

CEO Power and Mergers and Acquisitions*

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June 21, 2015

Abstract

We find CEO power in acquiring firms can explain the occurrence of both large value creation and destruction deals in M&A. Specifically, we find firms with powerful CEOs make fewer deals and the returns on those deals are less dispersed. Firms with powerful CEOs are also less likely to do all cash deals and use a larger proportion of stocks in payments. We relate this to the incentive of powerful CEOs to avoid making big salient mistakes in major firm decisions to protect them from adverse career consequences. However, we also find that firms with powerful CEOs are more reluctant to withdraw deals given negative market reactions to the announcements of the deals, which suggests that powerful CEOs do pursue deals that increase their private benefits of control but within certain limits. Our evidence offers a new perspective on M&A deals with extreme returns and CEO objectives.

Keywords: Merger and acquisition, CEO power, Acquirer returns, Quiet life,

Empire building, CEO objectives

JEL Classification: G34

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1. INTRODUCTION

Mergers and Acquisitions (M&As) are among the most significant corporate events and can have significant implications for both the management and shareholders. An examination of M&A deals in the U.S. in the last 15 years reveals that the dispersion in M&A synergy gains and losses range from a loss of up to \$60 billion to a gain of over \$25 billion based on the announcement period stock returns. Deals that are at the two tails of this distribution have received a lot of attention from both the public and academic researchers because of their enormous impact on shareholder value (Moeller, Schlingemann, and Stulz, 2005; Fich, Nguyen and Officer, 2012). However, despite these studies, the question of what drives these large value creation and destruction deals is still not well understood. Most importantly, how agency problems are related to these deals has not been studied even though at the heart of any significant corporate finance decision is the agency issue.

In this paper, we offer a new explanation for the extreme performances of major acquisitions by focusing on CEO power in corporate acquisition decisions. The intuition of our explanation is that both large value creation and destruction deals represent extreme *ex post* realizations of deals that have high *ex ante* uncertainty. Although powerful CEOs have more freedom to pursue their own self-interest, they also have more to lose if the deal turns out to be bad. Since both large value creation and destruction deals could result from firms taking on highly risky targets, powerful CEOs will be more conservative in acquisitions and thus they are less likely to initiate risky deals which potentially could lead to either large gains or large losses. We find that our measure of CEO power in acquiring firms not only explains the dispersion of bidder announcement period stock returns but also the observed frequency of deals in the data.

To elaborate, the more power a CEO wields in a firm, the more likely the M&A decisions will reflect the CEO's preference rather than that of the shareholders (or their representatives, the board of directors). In the M&A context, because a major failure in an acquisition is highly visible and could potentially endanger the position of even entrenched CEOs (Lehn and Zhao 2006), powerful CEOs are likely to avoid risky acquisitions to protect their jobs, future compensation, and other private benefits. Based on these considerations, we develop a simple, highly stylized model to crystallize a CEO's acquisition decision process in which the uncertainty attached to a potential acquisition deal is an important factor. While the Board which represents shareholders' interest would like the CEO to accept positive NPV deals, a powerful CEO may deviate from this first-best solution, since a failure of a large deal could damage his/her reputation and might lead to dismissal from the job. Our simple model suggests that firms with powerful CEOs might avoid taking riskier projects, which leads to two important

testable hypotheses: (1) Firms with powerful CEOs make fewer risky acquisitions; and (2) the distribution of net gains from acquisitions of such firms is less dispersed.

To measure CEO power, following arguments put forward by Jensen (1993) and Finkelstein (1992), we develop a CEO Power Index to quantify the level of influence a given CEO has in the M&A decision-making process. Our CEO Power Index has five components of equal weight: CEO-chairman duality, board size, CEO tenure, CEO entrenchment, and board independence. Both Jensen (1993) and Finkelstein (1992) have recognized that any single measure may not best capture the level of influence of a given CEO. But collectively, our measures work in conjunction when establishing different degrees of CEO power. To deal with other confounding factors, we control variables for bidder characteristics, deal characteristics, and performance measures. We have mitigated some causality issues by measuring our CEO Power Index at the annual meeting date directly preceding all M&A announcements for that year.

Both the dollar return (DR) and cumulative Abnormal Return (CAR) are used as the measure of bidder deal return. Our rationale for this is to investigate a relationship that is consistent across both measures and therefore is not driven by firm size. Given that our corporate governance data begin in 1996, we construct an M&A sample from 1996 to 2009, consisting of all announced deals (completed and withdrawn). We find that our CEO Power Index has a negative relationship with the absolute value of both of our deal return measures. To make sure that our results are not driven by extreme acquisition returns in one direction, we examine positive and negative deal returns separately and confirm that our results are valid in both tails. These findings allow us to conclude that bidder announcement returns are less dispersed in firms with more powerful CEOs than in firms with less powerful ones.

Although these main findings lend support to the hypothesis that powerful CEOs are more conservative in acquisition decisions, we examine additional aspects of the acquisition decision-making process that can shed more light on the different risk preferences of firms with and without powerful CEOs. Among the firms that do make an acquisition announcement in a given year, almost 15% make two or more deals. Given that there are serial bidders in a given year, we investigate the number of M&A deals announced by a firm in our sample and find that there is a negative relationship between the deal count and our CEO Power Index. In addition, we use a Probit model to establish the likelihood of a firm announcing an acquisition in a given year. Through marginal probability calculations, we find that a one level increase in our CEO Power Index results in a 10% decrease in the probability of a firm announcing an acquisition in a given year. A one level increase in our CEO Power Index could occur if a firm appoints the CEO as the chairman of the board at the annual general meeting. This negative relationship between our CEO Power Index and the likelihood of an acquisition being announced supports our previous

findings. Not only are powerful CEOs less likely to announce deals that are in either extremes of the deal return distribution, but they also announce acquisitions less frequently in general.

The decision of whether or not to finance an M&A by all cash or some form of stock has important implications for the firm, particularly considering the size of the acquisition. Rappaport and Sirower (1999) examine this relationship and provide insights into the trade-offs that exist for acquirers. All cash deals place all potential risk with the acquirer, while issuing shares helps acquirers to reduce deal risk and share it with the target shareholders. Therefore, the method of payment can be another indicator of whether the acquisition decisions are conservative or aggressive. We therefore investigate whether powerful CEOs are more likely to use cash as a method of payment in acquisitions. We find that there is a significant negative relationship between the CEO Power Index and the likelihood of using all cash. It is estimated that firms with the most powerful CEOs according to our index have a probability of 16.5% of using only cash as a method of payment, while firms with the least powerful CEOs have a 46.4% probability. We also estimate regressions where the dependent variable is the percentage of stocks in the payment for the acquisition and find that firms with high power CEOs tend to use more stocks in payment than firms with low power ones. These results suggest that more powerful CEOs are more conservative in payment methods than less powerful ones.

Until now, our evidence is consistent with the desire of powerful CEOs for a ‘quiet life’ (see Bertrand and Mullainathan 2003). However, many studies also show that CEOs gain more pecuniary and non-pecuniary benefits from managing large firms and thus seek to build large empires. Obviously, acquisition is an important way to build empires. To reconcile these two opposing views, we examine withdrawals of acquisitions given negative stock market reactions in firms with low and high powered CEOs. Our starting point is that even in firms with entrenched CEOs, not all acquisitions are motivated by empire building aims. However, if an acquisition is pursued by a powerful CEO to extend his/her private benefits, the firm should be less likely to withdraw the deal given negative stock market reaction than firms with less powerful CEOs. Consistent with this empire building view of CEO objectives, we find that firms with high power CEOs are less likely to withdraw from a deal than firms with low power CEOs following negative stock market reaction to the deal announcement.

This paper contributes to the large existing literature on M&A by presenting a new perspective for understanding the large value creation and destruction of M&A deals. Moeller, Schlingemann, and Stulz (2005) find that the aggregate dollar losses from a small number of large value destruction acquisitions exceed the aggregate gains from all other acquisitions announced between 1998 and 2001. However, some M&A deals do generate large synergy gains for acquiring-firm shareholders. Fich, Nguyen and Officer (2012) study the characteristics of these large dollar gain deals relative to other deals including those with large losses. Both papers implicitly assume that large value creation deals and large value destruction deals are

driven by very different firm and deal fundamentals. To the best of our knowledge, no prior studies have examined whether certain firm or governance characteristics can help to explain *simultaneously* the extreme value impact of M&A announcement returns, both positive and negative. Examining both extreme ends together allows us to establish whether there are some common denominating factors that are causing the distribution of acquirers' returns to be more dispersed. Furthermore, neither Moeller et. Al. (2005) nor Fich et. al. (2010) examines how the decision-making processes at the firm level affects these extreme deals. In the value destruction analysis of Moeller et al. (2005), corporate governance is absent; while in the value creation study by Fich et al. (2012), the main measure of corporate governance is the anti-takeover index of Gompers, Ishii, and Metrick (2003). Given that M&A investments are large corporate investment decisions, as we have previously discussed, we must examine the decision-making processes at the firm level in order to understand what drives some firms to take on deals that have a higher level of uncertainty. We show that a common factor – CEO power in the bidder firms – is significantly associated with both types of deals: firms with powerful CEOs are less likely to announce either type of deals. By contrast, it is firms with less powerful CEOs, in other words, stronger boards and better internal governance by some measures, that are more likely to announce deals with large synergistic gains and losses.

Secondly, this paper provides new insights into the objectives that managers pursue. Based on data on plant openings and closings, Bertrand and Mullainathan (2003) find that, when managers are more insulated from the takeover market, they reduce both the closing of existing plants and opening of new plants. Their evidence suggests that average managers seek a 'quiet life' more than empire building. However, other studies show that the empire building motive among top managers may dominate; see Jensen (1986) and Lewellen, Loderer, and Rosenfeld (1989). Our evidence reconciles these two conflicting views to a certain degree. We show that the two goals do not have to be mutually exclusive. It is possible that some acquisitions made by firms with powerful CEOs are motivated by empire building. We find that firms with powerful CEOs are more reluctant to withdraw from deals than firms with less powerful CEOs, given negative market reactions to the announcements of the deals. Our results seem to suggest that, when powerful CEOs engage in empire building, these deals tend not to destruct large values.

Lastly, we contribute to the growing corporate governance literature on CEO power and firm outcomes. Building on the idea in Sah and Stiglitz (1986, 1991) that judgement errors are not well diversified in individual versus group decision making, Adams, Almeida and Ferreira (2005) find that stock returns are more variable for firms with powerful CEOs. Similar arguments would suggest that acquirer returns may be more variable for firms with powerful CEOs. However, we find that, in the case of making M&A decisions, firms with more powerful CEOs tend to have less variable announcement returns than firms with less powerful CEOs. One

difference between our study and Adams, et al. (2005) is that their results capture the effects of all decisions made by the CEO and the board including many routine operational decisions while we focus only on highly visible large investment decisions – the M&A decisions. The difference in the findings suggests that CEO power may manifest itself very differently depending on the type of the decision. While the judgement error effect seems to dominate in less visible decisions, CEO conservatism effect seems to prevail in large highly visible decisions. Small judgement errors are unlikely to cause an entrenched CEO to lose his job but a large salient mistake such as a failed major acquisition deal can.

The rest of this paper is organised as follows. In section 2, we build a simple model to help us to develop the main hypotheses. Section 3 discusses sample construction and the construction of the CEO power index. Section 4 presents the empirical results and Section 5 concludes.

2. Development of Hypotheses

In this section, we develop a simple, highly stylized model which guides us to investigate testable hypotheses regarding a CEO's acquisition decision. The power of a CEO reflects his ability to execute major corporate decisions through strong will, persuasion and other means. The fundamental idea is that when the CEO is more powerful in a firm, the M&A decisions are more likely to reflect the CEO's personal preference than that of the shareholders. However, M&A is a high publicity event. The CEO who undertakes a failed acquisition is penalized in the market, and often leads to loss of his reputation, his position or both, see Lehn and Zhao (2006).

To elaborate, we make the following assumptions:

1. Projects:

Assume that there are two states of nature. In the "good" state, the net gain from a potential acquisition is $X + h$; and in the "bad" state, the net gain is $X - h$. Both states could happen in equal probability. Thus, the *ex ante* net gains from a potential acquisition to the shareholders is a random variable with a mean of X and a standard deviation of h . Both the Board and the CEO are informed of the project's expected return and risk profile, (X, h) . But the market does not.

2. The Board's preference:

For simplicity, we assume that the Board of Directors represent shareholders' interest, essentially we abstract away the potential conflict between shareholders and the Board of Directors, which itself has been the focus of an extensive literature in corporate governance. As the shareholders are well diversified, they may not care about idiosyncratic risk related to the potential acquisition. The systematic risk has been reflected in the discount rate required and

thus the NPV calculation itself. The Board therefore will instruct the CEO to take all positive NPV acquisitions. That is, all projects with $X > 0$.

3. The CEO's preference:

Without loss of generality, we assume that the CEO is *risk neutral*. His compensation is based on a flat salary and k shares of the firm's stock. We take this form of executive compensation as given, without elaborating whether it is optimal. However, the CEO is also concerned with the potential dismissal, which has a positive probability $q = q(h - X)$ if the realization of the deal is negative (i.e., $h - X > 0$). It is documented by Lehn and Zhao (2006) that the probability of CEO's dismissal after the bad acquisition is independent whether the CEO has dual roles (both CEO and Chairman of the Board) or not. The dismissal of a CEO after bad acquisition can be through internal governance mechanism, or the acquiring firm being taken over later on or going bankruptcy. The probability of dismissal is an increasing function of the loss: $q' > 0$. If fired, the monetary equivalence of losing the job is M . Furthermore, the market may not have the ability to distinguish between luck and skill in acquisitions; therefore, the penalty for bad deals relies on the *ex post* realization of the outcome. Thus, the CEO's objective function is characterized by:

$$\max \frac{1}{2}k(X + h) + \frac{1}{2} \left[k(X - h) - qMI_{\{X-h<0\}} \right] \quad (1)$$

$I_{\{X-h<0\}}$ equals one if the net gain from acquisition is negative, zero otherwise.

While a less powerful CEO may obey the Board's will and choose acquisition deals based on the NPV considerations alone, a powerful CEO will make the acquisition is and only if

$$X > \frac{q}{2k} MI_{\{h>X\}}. \quad (2)$$

The immediate implications are that

- a. With a concern of being penalized in the market, particularly getting fired (i.e. $M > 0$), powerful CEOs will take fewer acquisitions than the Board (and shareholders) prefers.
- b. The higher M , the fewer of the acquisition deals. Those losing more after being fired would make fewer acquisitions.
- c. Given the mean of the potential acquisition at X , the higher the variance h is, the fewer the acquisition deals. Note that the Board's preference is independent of the variance of the potential deal.

Based on above analyses, we will test the following two main hypotheses in this paper:

H1: *Firms with powerful CEOs are associated with a lower dispersion of announcement returns than firms with less powerful CEOs.*

H2: *Firms with more powerful CEOs make less frequent deals than firms with less powerful CEOs.*

There exists an extensive literature on whether firms use cash or stock as the method of payments for acquisitions. Our simple model cannot accommodate the complexity of many factors involved. Nevertheless, if cash offers are associated with higher risk for the acquiring firms' shareholders, thus a higher parameter h in inequality (2), then,

H3: *Firms with more powerful CEOs are less likely to make all cash deals than firms less powerful CEOs.*

3. Data and Sample

The M&A data come from the SDC database, stock return data from CRSP, firm financial data from Compustat and the board of directors and governance data from RiskMetrics. The sample period is from 1996 to 2009. We start our sample in 1996 because that is the first year the RiskMetric data is available. All initial bids were announced between January 1, 1996 and December 31, 2009.

We require the bidder to be a U.S. publicly listed company and the deal value to be in excess of \$1 million and at least 1% of the bidder's market value of equity. The consideration offered must have some component of cash and/or stock. To focus on only mergers and acquisitions, the sample excludes spinoffs, recapitalizations, exchange offers, repurchases, self-tenders, acquisitions of remaining interest, leveraged buyouts, privatizations, rumoured deals, and miscellaneous deals which for example have no disclosed deal value or an unspecified target/buyer. To strictly ensure that only major acquisitions were included in the sample we have applied the conventional criteria. That is, all potential acquisitions were the bidder controls less than 50% of the target's share prior to the announcement and owns greater than 50% subsequently. We eliminate all firms within the financial services industry (SIC code between 6000 and 6999) as implemented in Graham, Lemmon and Wolf (2002). We exclude any deal for which stock return data is not available on CRSP to calculate the Cumulative Abnormal Returns (CARs). Our final M&A sample size consists of 2160¹ announced deals. These deals are from 46 of the Fama and French 48 industries thereby representing a wide range of industries.

3.1 CEO Power Index

¹ This particular sample includes both completed and withdrawn deals whereby intent to withdraw and unconditional was removed.

To measure CEO power, we construct a multi-dimension CEO power index because one measure of power may not capture the full complexity of the construct. For example, in Jensen (1993), several factors are mentioned to make board of directors ineffective which include culture and size, the lack of outside directorship and the lack of separation of CEO and Chairman duties.

We identify five common and intuitive measures of CEO power from the existing corporate governance literature and use them to construct our CEO power index. They are CEO-Chairman duality, board size, board independence, CEO tenure and the entrenchment index (E Index) of Bebchuk, Cohen and Ferrall (2008). CEOs who are chairman of the board and who have long tenures typically have more power in the firm and are more entrenched than other CEOs (Jensen, 1993; Goyal and Park, 2002). Smaller boards are often more effective in monitoring than larger boards. For example, Jensen (1993) argues that when the size of boards gets beyond seven or eight, they are less likely to operate effectively and are easier for the CEO to take control. Yermack (1996) finds that as board size grows, CEO performance incentives and the threat of dismissal become weaker, indicating greater CEO entrenchment and influence. The fraction of independent directors on the board is probably the most widely used measure of board monitoring effectiveness. There is ample evidence that board independence is positively related to board monitoring (Weisbach, 1988; Guo and Masulis, 2013). The entrenchment index (E Index) developed by Bebchuk, Cohen and Ferrall (2008) includes six provisions, namely; staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. These provisions are considered to be the most effective in limiting shareholders' voting rights in a firm and insulating the CEO from the market for corporate control and shareholder activism. A higher value of E index thus indicates more entrenchment of the CEO. Bebchuk, Cohen and Ferrall (2008) find that the E Index is negatively correlated with Tobin's Q. Masulis, Wang and Xie (2007) find that acquirer firm CEOs are more likely to make bad acquisitions when they are more insulated from the takeover market as indicated by a higher E index.

Given the above discussion, our CEO Power Index components are defined as:

1. **Chairman Dummy Variable:** this is equal to 1 if the CEO is also the chairman and zero otherwise.
2. **Large Board Size Dummy Variable:** this is equal to 1 if the board size is in the top quartile of the sample, that is the 75th percentile, and it is equal to zero otherwise.
3. **Low Board Independence Dummy Variable:** this is equal to 1 if the percentage of independent directors is less than or equal to 50% and zero otherwise.

- 4. Long Tenure Dummy Variable:** this is equal to 1 if the CEO tenure is in the top quartile of the sample, that is the 75th percentile, and it is equal to zero otherwise.
- 5. High Entrenchment Index Dummy Variable:** this is equal to 1 if the entrenchment index is in the top quartile of the sample, that is the 75th percentile, and it is equal to zero otherwise.

The CEO Power Index is thus computed by summing all of the five indicator variables. As a result, our CEO Power Index can range from 0 to 5, whereby 5 being the most powerful CEO's and 0 being the least powerful. Our rationale for the 75th percentile for three of the components is to examine the top firms which have definitively exceeded the median firm. We use 50% in our independence component as this reflects whether or not the majority of the board is independent.

3.2. The Dependent Variable

We measure dispersion of announcement returns by taking the absolute value of the Cumulative Abnormal Return (CAR) or Dollar Return (DR) to the bidder in the announcement period.

3.2.1. Bidder CAR

We calculate the CAR using a one-factor market model where the CRSP Equal Weighted Return is our proxy for the market portfolio. This model is estimated using daily stock returns and daily market returns over the pre-announcement period [-210, -11]. The Cumulative Abnormal Returns (CARs) are calculated through the Eventus program. Studies examining the announcement return in short term event studies have typically either taken the 3-day event window or the 5-day event window. We have opted to use the 5-day window, which is defined as (-2, +2) where event day 0 is the acquisition announcement date. The former 3-day CAR window can be found in Betton, Eckbo, and Thorburn (2008) and Moeller, Schlingemann and Stulz (2005), among others. Our rationale for employing the 5-day CAR window is due to the findings in Fuller et al. (2002) which in a random sample of 500 acquisitions from 1990 to 2000 found that the announcement dates provided by SDC are correct 92.6% of the time. The remaining 7.4% is incorrect by no more than two trading days. Thus, using the 5-day window ensures that even incorrect announcement dates will fall within our event window.

3.2.2. Bidder DR

Although CAR is a typical measure of deal success or failure, shareholders are also likely to pay attention to the dollar return of the deal. A small negative CAR to a very large bidder could mean a large dollar loss to the shareholders of the bidder. Malatesta (1983) recognizes

that the most appropriate measure for merger-related gains is the cumulative abnormal rates of return multiplied by the market capitalization over this period. Hence, we also use the dollar return as an alternative measure of deal return. Following Moeller et al (2004), the dollar return, DR, is calculated for each bidder by multiplying the CAR (for the 5-day event window) and the market capitalisation (multiplying the closing adjusted stock price and shares outstanding) for the bidder 3 days prior to announcement.

4. EMPIRICAL RESULTS

4.1 Descriptive statistics and univariate analysis

4.1.1 Sample characteristics and CEO Power Index

We have constructed two main samples as discussed previously. The summary statistics of these samples are reported in Table 1. Panel A presents summary statistics for the announced deals sample, which includes both completed and withdrawn deals, and Panel B of Table 1 presents summary statistics for the firm year sample, respectively.

<< INSERT TABLE 1 >>

From Panel A of Table 1, we see that the CAR over the 5-day window has a mean of -0.7% with a standard deviation of 7.3%. We observe that very extreme returns exist in both tails as the minimum and maximum values are -23.17% to 17.77% whilst the 25th percentile and 75th percentile CAR values are -3.8% and 3.2% respectively. Similar conclusions can be drawn from the DR measure, which has a mean of \$313 million yet with a median of \$3 billion. Within our sample we have found 31 instances where the DR, either positive or negative, has exceeded the \$ 1 billion mark. This therefore suggests that although the 25th percentile and 75th percentile DR values are -\$177 and \$111 million respectively, we do have instances of extremity in either value enhancing or destructing returns upon the announcement of M&A deals. The distribution of CARs and the frequency of completed deals are illustrated in Figure 1 and 2, respectively.

<< INSERT FIGURES 1 & 2 >>

Of particular importance to us is the summary statistics of the CEO Power Index. We find that board size ranges from 1 director to 21 directors with a median of 9. Moreover, the 75th percentile number of board of directors is 11. That is, if a firm has 11 or more board directors we will attribute a mark of 1 to its CEO Power Index. Similarly, we find that the median tenure is 5 years and the 75th percentile tenure is 10 years. In an untabulated analysis, we find that there are 9,263 observations of CEO duality from our 19,255 firm year observation sample. In addition, having calculated the E Index for our sample, we find that the median E Index is 2, out

of the maximum score of 6. Interestingly, the 75th percentile E Index is 3, suggesting that only a rare number of firms are towards the upper spectrum of the scale. The last component of our CEO Power Index is the percentage of independent directors on the board of directors. This varies from 0% to 100% independence across our firms and we find a median percentage of 70% with a mean of 67%. Our CEO Power Index receives a mark of one for a firm that does not have a majority of independence. Therefore, our CEO Power Index for a firm will receive a mark for each of the following:

1. Board of Director Size as defined by number of directors is ≥ 11
2. CEO Tenure as defined by years is ≥ 10
3. E Index for the CEO's respective firm is ≥ 3
4. Percentage of independent directors is $\leq 50\%$
5. CEO is also the Chairman of the Board of Directors

Given the above definition, we computed the CEO Power Index for our sample. We found that our sample contains all possible permutations from zero to five. The median CEO Power Index is 2 and the mean is 1.832. In Figure 3, we show the proportion of the sample that each level of the CEO Power Index comprises. Approximately 10% of the sample has a CEO Power Index of 0, thereby reflecting those firms with the least powerful CEOs. Whilst, approximately 5% of the sample has a CEO Power Index of 4 and 5, reflecting the most powerful CEOs.

<< INSERT FIGURE 3 >>

Table 2 shows that the median year for each level of our CEO Power Index begins to become older as we move from 0 to 5. Most notably, the most powerful CEOs as defined by an index of 4 and 5 have a median year of 1999 and 2000 respectively. In contrast, we see that an index of 0 and 1 have a median year of 2006 and 2002 respectively. This might be the effect of the Sarbanes-Oxley Act of 2002, which introduced major changes to corporate governance. We also find that powerful CEOs are more prevalent in older firms. Interestingly, larger firms are associated with higher CEO power index at the level of 1 and above, thus, powerful CEOs are not simply at small firms. Between our CEO Power Index and Tobin's Q, firms with more powerful CEOs are less overvalued. In addition, more powerful CEOs are associated with high firm leverage, yet these firms have less sales growth.

<< INSERT TABLE 2 >>

Table 3 lists descriptive statistics for a number of corporate governance variables against different levels of our CEO Power Index. It shows that the mean G Index (Gomper, Ishii and Metrick 2003) increases for each level in our index as we move from 0 to 5, which suggests that

a higher CEO Power Index corresponds to poor corporate governance, as one would naturally expect. We also find that at a higher level of CEO Power index, CEO voting power is higher; the mean CEO age is older; the indicator variable for classified board is higher; boards are busier; and firms are more likely controlled by the founder or the founder's family. Overall, we see that there are positive relationships of our CEO Power Index with the other measures which are often used to measure corporate governance and managerial entrenchment.

<< INSERT TABLE 3 >>

4.1.2. The dispersion of deal returns and CEO power

Our testable hypothesis H1 is whether more powerful CEOs engage in deals that have less uncertainty in their returns than less powerful CEOs. Before proceeding to discuss the complete empirical tests, we provide a preliminary univariate analysis into this potential relationship.

Figure 4 illustrates the relationship between acquirers' CAR and the CEO Power Index. There is a distinct pattern of a much more dispersed CAR associated with more extreme deal returns in the lower levels of CEO power, most notable at a CEO Power Index of 1. Similar inferences can be drawn from Figure 5, in which we are now utilizing the absolute value of DR. Although not as distinct as in Figure 4, a pattern of increasing concentration amongst smaller sized DRs can be seen as we increase the CEO Power Index. More specifically, this concentration is extremely prevailing for a CEO Power Index of 4 and 5, suggesting the results are heightened at these extremes of CEO power.

<< INSERT FIGURES 4 & 5 >>

These interpretations are supported with more formal evidence in Table 4, which lists key summary statistics for each of our 6 CEO Power Index levels for both our CAR and DR deal return measures. Of critical importance to our study is the kurtosis, which almost systematically decreases as we move from 0 to 5 on our CEO Power Index with the following corresponding values of 12.39, 10.27, 7.89, 6.03, 5.73 and 3.79 for our CARs respectively.

<< INSERT TABLE 4 >>

Our testable hypothesis is that powerful CEOs are more conservative and engage in deals with less dispersion. Should such a relationship exist, then powerful CEOs will be in less of both the top and bottom tails of announcement returns. We find some evidence of this in Table 4 as the 95th percentile DR for our CEO Power Index at 4 and 5 is \$265 and \$569 million respectively. This is significantly less compared to \$2,240 and \$1,940 million for our CEO Power Index at 0 and 1. We observe a similar pattern for CARs at this percentile, likewise at the DR and CAR for the 75th percentile. The patterns don't seem to be as suggestive for the negative

tails when examining the DR measure. However, we do observe that the 5th percentile CAR is -5.8% for a CEO Power Index of 5 and -13.3% for a CEO Power Index of 0. We can crudely establish that based on this analysis it does appear that powerful CEOs do engage in less dispersed positive and negative deals, which lends some support to the fact that powerful CEOs are more conservative in M&A decisions.

4.2 Dispersion in Announcement Returns

4.2.1 Empirical Specification

To test Hypothesis 1 that acquirers with more powerful CEOs are associated with a lower dispersion in announcement returns than acquirers with less powerful CEOs, we use the following regression specification:

$$|CAR_{i,t}| \text{ or } |DR_{i,t}| = \alpha + \beta_1 \text{CEO Power Index}_{i,t-1} + \beta_2 \text{Acquirer Controls}_{i,t-1} + \beta_3 \text{Deal Controls}_{i,t} + \epsilon_{i,t} \quad (3)$$

where $CAR_{i,t}$ is the cumulative abnormal return to bidder i around the announcement of a deal in year t , $DR_{i,t}$ is the dollar return to the bidder around the announcement of the deal. If a firm announces more than one deal in the year, only the first deal is kept in the sample. We take the absolute value of them to capture the dispersion in announcement returns. Our key independent variable is the CEO power index. It is measured in year $t-1$ to capture the CEO power that matters for the deal. Our hypothesis predicts that $\beta_1 < 0$. That is powerful CEOs do not participate in the most value enhancing (extremely positive deal return) and also the most value destroying (extremely negative deal return) deals. To control for other factors that may affect the dispersion in announcement return, we include a number of firm characteristics measured in year $t-1$ and deal characteristics measured in year t . In the following, we discuss our control variables in detail.

a. Bidder control variables

Bidding firm characteristics are controlled to isolate the relationship between CEO power and M&A returns. Our bidder controls have all been measured at the fiscal year-end prior to the acquisition announcement as conducted in Masulis, Wang and Xie (2007). The first important control variable is size. Moeller, Schlingemann, and Stulz (2004) find that the size of acquirers is negatively correlated with the acquirer's announcement-period CAR. Masulis, Wang and Xie (2007) argue that larger firms are associated with more entrenched managers who ultimately make value-destroying acquisitions. Following prior studies, we also control for acquirers' Tobin's Q^2 , pre-existing leverage, and free cash flow. Of a particular interest is firm age which

² Servaes (1991) has found that bidders with a high Tobin's q ratio exhibit significant positive abnormal returns when they engage in a takeover. Moeller, Schlingemann, and Stulz (2004) however find a negative relation in a significantly larger sample of acquisitions.

has been shown to affect profitability, firm value and growth potentials³. We recognize that older firms are generally associated with older management as conjectured by Finkelstein and Hambrick (1990). Thus, we also control for firm age in our regressions.

b. Industry control variables

Different industries may inherently have different characteristics and in particular, growth opportunities. In addition to controlling for the 48 Fama and French (1997) industry classifications in all model specifications, we also control for industry performance measures. We develop two industry performance variables: a given firm's return relative to the industry and the industry's return relative to the market. The former allows us to establish if the firm has underperformed or outperformed within the industry. The latter allows us to establish if the industry is an underperforming or outperforming industry when compared to the overall market.

c. Firm performance control variables

We also control for firm specific performance in certain model specifications. We control for sales growth (Harford 1999) as firms with substantial sales growth are better positioned to become bidders; Return on Assets which accounts more directly for the degree of operating performance (Barber and Lyon 1996); and equity-based compensation on the CEO level. Bliss and Rosen (2001) argue that greater equity-based incentives might make CEOs less inclined to do acquisitions given the typical decrease in stock price upon announcement. However, in our theoretical analysis, if the CEO's equity stake was given before the acquisition decision, then CEOs with greater equity based compensation share proportionally more in the announcement returns.

d. Deal control variables

Standard deal control variables that have traditionally explained the direction of announcement returns have been adopted in our study as well. We control for the stock price run-up as in Masulis, Wang and Xie (2007). We control for public, private and subsidiary target firms as well as high tech firms. We also control for all-cash and stock deals, as we believe the payment method to potentially be associated with the decision-making process. Furthermore, we control for relative deal size as this reflects the magnitude of the deal and thus potentially the impact of the decision on the firm. In addition, we control for hostile M&As as this is another direct by-product of the decision-making process.

4.2.2. Main Results

We estimate both the OLS and Tobit version of the model in equation (3) and report the results in Table 5. For the OLS model, we find a negative coefficient for our CEO Power Index

³ See Dunne, Roberts, and Samuelson (1989) and Baker and Kennedy (2002).

at the 1% level when using the absolute value of the DR measure. The coefficient of -\$201 million represents the decrease in the absolute DR that is associated with a one level increase in the CEO Power Index from our mean of approximately 2⁴. Indeed, the magnitude of this coefficient reflects that a strong degree of conservativeness is associated with more powerful CEOs in M&A decision-making. This conclusive result is also evident when we utilize the absolute value of CAR as our dependent variable. We find a negative relationship between the CEO Power Index and the absolute value of CAR at the 5% level. Given that we have consistency in direction across both our bidder announcement deal return measures we can confirm that powerful CEOs do engage in less extreme M&A deals.

<< INSERT TABLE 5 >>

The OLS model has an adjusted R² of 28.3% and 13.5% for the DR and CAR measures respectively. We now provide a brief analysis of our various control variables, which are driving some of this explanation. Our reasoning for this is due to the fact that no study to the best of our knowledge has examined the relationship that these variables may have with the absolute value of bidder deal return measures. We find that both firm size and Tobin's Q have a positive statistically significant relationship with the absolute value of DR but a negative statistically significant relationship with the absolute value of CAR. This might be due to the fact that larger firms as measured through the book value of assets have an inherent capacity to be amongst the largest dollar returns due to their sheer size. One can intuitively appreciate that even a relatively small return as measured by CAR can have a large dollar return when multiplied by a very large market capitalization. Interestingly, we find that firm age has a negative relationship, which is statistically significant for both CAR and dollar return measures. This may be due to the fact that older firms are more able to pursue organic growth and less inclined to be amongst the most uncertain deals. Similarly, we can assert that younger firms who are in pursuit of high growth may engage in more risky deals. We observe at the 5% significance level that highly levered firms are less likely to be engaging in very large absolute dollar return deals. In agreement with the literature on the uncertainty surrounding high technology firms, we observe that the high tech indicator variable and the high tech multiplied by relative deal size interaction variable are statistically significant at the 5% and 1% level for our CAR specifications.

We also perform the Tobit analysis using the same specification. Also known as a censored regression, the Tobit model is probably the more appropriate one since the minimum value of our dependent variables is zero. The conventional OLS may provide inconsistent estimates of β as identified in Wooldridge (2002). We find that nearly all relationships, coefficients and statistical significance levels as identified before hold. The CEO Power Index is still associated

⁴ The mean is 1.832 as shown in table 1.

with a negative relationship which is statistically significant at the 1% and 5% level for the absolute values of DR and CAR respectively. These findings provide conclusive evidence that powerful CEOs engage in less extreme deals. Such an extrapolation from the empirical results lends strong support to our competing hypothesis that powerful CEOs are more conservative when participating in M&A decisions.

In Table 6, we examine the relationship between our CEO Power Index and the absolute value of our deal return measures by looking at only those deals that have been completed. We observe that the CEO Power Index is negatively related to the absolute value of our DR measure at the 5% significance level. Similarly, the CEO Power index is negatively related to the absolute value of CAR at the 10% significance level. It therefore appears that irrespective of whether a deal is completed or withdrawn, powerful CEOs are less likely to be prevalent the larger the absolute announcement returns.

<< INSERT TABLE 6 >>

4.2.3. *Positive and negative deal returns*

In this subsection, we seek to further validate our previous result. We have shown that our CEO Power Index is associated with a negative relationship with respect to the absolute value of our deal return measures. However, this could be simply driven by either positive or negative deals. In order to validate our inferences, we need to conclusively show that the relationship holds for *both* tails, respectively.

In Table 7, we examine the relationship between the CEO Power Index and *positive* deal returns only. Our CEO Power Index has a negative relationship which is statistically significant at the 5% level when utilizing only positive DRs as our dependent variable. To identify that the E Index is not simply driving these results, as has been documented previously in the literature, we apply an adaptation to our CEO Power Index. In Model (2) and (4) we develop a CEO Power Index without the E Index component. That is, our CEO Power Index now ranges from 0 to 4 and we have included the E-Index separately to confirm its unique relationship. We include the E Index in its original form on a range of 0 to 6 and not as an indicator variable as it was in our CEO Power Index. We observe that the CEO Power Index without the E Index is still negatively related to our positive DR measure at the 10% significance level. Furthermore, the E Index itself also has a negative relationship that is statistically significant at the 5% level. The results are not as conclusive for our CEO Power Index when we utilized positive CARs as our deal return measure. However, the E Index is negatively related to CARs at the 10% significance level. Overall, we can deduce that powerful CEOs are less prevalent the larger a given value-enhancing M&A deal.

In Table 8, we examine the relationship between our CEO Power Index and *negative* deal returns only. The CEO Power Index is statistically significant at the 5% and 10% level when utilizing negative CAR and negative DR as the dependent variable respectively. We again use a refined CEO Power Index, which does not include the E Index component and include this component in its original form separately. In all specifications our E Index is statistically insignificant. More importantly, our CEO Power Index remains significant at the 10% level with negative DR as our dependent variable. We are able to conclude that powerful CEOs are also less prevalent the larger a given value-destroying M&A deal.

<< INSERT TABLES 7 & 8 >>

This consistency in findings when examining positive and negative deal returns separately supports our main findings. We thus conclude that our CEO Power Index has a negative relationship with both positive and negative deal returns. In combination with our previous findings on the absolute value of deal return, we show that powerful CEOs are less likely to be in the extremes of *both* tails. Furthermore, these findings are not simply driven by entrenchment per se, but a combination of corporate governance characteristics reflective of significant CEO power.

4.3. Frequency of deals

In this subsection, we present the regression results on the relationship between the CEO Power Index and the frequency of deals. If powerful CEOs are more conservative in M&A decisions then a negative relationship should be associated with CEO power and the number of M&A deals announced in a given year. The frequency of multiple deals in our sample is shown in Figure 6.

<<INSERT FIGURE 6>>

4.3.1. Empirical Specification

To test **H2** that there is a negative relationship between CEO power and the frequency of M&A deals announced in a given year, we estimate the following regression:

$$Deal\ Count_{i,t} = \alpha + \beta_1 CEO\ Power\ Index_{i,t-1} + \beta_2 PM_{i,t-1} + \beta_3 Acquirer\ Controls_{i,t-1} + \epsilon_{i,t} \quad (4)$$

where the dependent variable $Deal\ Count_{i,t}$ is the number of deals announced by bidder firm i at year t . Firm performance measures (PMs) are recorded at the same time a CEO's Power Index is measured. They include sales growth, return on asset, and equity based compensation. We include these control variables as they reflect a company's most recent performance and equity based compensation controls for CEO risk preference due to compensation incentives

rather than CEO power. These factors have been documented in the literature to explain what drives firms to announce M&A deals. Hypothesis 2 predicts that $\beta_1 < 0$.

We also estimate a probit model as follows to test H2 in which we predict the likelihood that a firm would announce an acquisition in a given year.

$$\Pr(Y_{it} = 1 | CEO\ Power\ Index_{i,t-1}, Z_{i,t-1}) = f(\alpha + \beta_1 CEO\ Power\ Index_{i,t-1} + \sum \delta_i Z_{i,t-1} + \epsilon)$$

where $Y_{it} = 1$, firm i announces a deal in year t
 $Y_{it} = 0$, firm i does not announce a deal

(5)

where Y_{it} equals to 1 if firm i announces a deal in year t . $Z_{i,t-1}$ is the same vector of control variables appeared in Regression equation (4).

4.3.2. Main Results

Table 9 shows the results from the OLS deal count model whereby the dependent variable is a count of the number of M&As announced in a given year. The use of the deal count variable allows us to examine those instances in which multiple deals have been undertaken in a given year. This is particularly important considering that among the firms that did make a deal in a given year, almost 15% made two or more deals. In Model (1) we adopt our standard specification with bidder, industry and deal controls. We find that the CEO Power Index is statistically significant at the 5% level and has a negative relationship with the number of deals in a given year. In Model (2) and (3), we introduce performance measures and cluster by firm, upon which we observe that the CEO Power Index continues to have a negative relationship which is also significant at the 1% and 5% level respectively. The inclusion of performance measures and its relationship draws parallels to that of the literature discussed previously. We observe that sales growth has a positive relationship with the number of deals in a given year and is significant at the 1% level in all specifications. Free cash flow, firm size and Tobin's Q are all statistically significant at conventional levels and positively related to the number of deals in a given year. In contrast, we find that leverage and firm age are negatively related to the number of deals in a given year at the 1% and 5% level respectively. These findings are consistent with that of the literature and illustrate the characteristics that help explain the occurrence of M&A deals in a given year.

<< INSERT TABLE 9 >>

Table 10 presents the results on the likelihood of a deal being undertaken by a firm in a given year using the Probit Model. We find that the CEO Power Index exhibits a negative relationship with the likelihood of a deal occurring in a given year and is significant at the 1%

level in both models, with and without the inclusion of performance measures. In Model (3) we adjust the standard errors through clustering by firm, our CEO Power Index is still associated with a negative relationship that is statistically significant at the 5% level.

<< INSERT TABLE 10>>

4.4 Consideration offered

In this subsection, we present our results on the relationship between the CEO Power Index and the method of payment offered by the bidder. As we have discussed previously, purely cash financed deals have been documented in the literature to be associated with better bidder returns. More appropriate to our study is that we perceive all cash deals to be associated with a higher level of risk than stock acquisitions. As a result, we therefore associate the method of payment to be an indication of the level of uncertainty a given firm is undertaking.

Table 11 presents this relationship by documenting the results from our Probit and OLS Models. In Model (1) and (2), we use a Probit Model where the all cash indicator variable is the dependent variable that is equal to one if the firm offered only cash as consideration. In Model (3) and (4), we use an OLS model where the dependent variable is the percentage of stock offered. We have included deal performance as measured by CAR in Model (2) and (4) to control for the fact that purely cash finance deals may be associated with a higher CAR.

Our CEO Power Index has a negative relationship with the likelihood of offering all cash in a deal at a *t*-statistic of (-4.88). We confirm this result by examining the relationship of our CEO Power Index and the percentage of stock offered. We find a positive relationship that is statistically significant at the 1% level. The benefit of using an OLS model in this specification is that it allows us to directly interpret the coefficient. Suppose that a given firm with an average CEO Power Index were to have an improvement of one level in his power index. Then our model predicts that there would be a 4.5% increase in stock offered. These findings provide support that powerful CEOs are less likely to participate in all cash deals and more likely to offer their firms stock when announcing an M&A.

<< INSERT TABLE 11>>

4.5. Likelihood of Withdrawal

Is there any connection between the CEO Power Index and the completion rate of proposed deals? This question is of independent interest. In this subsection, we look at the likelihood of a negative deal being withdrawn by a firm. As we have methodically demonstrated in our above results, there appears to be a systematic pattern of powerful CEOs exhibiting a degree of conservativeness in the decision making process of an M&A announcement.

Table 12 presents the results from the Probit model on the likelihood of negative deals being withdrawn. We define our indicator variable as equal to 1 if a deal with negative return is

withdrawn and zero otherwise. In Model (1) we adopt our standard control specification with the addition of a deal performance control variable. This deal performance measure is the CAR as we recognize that the magnitude of a negative return may potentially increase the probability of a firm withdrawing a deal. In Model (2) we add other firm type control variables which are the founder and founder family indicator variables. In Model (3) and (4), we further restrict our negative returns sub-sample to only those deals that are in the bottom 33rd and 25th percentile of returns respectively. We find that there is a negative relationship between the CEO Power Index and the probability of a negative returning deal being withdrawn across these models. Our CEO Power Index is statistically significant at the 5% level for Models (2) and (3) respectively and statistically significant at the 1% level for Model (4). Interestingly, we find that the coefficient increases as we further confine our sample to the most negative returns. This provides evidence that powerful CEOs are even more likely to complete an M&A deal despite a very poor initial market assessment after the deal announcement. Despite powerful CEOs are less likely to announcement a large value destroying acquisition, once the announcement being made it is more likely to be completed. This suggests that powerful CEOs may be extrapolating some private benefit from the M&A despite its poor return. To a certain degree, such a private benefit may be best explained by the empire building literature which claims that entrenched managers seek to increase their firm's size by completing M&A investments that are value destroying.

<< INSERT TABLE 12 >>

Although we are able to make inferences when observing the sign of a coefficient from a Probit Model, it is more difficult to interpret the magnitude and value of the coefficient. As a result, we have performed ex post calculations on the CEO Power Index for all our Probit Models, and present the findings in Table 13. Our calculations are twofold: Firstly, we present predicted probabilities for each level of the CEO Power Index whilst holding all other explanatory variables at their respective means. Secondly, to examine the marginal effect on the probability of our dependent variable, we present the marginal probability for a one level change in our CEO Power Index at its mean. These calculations provide us with insights into the potential implications that may result due to changes in CEO power.

As shown in Table 12, the implied probability of a randomly selected firm from our sample announcing an M&A in a given year is 8.5%. The marginal effect on the probability of deal frequency, given a one level change in our CEO Power Index from the mean is -0.8%. For example, if a firm with an average CEO Power Index without CEO duality was to increase its CEO Power Index by also appointing the CEO as chairman. Our model predicts that there will be approximately a 10% decrease in the probability that this particular firm and its CEO will engage in a deal in a given year. Furthermore, our point estimate predicted probabilities imply that the most powerful CEOs have only a 6.4% probability, whilst the least powerful CEOs have

a 10.4% probability of announcing an M&A in a given year. We can therefore conclude that not only does a negative relationship between our CEO Power Index and the frequency of deals in a given year exist, but also that the magnitude of this impact is material. It is also estimated that firms with the most powerful CEOs according to our index have a probability of 16.5% in using only cash as a method of payment, while firms with the least powerful CEOs have a 46.4% probability of using only cash.

<< INSERT TABLE 13 >>

5. CONCLUSION

This paper finds strong evidence that firms with more powerful CEOs avoid both large value creation and destruction deals, instead, firms with less powerful CEOs, are responsible for making both large value creation and destruction deals. Specifically, we find that bidder announcement returns are less dispersed at firms with more powerful CEOs than at firms with less powerful CEOs. The results hold for both cumulative abnormal return (in percentage) and dollar return as the measures of bidder announcement returns. Consistent with powerful CEOs being more conservative, we also find that firms with more powerful CEOs are associated with lower deal frequency than firms with less powerful CEOs. In addition, this conservatism also shows up in method of payment. Firms with more powerful CEOs are less likely to make all cash deals and use a larger percentage of stock financing than firms with less powerful CEOs. However, we also find some evidence that powerful CEOs pursue empire building. We find that firms with more powerful CEOs are less likely to withdraw deals with negative announcement period stock returns than firms with less powerful CEOs. Our evidence reconciles two divergent views on CEO objectives: empire building and quiet life. We show that although powerful CEOs pursue empire building, they do so by acquiring less risky targets to avoid making salient mistakes that can cost their jobs.

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TABLES/FIGURES

Figure 1: CAR Distribution

This graph shows the distribution of CARs for all announced completed and withdrawn deals. The sample includes 2160 firm-year observations.

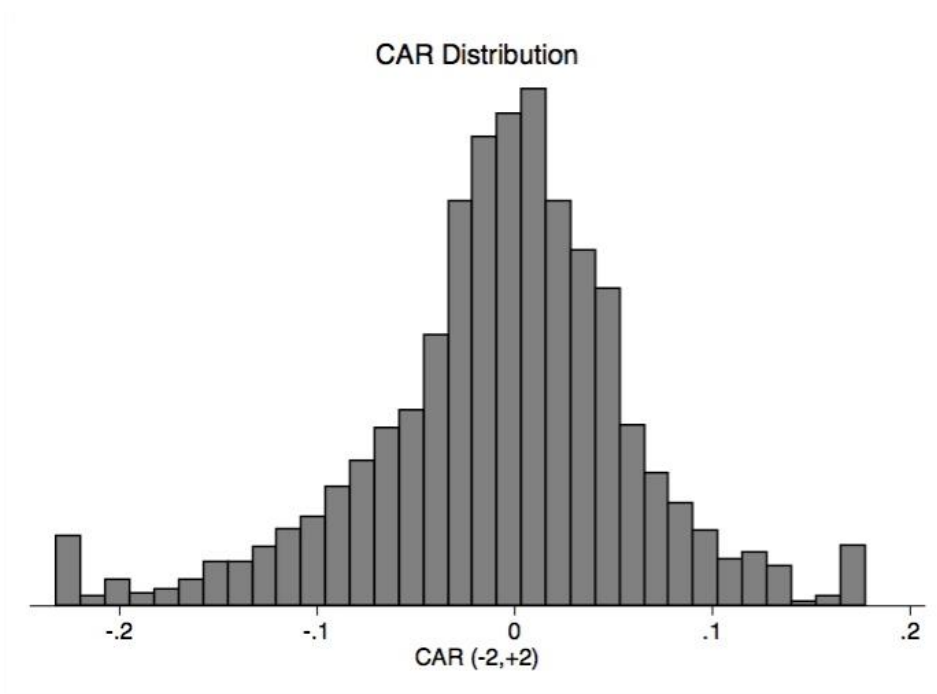


Figure 2: Frequency of Deals

This graph shows the frequency of deals that have been announced from the same sample as that used in figure 1.

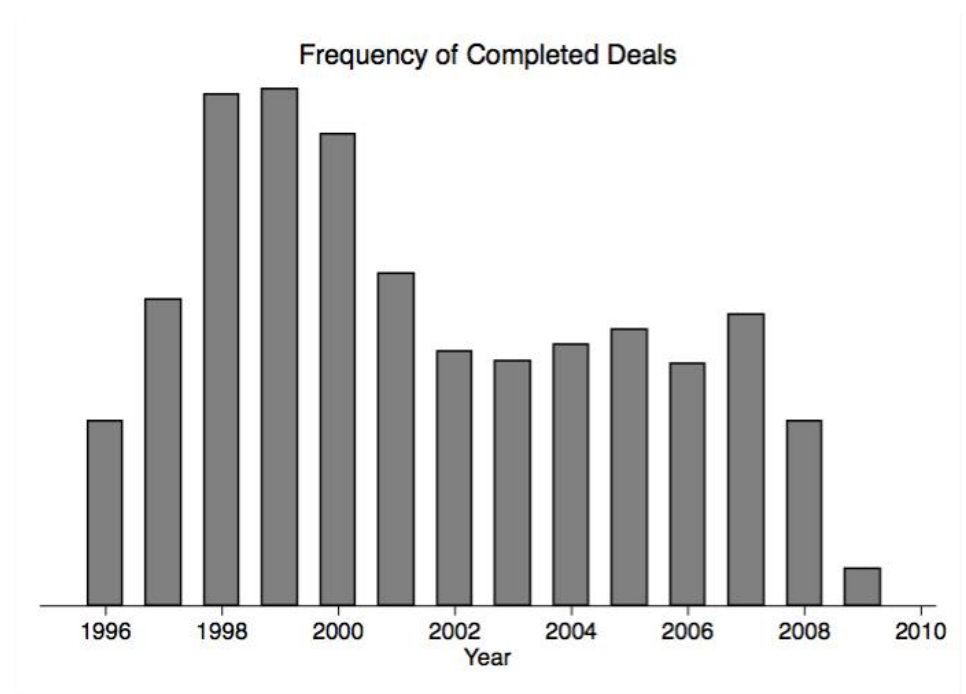


Figure 3: Proportion of Powerful CEOs

This graph shows the distribution of each level of our CEO Power Index. The data sample is 19,255 firm-year observations from 1996 to 2009.

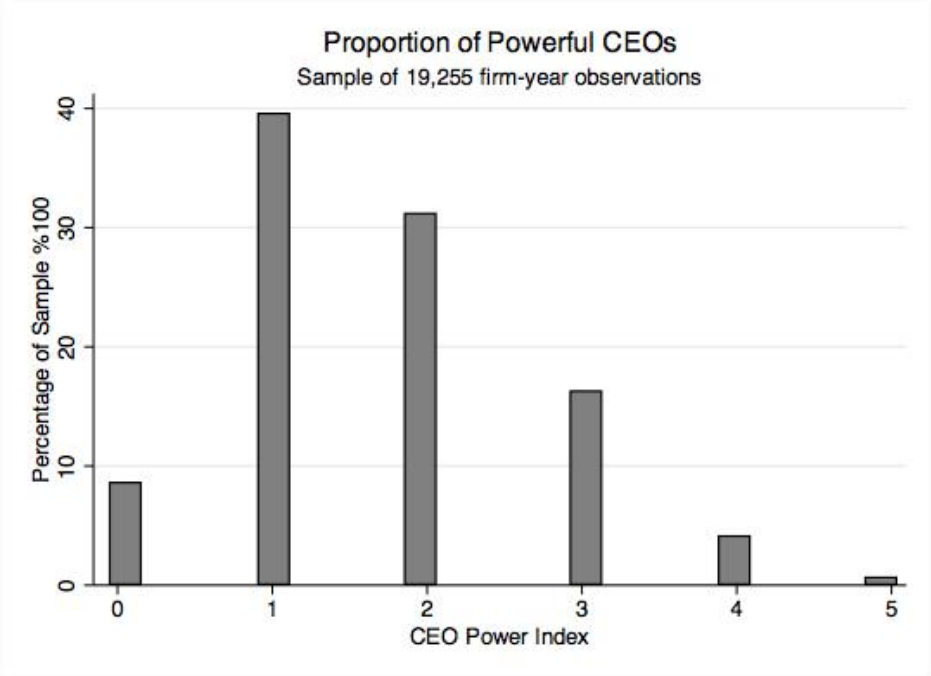


Figure 4: CAR Dispersion by CEO Power Index

This graph shows the dispersion of CARs against each of our 5 levels of the CEO Power Index. The data sample includes 2,160 firm-year observations, both completed and withdrawn deals.

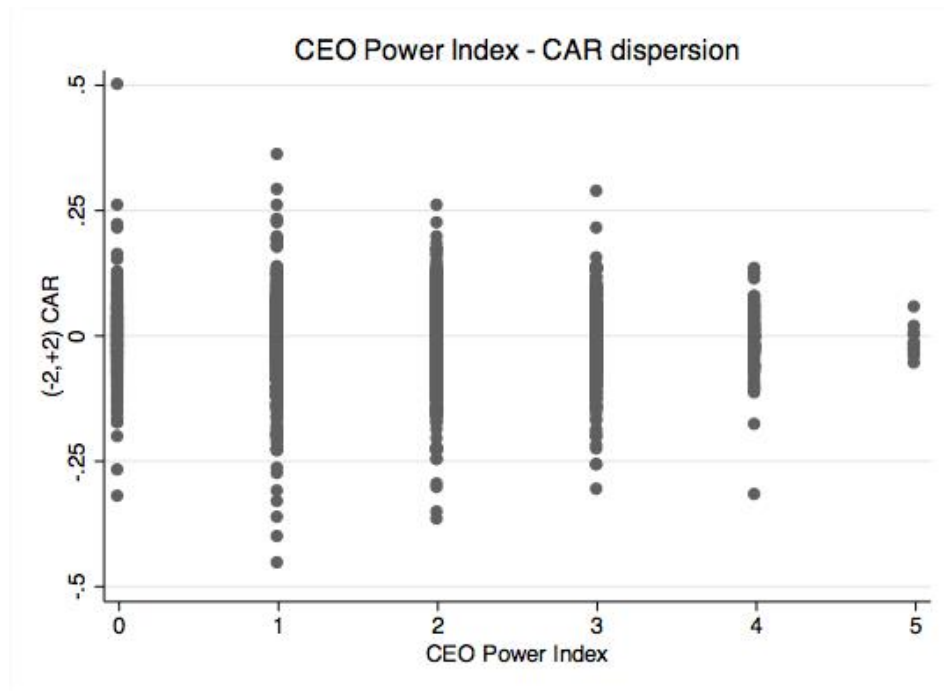


Figure 5: Absolute Dollar Return by CEO Power Index

This graph shows the relationship between the absolute value of our dollar return measure (adjusted at the year 2000 level) and each of our 5 levels of the CEO Power Index. The sample includes both completed and withdrawn deals.

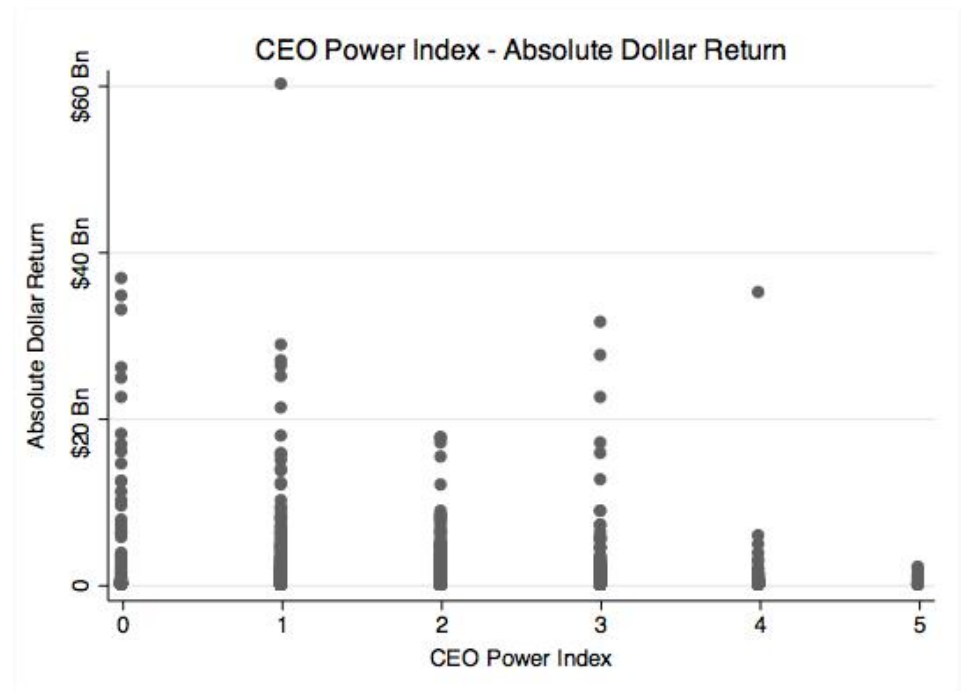


Figure 6: Frequency of the number of deals in a given year

This graph shows the distribution of the number of deals in a given year for those firms which have announced one or more deals. We have omitted all instances where firm make no deal announcement in a given year.

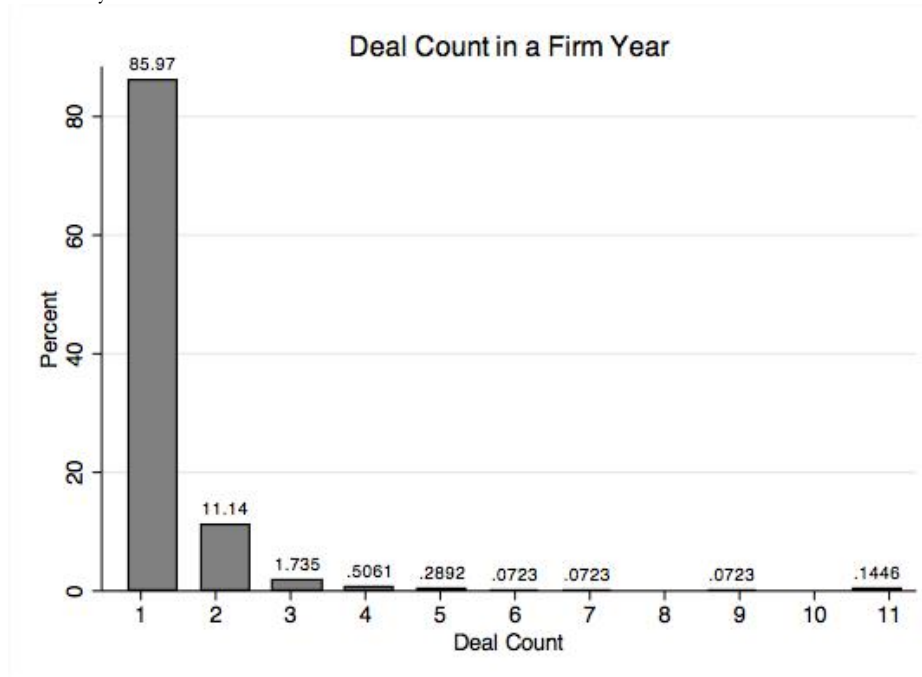


Table 1
Summary Statistics

This table reports summary statistics for various variables across two different samples. Panel A includes all completed and withdrawn deals from 1996-2009. Panel B presents the firm-year observation sample from the same time period, irrespective whether firms made deal announcements or not. All variables are defined in the appendix. The Dollar Returns (DR) are in \$US million. No # is the number of observations for each variable.

Variable	No #	Mean	Median	Standard Dev.	Minimum	Maximum	25th Percentile	75th Percentile
Panel A: Deals Sample								
CAR	2160	-0.007	-0.002	0.073	-0.231	0.177	-0.038	0.032
DR	2000	-313	-3306	3550	-60100	28900	-177	111
Free Cash Flow	1982	0.054	0.054	0.074	-0.811	0.385	0.023	0.091
Firm Size	2160	8.126	8.036	1.585	4.503	13.381	6.880	9.307
Firm Age	2160	26.751	19.711	21.748	0.647	82.425	9.704	37.688
Leverage	2155	0.207	0.202	0.161	0.000	0.999	0.063	0.314
Tobin's Q	2160	2.806	1.903	3.453	0.525	78.565	1.395	2.980
Stock Price Run up	2159	-0.070	-0.066	0.680	-8.466	9.183	-0.317	0.215
Board Size	2160	9.569	9.000	2.620	4.000	21.000	8.000	11.000
Tenure	2106	7.595	5.250	7.202	0.000	47.917	2.667	9.917
Entrenchment Index	2160	1.647	2.000	1.413	0.000	6.000	0.000	3.000
Independent Directors	2160	0.670	0.700	0.175	0.000	1.000	0.563	0.800
CEO Power Index	2160	1.832	2.000	1.093	0.000	5.000	1.000	3.000
Panel B: Firm Year Sample								
Free Cash Flow	17705	0.020	0.038	0.231	-16.529	1.271	0.000	0.075
Firm Size	19151	7.242	7.118	1.608	-1.911	13.590	6.121	8.284
Firm Age	15191	26.482	21.452	20.218	0.282	82.523	10.551	35.364
Leverage	19085	0.238	0.224	0.268	0.000	17.706	0.063	0.352
Tobin's Q	19087	2.156	1.577	2.563	0.298	105.090	1.204	2.325
Board Size	15191	9.242	9.000	2.475	1.000	24.000	7.000	11.000
Tenure	18340	7.569	5.167	7.413	0.000	57.667	2.417	10.000
Entrenchment Index	19255	2.222	2.000	1.275	0.000	6.000	1.000	3.000
Independent Directors	15191	0.670	0.700	0.175	0.000	1.000	0.571	0.800
CEO Power Index	19255	1.697	2.000	1.012	0.000	5.000	1.000	2.000

Table 2
Descriptive Statistics by CEO Power Index - Firm Characteristics

This table reports summary statistics corresponding to each level of the CEO Power Index. The calculations are based upon the total sample of 19,255 firm-year observations. Year* is the median (not the mean) year for a particular CEO Power Index level. Panel A shows the mean for each of the firm characteristics corresponding to each level of the CEO Power Index. The 'Total' row is the mean for that particular variable for the whole sample. Panel B provides the count for each variable as per each CEO Power Index level. The 'Total' row reflects the number of observations for each firm characteristic measure that we had data for.

Panel A									
CEO Power Index	Year*	Firm Age	Tobin's Q	Firm Size	Leverage	FCF	Sales Growth	ROA	Deal Count
0	2006	20.852	2.031	7.006	0.199	0.034	0.108	0.099	0.112
1	2002	24.961	2.324	6.934	0.231	0.011	0.203	0.078	0.063
2	2002	28.650	2.117	7.366	0.246	0.019	0.138	0.107	0.091
3	2001	27.561	2.014	7.677	0.250	0.034	0.134	0.117	0.118
4	2000	28.019	1.786	7.885	0.277	0.029	0.122	0.112	0.106
5	1999	28.708	1.508	7.991	0.303	0.027	0.064	0.102	0.069
Total	2002	26.482	2.156	7.242	0.238	0.020	0.159	0.097	0.086
Panel B									
0	1640	1640	1638	1640	1636	1503	1640	1634	1640
1	7605	4406	7454	7503	7471	6820	7461	7430	7605
2	5987	5122	5973	5985	5962	5563	5980	5945	5987
3	3118	3118	3117	3118	3111	2947	3118	3090	3118
4	789	789	789	789	789	760	788	781	789
5	116	116	116	116	116	112	116	116	116
Total	19255	15191	19087	19151	19085	17705	19103	18996	19255

Table 3
Descriptive Statistics by CEO Power Index - Corporate Governance Measures

This table presents summary statistics for each of the six possible CEO Power Index levels based on a sample of 19,255 firm-year observations. Panel A presents the mean for each of the corporate governance measures corresponding to each level of the CEO Power Index. The ‘Total’ row is the mean for that particular variable for the whole sample. Panel B provides the count for each variable as per each CEO Power Index level. The ‘Total’ row reflects the number of observations for each corporate governance measure that we had data for.

Panel A									
CEO Power Index	G Index	Voting Power	Age	Founder	Founder Family	Classified Board	Busy Board	Dual Class	Independence
0	7.558	1.986	52.787	0.024	0.020	0.286	0.024	0.042	0.767
1	8.618	2.692	53.725	0.065	0.027	0.451	0.021	0.070	0.701
2	9.464	4.906	56.369	0.147	0.054	0.596	0.035	0.096	0.674
3	9.845	7.890	57.920	0.195	0.062	0.704	0.038	0.111	0.605
4	10.438	7.727	60.206	0.195	0.136	0.792	0.037	0.132	0.549
5	11.379	5.909	60.172	0.241	0.164	0.853	0.060	0.086	0.469
Total	9.280	4.890	55.450	0.114	0.046	0.557	0.029	0.088	0.670
Panel B									
0	839	972	1622	1640	1640	1515	1640	1515	1640
1	3162	3168	7553	7605	7605	3991	7605	3991	4406
2	4403	4018	5946	5987	5987	4813	5987	4813	5122
3	2853	2582	3077	3118	3118	2936	3118	2936	3118
4	755	657	785	789	789	763	789	763	789
5	116	103	116	116	116	116	116	116	116
Total	12128	11500	19099	19255	19255	14134	19255	14134	15191

Table 4
Descriptive Statistics by CEO Power Index - Deal Returns

This table shows summary statistics of two measures of the deal returns, Cumulative Abnormal Returns (CAR) and Dollar Returns (DR), at each level of the CEO Power Index, respectively. The sample includes both completed and withdrawn deals. The total of 2160 observations is then sub-divided according to 5th, 25th, 75th and 95th percentile for these respective return measures.

CEO Power Index	No #		Kurtosis		5 th Percentile		25 th Percentile		75 th Percentile		95 th Percentile	
	CAR	DR	CAR	DR	CAR	DR	CAR	DR	CAR	DR	CAR	DR
0	238	223	12.397	21.642	-0.133	-6,190	-0.041	-239	0.033	65	0.105	2,240
1	625	579	10.277	88.508	-0.145	-2,810	-0.043	-195	0.033	138	0.098	1,940
2	706	644	7.887	36.357	-0.128	-2,560	-0.034	-149	0.034	121	0.097	1,240
3	456	422	6.035	63.223	-0.128	-2,270	-0.035	-150	0.030	123	0.092	788
4	122	119	5.728	99.159	-0.102	-2,810	-0.035	-254	0.019	34	0.068	569
5	13	13	3.794	2.474	-0.058	-2,130	-0.033	-1,010	0.000	2	0.056	265
Total	2160	2000	9.224	78.872	-0.131	-2,810	-0.038	-177	0.032	111	0.097	1,450

Table 5
Absolute Deal Returns - All Announced Deals

This table shows the relationship between the CEO Power Index and the dispersion of deal returns. The sample includes both completed and withdrawn deals. The dependent variables are the absolute values of our deal return measures: Dollar Return (DR) and the Cumulative Abnormal Return (CAR), respectively. Model (1) and (3) are Ordinary Least Square Regressions. Model (2) and (4) are Tobit regressions where we have specified a lower bound of zero. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests. We controlled for year fixed effects and industry fixed effects in all regressions and has suppressed the coefficients. The standard errors are adjusted through clustering by firm.

	DR (1)	DR (2)	CAR (3)	CAR (4)
<i>CEO POWER INDEX</i>	-201*** (-2.77)	-201*** (-2.83)	-0.003** (-2.21)	-0.003** (-2.26)
<i>Bidder Controls</i>				
Free Cash Flow	-634 (-0.57)	-634 (-0.58)	-0.054*** (-2.96)	-0.054*** (-3.02)
Firm Size <i>Log (Total Assets)</i>	889*** (14.95)	889*** (15.26)	-0.003*** (-3.18)	-0.003*** (-3.25)
Firm Age	-11*** (-2.62)	-11*** (-2.67)	-0.000** (-2.13)	-0.000** (-2.17)
Leverage	-1,291** (-2.35)	-1,291** (-2.40)	-0.011 (-1.22)	-0.011 (-1.24)
Tobin's Q	329*** (8.34)	329*** (8.51)	-0.001** (-2.04)	-0.001** (-2.08)
<i>Industry Controls</i>				
Return to Industry	-393** (-2.47)	-393** (-2.52)	0.004 (1.57)	0.004 (1.60)
Industry Underperform	-54 (-0.15)	-54 (-0.15)	0.001 (0.22)	0.001 (0.22)

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Table 5 Continued
Absolute Deal Returns - All Announced Deals

	DR	DR	CAR	CAR
	(1)	(2)	(3)	(4)
<i>Deal Controls</i>				
Stock price run-up	385*** (3.17)	385*** (3.23)	-0.001 (-0.83)	-0.001 (-0.84)
Relative deal size	225 (0.86)	225 (0.88)	0.030*** (6.98)	0.030*** (7.12)
Hostile	2 (0.00)	2 (0.00)	-0.014* (-1.74)	-0.014* (-1.77)
High tech	87 (0.38)	87 (0.39)	0.009** (2.46)	0.009** (2.52)
High tech x relative deal size	468 (0.97)	468 (0.99)	0.023*** (2.98)	0.023*** (3.04)
Public target x stock deal	133 (0.71)	133 (0.72)	-0.000 (-0.03)	-0.000 (-0.03)
Public Target x all-cash deal	12 (0.04)	12 (0.04)	0.003 (0.77)	0.003 (0.78)
Private Target x all-cash deal	461* (1.74)	461* (1.78)	-0.000 (-0.01)	-0.000 (-0.01)
Private Target x stock deal	832*** (3.58)	832*** (3.65)	0.004 (1.22)	0.004 (1.24)
Subsidiary target x all-cash deal	212 (0.61)	212 (0.62)	0.001 (0.21)	0.001 (0.22)
<i>Year Fixed Effect</i>	Yes	Yes	Yes	Yes
<i>Industry Fixed Effects</i>	Yes	Yes	Yes	Yes
Number of Observations	1782	1782	1782	1782
Adjusted R2/ Pseudo R2	0.283	0.008	0.135	-0.060

Table 6**Absolute Deal Returns - Completed Deals**

This table shows the relationship between our CEO Power Index and the dispersion of deal returns for a sample of completed deals only. The dependent variables are the absolute values of our deal return measures: Dollar Return (DR) and the Cumulative Abnormal Return (CAR), respectively. Model (1) and (3) are Ordinary Least Square Regressions. Model (2) and (4) are Tobit regressions where we have specified a lower bound of zero. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests. We controlled for year fixed effects and industry fixed effects in all regressions and has suppressed the coefficients. The standard errors are adjusted through clustering by firm.

	DR	DR	CAR	CAR
	(1)	(2)	(3)	(4)
<i>CEO POWER INDEX</i>	-189**	-189**	-0.002*	-0.002*
	(-2.24)	(-2.30)	(-1.67)	(-1.71)
<i>Bidder Controls</i>				
Free Cash Flow	-458	-458	-0.057***	-0.057***
	(-0.36)	(-0.37)	(-2.92)	(-3.00)
Firm Size	911***	911***	-0.004***	-0.003***
<i>Log (Total Assets)</i>	(13.26)	(13.61)	(-3.47)	(-3.56)
Firm Age	-10**	-10**	-0.000**	-0.000**
	(-2.05)	(-2.10)	(-2.22)	(-2.28)
Leverage	-1,525**	-1,525**	-0.015	-0.015
	(-2.29)	(-2.35)	(-1.47)	(-1.51)
Tobin's Q	276 ***	276***	-0.001	-0.001*
	(6.58)	(6.75)	(-1.62)	(-1.66)
<i>Industry Controls</i>				
Return to Industry	-288*	-288*	0.005**	0.005**
	(-1.84)	(-1.89)	(2.43)	(2.50)
Industry Underperform	45	45	0.009*	0.009*
	(0.12)	(0.13)	(1.70)	(1.74)

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Table 6: Continued

Absolute Deal Returns - Completed Deals

	DR	DR	CAR	CAR
	(1)	(2)	(3)	(4)
<i>Deal Controls</i>				
Stock price run-up	433*** (2.92)	433*** (2.99)	-0.002 (-1.22)	-0.00276 (-1.25)
Relative deal size	394 (1.16)	394 (1.19)	0.031*** (5.98)	0.031*** (6.14)
Hostile	272 (0.38)	272 (0.39)	-0.002 (-0.21)	-0.002 (-0.22)
High tech	122 (0.44)	122 (0.45)	0.009** (2.30)	0.009** (2.36)
High tech x relative deal size	138 (0.26)	138 (0.27)	0.014* (1.70)	0.014* (1.74)
Public target x stock deal	156 (0.55)	156 (0.56)	0.005 (1.05)	0.005 (1.08)
Public Target x all-cash deal	-77 (-0.26)	-77 (-0.27)	-0.001 (-0.31)	-0.001 (-0.31)
Private Target x all-cash deal	165 (0.45)	165 (0.46)	-0.001 (-0.19)	-0.001 (-0.19)
Private Target x stock deal	766 ** (2.32)	766** (2.38)	0.007 (1.40)	0.007 (1.43)
Subsidiary target x all-cash deal	233 (0.51)	233 (0.53)	-0.000 (-0.02)	-0.000 (-0.02)
<i>Year Fixed Effect</i>	Yes	Yes	Yes	Yes
<i>Industry Fixed Effects</i>	Yes	Yes	Yes	Yes
Number of Observations	1448	1448	1448	1448
Adjusted R2/ Pseudo R2	0.270	0.011	0.152	-0.068

Table 7
Positive Deal Returns and CEO Power Index - All Announced

This table shows the relationship between the CEO Power Index and those deals with positive returns. The sample includes both completed and withdrawn deals. The dependent variables are the deal returns measures: Dollar Return (DR) and the Cumulative Abnormal Return (CAR), respectively. Model (1) and (3) are based on the CEO Power Index as we have defined previously with 5 criteria. In Model (2) and (4) we compute our CEO Power Index without the E Index measure and therefore have an index now out of 4. In these models, we have included the E Index separately. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests. We controlled for year fixed effects and industry fixed effects in all regressions and has suppressed the coefficients. The standard errors are adjusted through clustering by firm.

	DR (1)	DR (2)	CAR (3)	CAR (4)
<i>CEO POWER INDEX</i>	-174** (-2.51)		-0.002 (-1.48)	
<i>CEO POWER INDEX (less E Index)</i>		-162* (-1.78)		-0.001 (-1.03)
<i>Entrenchment Index</i>		-153** (-2.24)		-0.002* (-1.75)
<i>Bidder Controls</i>				
Free Cash Flow	136 (0.00)	-545 (-0.46)	-0.066*** (-3.00)	-0.072*** (-2.93)
Firm Size <i>Log (Total Assets)</i>	682*** (11.93)	675*** (9.70)	-0.003*** (-3.08)	-0.004*** (-3.00)
Firm Age	-13*** (-3.28)	-13*** (-2.62)	-0.000 (-0.60)	-0.000 (-0.39)
Leverage	-1,164** (-2.18)	-1,135* (-1.73)	0.009 (0.80)	0.007 (0.53)
Tobin's Q	286*** (7.92)	389*** (8.38)	-0.000 (-0.01)	0.000 (0.60)
<i>Industry Controls</i>				
Return to Industry	-496*** (-3.22)	-556*** (-3.14)	0.005 (1.54)	0.000 (0.16)
Industry Underperform	461 (1.32)	191 (0.47)	0.007 (0.99)	0.002 (0.31)

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Table 7 Continued
Positive Deal Returns and CEO Power Index - All Announced

	DR	DR	CAR	CAR
	(1)	(2)	(3)	(4)
<i>Deal Controls</i>				
Stock price run-up	-42 (-0.35)	-9 (-0.07)	-0.006** (-2.57)	-0.005* (-1.72)
Relative deal size	103 (0.32)	206 (0.57)	0.012* (1.79)	0.010 (1.39)
Hostile	-193 (-0.35)	-334 (-0.54)	-0.001 (-0.13)	-0.004 (-0.38)
High tech	63 (0.29)	-8 (-0.03)	0.007 (1.46)	0.011** (2.00)
High tech x relative deal size	96 (0.13)	173 (0.17)	0.001 (0.08)	0.012 (0.58)
Public target x stock deal	44 (0.24)	18 (0.09)	-0.001 (-0.49)	-0.004 (-1.00)
Public Target x all-cash deal	26 (0.09)	3 (0.01)	0.002 (0.37)	-0.001 (-0.15)
Private Target x all-cash deal	104 (0.43)	45 (0.16)	-0.004 (-0.95)	-0.007 (-1.31)
Private Target x stock deal	443** (2.06)	458* (1.77)	0.008* (1.73)	0.005 (1.02)
Subsidiary target x all-cash deal	18 (0.06)	-14 (-0.03)	0.006 (0.85)	0.003 (0.43)
Number of Observations	878	878	878	878
Adjusted R2	0.343	0.365	0.081	0.076

Table 8**Negative Deal Returns and CEO Power Index - All Announced**

This table shows the relationship between the CEO Power Index and those deals with negative returns although we still test for them in absolute value terms. The sample includes both completed and withdrawn deals. The dependent variables are the negative values of our deal returns measures: Dollar Return (DR) and the Cumulative Abnormal Return (CAR) as previously defined. Model (1) and (3) using the CEO Power Index as we have defined previously with 5 criteria. In Model (2) and (4) we compute our CEO Power Index without the E Index measure and therefore have an index now out of 4. In these models, we have included the E Index separately. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests. We controlled for year fixed effects and industry fixed effects in all regressions and has suppressed the coefficients. The standard errors are adjusted through clustering by firm.

	DR		CAR	
	(1)	(2)	(3)	(4)
<i>CEO POWER INDEX</i>	-231*		-0.004**	
	(-1.75)		(-2.11)	
<i>CEO POWER INDEX (less E Index)</i>		-279*		-0.002
		(-1.72)		(-1.22)
<i>Entrenchment Index</i>		26		-0.002
		(0.22)		(-1.62)
<i>Bidder Controls</i>				
Free Cash Flow	-2,398	-5,865**	-0.059**	-0.083**
	(-1.16)	(-2.31)	(-2.00)	(-2.34)
Firm Size	1,100***	1,125***	-0.002*	-0.003*
<i>Log (Total Assets)</i>	(10.39)	(8.84)	(-1.88)	(-1.93)
Firm Age	-10	-15*	-0.000**	-0.000**
	(-1.31)	(-1.79)	(-2.37)	(-2.58)
Leverage	-913	-917	-0.028**	-0.016
	(-0.95)	(-0.83)	(-2.04)	(-1.04)
Tobin's Q	421***	482***	-0.002**	-0.002**
	(5.75)	(5.84)	(-2.54)	(-2.02)
<i>Industry Controls</i>				
Return to Industry	-408	-667**	0.002	-0.001
	(-1.48)	(-2.14)	(0.67)	(-0.24)
Industry Underperform	-773	-1,403**	-0.005	-0.013
	(-1.21)	(-2.02)	(-0.55)	(-1.31)

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Table 8 Continued
Negative Deal Returns and CEO Power Index - All Announced

	DR	DR	CAR	CAR
	(1)	(2)	(3)	(4)
<i>Deal Controls</i>				
Stock price run-up	729*** (3.56)	996*** (4.03)	0.001 (0.43)	0.006* (1.94)
Relative deal size	350 (0.87)	334 (0.73)	0.035*** (6.17)	0.031*** (4.84)
Hostile	-36 (-0.04)	94 (0.11)	-0.017 (-1.46)	-0.016 (-1.32)
High tech	226 (0.53)	347 (0.72)	0.013** (2.20)	0.016** (2.52)
High tech x relative deal size	343 (0.50)	288 (0.31)	0.021** (2.19)	0.025* (1.95)
Public target x stock deal	293 (0.89)	111 (0.30)	0.001 (0.25)	-0.000 (-0.03)
Public Target x all-cash deal	73 (0.13)	-62 (-0.10)	0.005 (0.76)	0.006 (0.74)
Private Target x all-cash deal	959* (1.95)	1,028* (1.80)	0.008 (1.26)	0.009 (1.15)
Private Target x stock deal	1,294*** (3.02)	1,487*** (2.98)	0.000 (0.16)	-0.002 (-0.39)
Subsidiary target x all-cash deal	388 (0.63)	566 (0.79)	-0.002 (-0.27)	0.003 (0.33)
Number of Observations	904	904	904	904
Adjusted R2	0.266	0.287	0.178	0.165

Table 9
Deal Count for Each Firm for a Given Year

This table presents the relationship between the frequency of deals for a given firm within a year and the CEO Power Index. We run an Ordinary Least Squares Regression with the dependant variable as a count of merger and acquisition deals within a given firm year. Model (1) is the basic specification with bidder controls. In Model (2) we introduce performance measures as previously defined. In Model (3) we adjust the standard errors through clustering by firm. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests.

	Deal Count		
	(1)	(2)	(3)
<i>CEO POWER INDEX</i>	-0.008** (-2.45)	-0.010*** (-2.80)	-0.010** (-2.07)
<i>Performance Measures</i>			
Sales Growth		0.102*** (8.01)	0.102*** (4.56)
Equity Based		0.000 (0.35)	0.000 (0.31)
ROA		-0.002 (-0.06)	-0.002 (-0.04)
<i>Bidder Controls</i>			
Free Cash Flow	0.000*** (6.19)	0.000*** (5.93)	0.000** (2.02)
Firm Size <i>Log (Total Assets)</i>	0.050*** (17.23)	0.051*** (15.43)	0.051*** (6.30)
Firm Age	-0.001*** (-5.38)	-0.000*** (-4.10)	-0.000** (-2.36)
Leverage	-0.083*** (-3.79)	-0.099*** (-4.05)	-0.099*** (-3.60)
Tobin's Q	0.032*** (12.21)	0.031*** (9.80)	0.031* (1.95)
<i>Industry Controls</i>			
Return to Industry	0.004 (0.55)	-0.005 (-0.58)	-0.005 (-0.35)
Industry Underperform	0.056*** (3.11)	0.043** (2.17)	0.043 (1.40)
<i>Year Fixed Effect</i>	Yes	Yes	Yes
<i>Industry Fixed Effects</i>	Yes	Yes	Yes
Number of Observations	13696	11546	11546
Adjusted R2	0.077	0.085	0.085

Table 10
Deal Likelihood for Each Firm for a Given Year

This table presents the relationship between the likelihood of a firm engaging in a merger or acquisition deal for a given year and the CEO Power Index, based on the Probit Regression. The dependent variable is an indicator variable which equals to 1 if a deal occurred in a given year, or zero otherwise. Model (1) is the basic specification with bidder controls. In Model (2) we introduce performance measures as previously defined. In Model (3) we adjust the standard errors through clustering by firm. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests.

	Deal Indicator Variable		
	(1)	(2)	(3)
<i>CEO POWER INDEX</i>	-0.0436*** (-2.92)	-0.0522*** (-3.19)	-0.0522** (-2.53)
<i>Performance Measures</i>			
Sales Growth		0.372*** (8.04)	0.372*** (5.43)
Equity Based		-0.000 (-0.22)	-0.000 (-0.21)
ROA		0.204 (1.32)	0.204 (1.01)
<i>Bidder Controls</i>			
Free Cash Flow	0.000*** (5.25)	0.000*** (4.54)	0.000* (1.94)
Firm Size <i>Log (Total Assets)</i>	0.214*** (17.01)	0.220*** (16.06)	0.220*** (9.62)
Firm Age	-0.006*** (-7.61)	-0.004*** (-5.37)	-0.004*** (-3.41)
Leverage	-0.824*** (-8.14)	-0.967*** (-8.55)	-0.967*** (-6.36)
Tobin's Q	0.090*** (9.81)	0.073*** (6.84)	0.073*** (4.12)
<i>Industry Controls</i>			
Return to Industry	0.023 (0.71)	-0.008 (-0.22)	-0.008 (-0.20)
Industry Underperform	0.151** (2.08)	0.063 (0.80)	0.063 (0.63)
<i>Year Fixed Effect</i>	Yes	Yes	Yes
<i>Industry Fixed Effects</i>	Yes	Yes	Yes
Number of Observations	13946	11774	11774
Pseudo R2	0.0976	0.1152	0.1152

Table 11

Consideration Offered

This table presents the relationship between the CEO Power Index and the likelihood of consideration used by the acquiring firm in a deal. The sample includes both completed and withdrawn deals. In Model (1) and (2) we run a Probit Model where the dependent variable is the All Cash indicator variable which is equal to 1 if the consideration offered in the respective deal was 100% cash. The dependent variable in Model (3) and (4) is the percentage of stock offered in the acquisition and an OLS Model is employed. In Model (2) and (4), but not in Model (1) and (3), we include deal performance (CAR) as a control variable, due to the fact that all cash deals are generally better performing deals. We adopt our standard bidder controls, yet have modified our deal control variables from interaction terms for the targets status and consideration offered, to the targets status alone. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests. In all models, we adjust the standard errors through clustering by firm.

	All Cash		Stock	
	(1)	(2)	(3)	(4)
<i>CEO POWER INDEX</i>	-0.177*** (-4.88)	-0.177*** (-4.87)	0.0455*** (3.57)	0.0450*** (3.54)
<i>Deal Performance</i>				
<i>CAR (-2, +2)</i>		1.324** (2.40)		-0.425*** (-2.76)
<i>Bidder Controls</i>				
Free Cash Flow	3.890*** (5.28)	3.816*** (5.16)	-0.993*** (-5.97)	-0.978*** (-6.08)
Firm Size <i>Log (Total Assets)</i>	0.0619* (1.96)	0.0646** (2.03)	-0.0189* (-1.76)	-0.0200* (-1.86)
Firm Age	0.002 (0.97)	0.002 (0.88)	-0.00132 (-1.62)	-0.00123 (-1.51)
Leverage	0.424 (1.37)	0.383 (1.23)	-0.251** (-2.40)	-0.239** (-2.28)
Tobin's Q	-0.210*** (-8.08)	-0.211*** (-8.12)	0.0543*** (7.11)	0.0542*** (6.98)

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Table 11 Continued
Consideration Offered

	All Cash		Stock	
	(1)	(2)	(3)	(4)
<i>Deal Controls</i>				
Stock price run-up	-0.102 (-1.47)	-0.098 (-1.40)	0.0551*** (3.08)	0.0529*** (2.99)
Relative deal size	-1617.5*** (-8.71)	-1600.7*** (-8.56)	174.4*** (4.21)	159.9*** (3.82)
Hostile	0.758** (2.39)	0.772** (2.43)	-0.0652 (-0.73)	-0.0665 (-0.75)
High tech	0.118 (0.99)	0.117 (0.98)	-0.0212 (-0.55)	-0.0220 (-0.57)
Public	-0.456*** (-3.21)	-0.443*** (-3.12)	0.201*** (5.54)	0.196*** (5.45)
Private	-0.748*** (-4.96)	-0.751*** (-4.98)	0.220*** (5.34)	0.222*** (5.42)
<i>Industry Controls</i>				
Return to Industry	0.189** (2.25)	0.181** (2.16)	-0.0678*** (-2.92)	-0.0651*** (-2.73)
Industry Underperform	0.245 (1.51)	0.251 (1.54)	-0.0904* (-1.70)	-0.0888* (-1.66)
<i>Year Fixed Effect</i>	Yes	Yes	Yes	Yes
<i>Industry Fixed Effects</i>	Yes	Yes	Yes	Yes
No. of Observations	1883	1883	1883	1883
Adj./Pseudo R2	0.203	0.206	0.232	0.237

Table 12

Deal Withdrawal Likelihood Given Negative Deal Return

This table presents the relationship between the CEO Power Index and the likelihood that a deal will be withdrawn given a negative return. We run a Probit Regression on all of the below specifications and have clustered standard errors by firm. The sample tested below is our all announced deal sample, which includes both completed and withdrawn deals. The dependent variable in Model (1) and (2) is an indicator variable equal to 1 if the deal was withdrawn, and zero if the deal was completed. In all models except for Model (1) we have included founder and founder family indicator variables as independent variables. Model (3) is based on the bottom 33 percentile of all deals from our sample. Model (4) is based on the bottom 25th percentile of all deals from our sample. We have adopted our standard specification with bidder and deal controls, whilst we have additionally added the deal performance as measured by CAR as an independent variable. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests. Two interaction control variables in that of Private Target x All-Cash Deal and Subsidiary Target x All-Cash Deal were omitted due to no relationship

	Withdrawal Indicator Variable			
	All negative		33rd	25th
	(1)	(2)	(3)	(4)
<i>CEO POWER INDEX</i>	-0.0995 (-1.46)	-0.193** (-2.39)	-0.259** (-2.38)	-0.356*** (-2.78)
<i>Founder</i>		0.869*** (3.36)	0.979*** (2.83)	1.290*** (3.25)
<i>Founder Family</i>		1.079*** (3.46)	1.269*** (3.12)	1.392*** (3.05)
<i>Deal Performance</i>				
CAR	-1.704 (-1.22)	-1.306 (-0.92)	-1.035 (-0.59)	-0.586 (-0.30)
<i>Bidder Controls</i>				
Free Cash Flow	0.000 (1.27)	0.000 (1.03)	0.000 (1.52)	0.000*** (2.66)
Firm Size <i>Log (Total Assets)</i>	-0.168** (-2.55)	-0.137* (-1.94)	-0.102 (-1.19)	-0.0458 (-0.46)
Firm Age	0.009* (1.85)	0.014*** (2.61)	0.007 (1.10)	0.007 (0.95)
Leverage	0.009 (0.02)	0.106 (0.17)	0.036 (0.05)	0.466 (0.63)
Tobin's Q	-0.006 (-0.09)	0.010 (0.14)	0.007 (0.09)	0.034 (0.40)

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Table 12: Continued
Deal Withdrawal Likelihood Given Negative Deal Return

	Withdrawal Indicator Variable			
	All negative		33rd	25th
	(1)	(2)	(3)	(4)
<i>Deal Controls</i>				
Stock price run-up	0.010 (0.10)	0.007 (0.07)	-0.002 (-0.02)	-0.03 (-0.24)
Relative deal size	0.655*** (3.05)	0.693*** (3.24)	0.780*** (3.14)	0.767*** (2.97)
Hostile	1.827*** (5.74)	1.910*** (6.23)	2.594*** (5.82)	2.182*** (4.20)
High tech	0.524* (1.75)	0.641** (2.07)	0.925** (2.12)	0.851* (1.94)
High tech x relative deal size	-0.134 (-0.45)	-0.089 (-0.31)	-0.045 (-0.13)	0.097 (0.31)
Public target x stock deal	0.209 (1.18)	0.158 (0.89)	-0.007 (-0.04)	-0.002 (-0.01)
Public Target x all-cash deal	-0.143 (-0.56)	-0.187 (-0.70)	-0.595 (-1.24)	-0.629 (-1.17)
Private Target x all-cash deal		<i>Omitted</i>		<i>Omitted</i>
Private Target x stock deal	-0.245 (-0.89)	-0.313 (-1.03)	-0.202 (-0.54)	-0.284 (-0.62)
Subsidiary target x all-cash		<i>Omitted</i>		<i>Omitted</i>
<i>Industry Controls</i>				
Return to Industry	0.062 (0.41)	0.011 (0.08)	-0.061 (-0.36)	-0.068 (-0.40)
Industry Underperform	-0.257 (-0.63)	-0.382 (-0.97)	0.066 (0.17)	-0.029 (-0.07)
Number of Observations	784	784	499	379
Pseudo R2	0.289	0.324	0.379	0.368

Table 13
Marginal Effects in Probability

In this table we present results after conducting Probit analyses for the Deal likelihood, All Cash likelihood and Withdrawal likelihood models, respectively. For each level of the CEO Power Index, we have computed the predicted probabilities for each level of the index whilst holding all other explanatory variables constant at their respective means. The 'Marginal' row is the marginal effect on the probability of our dependent indicator variable given a one level increase in the CEO Power Index at the mean. Our standard errors have been approximated using the Delta-method. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests.

Panel A: Deal Likelihood. Deal Indicator is equal to one in 8.5% of sample					
CEO Power Index	Predicted Probabilities	Standard Error	Z	95% Confidence Interval	
0	0.104	0.006	16.44***	0.092	0.117
1	0.095	0.004	25.01***	0.088	0.103
2	0.087	0.003	30.88***	0.081	0.092
3	0.079	0.004	20.84***	0.071	0.086
4	0.071	0.005	13.33***	0.061	0.081
5	0.064	0.007	9.40***	0.051	0.077
Marginal	-0.008	0.003	-3.24***	-0.014	-0.003
Panel B: All Cash Likelihood. All Cash indicator is equal to one in 38.97% of sample					
0	0.464	0.030	15.24***	0.405	0.524
1	0.395	0.019	20.74***	0.357	0.432
2	0.328	0.015	22.38***	0.300	0.357
3	0.267	0.019	13.76***	0.229	0.305
4	0.212	0.026	8.20***	0.162	0.263
5	0.165	0.030	5.41***	0.105	0.224
Marginal	-0.065	0.013	-4.88***	-0.091	-0.039
Panel C: Withdrawal Likelihood. Withdrawal indicator is equal to one in 6.9% of sample					
0	0.071	0.022	3.19***	0.027	0.114
1	0.048	0.011	4.32***	0.026	0.070
2	0.032	0.007	4.23***	0.017	0.046
3	0.020	0.007	2.74***	0.006	0.035
4	0.012	0.007	1.77*	-0.001	0.026
5	0.007	0.006	1.24	-0.004	0.019
Marginal	-0.015	0.006	-2.35**	-0.027	-0.002

Appendix: Variable Definition

Variable	Definitions
Panel A: Deal Returns and CEO Power Index	
CAR (-2,+2)	Five-day cumulative abnormal return calculating using a market model with the CRSP equally weighted return as the market index.
DR	Multiply the CAR by the market capitalization of the respective firm 3 days prior to the announcement date
CEO Power Index	This ranges from 0 to 5, where a mark is given for each of the following: Board Size, E Index, and Tenure in 75th percentile. Chairman Dummy is equal to 1 and percentage of independent directors is less than 50%.
Panel B: Bidder Controls	
Firm Size	Log of book value of total assets
Tobin's Q	Market Value of assets over book value of assets
Leverage	Book Value of Debt over book value of total assets
Free Cash Flow	Operating income before depreciation minus interest expense and capital expenditures and income taxes, which is then scaled by the book value of total assets
Stock Price Run Up	Bidders BHAR during the period (-210, -11). The market index is the CRSP value-weighted return.
Firm Age	The difference in years between the year that the stock first appeared on CRSP and the current meeting date in which firm-year we are observing
Panel C: Performance Controls	
Equity Based Compensation	The value of newly granted restricted shares and stock options granted during the year over the CEO's total compensation
Sales Growth	The change in sales over the convening year as calculated from Compustat
Return on Asset	Net income divided by the book value of total assets
Panel D: Industry Controls	
Return relative to industry	Yearly stock return of a firm minus the median yearly stock return of the Fama and French 48 industry classification in which the firm is in.
Industry underperformance	The Fama and French 48 industry classification median yearly stock return minus the value weighted market return
Panel E: Deal Controls	
Public Target	Indicator Variable equal to 1 if target is a public firm, zero otherwise
Private Target	Indicator Variable equal to 1 if target is a private firm, zero otherwise
Subsidiary Target	Indicator Variable equal to 1 if target is a subsidiary firm, zero otherwise
All-cash Deal	Indicator Variable equal to 1 if consideration is a 100% cash, zero otherwise
Stock Deal	Indicator Variable equal to 1 if consideration is some level of stock, zero otherwise
Relative Deal Size	Deal value from SDC divided by market capitalization as utilized for DR measure
High Tech	Indicator Variable equal to 1 if bidder and target are both from high tech industry, zero otherwise
Hostile	Indicator Variable equal to 1 if deal attitude is hostile, zero otherwise