De vijftien indicatoren kunnen objectief gemeten worden door gebruik te maken van verschillende databases. Een aantal indicatoren kunnen op eenvoudige wijze gedownload worden, zoals de indicatoren binnen de beloning determinant (met de Execucomp database). De meeste indicatoren moeten echter met de hand verzameld worden. De determinanten en indicatoren zijn opgenomen in de tabel op de volgende bladzijde.

Hoofdstuk 4

Hoofdstuk 4 bespreekt in het eerste deel de 5 determinanten en de 15 indicatoren waarop de narcistische persoonlijkheidsdimensie van bestuursvoorzitters is gebaseerd. Het tweede deel van hoofdstuk 4 bevat een beschrijving van de data en het derde deel van het hoofdstuk de constructie van de narcisme schaal voor bestuursvoorzitters.

De datacollectie is gebaseerd op Amerikaanse S&P500 bedrijven en hun bestuursvoorzitters die uit de Compustat Execucomp database worden geselecteerd. Er worden aan bestuursvoorzitters twee filters opgelegd om in de dataverzameling te worden opgenomen.

Determinant	Objectieve indicator
Media	<ol style="list-style-type: none"> 1. Aantal perspublicaties 2. Aantal prijzen 3. Aantal lijnen in de Who's Who 4. Aanwezigheid en grootte van foto(s) in het jaarverslag
Beloning	<ol style="list-style-type: none"> 1. Cash beloning (Salaris & Bonus) 2. Totale beloning 3. Ratio Cash beloning bestuursvoorzitter/tweede best betaald bestuurslid 4. Ratio Totale beloning bestuursvoorzitter/ tweede best betaald bestuurslid 5. Compensatie rang
Macht	<ol style="list-style-type: none"> 1. Dualiteit 2. Governance Index van Gompers 3. Aantal rolltitels van de bestuursvoorzitter
Groei	<ol style="list-style-type: none"> 1. Aantal acquisities 2. Omvang van de acquisities
Emolumenten	<ol style="list-style-type: none"> 1. Gebruik van het bedrijfsvliegtuig

Ten eerste worden alleen bestuursvoorzitters geselecteerd die hun ambtsperiode na 1 januari 1992 beginnen. Deze filter wordt opgelegd, vanwege het feit dat data voor 1992 slechts in geringe mate digitaal beschikbaar is. Een tweede filter selecteert alleen die bestuursvoorzitters die een ambtsperiode van meer dan drie jaren hebben vervuld om de effecten van een individuele bestuursvoorzitter op de bedrijfsprestaties gefundeerd te kunnen meten. Deze tweede filter is gebaseerd op de “life-cycle” theorie van Hambrick en Fukutomi (Hambrick & Fukutomi, 1991). De “life-cycle” theory impliceert dat een bestuursvoorzitter drie jaren nodig heeft om een eigen inbreng te implementeren. De periode van drie jaren wordt empirisch bevestigd door Gabarro (Gabarro, 1987) en tevens door dit onderzoek waarin narcisme herkenbaar wordt bij ambtsperiodes vanaf het vierde jaar. Deze twee filters resulteren in een sample van 953 bestuursvoorzitters die gedurende de jaren 1992 tot en met 2008 een S&P 500 bedrijf leiden.

De 953 bestuursvoorzitters worden cross-sectioneel geanalyseerd, zodat alle tijdsafhankelijke indicatoren over de gehele ambtstermijn worden gemiddeld. De achterliggende reden voor het

middelen over de gehele ambtstermijn is het feit dat narcisme geen statisch, maar een dynamisch construct is. Dit resulteert in een cross-sectionele database van 953 observaties en 15 narcisme indicatoren.

Om eventuele problemen van multicollineariteit en dimensionaliteit te reduceren, wordt over deze 15 indicatoren een principale componenten analyse toegepast. De resultaten van de principale componenten analyse zijn opmerkelijk, omdat de 15 indicatoren terugkomen in 4 principale componenten die de 4 factoren van Emmons weerspiegelen. De factorladingen van deze 4 principale componenten worden gebruikt om bestuursvoorzitters een narcisme score toe te kennen. De score heeft de vereiste variantie voor het dimensioneel narcisme construct. Van de 953 CEO's scoort 1% uitzonderlijk hoog, hetgeen in lijn is met de bevinding dat een Narcistische Persoonlijkheid Stoornis bij ongeveer 0,7% tot 1% van de bevolking voorkomt.

De narcisme score wordt gebruikt om de invloed van Zonnekoninggedrag op de financiële resultaten (hoofdstuk 5), de tegenmacht (hoofdstuk 6) en fraudegevoeligheid (hoofdstuk 7) te analyseren.

Hoofdstuk 5

Hoofdstuk 5 bespreekt de invloed van de narcistische persoonlijkheidsdimensie van bestuursvoorzitters op de financiële resultaten. Veel onderzoek concentreert zich op de financiële resultaten van een specifiek jaar, meestal het daaropvolgende jaar. Een persoonlijkheidskenmerk als narcisme heeft echter een lange termijn impact, zodat de gemiddelde financiële resultaten gedurende de ambtstermijn als afhankelijke indicator in beschouwing worden genomen. De financiële prestaties worden gemeten met de accounting maatstaf ROA³⁷ en de markt gerelateerde maatstaf Tobin's Q³⁸. De waardecreatie door bestuursleden kan het beste door ROA worden verklaard (Paul, 1992).

³⁷ ROA staat voor "Return On Assets" en is een financieel kengetal van winstgevendheid. Bij de berekening van ROA wordt de netto winst gerelateerd aan de waarde van de totale activa.

³⁸ De Tobin's Q is een kengetal waarbij de marktwaarde van de totale activa gerelateerd wordt aan de boekwaarde van de totale activa.

Narcisme is gerelateerd aan leiderschapsposities, maar garandeert geen effectiviteit (Rosenthal & Pittinsky, 2006). De mate van narcisme bij bestuursvoorzitters kan productieve of destructieve invloeden hebben op de financiële resultaten.

De opzienbarende acties kunnen al dan niet resulteren in succes. Indien de opzienbarende acties succes opleveren, gaan hoog narcistische bestuursvoorzitters nog meer geloven in hun superioriteit. De hoog narcistische bestuursvoorzitters worden bewonderd en blindelings gevolgd. Een bestuursvoorzitter die hoog scoort op de narcistische persoonlijkheidsdimensie zal het succes aan zichzelf toeschrijven, de zogenoemde interne attributie. Hoe groter het succes, des te groter de macht en des te kleiner de tegenmacht. Er ontstaat overmoedigheid en hybris. De narcistische inslag heeft in dit geval de potentie zich verder te ontwikkelen.

Zonnekoningen gebruiken hun organisaties als hulpmiddel om zodoende het hoogst mogelijke narcistisch niveau te bereiken, zijnde grandeur, aandacht en applaus. Zonnekoningen initiëren meer veranderingen, zijn continue op zoek naar grandeur en ondernemen opzienbarende acties die het publiek duidelijk kan waarnemen (Finkelstein & Hambrick, 1996).

Het is van belang te weten of deze opzienbarende acties resulteren in een hoger of lager financieel resultaat.

Een lineair regressie toont aan dat er een negatief verband bestaat tussen de mate van narcisme en de financiële resultaten. Bij de accounting maatstaven ROA is deze relatie statistisch significant. Sensitiviteitstesten bevestigen de statistisch significante negatieve relatie voor twee andere accounting maatstaven ROE en ROS³⁹.

Een zekere mate van narcisme is noodzakelijk voor effectief leiderschap. Het veelvuldig voorkomen van narcisme onder bestuursvoorzitters en hun mogelijke val geeft aan dat er ook negatieve aspecten verbonden zijn aan het narcisme construct. Volgens de theorievorming van Kets de Vries (de Vries, 1997; Kets de Vries, 1998) zal een lage dosis narcisme resulteren in hogere financiële resultaten, terwijl een overdosis narcisme destructief wordt.

³⁹ ROE en ROS staan voor "Return On Equity" en "Return on Sales" en zijn financiële kengetallen van winstgevendheid. Bij de berekening van ROE/ROS wordt de netto winst gerelateerd aan de waarde van het eigen vermogen/omzet.

Om onderscheid te kunnen maken tussen productief versus destructief narcisme, wordt een curvilineaire regressie uitgevoerd van de narcistische score op de financiële maatstaven.

De resultaten wijzen op een concaaf verband tussen de narcistische persoonlijkheidsdimensie van bestuursvoorzitters en de financiële accounting maatstaven. Deze resultaten zijn statistisch significant voor de accounting maatstaven ROA, ROE en ROS. De hogere R^2 geeft aan dat het kwadratisch model meer verklarende kracht heeft dan het lineaire model.

Dit empirisch onderzoek bevestigt het psychologische perspectief dat narcisme een essentieel element is voor effectief leiderschap, maar tevens een potentieel gevaar vormt wanneer een overdosis narcisme resulteert in destructief gedrag. Een zekere mate van narcisme leidt derhalve tot een hogere financiële prestatie, terwijl een hoge mate van narcisme bij bestuursvoorzitters afnemende financiële prestaties tot gevolg heeft.

Hoofdstuk 6

Hoofdstuk 6 analyseert de relatie tussen de narcistische persoonlijkheidsdimensie bij bestuursvoorzitters en de tegenmacht van de leden van de RvB en RvC. Succes leidt tot winst en stijgende aandelenwaarde, maar succes leidt ook tot macht en status bij de bestuursvoorzitter die een voortdurende bewaking vereisen. Deze bewaking kan de resultante zijn van zelfreflectie bij de bestuursvoorzitter of voortvloeien uit de tegenmacht van de leden van de RvB en RvC. Zonnekoningen dulden geen tegenmacht en omgeven zich met jaknikkers en volgers en stellen nieuwe bestuursleden voor. Deze door de bestuursvoorzitter aangestelde bestuursleden ervaren een reciprociteit waardoor de tegenmacht zal verminderen. De Zonnekoning heeft minder tegenmacht en zal uiteindelijk een alleenheerser worden.

Er zijn twee proxies voor de tegenmacht van bestuursleden. De eerste betreft het aantal bestuursleden. Des te groter het aantal bestuursleden, des te kleiner de tegenmacht. Dit vanwege het feit dat een groot bestuur eenvoudiger is aan te sturen door de bestuursvoorzitter (Coles, Daniel, & Naveen, 2008; Firstenberg & Malkiel, 1994; Jensen, 1993; Lipton & Lorsch, 1992; Yermack, 1996). De tweede proxy kijkt naar het aantal wisselingen binnen het bestuur. Hoe meer wisselingen binnen het bestuur, des te minder tegenmacht, doordat de nieuwe bestuursleden tijd nodig hebben om zich in te werken en doordat de reciprociteit

gevoelens weinig tegenmacht zullen geven (Boeker, 1992; Shivdasani & Yermack, 1999; Wade, O'Reilly III, & Chandratat, 1990).

De resultaten van het onderzoek geven aan dat er een statistisch significant positief verband bestaat tussen de mate van narcisme en de omvang van het bestuur evenals een statistisch significant positief verband tussen de mate van narcisme en het aantal wisselingen binnen het bestuur. Zonnekoningen hebben, mede door hun eigen besluiten in een eerder stadium, minder tegenmacht van de bestuursleden.

Hoofdstuk 7

Hoofdstuk 7 kijkt naar de relatie tussen de narcistische persoonlijkheidsdimensie bij bestuursvoorzitters en de fraudegevoeligheid. Indien de opzienbarende acties geen succes (meer) opleveren, zal de status van de bestuursvoorzitter afnemen. Om de afnemende resultaten te verhullen kan de financiële rapportage worden gemanipuleerd. De Zonnekoning zal tot het uiterste gaan om zijn status te behouden en te pretenderen dat het bedrijf floreert, ook als de financiële resultaten teleurstellend zijn. Fraude behoort tot de mogelijkheid om zijn status te behouden. De Zonnekoning zal van zijn troon vallen wanneer de negatieve resultaten en de fraude aan het licht komen. De fraudegevoeligheid zal bij Zonnekoningen hoger zijn dan bij bestuursvoorzitters die laag scoren op de narcistische persoonlijkheidsdimensie.

De fraude wordt gemeten met behulp van de “Accounting and Audit Enforcement Releases (AAER’s) van de SEC. Deze AAER’s worden door de SEC uitgevaardigd wanneer er een zekere verdenking van fraude bestaat en op de SEC’s website gepubliceerd. De SEC wordt voornamelijk door klokkenluiders geïnformeerd over mogelijke fraude en initieert pas een onderzoek indien er voldoende onderbouwing van de aanklacht is.

Uit de 2680 AAER’s blijkt dat er 54 van de 953 sample bestuursvoorzitters zijn betrokken in een fraudezaak van de SEC. De 54 bestuursvoorzitters die voorkomen in een AAER worden gesteld tegenover de 899 overige bestuursvoorzitters die niet voorkomen in een AAER. Fraude wordt in het statistisch model behandeld als een binaire indicator, waarbij de narcistische score van de bestuursvoorzitters wordt opgenomen als verklarende indicator.

De resultaten van de logit en probit analyses zijn statistisch significant en laten zien dat de hoog narcistische bestuursvoorzitters een grotere kans hebben om fraude te plegen.

Hoofdstuk 8

Hoofdstuk 8 bespreekt de belangrijkste conclusies, de beperkingen van het onderzoek, de praktische implicaties en de mogelijkheden voor toekomstig onderzoek.

De resultaten liggen in lijn met de psychologische theorievorming en het theoretische raamwerk: een zekere mate van narcisme is productief voor de financiële resultaten terwijl een hoge mate van narcisme destructief is voor de financiële resultaten. Daarnaast is een hoge narcistische persoonlijkheid van bestuursvoorzitters negatief gerelateerd aan de mate van tegenmacht van het bestuur en positief gerelateerd aan de fraudegevoeligheid.

Dit onderzoek is praktisch relevant voor meerdere redenen. Zonder uitpuittend te zijn, worden de volgende vier redenen beschreven. Ten eerste kan het narcisme construct objectief gemeten worden door de sporen te onderzoeken die de bestuursvoorzitters achterlaten. Ten tweede is het voor alle stakeholders van belang te weten dat narcisme een essentieel onderdeel is voor effectief leiderschap. Narcisme moet echter goed worden gecontroleerd en in bedwang worden gehouden, omdat een hoge dosis narcisme resulteert in afnemende financiële prestaties, minder tegenmacht en een hogere fraudegevoeligheid. Deze bevindingen zijn cruciaal voor alle stakeholders. Ten derde is het initiëren van bewustzijn essentieel. Een bestuursvoorzitter met een hoog narcistische inslag tolereert geen tegenmacht, waardoor de bestuursvoorzitter vrij spel heeft om zijn opzienbare acties uit te voeren. Deze opzienbarende acties zijn voor het publiek duidelijk waarneembaar en bevredigen de behoefte van de Zonnekoning naar aandacht en bevestiging van zijn grandeur. De acties zijn echter potentieel destructief voor het bedrijf. De bestuursleden die zich bewust zijn van het narcisme construct en dit nauwlettend volgen, zullen sneller geneigd zijn om in te grijpen, zodat de tegenmacht van de raadsleden intact blijft. Ten slotte resteren de praktische implicaties voor de financiële afdeling. De jaarrekening dient een getrouwe weergave van de financiën te zijn. Boekhoudfraude om de status van de Zonnekoning te behouden dient te allen tijde te worden vermeden. Accountants moeten zich bewust zijn van de fraudegevoeligheid van een hoog narcistische bestuursvoorzitter.

Curriculum Vitae

Antoinette Rijsenbilt (Tholen, May 15th , 1968) received her doctoral degree in Business Economics in 1991 from the Erasmus University Rotterdam. She worked as a financial controller for multinational and SME companies until 2009. During the 1990th she studied psychology at the University of Amsterdam and in 2006 she received her degree as first grade lecturer from the Vrije University of Amsterdam. From 2006 to 2009 she combined her financial controlling work with lecturing at a pre-university school (VWO). Since 2009 she participates the Mature Talent Program of the Erasmus University Rotterdam to write a PhD. Her research interests include behavioral economics and accounting.

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CEO NARCISSISM MEASUREMENT AND IMPACT

This research describes the objective measurement of CEO narcissism and its impact on organizational outcomes. Narcissism forms an essential element for effective leadership and is as such an important personal characteristic for CEOs.

CEO narcissism can be measured by investigating five determinants of CEO behavior, comprising media exposure, compensation, power, growth and perquisites. The CEO narcissism score is based on these five determinants by a massive data collection of fifteen objective variables for 953 S&P500 CEOs. The composed CEO narcissism score reflects the psychologically validated factor solution of narcissism. CEOs who have been identified as narcissists by leading psychologists have a top score in this research.

The results of the first empirical impact study show an intricate relationship between CEO narcissism and financial accounting performance measures which can be visualized by a concave parabola. This relationship confirms the view that narcissism is an essential element for effective CEO leadership, but is however not without its pitfalls for either too low or too high levels of narcissism.

The results of the second empirical impact study indicate a negative relationship between CEO narcissism and countervailing power of the board. High narcissistic CEOs do not tolerate contradiction and surround themselves with followers.

The third impact study examines the relationship between CEO narcissism and fraud propensity as alleged in AAERs by the SEC. The results show that high narcissistic CEOs are more inclined to commit managerial fraud to keep up appearances and retain their status.

The empirical results theoretically contribute to the psychological perspective of narcissism as a double edged sword and provide an indication to expand the upper echelon theory with the CEOs narcissistic personality.

The practical contribution of this research enables stakeholders to monitor CEO narcissism by applying objective measures and trying to retain productive CEO narcissism levels.

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