

CEO Compensation and Corporate Governance Surrounding Mergers and Acquisitions

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A Thesis

in

The John Molson School of Business

Presented in Partial Fulfillment of the Requirements

for the Degree of Master of Science in Administration at

Concordia University

Montreal, Quebec, Canada

August 2012

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Abstract

CEO Compensation and Corporate Governance Surrounding

Mergers and Acquisitions

Allan Grogan

While many studies have investigated excess CEO compensation, few empirical studies have focused on the impact of compensation inequities between top managers and other members of top management on managerial decision making. Even fewer to date have done so in the context of mergers and acquisitions. This thesis contributes to the domain of CEO compensation and merger and acquisitions. We find that differences in compensation between the CEO and the next highest paid executives are related to lower ownership of common equity by the CEO in a firm. In addition, we also find CEO duality and larger firms are also associated with larger inequities in compensation. Our contention is that poor governance mechanisms may lead to both poor management and decision making and high compensation inequities. To determine the validity of this claim, we regress the offer premium, abnormal returns, and the likelihood of hostility on unexplained inequities in compensation. We find no evidence that unexplained inequity influences the offer premium. In addition, we find a slightly negative effect of unexplained compensation on abnormal returns. Finally, we find no effect of this abnormal inequity component on the likelihood of a hostile takeover attempt.

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I. Introduction

The central premise of this study surrounds compensation discrepancies between CEOs and other top executives within an organization. Although compensation inequalities exist at all levels of an organization, many intricate and interrelated factors determine how a top manager is paid. It is nearly impossible to obtain data from CEO participation in laboratory studies; however using secondary objective data can prove just as fruitful. The background or environment of this study entails equity theory, as advanced by Adams and Jacobson (1963a) and Adams (1965). Recent studies of CEO overconfidence (Malmander and Tate, 2005) in corporate investment as well as on the merger and acquisition (M&A) process (Doukas and Petmezas, 2007; Malmander and Tate, 2008; and John, Liu, and Taffler, 2011) and CEO narcissism (Chatterjee and Hambrick, 2007; Atkas, De Bodt, Bollaert, and Roll, 2011) indicate a new domain of research into corporate governance. This study contributes to the current literature on corporate governance and the decision making process by exploring more than one element (e.g. offer premium) in the M&A process. Our contention is that poor corporate governance, as manifested in part by inequities in CEO compensation relative to that of the next highest paid executive, leads to poor managerial decision making regarding M&A activity.

This thesis is organized as follows: Section II further elaborates on the existing research literature concerning equity theory, CEO compensation, corporate governance as well as mergers and acquisitions. Section III explains the hypotheses tested while Section IV describes the testing procedures and models employed in this study. Section V lists the various sources of data and collection procedures followed by results in Section VI

and their interpretations. Section VII concludes with summarizing the hypotheses and results. Finally, Section VIII addresses the limitations of this thesis and offers direction for further research.

II. Background

a. Equity theory

This theory is based on perceptions of an individual's allocation of their outcome/input ratio relative to the outcome/input ratio of comparative others. More precisely, "outcome" refers to compensation received while "input" represents both investments placed in an exchange relationship, typically measured as time, energy, education, and skills of employees. In this thesis, employees refer to the next highest level of management. Adams (1965) contends if the individual (in this study, upper management) experiences a sense of inequity relative to comparative others (CEO), a sense of discrepancy will arise in the exchange relationship, and he will take corrective measures to restore equity to the situation. A less rigid conceptualization of distributive justice was earlier advocated by Homans (1961) who posited that an individual who experiences dissatisfaction may or may not correct the inequity.

As mentioned earlier, the basis of this study does not rest with correcting distributive injustices, but rather to acknowledge that it may exist in firms where CEO compensation greatly exceeds that of subordinates. Since many upper management executives who experience a discrepancy are not in a position to correct any compensation inequalities, a more fitting construct of distributive justice advocated by Homans (1961) is appropriate. Concerning terminology, a caveat is necessary: given that inequity may or may not exist among members of an organization given discrepancies in

compensation, it nonetheless implies the state of not being equal in absolute terms. Therefore, for convenience we will refer to unequal compensation as “compensation inequity”. The main purpose of this study however, is not to determine the relative disparity between top management executives but rather to examine how compensation inequities at the highest levels of an organization will affect M&A decision making (O’Reilly, Main, and Crystal, 1988).

b. Overview of Compensation

CEO compensation has been a contentious issue since the mid 1980’s when compensation levels were found to be rising at higher rates than salaries of the average worker. In a sample of the 500 largest firms in the United States (Standard and Poor’s 500 index), the average CEO salary in 1980 was \$1 million (Forbes, 2011). By 2000, this amount ballooned to \$13.8 million. In relative terms, CEOs of these same S&P 500 firms in 1970 were paid a salary 25 times the average worker. This metric at the time was composed mostly of base salary and very little additional compensation (Murphy, 1999). By 1996, total compensation was reported by Murphy to exceed 200 times the average worker’s salary. In addition, the CEO earns approximately 50% more compensation than other corporate executives at the next highest level (Hayward and Hambrick, 1997). The catalyst behind this inflated multiple is attributed to the increased usage of bonuses and stock option awards.

In part response to large salaries and bonuses are less visible compensation schemes such as stock and option awards as advocated by agency theory (Jensen and Meckling, 1976; Jensen and Murphy, 1990a). These compensation schemes align the interests of principals (e.g., owners, shareholders) with that of agents (e.g., managers).

Although a well-designed compensation structure may align managers' interests with that of shareholders (Morck, Schleifer and Vishny, 1988), a poorly designed scheme may bring the unintended consequences of overconfident CEOs wishing build their empires through mergers and acquisitions (Bebchuk and Fried, 2003). A recent study by Tosi, Werner, Katz, and Gomez-Mejia (2000) examined the overall effectiveness of plans purporting to link equating pay to firm performance. In a meta-analytic study, they found that firm performance explains less than 5% of CEO compensation while firm size explains nearly 40% of total compensation. These findings indicate that CEOs are paid based on the size of the firm under their control rather than on their leadership abilities.

Excess CEO compensation has also has been wrought with criticism from practitioners (Crystal, 1991) and academics (Wilhelm, 1993; Wade, O'Reilly, and Pollock, 2006; Harris, 2009) alike. In light of these controversial pay schemes, some scholars and practitioners have argued in favor of simpler pay structures. Crystal (1991) noted that while CEOs earn more every year, they are still compensated with larger salaries for mediocre or even poor performance. She suggests these top managers should be paid no more than 20 times the salary of the lowest-paid employee, an idea also proposed by J.P. Morgan in 1896 (Ellig, 2006) and Peter Drucker (1984). One possible solution that has arisen in recent years is to restrict CEO pay (O'Reilly and Main, 2007) to a flat-rate salary like those received by managers in the public sector (Frey and Osterloh, 2005). Recently, Dittman, Maug, and Zhang (2011) proposed restricting compensation by stock options since managers are increasingly rewarded for taking more risk at the expense of shareholders.

c. Overview of mergers and acquisitions

A merger is defined by Gaughan (2007) as “a combination of two corporations where one corporation survives and the merged corporation goes out of existence” (p. 12). Firms normally undertake mergers and acquisitions to accomplish strategic objectives such as increasing market share, pursuit of cost and revenue synergies, and to consolidate within an industry among other reasons (Gaugan, 2007). Mergers are typically conducted on friendly terms when the acquiring (bidding) firm indicates interest in purchasing the target firm. After a series of negotiations, management from both the bidding and target firm agree on the dynamics of the deal and the merger is completed shortly thereafter (Gaughan, 2007). In some cases however, the target firm’s management will refuse. If management in the acquiring firm still chooses acquire the target firm, a hostile takeover attempt will ensue. This is normally done with management from the acquiring firm appealing directly to the target firm’s shareholders to sell their shares to the acquiring firm, usually for a much higher price than the current market price. In both friendly and hostile acquisitions, the acquirer usually pays a premium to purchase stock in the target firm. In the latter case, however, it has been found that offer premiums are, on average, significantly higher (Hanouna, Sarin, and Shapiro, 2001).

In the finance literature, one way to measure and examine firm performance around a recorded event such as dividend or merger announcement is with an event study. A concise description is given by Kothari and Warner (2008) “Event studies examine the behavior of firms’ stock prices around corporate events” (p. 5). The formula that outlines this process is given as

$$\text{Return}_{it} = \text{Expected}_{it} + e_{it}, \quad (1)$$

Where, $Return_{it}$ is the actual return on security (i) at time (t), $Expected_{it}$ is the forecasted or expected return for security (i) at time (t), and e_{it} is the ‘abnormal’ or ‘unexpected’ return. In event studies, we are particularly concerned with the abnormal returns surrounding a particular announcement date. When working with more than one observation, namely multiple securities around different announcement dates, we sum with the following equation given by

$$- \tag{2}$$

$$\tag{3}$$

Where (N) is the total number of firms, (t) is the date relative to the announcement date, are the abnormal returns at relative date (t) and are the cumulative abnormal returns summed from t_i to t_j . If the abnormal returns are significant, this suggests that security returns were influenced by the event in question. When measuring abnormal returns, different event windows are selected depending on the time frame of interest relative to the merger. For example, a 3-day CAR around the event window is listed as [-1, +1] indicating the cumulative abnormal returns accrued to the acquiring or target firm. Other event windows can focus on abnormal returns before the announcement (i.e., [-10, -2]) or post announcement (i.e., [+2, +10]) depending on the study in question.

Typical abnormal returns accrued to the acquiring firm are, on average, less than that of the target firm. Moeller, Schlingemann, and Stulz (2004) found acquirer abnormal returns for larger firms to be less than 1% over a 3-day event window surrounding the announcement date. In addition, Moller et al. (2004) noted acquiring firm losses after 1997 have substantially increased. In addition, they found public acquirers experience average losses on 1% over a 3-day event window. This is also confirmed in a later study

by Moeller et al., (2007). The previous observation regarding acquirers is completely opposite to the observations in reference to target firm returns. In a vast review of the literature of mergers and acquisitions, Betton, Eckbo, and Thorburn, (2008) also noted this phenomenon across studies. In addition, they examined M&A activity between 1980 and 2005 and found target firm abnormal returns to average 14.6% over a 3-day event window. Consistent with previous studies, they also found acquiring firm abnormal returns to be close to zero depending on factors such firm size, method of payment, and merger attitude.

d. Related Research

Since this study focuses on poor M&A decisions as a result of weak governance, we will first review some recent literature to define the scope and foundation of this study. One of the first studies on this topic was performed by Hambrick and D'Aveni, (1992) to measure CEO outside the scope of M&A. Using governance metrics and compensation ratios relative to that of the next highest paid executive, they found firms with dominant CEOs were more associated with corporate bankruptcy. While they do not stress causality, they did find a linkage between these types of managers and organizational failure. In related studies, Hayward and Hambrick (1997) and Roll (1986) investigated CEO hubris. Hayward and Hambrick operationalized hubristic CEOs by incorporating factor analysis of various hubris indicators such as CEO duality, media praise, and compensation inequity ratios. They found hubristic CEOs tend to overpay for acquisitions by nearly 5% relative to non-hubristic managers. Malmandier and Tate (2008) also investigated CEO overconfidence. They found overconfident acquiring CEOs pursue more acquisitions. In addition these acquiring firms experienced lower 3-day

abnormal returns relative to non-overconfident managers. The authors operationalized overconfidence as a combination of media coverage and option holdings. Liu et al. (2011) investigated both acquirer and target firm CEOs in the M&A process. They define overconfidence as early option exercises and media portrayal. They found overconfident acquiring and target firm CEOs contribute to offer premiums in excess of 2% to 5% relative to non-overconfident CEOs and these same acquiring firm experience negative 3-day abnormal returns.

e. Introduction to narcissism

In the past five years, research into narcissism has been extended from psychology and other social science domains into the fields of management and corporate governance (Judge, LePine, and Rich, 2006; Rosenthal and Pittinsky, 2006; Chatterjee and Hambrick, 2007; Aktas, De Bodt, Bollaert, and Roll, 2010). Since many clinical definitions of narcissism are similar in meaning, we will first focus on the description given by Kets de Vries (1993). Then, we will describe the characteristics and actions of constructive and destructive components of this disorder. It will also deserve mention how real life cases of this personality trait manifest itself into the workplace and at the executive level. Finally, recent and related research on destructive narcissism and how it drives top managers to make poor decisions will be examined.

Kets De Vries (1993, 2006), states that narcissism is an imbalance between grandiosity and helplessness sustained early in childhood or adolescence. It is normally activated later in life if this deficiency is not corrected in one's youth (1993). Although many individuals do not fully overcome this disorder, many are able to channel and harness these feelings in a positive manner. This concept is known as constructive

narcissism (Lubit, 2002; Rosenthal and Pittinsky, 2006). Many successful leaders and entrepreneurs are able to prosper in their respective positions when they exude confidence, poise, and inspire others, particularly by inspiring their subordinates through what Kets de Vries (1993) describes as self-assertion. In addition, they can exhibit creativity (Rosenthal and Pittinsky, 2006); an attribute much in demand for higher leadership positions. Many successful leaders as a result of constructive narcissism have displayed charisma (Maccoby, 2000; Rosenthal and Pittinsky, 2006; Humphreys, Zhao, Ingram, Gladstone, and Basham, 2010) enabling them to accede to their present positions of power and influence. This is also echoed by Kets de Vries and Miller (1985) arguing that a certain amount of narcissism is healthy for leadership positions.

Unfortunately, many narcissists exhibit a less glamorous side of this personality trait in what is known as destructive or pathological narcissism (Kets de Vries, 1985; Lubit, 2002; Rosenthal and Pittinsky, 2006). The same authors describe destructive narcissism as (DN) a negative aspect of the narcissism construct where the leader suffers from grandiosity, lacks values, belittles others of lower stature, seeks excitement, seeks continuous reinforcement in areas they feel lacking, and exhibits a sense entitlement. All of these attributes are consistent with the formal definition found in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) published by the American Psychological Association (APA, 2000). Rosenthal and Pittinsky (2006) describe actions of these individuals in leadership positions as being driven by egomaniacal taking precedence over the needs of shareholders and stakeholders alike. Often times, it is too late to detect and deal effectively with destructive narcissistic CEOs once he/she has already risen through the hierarchy of the organization to obtain the top management

position. As Kets de Vries (1993) cites, “.... many narcissistic people, with their need for power, prestige, and glamour, eventually end up in leadership positions” (p. 33). In addition, the author posits that traditional agency theory measures are typically ineffective in mitigating this behavior.

f. Poor M&A decision making

Narcissistic managers often satisfy their innate needs engage in “grandiose projects” (Cannella and Monroe 1997, p. 227). As described by Chatterjee and Hambrick (2007), acquisitions of large firms “are among the most visible initiatives a CEO can take” (p. 359). Therefore, they will strive to build their empires through mergers and acquisitions and it is hypothesized they will do so more than CEOs who do not exhibit such personality traits.

To operationalize this construct, Chatterjee and Hambrick constructed a scale consisting of the following four major conceptual facets of narcissism employed by Emmons (1987). The four dimensions consist of the following: Exploitativeness and Entitlement; Leadership and Authority; Superiority and Arrogance; and Self-Absorption and Self-Admiration. Using unobtrusive indicators of first singular pronoun usage, analysis of annual reports featuring the CEOs photograph, and CEO relative compensation, Chatterjee and Hambrick matched those indicators with the four major narcissism scale elements of Emmons (1987). For example, CEO relative compensation corresponds with the Superiority and Arrogance as well as the Exploitativeness and Entitlement components of this construct. Although this thesis lacks all the unobtrusive indicators employed by Chatterjee and Hambrick, our use of compensation inequity is sufficient to capture two of the four principal elements of narcissism in their study.

Although the two elements of Entitlement and Superiority may be insufficient to completely operationalize narcissism in top managers, we feel these components are associated with poor managerial decision making in M&A activity in the presence of weak internal and external mechanisms of corporate governance.

III. Hypotheses

The previous section explained how excessive compensation and major management decisions are interrelated. While excess CEO compensation can not only invoke feelings of injustice with the average worker, it may create problems within upper management (Wade, O'Reilly, and Pollock, 2006). When this occurs, a significant CEO pay inequity may indicate the firm is being helmed by an overconfident CEO wielding excessive power and influence (Hambrick and D'Aveni, 1992). As mentioned in the previous section, compensation inequity at the least may be associated with poor managerial decision making. We stress however that stronger governance mechanisms may prevent this from occurring.

Hypothesis I. The greater the disparity in compensation between the acquiring firm CEO and upper management of an acquiring firm, the greater the share price (offer premium) paid necessary to acquire a target firm.

As previously mentioned, compensation disparities in levels of management may signal a potential governance problem. In light of the large compensation increases CEOs have received in larger companies (Mueller, 1969; Murphy, 1999) and over time (Hanouna, et al., 2001), these CEOs who enjoy large compensation discrepancies could use M&A activity as a justification to build their empires and justify salary increases. As the aforementioned studies by Hayward and Hambrick, (2007) and Malmandier and Tate,

(2008) found overconfident CEOs to overpay for acquisitions. We postulate that elements of these same studies, notably CEO duality and greater compensation relative to other executives are associated with poor M&A decision making supporting Hypothesis I.

Hypothesis IIa. Acquiring firms with greater disparities in compensation between the CEO and the next highest paid executive officer are more likely to experience lower abnormal returns relative to firms where compensation disparities are smaller.

Hypothesis IIb. Target firms with greater disparities in compensation between the CEO and the next highest paid executive officer are more likely to experience lower abnormal returns relative to firms where compensation disparities are smaller.

As mentioned earlier, acquiring firms led by overconfident CEOs have been associated with lower abnormal return in relation to their counterparts (Doukas and Petmezas, 2007; Atkas et al, 2011; Liu et al., 2011). We expect acquiring firms with higher inequities, to have lower abnormal returns when contrasted with firms having lower than average inequities in compensation. We also postulate lower abnormal returns to also be present in target firms with weak governance mechanisms and greater inequities. Although target firms on average have larger abnormal returns relative to the acquiring firm, we contend that the market will react negatively to the unexplained inequity in compensation of a top manager's salary relative to other executives. Although one may assume the CEO of a target firm will sell for a higher price, we contend he will entrench himself in his respective position regardless of higher returns on the stock price.

Hypothesis IIIa. Acquiring firms with greater disparities in compensation between the CEO and the next highest paid executive officer are more likely to engage in hostile takeovers.

Hypothesis IIIb. Target firms with greater disparities in compensation between the CEO and the next highest paid executive officer are more likely to engage in hostile takeovers.

The previous literature cited illustrates that overconfident CEOs overpay for acquisitions. If acquiring firms with weak governance mechanisms allow the CEO to overpay for acquisitions, this can signal an attempt by the CEO to build their empire irrespective of their concern for shareholders (Malmandier and Tate, 2008). We contend that firms with weak governance mechanisms, as manifested by large compensation inequities, will not only overpay for acquisitions, but also engage in hostile takeovers to acquire firms and increase the scope of their power.

Similar to acquiring firms, CEOs of target firms who enjoy excessive compensation relative to the rest of the upper management team are more likely to exude overconfidence and are thus more likely to entrench themselves in their positions. This phenomenon is known as the management entrenchment hypothesis (Gaughan, 2007, p. 172). From a finance standpoint, top managers desire to invest in expensive endeavors and commit the firm's resources to large projects. This ties the organization and its shareholders to the project and justifies the need for the CEO to remain with the firm and preside over these endeavors (Schleifer and Vishny, 1990). Although these investments are not always in the best interests of the firm and shareholders, it nonetheless increases the probability of a manager's continued tenure. Organizational theorists and researchers

also approach this hypothesis in a similar vein. Walsh and Seward (1990) argue that “Valuing their position, many executives work to ensure their own job security” (p. 431). In the case of poor management or a lack of governance, CEOs will resist any attempt at external control (merger or hostile takeover attempts) to replace them.

Hypothesis IVa. A target firm CEO who also occupies the chair position will contribute to disparities in compensation relative to other top management officials.

Hypothesis IVb. An acquiring firm CEO who also occupies the chair position will contribute to disparities in compensation relative to other top management officials.

Hayward and Hambrick (1997) contend that when the CEO occupies the position of chair, this is associated with weak governance mechanisms. In addition, they find a combined CEO/chair position is associated with increased offer premiums to acquire firms. When the top manager is also the chairperson, Finkelstein and D’Aveni (1994) claim “can dominate both the agenda and content of board meetings” (p. 1082). We contend CEO duality can therefore influence compensating committee meetings as well. To test for correlations of this inequity, we will include various control variables such as CEO age, tenure, ownership, and prior firm performance.

IV. Testing Procedures and Model

To formally test the aforementioned hypotheses, logistic regression is necessary to determine the likelihood of an acquisition occurring under friendly or hostile terms. The model incorporates cross-sectional indicator and control variables to account for other factors that may be driving the results. To determine the offer premium, ordinary

least squares regression (OLS) will be used in conjunction with control variables. Both models are listed below:

$$P(y = 1) = \frac{e^{B_0 + B_1 \text{Inequity}_{i(t-1)} + \mathbf{B}_2 \text{Control}_{i(t-1)}}}{1 + e^{B_0 + B_1 \text{Inequity}_{i(t-1)} + \mathbf{B}_2 \text{Control}_{i(t-1)}}},$$

$$\text{OfferPremium}_{it} = B_{0t} + B_1 \text{Inequity}_{i(t-1)} + \mathbf{B}_2 \text{Control}_{i(t-1)}.$$

where:

\mathbf{XB} , Control = Governance and control variables consisting of the following model:

$$B_0 + B_1 \text{Inequity}_{i(t-1)} + B_2 \text{Age}_{i(t-1)} + B_3 \text{Tenure}_{i(t-1)} + B_4 \text{Ownership}_{i(t-1)} + \\ B_4 \text{Chair}_{i(t-1)} + B_5 (\text{Size})_{i(t-1)} + B_6 \text{Outsid}_{i(t-1)} + B_7 \text{OutTotal}_{i(t-1)} + \\ B_8 \text{TobinQ}_{i(t-1)} + B_9 \text{Premium}_{it} + B_{10} \text{Attitudet}_{it} + e_{it}.$$

where: (i) is the variable in year (t).

a. Offer Premium

The offer premium, as mentioned earlier, is the final offer price paid to acquire the target firm's shares relative to the price before the offer announcement. For this study, the pre-announcement price is the share price one month before the announcement. To test Hypothesis II, the dependent variable is the offer premium. The control variables employed in this study will account for other characteristics that may be influencing our results.

b. Compensation Inequity

This important variable will help determine in future analysis whether or not decisions by relatively overpaid CEOs will influence how much the firm pays for acquisitions, whether or not the CEO wishes build his empire, and whether or not the

acquisition is friendly or non-friendly This variable is constructed by the following formula:

$$\text{Ineq1} = \text{CI}_a / (1 + \text{CI}_a);$$

$$\text{Ineq2} = \text{CI}_b / (1 + \text{CI}_b);$$

where;

CI_a = CEO compensation/next highest compensated executive;

CI_b = CEO compensation/ average of next highest executive.

By dividing each compensation differential by itself and adding one in the denominator, we construct a continuous scale ranging from zero to one with zero indicating the CEO earning no compensation to one reflecting larger salaries relative to other top managers. This also circumvents any problem with extreme values occurring when the CEO is paid a one dollar salary and management is paid full compensation or, as the case of the CEO of Ebix International, who earns seven times the firm's President. In addition, it is preferable to measure in terms of relative compensation rather than absolute differences since larger firms may suppress the effects of substantial compensation inequities experienced by smaller organizations. Table I lists the description and measurement of compensation inequities for acquiring and target firms in our sample. Variables CI(1) and CI(2) measure cash compensation of the CEO relative to that of the next highest paid and the average of next highest paid executives respectively while variables CI(3) – CI(4) employ various measures of option compensation. When measuring options compensation, we must exercise caution since the value may vary among and to a lesser extent within firms. This is due to some option awards being given in tranches, that is, at different dates and/or strike prices. For example, a CEO may have

award periods in January, June, and December for different amounts. Obtaining an accurate value is further complicated when each installment has a different exercise price. Therefore, at years end, some or all option grants may expire out of the money (worthless). Since there is greater homogeneity within the same firm relative than to others, we prefer to use option value as a relative measure rather than as an absolute measure.

In this study, we are not directly measuring the association between inequity and M&A activity (e.g., offer premium, abnormal returns), but rather the inequity that is unaccounted for in observable firm and CEO characteristics. To begin, we regress the compensation inequities of CEOs on governance and firm control variables. We then perform regressions of hostility, abnormal returns, and offer premium on the unexpected inequities (the residual terms from the previous equation) and governance variables from this model to determine their influence on the M&A process. This procedure was performed by Yermack (2006) who used a model to determine abnormal compensation. He then regressed the dollar amount of personal aircraft usage against these residual terms and found significant evidence that perquisite consumption was explained by abnormal compensation.

c. CEO Age

Younger managers have been found to be more likely to experience a hostile takeover during their tenure than their older counterparts (Morck et al., 1988a). Therefore, CEO age is associated with the likelihood of a turnover in a firm's management surrounding M&A activity. According to Morck and colleagues, younger managers were found to have greater independence from a firm's board of directors

giving them greater latitude in decision making. Therefore, a negative coefficient will indicate older CEOs are less likely to refuse. An insignificant coefficient will support the contention that CEO age is not driving the results. To measure this variable, we record the age of the CEO one year prior to the announcement as listed in form 14DEF from the Securities and Exchange Commission (SEC).

d. Tenure

As with CEO age, tenure of a top manager represents the degree of involvement in the firm and the manager's ability to exert his influence over a firm's board of directors (Mace 1971; Hill and Phan 1991; Hermlain and Weisbach, 1998). In addition, longer serving CEOs who desire to remain with the firm will resist a merger or takeover. We determine tenure as the length of time the top manager has been in his respective position rounded to the nearest year. This coefficient is expected to be negative indicating that longer serving CEOs wish to retain their title.

e. Ownership of common equity

Managerial ownership of common stock has been found to increase a firm's market valuation (Morck, Schleifer and Vishny, 1988; McConnell and Servaes, 1990) by aligning the financial interests CEOs with that of shareholders (Jensen and Meckling, 1976). In addition, the greater the stake a top manager owns in their firm can also decrease the likelihood of a tender offer (Stulz, 1988). For these reasons, we include the percentage ownership of common stock of the CEO in the firm one year prior to the merger announcement date. DEF 14A statements often include headings such as "amount and nature of beneficial ownership" and "acquirable options on stock exercisable within

60 days” while others combine both metrics as an aggregate amount. For consistency, we add both of these amounts in cases when it is listed separately.

f. CEO duality

When CEOs also occupy the chairperson position of a board of directors, this is known as CEO duality. Although the consolidated CEO/chair position can function as a unity of command, it can also serve to entrench powerful managers in their positions (Mallette and Fowler, 1992). Boards of directors with strong governance mechanisms prefer to separate the two positions (Norton, 1991; Mallette and Fowler, 1992). For purposes of measurement, CEO duality will be listed as an indicator variable and will receive one if the CEO is also the chairperson.

g. Firm Size

Controlling for firm size studies on compensation and governance is common in the field of finance and management. Hill and Phan (1991), have included this variable to omit any possible effects of size influencing results. Morck, Schleifer, and Vishny (1988a) they find that larger firms are harder to acquire due their large market capitalizations and/or access to takeover defenses such as stock repurchases and the ability to initiate expensive lawsuits. Conversely, Cotter and Zenner (1994) find larger firms experience a greater incidence of tender offers than do smaller ones. They attribute this to larger managerial ownership in smaller firms where ownership is more concentrated relative to larger firms. This will be defined as the natural logarithm of the firm’s total assets. We expect this coefficient to be positive indicating larger firms have larger inequities.

h. Institutional ownership

As the CEO gains stature and power in an organization, she will influence board composition as her tenure increases (Mace, 1971; Hill and Phan, 1991; Weisbach, 1993). This includes nominating subordinates and and/or executives supportive of the top manager. Since this study does not directly measure the size of a firm's board of directors or director independence, we will use institutional ownership to proxy for outsider monitoring. In a similar vein, institutional owners have a vested interest in the overall profitability, governance and decision making strategies of the firm (Chaganti and Damanpour, 1991). These large institutional shareholders may meet regularly with boards of directors and CEOs and can influence organizational policy and strategy. They can act to aid dissident investors about firm direction, governance, and overall strategy with their presence (Pound, 1992). In cases where ownership is highly concentrated, Holderness and Sheehan (1988) found that large shareholders exceed their capacities of monitoring and in fact lead the organization. At the other extreme, it has been found that institutional ownership of as little as 1% is sufficient to influence decisions (Demsetz and Lehn, 1985; Pound, 1992). In this study, we include total institutional ownership of stakeholders who each own at least than 5% of a firm's common stock. As an additional proxy, we also include the total number of institutional blockholders per firm.

i. Tobin's Q

Tobin's Q is formally defined as the market value of a firm divided by the replacement cost of its assets. Obtaining the denominator of this ratio is cumbersome since the true asset replacement values of many firms are only known by management. Instead, we determine Tobin's Q using the definition of Chung and Pruitt (1994) who

determine the numerator as the market value of assets plus preferred stock and current liabilities minus current assets plus the book value of long-term debt. This figure is then divided by total assets. Morck et al. (1989) have found that firms with lower Tobin Q ratios are more likely to be acquired in a hostile takeover. Since this is often used as a measure of firm value, we also expect lower Tobin Q ratios for target firms experiencing a hostile takeover.

j. Merger attitude

The merger attitude in an event study is normally classified as friendly or non-friendly. When it is not possible to conduct a negotiated transaction on friendly terms, an acquiring firm may resort to a tender offer or a hostile takeover (Gaughan, 2007). In this study, the merger attitude will be operationalized by an indicator variable that takes a one if the offer is classified in SDC as “hostile” or “unsolicited”.

V. Methods

a. Data

To determine compensation inequalities within organizations it is necessary to obtain individual firm data. Our sample is restricted to publically listed U.S. firms that either experienced a friendly merger or hostile takeover attempt between 1995 and 2010. All merger and acquisition data are provided by Securities and Data Corporation, a database including merger information, offer premia, and merger outcomes in a downloadable Excel format. Compensation data for CEOs and other top executives was obtained from DEF 14A proxy filings from the Securities and Exchange Commission (SEC) for each firm year. In addition, CEO age and tenure information was also obtained from SEC proxy filings. All financial metrics and attributes such as target and acquirer

market capitalization, outstanding liabilities and shares outstanding were obtained from Compustat.

The initial SDC sample included 20,695 mergers and acquisitions. We further restricted our sample to acquiring firms listed in Compustat further reducing the sample to 5,029 acquisitions with financial data. It was also necessary to discard nearly 4,500 share repurchases classified as acquisitions leaving our sample with 580 observations. We then excluded all financial and utility firms (SIC codes 6000-6999 and 4900-4999) in addition to acquisitions of subsidiaries. Finally, we limited our sample to acquisitions of targets greater than \$1 billion in enterprise value in constant 2005 dollars¹. Larger mergers are found to influence the acquiring firm's corporate governance (Wang and Xie; 2007) and invoke managerial hubris (Moeller et al., 2004) relative to that of smaller targets. In addition, Moeller and colleagues (2004) found the average transaction value of larger acquirers to be \$450 million². Our final sample included compensation data for 259 acquiring and 212 target firms. This unequal pairing of firms is due to a lack of target firm filing data³.

b. Measurements

Some firms in our sample included CEOs who either resigned or retired in mid-year of their tenure. For consistency, we employed a strict classification. We did not include a former CEO as the top manager if he relinquished his position before July of

¹ Since some variations in nominal enterprise value exceeded 30% across this period when contrasted against real enterprise value (i.e., \$770 million enterprise value for Firm A in 1996 is equal to \$1 billion in 2010 dollars) we chose to normalize our sample controlling for inflation.

² Originally, our sample included all targets greater than \$500 million in enterprise value. Given the daunting task of hand collecting compensation data for more than 1,200 firms, we limited our sample to targets greater than \$1 billion.

³ Many of these firms in our sample did not have compensation data one or even two years before the announcement. In this case, they were omitted from our sample.

the year preceding the acquisition. For example, if a CEO resigned in June of year_{t-1}, then his replacement was listed as the acting CEO.

The rationale for doing this was to determine who was in charge six months before and after the merger. In either case, if the CEO was not considered the acting top manager, his compensation data was still included for determining compensation inequities. In limited instances where the firm experienced more than two CEOs in a given year (i.e., ImClone Systems), the firm was excluded from our sample. To determine compensation, a set of common metrics spanning different disclosure rules were employed. This was done since DEF 14F proxy statements after 2007 were fundamentally different from previously reporting formats. Although salary and bonus (base) compensation data were identical for both reporting formats, the post-2007 reporting format included an aggregate value for all stock and option awards in relation to previous statements being less organized. Figures I – III illustrate the different methods for EMC Corporation, a firm used in our sample.

In some instances, the CEO was paid a sum of \$1 as a symbolic gesture although they were compensated by option grants. To control for this an indicator variable was used if their cash compensation was less than \$100. This was of limited occurrence, however it was necessary to control for.

Given the nature of research in corporate governance and CEO compensation, issues of spurious correlations or causality may arise particularly with the association of board characteristics or CEO compensation and firm performance (Hermlain and Weisbach, 1998, 2003). We acknowledge this is a potential problem, particularly when regressing CEO compensation inequities on governance and control variables. Spurious

correlation may abound when claiming CEO compensation is a result of governance characteristics. Therefore, simultaneous equation methods or lagging variables may correct for this problem (Hermlain, 1991). We focus on the latter option since obtaining data from the year prior is less cumbersome. Regardless, we acknowledge that lagging data for only one year may not suffice. When interpreting our results, we will focus less on causality and more on correlations. Finally, multicollinearity among control variables in this study was not significant since no values had any correlations greater than 0.61. All regression analysis in this study were performed with EViews and SPSS.

VI. Results

a. Summary statistics

Figure IV illustrates the frequency of all mergers and acquisitions in our sample. Consistent with the wave of mergers that occurred during the late 1990's, the majority of our sample is found within those years. In addition, our sample exhibits increasing M&A activity after 2005, consistent with a burgeoning sixth wave of mergers.

Tables II - V report summary statistics for CEO, governance, and control variables and their respective differences between acquirer and target sizes. Examining Table II in greater detail, CEO mean and median age for acquiring firms for friendly and non-friendly acquisitions is 55 consistent with a recent study by Yim (2010) who found similar results for a sample of S&P 500 firms between 1992 and 2007. We find mean target age CEO age is significantly lower at 53.6 years of age as confirmed Panel A of Table IV. Concerning tenure, mean and median CEO tenure for acquiring firms is 5.1 and 3.0 years respectively while target firm CEOs have significantly shorter tenure at 5.1 and 3.0 years respectively. This is also validated by a recent study by Kaplan and Minton

(2006) who examined large U.S.-based firms between 1992 and 2005 who found average tenure to be 6.1 years taking into account both internal and external turnover. When examining ownership of common equity by a firm's top manager, mean and median CEO ownership is statistically greater among target firms (3.1%) than acquirers (2.2%). This is consistent with Brickley, Coles, and Jarrell (1997) who found the top manager of an organization owning 2.7% of a firm's equity when examining Fortune 500 firms.

We then examine CEO duality. We find acquiring firm top managers are also the chairperson in 70% of our sample and are 20% more likely to hold both positions than target firms as shown by Tables II and IV respectively. This is also consistent with Brickley et al. (1997) who found an 80% incidence of CEOs having a consolidated chair position. Also in our sample, we find no difference in CEO duality between friendly and hostile acquisitions among acquiring and target firms. In our sample, we find mean and median salary for acquiring firms to be \$941 and \$900 thousand respectively. This varies significantly within bidding firms with friendly CEOs earning an average of \$19 thousand more than their non-friendly counterparts. Contrasted against target firms, we find acquiring firm CEOs earn \$350 thousand more in average salary and \$938 more in average bonus pay relative to target firms. When examining managerial compensation in conjunction with firm size (market capitalization and total assets) in Panel A. Table III, we find that CEOs of larger firms are compensated more than smaller ones, in accordance with Tosi et al. (2000) who found firm size to primarily determine compensation over firm performance. Firm performance will be addressed in subsequent sections.

In our sample, we find mean compensation inequity among acquiring firms range from 0.572 to 0.668. Figures V and VI graphically depict the mean distribution for

compensation inequity 1 for acquiring and target firms indicating a right-skewed distribution for values ranging from 0.00 to 0.944⁴. We chose to include mean rather than median inequities in order to capture the full spectrum ranging from very small to large relative compensation paid to CEOs. Referring to Table II, the mean value for acquirer inequity 1 is 0.593. When reversing the transformation, this indicates the CEO earns 46% more cash salary than the next highest paid executive. When examining the reverse transformed value of inequity 2, we find the CEO earning an average of 102% more than the average of the next highest paid executives. In addition, we also find for all mean and the majority of median compensation inequities is larger for acquiring firms. With the exception of inequities 5 and 6 (options value) compensation inequities across friendly and non-friendly are similar.

Panels C and D of Table III also examine the percentage of stock used to finance the merger and the offer premiums. We find stock used in 47% of all mergers in our sample. In addition, we find a significantly greater percentage of stock for friendly mergers than for non-friendly. This is consistent with the literature that finds acquirer hostile takeovers are less likely to offer stock as a form of payment (Gaughan, 2007). Concerning offer premia, we also find the one day, one week, and one month offer premiums are significantly larger for non-friendly acquisitions than for unfriendly ones⁵. This is consistent with the literature that finds target management extracts a higher premium in hostile takeovers (Gaughan, 2007).

⁴ We also examine other inequity distributions and find similar right-skewed curves.

⁵ We focus on median rather than mean offer premiums due to the presence of outlying observations in our sample.

When examining abnormal returns, we find that mean (median) acquirer CARs surrounding to the [-1, +1] event window to be -2.1% (-1.1%), consistent with Moeller et al., (2004, 2007) who found larger firms to experience negative returns. Across our sample of acquiring firms, we find no difference between friendly and non-friendly acquisition abnormal returns with the exception of the post-event period of [+2, +15] exhibiting smaller negative returns for friendly mergers. Concerning returns to target firms, they accrue mean (median) 3-day CARs of 26.8% (19.6%). This is greater than the control sample of Betton et al., (2008) who found lower average target returns for larger firms. We also find no significance differences in abnormal returns between friendly and non-friendly acquisitions among target firms.

Finally, we examine both acquiring and target firm inequities by partitioning each governance and firm variables above and below their average compensation ratios. For acquiring firms, older CEOs to have higher inequities in compensation for inequity 1 as determined by salary and bonus over that of the next highest compensated executive. We also find CEOs with larger inequities owning approximately 1.7% of a firm's common equity. This is significantly smaller than CEOs below the average owning over 3.0%. From an agency viewpoint, we find CEOs may be better aligned with the firm if they are paid similar salaries to that of other top management subordinates. We also find that higher compensated CEOs relative to other executives occupy the chair position more frequently. Concerning Tobin's Q, we find higher values associated with lower inequities. Given this evidence, we can claim that acquiring firms with poorer management and governance have higher paid managers relative to that of the next highest executive. Concerning abnormal returns, we find no significance among inequity.

Examining target firms, we find significantly higher instances in inequity when the CEO also occupies the chair position. Overall, these firms have greater homogeneity in overall executive compensation than acquiring firms.

b. Regression results

We now extend our focus to regression data. Tables VII and VIII report results that regress acquirer and target inequities on governance and firm control variables. In examining Table VII, we find that CEO age is positively related with larger inequities for inequity 1 while ownership is negatively related across all models. This implies the greater ownership of common stock the CEO owns the smaller difference in compensation relative to other top management executives⁶. According to Jensen and Meckling (1976) weak governance mechanisms are associated with a smaller managerial ownership. In this study, we conjecture that weak governance is associated with inequities in compensation. As mentioned in earlier sections, we do not imply causality but rather association given potential problems with endogeneity. We also find CEO duality is positively related to inequity implying more powerful CEOs have larger inequity in compensation. In addition, we also find a significant and negative relation between inequity and prior firm performance when controlling for recession. Finally, firm size, proxied by market capitalization and total assets is positively related to inequity while assets are negatively related. To determine why these coefficients both measuring firm size had different coefficients; we examined their correlations of their natural log between these variables and found an insignificant but negative correlation of -0.09.

⁶ In separate but unreported regressions, we also tested ownership for the presence of a curvilinear relationship by squaring this variable and found a significant and negative variable for only one of the four models for acquiring firms only. Due to a lack of consistency across all models, we omitted this curvilinear result.

Consistent with other studies that employ market capitalization as a proxy for firm size, we feel this is a better and more representative measure since investors and market analysis more often report this measure. Our results are also consistent with Tosi et al. (2000) who found that CEO compensation is not based on prior firm performance but rather on firm size (market capitalization). In this thesis, we find similar results. When implying that compensation inequity increases, we claim CEO salary is increasing relative other executives rather than his pay decreases at the expense of subordinates⁷. In summary, CEO compensation for acquiring firms is related to their size and is a result of negative stock returns. Given the CEO is the ultimate decision maker of a firm, as evidenced by the frequency of also occupying the chair position, compensation inequity is associated with poor leadership.

Table VIII examines target firms under the same circumstances. We find mixed results for increased tenure and inequity and a mostly significant negative relation between ownership and inequity⁸. As with acquiring firms, CEO duality is found to increase inequity. Finally, we find recessionary periods are negatively related to salary and inequity increases. This can be a sign of altruistic top managers who do not increase their salary at the expense of their subordinates during economic hardships. We find overall a greater percentage of variation is explained in Table VII than Table VI as indicated in a higher adjusted R^2 . Since larger firms have greater exposure to public attention and are scrutinized more closely by analysts, investors, and even researchers, we contend that latent variables not accounted for in our model may explain more

⁷ In a separate study outside of the scope of this thesis, we also collected post acquisition compensation data and found CEO compensation increases one year after the acquisition.

variation concerning acquiring firms. On a final note, we excluded the variable for the total number of blockholders due extremely high multicollinearity with the variable measuring total ownership of outside blockholders. Overall, Hypothesis IVa and IVb are fully supported.

We next examine abnormal returns and regress them on the residuals from Tables VI and VII. In selecting the abnormal inequities (residual terms), we chose the second model from the aforementioned tables. We choose these particular models since they included market capitalization in determining each regression. In addition, we wanted to measure CEO compensation relative to the next highest paid rather than the average of next highest paid executives to be consistent with the literature.

To begin, we selected an estimation period of -125 to -46 days prior to the actual event and used an equally weighted market index for our evaluating our sample. Contrary to our contention and Hypothesis IIa we find abnormal inequity does not influence abnormal returns for any of the studied event windows for acquiring firms. This is contrary to a lower abnormal return found by Malmandier and Tate (2008) who examined overconfident CEOs. In event windows [-15, -2] we find payment by stock increases abnormal returns, however only to a very small extent. For event window [-1, +1] we find CEO duality increases returns as well as payment in stock. Finally, in period [+2, +15], we find a small but significant coefficient. Perhaps this lack of significance rests with abnormal returns being indistinguishable from zero. When shifting to target firms in Table VIII, we first examine window [-15, -2]. We find abnormal inequities decrease the returns while CEO duality increases them. In addition, we find friendly mergers increase

⁸ We did not use total assets as a proxy for firm size due limited data provided by Compustat. Instead, we used market capitalization and found similar results as with acquiring firms.

target abnormal returns. For event period [+2, +15], abnormal or excess compensation increases abnormal returns along with CEO duality. Finally, we examined the 3-day event window surrounding the announcement date and found no significance, contrary to Manmandier and Tate (2008). Our only interpretation of positive abnormal inequity decreasing the CAR pre-announcement and increasing it post-announcement can be attributed to market sentiment. After the merger announcement, the market may have positive expectations about the likelihood the deal will be completed regardless of any sentiment toward the CEO or management of the target firm. Although the coefficient for the pre-announcement period relative to the post-announcement abnormal returns is larger, it isn't possible to tell the overall direction. In summary, we do not find support for Hypothesis IIa, however Hypothesis IIb is partially supported.

Focusing our attention on the offer premium in Table X, we first observe that across all models, abnormal inequity does not influence premia. We do find however that bidder size decreases the one day, one week, and one month premium. We also find that across all models, the offer premium increases when the CEO of the acquiring firm is also the chairperson. This is consistent with Hayward and Hambrick (1997) who found consolidated CEO and chairperson position to moderate the relationship between CEO hubris and increased offer premiums. Finally, we find that friendly mergers actually increase the premium paid, contrary to Hanouna et al. (2001) who find hostile takeovers are associated with higher premiums. When comparing to similar studies on narcissism (Chatterjee and Hambrick, 2007) and hubris (Hayward and Hambrick, 1997), we find no evidence the component of compensation inequity influences offer the offer premium in

M&A activity. Overall, we do not find support for Hypothesis I that acquiring firm compensation inequities decrease the offer premium.

Our final examination of inequity culminates with the likelihood of hostility. Hypothesis IIIa and IIIb contend that acquiring and target firm CEOs who have larger compensation relative to that of other executives are more likely to be involved in hostile takeovers than friendly mergers. Table XI reports the results for acquiring and target firms. Examining the abnormal inequity coefficient, we find no evidence that it increases the probability of hostility. In addition, no other control variables exhibit significance in either model⁹.

VI. Conclusion

This study investigated CEO compensation relative to that of other executives within acquiring and target firms surrounding M&A activity. We argued that large relative inequities for acquiring firm CEOs are associated with lower ownership of common equity, CEO duality, and firm size. We also found compensation and inequity is negatively related to negative stock returns. These findings as a whole suggest inequity is related to poor governance and is manifested by poor leadership. We posited this in turn will cause poor M&A decisions. Our results were mixed in this regard. We claimed inequity causes negative acquirer and target abnormal returns; however this hypothesis was not supported. In addition, we found no support for inequity influencing the offer premium to acquire firms, nor do we find it ascribed to the probability of a hostile takeover. Our last contention that inequity is associated with CEO duality is fully supported. Perhaps limiting the sample to only large firms and focusing on a period

⁹ In other unreported regressions, we included different control variables that yielded similar insignificant results.

spanning 15 years may **not** fully capture any meaningful results. Similar studies focused on a smaller time period (Hayward and Hambrick, 1997) or on a particular industry (Chatterjee and Hambrick, 2007). Perhaps, our sample size is too small when encompassing a time period of this magnitude. Malmandier and Tate (2008) found significant results when using a large sample of 477 firms in their study. Finally, our concept of poor decision making may have contributed to these inconclusive results. Aforementioned studies comparing other studies, notably Chatterjee and Hambrick (2007) and Hayward and Hambrick (1997) operationalized narcissism and hubris respectively by using multiple indicators to define their constructs. In our case, we were limited to the amount of available qualitative to construct multiple indicators of this construct. This may in turn limit our ability to differentiate between CEOs who make poor decisions to those who do not from our sample.

VII. Limitations and future research

This study does not attempt to develop or even test new theory. It does however attempt to explain the underlying reasons surrounding poor corporate governance leading to poor managerial decision making. Since non-public firms seldom supply information that is not required by law, this will limit the scope of this study to public firms. Although U.S. companies compensate executives with greater compensation relative to any other country (Gaughan, 2007), this study lacks a comparison of other compensation practices in the world. In addition, many firms in the databases mentioned earlier have missing or sporadically filled datasets that require discarding many observations, further limiting the sample even after hand collection.

Future research could place a greater emphasis on the causes of inequity by focusing outside of mergers and acquisition activity to study the overall tenure of a CEO during their time in office. Inequity in compensation not only yielded our most significant findings, it also transcends merger and acquisition activity into the broader domain of corporate governance and executive compensation. Nonetheless, this initial study provided the initial framework for further direction.

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Table I
Description and measurement of compensation inequities for acquiring and target firms, involved in a merger or acquisition where target was greater than one billion dollar in enterprise value: 1996 - 2010.

<i>Panel A: Description of compensation variables</i>	
Variable	Description
SALARY	The fiscal year dollar value of the base salary earned by the executive in question
BONUS	The fiscal year dollar value of bonus and/or cash compensation earned by the executive in question
SARS	Securities underlying options in fiscal year in question
FIVE PERCENT	Potential realizable value of option awards at five percent annual increase in stock price
<i>Panel B: Description of compensation Inequities</i>	
Variable	Description
CI(1)	CEO salary plus bonus divided by that of the next highest paid executive
CI(2)	CEO salary plus bonus divided by that of the average of the next highest paid executives
CI(3)	SARS of the CEO divided by that of the next highest paid executive
CI(4)	SARS of the CEO divided by that of the average of the next highest paid executives
CI(5)	Potential realizable value of option awards at five percent annual increase in stock price of the CEO over that of the next highest paid executive
CI(6)	Potential realizable value of option awards at five percent annual increase in stock price of the CEO over that of the next highest paid executive
<i>Panel C: Measurement of compensation inequities</i>	
Variable	Measurement
Inequity 1	$CI(1)/(1 + CI(1))$
Inequity 2	$CI(2)/(1 + CI(3))$
Inequity 3	$CI(3)/(1 + CI(3))$
Inequity 4	$CI(4)/(1 + CI(4))$
Inequity 5	$CI(5)/(1 + CI(5))$
Inequity 6	$CI(6)/(1 + CI(6))$

Compensation variables are obtained from SEC proxy statement DEF 14A (pre-2007) reporting format.

Table II

Summary statistics for acquiring and target firms involved in either a merger or tender offer exceeding one billion dollars in enterprise value one year prior to the announcement date: 1996 - 2010

CEO AGE is defined as the current age of the CEO one year prior to the merger announcement date. CHAIR is an indicator variable that takes a value of 1 if the CEO was listed as the board chairman one year prior to the announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. MARKET CAP is firm's market capitalization (in millions) one year prior to announcement and is determined by the product of common shares outstanding and the year-end closing price of a firm's common stock. ASSETS is defined as the value of long-term total assets on a firm's balance sheet (in millions) one year prior to announcement. TOBIN'S Q is estimated as a firm's market capitalization plus preferred stock plus current liabilities divided by total assets one year prior to announcement. BLOCK TOTAL is defined as the total outside ownership of blockholders who own greater than five percent of a firm's common stock. BLOCKHOLDERS is the total amount of outside blockholders who own a firm's common stock. OFFER PREMIUM is defined as the offer price made to the target firm divided by the current share price one day, one week, and one month before the announcement minus one. PCTOFSTOCK is defined as the percentage of stock used to finance the transaction. ACQUIRER [-15, -2], [-1, +1], [+2, +15] and TARGET [-15, -2], [-1, +1], [+2, +15] consist of the cumulative abnormal return event windows using a value-weighted index and observation period of -125, -46 days prior to announcement.

Panel A: Acquiring firm

	Total (n = 259)			Friendly (n = 224)			Non-friendly (n = 35)			F – NF	
	Mean	Median	St. dev	Mean	Median	St. dev	Mean	Median	St. dev	t- test	Sign rank
MARKET CAP	48,906.383	15,339.258	83,415.816	49,445.738	15,766.905	63,623.382	47,807.822	8,592.541	85,204.518	***	***
ASSETS	29,305.012	10,482.000	54,622.700	31,190.412	10,533.750	57,777.339	17,337.870	8,900.000	22,868.461		**
TOBIN'S Q	2.241	1.631	2.657	2.225	1.168	2.612	2.293	1.809	2.960		
BLOCK TOTAL	0.147	0.107	1.522	0.145	0.107	1.568	0.165	0.124	1.712		***
BLOCKHOLDERS	1.654	1.000	0.156	1.609	1.000	1.500	1.969	1.500	0.158		**

Panel B: Target firm (n = 212)

	(n = 174)			(n = 26)							
MARKET CAP	3,996.605	13,16.350	9,287.790	3,404.485	1,205.759	7,890.668	8,223.568	1,906.710	15,621.740	***	***
	(n = 80)			(n = 68)			(n = 15)				
ASSETS	4,204.449	887.400	9,926.945	4,296.501	811.172	10,010.020	5,556.012	1,700.000	9,980.229		
TOBIN'S Q	1.87	1.266	2.041	1.916	1.289	2.124	1.714	1.251	1.600		

	(n = 211)			(n = 174)			(n = 25)				
BLOCK TOTAL	0.478	0.216	1.651	0.493	0.208	1.568	0.339	0.271	0.231	***	**
BLOCKHOLDERS	2.254	2.000	3.094	2.413	2.000	3.278	3.525	4.000	2.089	**	
<i>Panel C: Payment</i>	(n = 226)			(n = 195)			(n = 29)				
PCT. OF STOCK	44.045	40.500	41.650	47.006	45.050	42.116	29.854	0.000	34.150	*	
<i>Panel D: Offer premium</i>	(n = 243)			(n=215)			(n = 28)				
ONE DAY	35.887	29.270	34.000	35.104	28.690	33.918	46.584	38.819	33.980	**	**
ONE WEEK	39.266	32.150	36.507	37.970	31.413	36.961	48.358	42.945	33.378	**	**
ONE MONTH	43.011	37.120	38.261	42.124	35.171	39.168	48.840	43.226	32.479	*	*
<i>Panel E: Returns</i>	(n = 211)			(n = 180)			(n = 31)				
ACQUIRER [-15, -2]	-0.002	-0.006	0.085	-0.002	-0.005	0.085	-0.005	-0.016	0.082		
ACQUIRER [-1, +1]	-0.021	-0.011	0.070	-0.021	-0.010	0.073	-0.021	-0.019	0.051		
ACQUIRER [+2, +15]	-0.006	-0.012	0.086	-0.005	-0.009	0.087	-0.029	-0.037	0.078	*	
TARGET [-15, -2]	0.055	0.045	0.185	0.053	0.043	0.191	0.067	0.068	0.150		
TARGET [-1 +1]	0.268	0.196	0.374	0.276	0.198	0.394	0.228	0.184	0.218		
TARGET [+2, +15]	0.085	0.013	0.286	0.085	0.008	0.303	0.058	0.017	0.122		

*****indicates significance at 0.10, 0.05, and 0.01 respectively.

Table III

Summary statistics of governance variables for acquiring and target firms involved in either a merger or tender offer exceeding one billion dollars in enterprise value prior to announcement date: 1996 - 2010.

CEO AGE is defined as the current age of the CEO one year prior to the merger announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. CHAIR is an indicator variable that takes a value of one if the CEO was listed as the board chairman one year prior to the announcement. SALARY is defined as the fiscal year dollar value of the base salary earned by the executive in question (in millions). BONUS is the fiscal year dollar value of bonus and/or cash compensation earned by the executive in question (in millions). INEQUITY 1 - 6 are the compensation inequity ratios $Cl_i/(1 + Cl_i)$ as described further in Table I.

Panel A: Acquiring firm

Variable	Total (n = 258)			Friendly (n =224)			Non-friendly (n =34)			(F - NF)	
	Mean	Median	St. dev	Mean	Median	St. dev	Mean	Median	St. dev	t-test	Sign-rank
CEO AGE	54.790	55.000	6.653	54.709	55.000	6.712	55.250	56.500	6.580	-0.541	-1.500
TENURE	5.114	3.000	5.845	5.161	3.000	5.073	4.270	2.500	4.854	0.846	0.500
OWNERSHIP	2.220	0.453	0.451	2.121	0.422	5.072	2.947	0.778	6.072	-0.826	-0.356
CHAIR	0.695	1.000	0.461	0.692	1.000	0.461	0.689	1.000	0.471	0.003	0.000
SALARY	940.768	900.000	492.372	941.785	900.000	498.279	922.450	818.750	1,266.625	19.335***	81.250***
BONUS	1,450.391	700.000	1,983.360	1,470.677	698.582	2,059.937	1,370.368	965.341	1,790.687	100.309*	-266.759
INEQUITY 1	0.593	0.629	0.141	0.596	0.612	0.142	0.595	0.634	0.169	0.001	-0.022
INEQUITY 2	0.668	0.693	0.121	0.665	0.693	0.122	0.670	0.697	0.160	-0.005	-0.004
	(n = 172)			(n = 151)			(n = 22)				
INEQUITY 3	0.561	0.625	0.261	0.567	0.612	0.255	0.525	0.612	0.312	0.042*	0.000
INEQUITY 4	0.650	0.733	0.272	0.655	0.733	0.265	0.613	0.725	0.333	0.042*	0.008
INEQUITY 5	0.572	0.625	0.261	0.576	0.612	0.253	0.534	0.698	0.327	0.042**	-0.086*
INEQUITY 6	0.658	0.735	0.267	0.650	0.733	0.257	0.609	0.742	0.341	0.041**	-0.009*

Panel B: Target Firm

Variable	(n = 212)			(n = 189)			(n = 22)			t-test	Sign-rank
	Mean	Median	St. dev	Mean	Median	St. dev	Mean	Median	St. dev		
CEO AGE	53.689	54.000	7.986	53.557	54.000	8.053	54.389	55.000	7.761	-0.832	-1.000
TENURE	5.119	3.000	5.859	5.517	3.000	5.879	4.272	2.500	4.968	1.245	0.500

OWNERSHIP	3.100	1.357	5.815	3.198	1.298	6.037	1.825	1.581	2.180	1.373	-0.283
CHAIR	0.486	0.000	0.507	0.580	1.000	0.495	0.483	0.000	0.509	0.097	1.000
SALARY	590.758	522.590	324.426	577.019	511.300	312.613	712.725	754.609	410.238	-135.706	-243.309
BONUS	511.927	278.312	828.208	501.382	278.312	831.732	621.120	259.375	844.093	-119.738	18.937
INEQUITY 1	0.581	0.601	0.132	0.579	0.598	0.132	0.566	0.609	0.182	0.013	-0.011
INEQUITY 2	0.652	0.668	0.122	0.651	0.661	0.125	0.635	0.667	0.179	0.016	-0.006
	(n = 145)			(n = 129)			(n = 16)				
INEQUITY 3	0.520	0.612	0.307	0.503	0.617	0.309	0.657	0.711	0.241	-0.154	-0.094
INEQUITY 4	0.530	0.727	0.329	0.577	0.716	0.332	0.742	0.787	0.248	-0.165	-0.071
INEQUITY 5	0.513	0.625	0.306	0.496	0.605	0.310	0.657	0.711	0.240	-0.161	-0.106
INEQUITY 6	0.589	0.722	0.328	0.570	0.712	0.332	0.746	0.810	0.248	-0.176	-0.098

***** indicates significance at 0.10, 0.05, and 0.01 respectively.

Table IV
Differences in size of governance and firm characteristics control variables between acquiring and target firms: 1996 – 2010.

CEO AGE is defined as the current age of the CEO one year prior to the merger announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. CHAIR is an indicator variable that takes a value of one if the CEO was listed as the board chairman one year prior to the announcement. SALARY is defined as the fiscal year dollar value of the base salary earned by the executive in question (in millions) BONUS is the fiscal year dollar value of bonus and/or cash compensation earned by the executive in question (in millions). INEQUITY 1 - 6 are the compensation inequity ratios $Cl_i/(1 + Cl_i)$ as described further in Table I. MARKET CAP is firm's market capitalization (in millions) one year prior to announcement and is determined by the product of common shares outstanding and the year-end closing price of a firm's common stock. ASSETS is defined as the value of long-term total assets on a firm's balance sheet (in millions) one year prior to announcement. TOBIN'S Q is estimated as a firm's market capitalization plus preferred stock plus current liabilities divided by total assets one year prior to announcement. BLOCK TOTAL is defined as the total outside ownership of blockholders who own greater than five percent of a firm's common stock. BLOCKHOLDERS is the total amount of outside blockholders who own a firm's common stock.

Panel A: Governance variables

Variable	Total		Friendly		Non-friendly	
	Difference in Means	Difference in Medians	Difference in Means	Difference in Medians	Difference in Means	Difference in Medians
CEO AGE	1.101**	1.000*	1.151**	1.000**	0.861	1.500
TENURE	0.881***	4.000**	1.241**	1.000**	3.197**	2.500
OWNERSHIP	-0.890**	-0.904***	-1.077**	-0.876***	1.122	-0.803
CHAIR	0.209***	1.000***	0.111***	0.000	0.206**	1.000*
SALARY	350.010***	377.410***	364.766***	388.700***	209.725**	64.141**
BONUS	938.465***	421.689***	969.295***	420.270***	749.248**	705.960**
INEQUITY 1	0.030**	0.028**	0.017*	0.014	0.029**	0.025
INEQUITY 2	0.016***	0.025***	0.014**	0.032	0.035**	0.030
INEQUITY 3	0.041***	0.013	0.065**	-0.005	-0.131**	0.000
INEQUITY 4	0.12*	0.006	0.078**	0.017	-0.129**	-0.099*
INEQUITY 5	0.059*	0.000	0.081***	0.007*	-0.123**	-0.061
INEQUITY 6	0.069**	0.013	0.080**	0.021**	-0.137**	-0.013*

Panel B: Firm Characteristics

MARKET CAP	44,909.778 ***	14,022.908 ***	46,041.253 ***	14,561.146 ***	39,584.254*	6,685.831
ASSETS	25,100.565 ***	10,482.000 ***	26,893.911 ***	9,722.578 ***	11,781.858***	7,200.000
TOBIN'S Q	0.371	-885.769	0.309	-0.121	0.579	0.558
BLOCK TOTAL	-0.331*	-1.159***	-0.348***	-0.101*	-0.174***	-0.147
BLOCKHOLDERS	-0.600***	1.000***	-0.804**	-1.000**	-1.556***	-2.500

***** indicates significance at 0.10, 0.05, and 0.01 respectively.

Table V
Division of acquiring and target firm governance variables and abnormal returns by compensation inequity: 1996 - 2010

INEQUITY 1 - 6 are the compensation inequity ratios $Cl_i/(1 + Cl_i)$ as described further in Table I. CEO AGE is defined as the current age of the CEO one year prior to the merger announcement date. CHAIR is an indicator variable that takes a value of one if the CEO was listed as the board chairman one year prior to the announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. SALARY is defined as the fiscal year dollar value of the base salary earned by the executive in question. BONUS is the fiscal year dollar value of bonus and/or cash compensation earned by the executive in question. CAR [-15, -2], [-1, +1], and [+2, +15] are the cumulative abnormal return event windows using a value-weighted index and observation period of -125, -46 days prior to announcement.

Panel A: Acquiring firm

Variable	Inequity 1			Inequity 2		
	Above mean	Below mean	Difference	Above mean	Below mean	Difference
CEO AGE	55.840	53.187	2.653**	52.287	54.098	-1.811
TENURE	6.750	6.960	-0.210	6.732	6.833	-0.101
OWNERSHIP	1.673	3.060	-1.387**	1.561	2.989	-1.427**
CHAIR	0.795	0.544	0.251***	0.797	0.539	0.258***
CAR [-15, -2]	0.000	-0.022	0.022	-0.005	-0.006	0.001
CAR [-1, +1]	-0.016	-0.027	0.011	-0.019	-0.024	0.005
CAR [+2, +15]	-0.020	-0.014	-0.006	-0.049	-0.010	-0.039
TOBIN Q	2.101	2.827	-0.726***	2.246	2.594	-0.348
BLOCKHOLDER TOTAL	1.897	1.277	0.620***	1.771	1.510	0.261**
BLOCKHOLDERS	0.167	0.117	0.050***	0.155	0.139	0.016**

Panel B: Target firm

Variable	Inequity 1			Inequity 2		
	Above mean	Below mean	Difference	Above mean	Below mean	Difference
CEO AGE	54.843	52.373	2.470	54.221	53.005	1.216
CHAIR	0.712	0.541	0.172**	0.708	0.451	0.257**
CAR [-15, -2]	0.060	0.031	0.028	0.070	0.018	0.052*
CAR [-1, +1]	0.231	0.331	-0.101	0.328	0.229	-0.099
CAR [+2, +15]	0.493	0.143	0.350	0.048	0.144	-0.096
TOBIN Q	2.016	1.855	-0.161	1.942	1.169	0.773
BLOCKHOLDER TOTAL	2.656	2.435	-0.221	2.600	2.497	-0.103
BLOCKHOLDERS	0.655	0.268	0.387	0.660	0.267	0.393

*****indicates significance at 0.10, 0.05, and 0.01 respectively.

Table VI
Regressions of six different measures of acquiring CEO compensation inequities on control variables for target firms greater than one billion dollars in enterprise value who experienced a merger or tender offer: 1996 - 2010.

Ordinary least squares regressions of the form: $Inequity = B_{0t} + B_1 Governance_{(t-1)} + B_2 Control_{i(t-1)}$. The dependent variables for Models 1 – 6 are the compensation inequity ratios $CI_t/(1 + CI_t)$ as described in Table I. CEO AGE is defined as the AGE of the CEO one year prior to the announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. CHAIR is an indicator variable that takes a one if the CEO is also the chairperson. PRICECHANGE is the change in the firm's common stock price two years before announcement. RECESSION is an indicator variable that takes a one if the announcement date falls within a year defined by the NBER as a recession. BLOCKHOLDERS is the total amount of outside blockholders who own a firm's common stock. BLOCKTOTAL is defined as the total outside ownership of blockholders who own greater than five percent of a firm's common stock. MARKETCAP is the determined as the natural log of the firm's common shares outstanding multiplied by the year-end price. ASSETS is defined as the value of long-term total assets on a firm's balance sheet (in millions) one year prior to announcement. TOBIN Q is estimated as a firm's market capitalization plus preferred stock plus current liabilities divided by total assets one year prior to announcement.

Variable	Inequity 1		Inequity 2	
	Model 1	Model 2	Model 1	Model 2
CEO AGE	0.002*	0.003**	0.001	0.002*
	[1.802]	[2.180]	[1.867]	[2.196]
TENURE	0.001	0.001	0.001	0.001
	[0.777]	[0.575]	[0.989]	[0.832]
OWNERSHIP	-0.005**	-0.005***	-0.004**	-0.004**
	[-2.406]	[-2.612]	[-2.398]	[-2.568]
CHAIR	0.047**	0.058***	0.004***	0.047***
	[2.526]	[3.075]	[2.898]	[3.334]
PRICECHANGE	-0.016	-0.015	-0.168**	-0.016*
	[-1.442]	[-1.334]	[-2.012]	[-1.925]
RECESSION	-0.008	-0.007	-0.008	-0.008
	[-0.228]	[-0.278]	[-0.400]	[-0.400]
BLOCKHOLDERS	0.013	0.010	0.009	0.007
	[1.405]	[1.031]	[1.224]	[0.922]
BLOCK TOTAL	0.0922	-0.029	-0.034	-0.057
	[0.991]	[-0.308]	[-0.48]	[-0.814]
MARKETCAP	0.005**		0.004	
	[2.047]		[1.867]	
ASSETS		-0.106***		-0.010**
		[-2.928]		[-2.415]
TOBIN Q	-0.001	-0.004	-0.001	-0.003
	[-1.140]	[-0.651]	[-0.250]	[-0.650]
CONSTANT	0.408***	0.551***	0.261***	0.619***
	[5.358]	[6.095]	[1.160]	[9.060]
ADJUSTED R ²	0.137	0.153	0.142	0.153
OBSERVATIONS	256	256	255	255

***** indicates significance at 0.10, 0.05, and 0.01 respectively. t-statistics are listed in brackets.

Table VII
Regressions of six different measures of target CEO compensation inequities on control variables for target firms greater than one billion dollars in enterprise value who experienced a merger or tender offer: 1996 - 2010.

Ordinary least squares regressions of the form: $Inequity = B_{0t} + B_1 Governance_{i(t-1)} + B_2 Control_{i(t-1)}$. The dependent variables for Models 1 – 6 are the compensation inequity ratios $CI_i/(1 + CI_i)$ as described in Table I. The dependent variable for Models 1- 6 is Inequity CEO AGE is defined as the AGE of the CEO one year prior to the announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. CHAIR is an indicator variable that takes a one if the CEO is also the chairperson. PRICECHANGE is the change in the firm's common stock price two years before announcement. RECESSION is an indicator variable that takes a one if the announcement date falls within a year defined by the NBER as a recession. BLOCKHOLDERS is the total number of outside blockholders who own a firm's common stock. BLOCK TOTAL is defined as the total outside ownership of blockholders who own greater than five percent of a firm's common stock. MARKETCAP is the determined as the natural log of the firm's common shares outstanding multiplied by the year-end price. TOBIN Q is estimated as a firm's market capitalization plus preferred stock plus current liabilities divided by total assets one year prior to announcement.

Variable	<u>Inequity 1</u>		<u>Inequity 2</u>	
	Model 1	Model 2	Model 1	Model 2
CEO AGE	0.001 [0.469]	-0.002 [-0.820]	0.001 [0.578]	0.000 [0.216]
TENURE	0.007*** [2.951]	0.003 [0.850]	0.008*** [3.558]	0.002 [0.576]
OWNERSHIP	-0.014*** [7.438]	0.006 [0.587]	-0.014*** [-8.229]	0.021** [2.361]
CHAIR	0.079*** [3.267]	0.117*** [3.993]	0.047** [2.183]	0.078*** [3.278]
PRICECHANGE	-0.013 [0.608]	-0.331 [-0.725]	0.010 [0.653]	-0.017 [-0.489]
RECESSION	-0.065 [-1.536]	-0.266*** [-3.729]	-0.039 [-1.060]	-0.275*** [-4.765]
BLOCK TOTAL	0.002*** [3.092]	0.000 [0.297]	0.001 [2.187]	0.000 [0.356]
MARKETCAP	-0.021*** [2.478]	-0.003 [-0.271]	-0.007 [-0.819]	0.005 [0.495]
TOBIN Q		0.005 [0.381]		0.004 [0.408]
CONSTANT	0.609*** [6.551]	0.608*** [4.521]	0.594*** [7.052]	0.561*** [5.189]
ADJUSTED R ²	0.361	0.373	0.374	0.452
OBSERVATIONS	118	54	118	54

***** indicates significance at 0.10, 0.05, and 0.01 respectively. t-statistics are listed in brackets.

Table VIII**Regression analysis of acquirer cumulative abnormal returns on excess compensation inequities and control variables for mergers and acquisitions greater than one billion dollars in enterprise value: 1996 - 2010.**

Ordinary least squares regressions of the form: $ACAR_{(t, t+1)} = B_{0t} + B_1 Abnormal_{(t-1)} + B_2 Control_{1(t-1)}$. ABNORMAL INEQUITY are the residual terms from Table VI. CEO AGE is the age of the CEO one year prior to the announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. CHAIR is an indicator variable that takes a one if the CEO is also the chairperson. MARKETCAP is determined as the natural log of the firm's common shares outstanding multiplied by the year-end price. TOBIN Q is estimated as a firm's market capitalization plus preferred stock plus current liabilities divided by total assets one year prior to announcement. PCTSTOCK is the percentage of stock used to finance the transaction. PREMIUM is defined one month offer premium prior to the announcement. COMPLETED is an indicator variable that takes a one if the merger is listed in SDC as successful. RECESSION is an indicator variable that takes a one if the announcement date falls within a year defined by the NBER as a recession.

VARIABLE	CAR [-15, -2]	CAR [-1, +1]	CAR [+2, +15]
ABNORMAL INEQUITY	0.015 [0.261]	0.010 [0.282]	-0.027 [-0.567]
CEO AGE	0.001 [0.543]	0.001 [1.072]	0.000 [0.229]
TENURE	0.001 [0.567]	0.000 [0.325]	0.001 [1.350]
OWNERSHIP	0.000 [0.244]	0.000 [0.002]	-0.003 [-1.965]
CHAIR	-0.008 [-0.607]	0.021** [2.092]	0.005 [0.322]
MARKETCAP	0.002 [0.897]	0.003 [2.046]	0.003* [1.742]
TOBIN Q	-0.004 [-1.227]	0.000 [-0.046]	0.004 [0.139]
PCTSTOCK	0.000* [1.773]	0.000** [-2.015]	0.000 [0.391]
PREMIUM	0.000 [1.020]	0.000 [0.790]	0.000 [0.403]
COMPLETED			0.012 [0.650]
RECESSION	-0.014 [-0.842]	-0.016 [-1.227]	0.007 [0.352]
ATTITUDE	-0.003 [-0.189]	-0.009 [-0.651]	-0.014 [-0.667]
CONSTANT	-0.039 [-0.779]	-0.077 [-1.897]	-0.053 [-0.907]
ADJUSTED R ²	-0.018	0.049	0.001
OBSERVATIONS	207	207	207

***** indicates significance at 0.10, 0.05, and 0.01 respectively. t-statistics are listed in brackets.

Table IX
Regression analysis of target cumulative abnormal returns on excess compensation inequities and control variables for mergers and acquisitions greater than one billion dollars in enterprise value: 1996 - 2010.

Ordinary least squares regressions of the form: $CAR_{(t, t+1)} = B_0 + B_1 Abnormal_{(t-1)} + B_2 Control_{i(t-1)}$. ABNORMAL INEQUITY are the residual terms from Table VI. CEO AGE is the age of the CEO one year prior to the announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. CHAIR is an indicator variable that takes a one if the CEO is also the chairperson. MARKETCAP is determined as the natural log of the firm's common shares outstanding multiplied by the year-end price. TOBIN Q is estimated as a firm's market capitalization plus preferred stock plus current liabilities divided by total assets one year prior to announcement. PCTSTOCK is the percentage of stock used to finance the transaction. PREMIUM is defined as the one month offer premium prior to the announcement. COMPLETED is an indicator variable that takes a one if the merger is listed in SDC as successful. RECESSION is an indicator variable that takes a one if the announcement date falls within a year defined by the NBER as a recession.

VARIABLE	CAR [-15, -2]	CAR [-1, +1]	CAR [+2, +15]
ABNORMAL INEQUITY	-0.346* [-1.922]	0.116 [0.468]	0.091** [2.401]
CEO AGE	0.001 [0.253]	0.006 [0.935]	-0.002 [-0.516]
TENURE	0.000 [-0.078]	-0.014 [-1.507]	-0.004 [-0.690]
OWNERSHIP	-0.027 [-0.694]	-0.042 [-0.549]	0.043 [1.007]
CHAIR	0.025** [1.856]	0.026 [0.967]	0.046*** [2.802]
MARKETCAP	0.020 [1.601]	-0.031 [-1.259]	0.004 [0.285]
TOBIN Q	0.010 [0.566]	-0.032 [-0.953]	0.002 [0.282]
PCTSTOCK	0.000 [-0.365]	-0.001 [-0.674]	0.000 [0.867]
PREMIUM	0.001 [1.459]	0.004*** [3.905]	0.000 [0.605]
COMPLETED			0.054 [0.800]
RECESSION	-0.194** [-2.383]	-0.022 [-0.139]	0.102 [0.985]
ATTITUDE	0.077* [1.769]	-0.127 [-1.483]	0.092 [1.372]
CONSTANT	-0.191 [-0.943]	0.150 0.374	-0.078 [-0.317]
ADJUSTED R ²	0.132	0.528	0.117
OBSERVATIONS	50	50	50

**** indicates significance at 0.10, 0.05, and 0.01 respectively.
t-statistics are listed in brackets.

Table X
Regression of offer premium on control variables for acquiring firms on inequity and governance, for mergers and acquisitions greater than one billion dollars in enterprise value: 1996 – 2010.

Ordinary least squares regression of the form: $Premium = B_{0t} + B_1Abnormal_{i(t-1)} + B_2Control_{i(t-1)}$. ABNORMAL INEQUITY is the error term from model 2 of Table VI. CEO AGE is the age of the CEO one year prior to the announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. CHAIR is an indicator variable that takes a one if the CEO is also the chairperson. MARKETCAP is the determined as the natural log of the firm's common shares outstanding multiplied by the year-end price. TOBIN Q is estimated as a firm's market capitalization plus preferred stock plus current liabilities divided by total assets one year prior to announcement. ATTITUDE is an indicator variable that takes a one if the merger is listed in SDC as hostile or unsolicited.

VARIABLE	One Day	One Week	One Month
ABNORMAL INEQUITY	-0.994 [-0.074]	-2.544 [-0.143]	7.667 [0.385]
CEO AGE	-0.072 [-0.244]	-0.167 [-0.584]	-0.006 [-0.019]
TENURE	-0.925*** [-2.693]	-0.849*** [-2.853]	-0.034*** [-3.115]
OWNERSHIP	0.876* [1.902]	0.897** [2.000]	0.951* [1.895]
CHAIR	15.790*** [3.800]	15.121*** [3.891]	18.590*** [4.421]
MARKETCAP	-0.400 [-0.712]	-0.343 [-0.650]	-0.270 [-.445]
TOBIN Q	-0.379 [-0.345]	-0.632 [-0.601]	0.186 [0.158]
ATTITUDE	13.693*** [2.598]	12.76** [2.503]	9.073 [1.591]
CONSTANT	31.161* [1.958]	40.33*** [2.616]	32.234* [1.870]
ADJUSTED R ²	0.077	0.083	0.090
OBSERVATIONS	239	238	238

***** indicates significance at 0.10, 0.05, and 0.01 respectively.

t-statistics are listed in brackets.

Table XI**Logistic regression of tender offer likelihood on six different measures of compensation inequities and control variables for target firms greater than one billion dollars in enterprise value: 1996 - 2010.**

Logistic regression of the form: $P(y = \text{hostile}) = e^{XB}/(1 + e^{XB})$. ABNORMAL INEQUITY is the error term from model 2 of Table VII. CEO AGE is the age of the CEO one year prior to the announcement date. TENURE is defined as the length of time the CEO has been in their respective position based on year prior to announcement. OWNERSHIP represents the percentage of common stock owned by the CEO one year prior to the announcement date. CHAIR is an indicator variable that takes a one if the CEO is also the chairperson. MARKETCAP is the determined as the natural log of the firm's common shares outstanding multiplied by the year-end price. TOBIN Q is estimated as a firm's market capitalization plus preferred stock plus current liabilities divided by total assets one year prior to announcement. RECESSION is an indicator variable that takes a one if the announcement date falls within a year defined by the NBER as a recession. OWNERSHIP is the percentage of common shares owned by the CEO one year prior to the announcement.

VARIABLE	Acquirer	Target
ABNORMAL INEQUITY	0.348 [2.076]	3.391 [4.425]
CEO AGE	0.014 [0.034]	-0.025 [0.053]
TENURE	-0.005 [0.045]	-0.011 [0.106]
OWNERSHIP	0.036 [0.045]	0.116 [0.320]
MARKETCAP	0.093 [0.438]	-0.206 [0.825]
TOBIN Q	0.000 [0.000]	0.224 [0.316]
RECESSION	0.009 [0.128]	-0.967 [0.589]
CONSTANT	0.216 [0.589]	-20.267 [2,240.086]
OBSERVATIONS	212	50

***** indicates significance at 0.10, 0.05, and 0.01 respectively.

Standard errors are listed in brackets.

Figure I
Base Compensation of for EMC Corporation, 1997

COMPENSATION OF EXECUTIVE OFFICERS

The following table discloses compensation received by the Company's Chief Executive Officer and the four remaining most highly paid executive officers for the three fiscal years ended December 31, 1996.

SUMMARY COMPENSATION TABLE

<TABLE>
<CAPTION>

NAME AND PRINCIPAL POSITION	YEAR	ANNUAL COMPENSATION			LONG TERM COMPENSATION	
		SALARY (\$)	BONUS (\$) (1)	OTHER ANNUAL COMPENSATION (\$)	AWARDS OPTIONS (#)	ALL OTHER COMPENSATION (\$)
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Michael C. Ruettggers....	1996	397,808	661,479	--	250,000	2,000 (2)
President, Chief	1995	276,700	366,120	--	--	2,000 (2)
Executive Officer and	1994	260,000	366,660	--	--	2,000 (2)
Director						
Robert T. O'Connell.....	1996	234,616	459,989	--	--	2,000 (2)
Senior Vice President	1995 (3)	95,096	124,017	27,260 (4)	100,000	500 (2)
Chief Staff Officer	1994	--	--	--	--	--
Raymond Fortune.....	1996	234,327	396,434	--	--	2,000 (2)
Senior Vice President	1995	190,192	217,450	--	56,250	2,000 (2)
International Sales	1994 (5)	73,231	122,102	--	75,000	500 (2)
Michael A. Klayko.....	1996 (6)	202,885	273,250	--	75,000	1,500 (2)
Senior Vice President	1995	--	--	--	--	--
North American	1994	--	--	--	--	--
Sales/Services						
Richard J. Egan.....	1996	105,500	236,400	100,000 (7)	1,000,000	291,840 (8)
Chairman of the Board	1995	276,700	366,120	--	--	319,376 (8)
and Director	1994	260,000	366,660	--	--	371,147 (8)

</TABLE>

Figure II
Option Compensation of for EMC Corporation, 1997

OPTION GRANTS IN LAST FISCAL YEAR

The following table provides information on option grants in fiscal 1996 to the named executive officers.

<TABLE>
<CAPTION>

NAME	INDIVIDUAL GRANTS					POTENTIAL REALIZED VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM		
	NUMBER OF OPTIONS GRANTED IN 1996	PERCENT OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN FISCAL YEAR (1)	EXERCISE PRICE PER SHARE	MARKET PRICE PER SHARE ON DATE OF GRANT	EXPIRATION DATE	0%	5%	10%
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
Michael C. Ruettgers (2).....	250,000	5.93%	\$ 9.25	\$18.50	7/24/06	\$2,312,500	\$ 5,220,000	\$ 9,682,500
Robert T. O'Connell.....	--	--	--	--	--	--	--	--
Raymond Fortune.....	--	--	--	--	--	--	--	--
Michael A. Klayko (3)...	75,000	1.78%	20.88	20.88	3/06/06	--	984,750	2,496,000
Richard J. Egan (4).....	500,000	11.87%	9.25	18.50	7/24/06	4,625,000	10,440,000	19,365,000
	500,000	11.87%	18.50	18.50	7/24/06	--	5,815,000	14,740,000

</TABLE>

Figure III Total Compensation of for EMC Corporation, 2009

COMPENSATION OF EXECUTIVE OFFICERS

Summary Compensation Table

The table below summarizes the compensation information for the Named Executive Officers for the fiscal year ended December 31, 2009.

The amounts shown in the Stock Awards and Option Awards columns reflect the grant date fair value of equity awards for 2009 and prior years, not the actual amounts paid to or that may be realized by the Named Executive Officers. Historically, we have granted performance-based equity awards in the year prior to the applicable performance year, and approved the specific performance goals for such awards during the first quarter of the performance year, at which time the award is given a grant date fair value for accounting purposes. Because we are required to disclose compensation in the table in accordance with applicable accounting rules, the value of the performance-based equity awards granted to our Named Executive Officers in one year is reflected in the table as compensation for the following year. In contrast, the value of the time-based equity awards granted to our Named Executive Officers is reflected in the table as compensation in the year of grant. As an example, for 2007, no equity award compensation is reflected in the table for Mr. Tucci because, at his request, he did not receive any equity awards in 2006 or 2007. In each of 2008 and 2009, Mr. Tucci was granted performance-based and time-based equity awards. However, for 2008, the value of Mr. Tucci's equity award compensation only reflects the time-based equity awards he was granted in 2008. For 2009, the value of Mr. Tucci's equity award compensation reflects the performance-based equity awards he was granted in 2008 as well as the time-based awards he was granted in 2009.

Name and Principal Position	Year	Salary ¹ (\$)	Bonus (\$)	Stock Awards ² (\$)	Option Awards ² (\$)	Non-Equity Incentive Plan Compensation ³ (\$)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation ⁴ (\$)	Total (\$)
Joseph M. Tucci Chairman, President and Chief Executive Officer	2009	872,308	0	5,995,800 ⁵	962,085 ⁵	1,068,420 ⁶	0	149,150	9,047,763 ³
	2008	1,000,000	0	3,036,000	592,287	1,388,628	0	239,039	6,255,954
	2007	1,000,000	1,000,000	0	0	2,520,000	0	205,546	4,725,546
David I. Goulden Executive Vice President and Chief Financial Officer	2009	523,391	0	2,047,260	263,357	572,368 ⁷	0	14,902	3,421,278
	2008	600,000	0	2,489,280	380,450	585,640	0	45,394	4,100,764
	2007	575,000	260,000	1,223,040	201,851	875,000	0	31,889	3,166,780
William J. Teuber, Jr. Vice Chairman	2009	609,673	0	2,176,860	301,025	655,684 ⁸	0	8,870	3,752,112
	2008	700,000	0	2,800,440	499,341	675,291	0	26,067	4,701,139
	2007	650,000	0	1,375,920	264,930	1,150,000	0	26,617	3,467,467
Howard D. Elias President and Chief Operating Officer, Information Infrastructure and Cloud Services	2009	523,391	0	2,047,260	263,357	549,419 ⁹	0	15,020	3,398,447
	2008	600,000	0	2,489,280	380,450	566,880	0	45,320	4,081,930
	2007	600,000	0	1,223,040	201,851	728,000	0	29,808	2,782,699
Patrick P. Gelsinger President and Chief Operating Officer, Information Infrastructure Products	2009	182,308 ¹⁰	325,000 ¹¹	8,235,000	2,659,881	175,000 ¹²	0	132,633	11,709,822
Harry L. You Executive Vice President	2009	523,391	0	1,280,340	565,511	572,368 ¹³	0	982,019	3,923,629

¹ Amounts represent base salary earned during 2009 and reflect the base salary reductions implemented in January 2009 and May 2009 for Messrs. Tucci, Goulden, Teuber, Elias and You, as described under "Elements of EMC's Executive Compensation Program – Base Salary" on page 37 of this Proxy Statement.

² Amounts represent the grant date fair value for stock awards and stock options in 2009, 2008 and 2007 in accordance with FASB ASC Topic 718. Performance-contingent equity grant amounts assume target shares issued, which also represent the maximum number of

Figure IV
Frequency distribution of mergers and acquisitions greater than one billion dollars in enterprise value: 1996 – 2010.

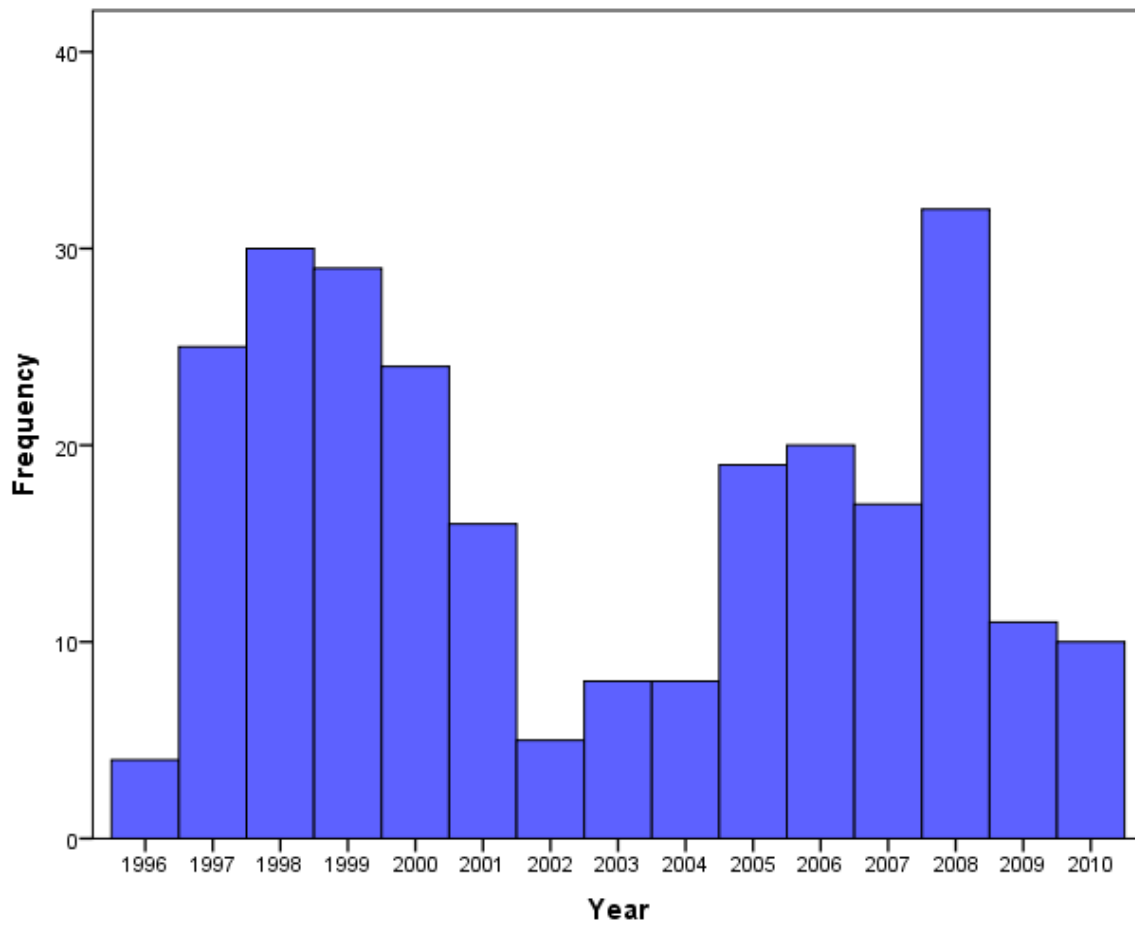
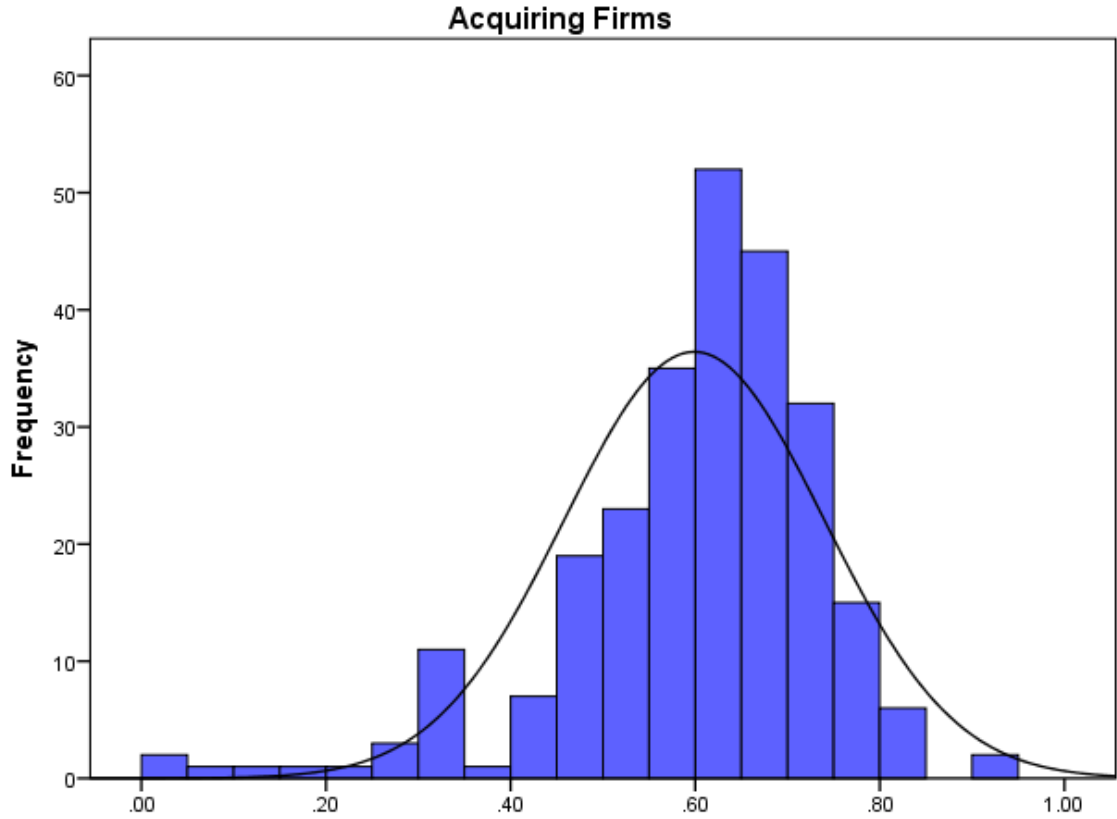
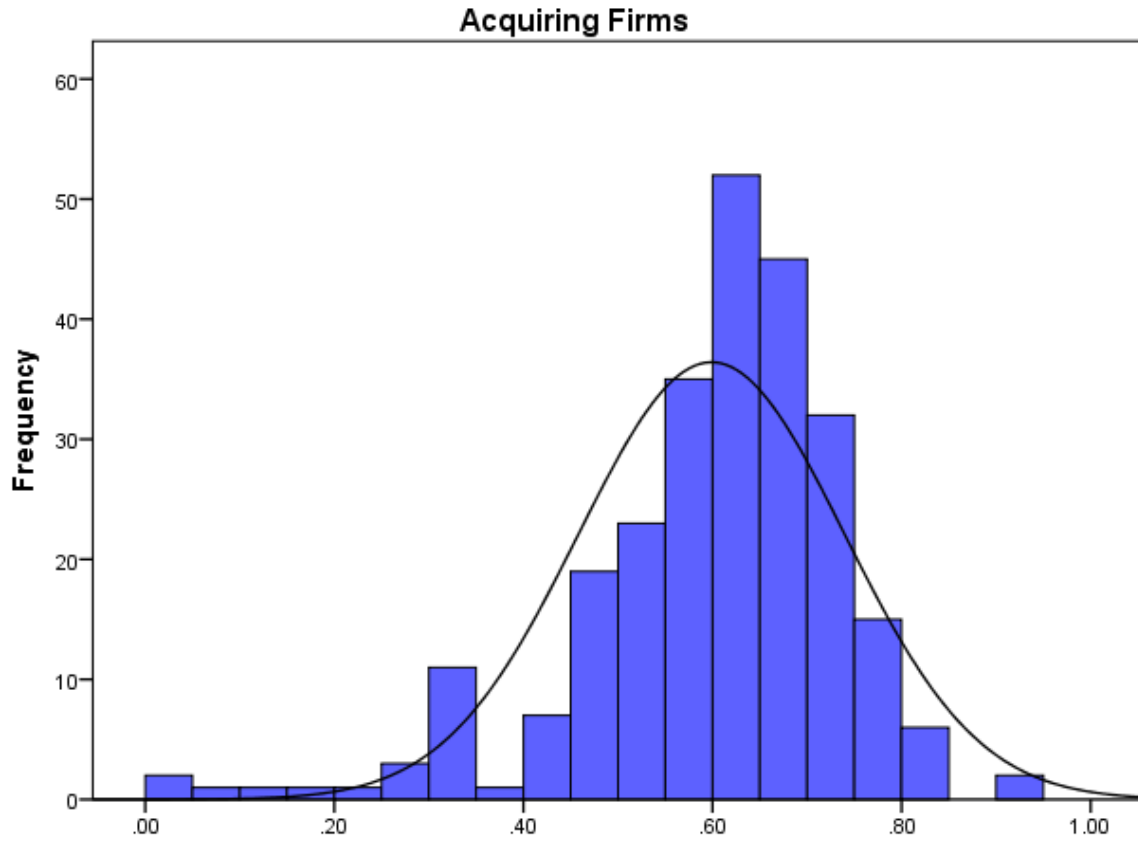


Figure V
Frequency distribution of compensation inequity for acquiring firm CEOs over the next highest paid executive: 1996 - 2010



Compensation inequity 1 is listed on the horizontal axis. Normal curve is indicated by the purple line.

Figure VI
Frequency distribution of compensation inequity for target firm CEOs over the next highest paid executive: 1996 - 2010



Compensation inequity 1 is listed on the horizontal axis. Normal curve is indicated by the purple line.