CEO Power and Dispersion of Acquirer Returns

Ning Gong, Lixiong Guo, Ruowen Shi, and Hong Feng Zhang*

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Abstract

We document a new stylized fact about M&A announcement acquirer returns in the U.S.: the tails have thickened as CEO power has declined over recent decades. We argue that in high-salience decisions, such as mergers and acquisitions (M&A), powerful CEOs act as centralized screeners and face asymmetric career penalties, leading them to use their discretion to "play it safe" by excluding high-variance projects. Consistent with this mechanism, we find that CEO power is negatively associated with the dispersion of abnormal returns. This effect is asymmetric, with a more pronounced impact on the right tail, and it intensifies during periods of high market volatility. The relationship attenuates after the enactment of the Sarbanes-Oxley Act, suggesting that stronger governance constrains managerial discretion associated with structural power. Our results are mirrored in post-merger performance, where powerful CEOs are associated with less volatile long-run outcomes. Overall, we show that powerful CEOs compress the dispersion of acquirer returns to avoid the risk of large negative market reactions at the expenses of skipping some high-risk but positive NPV acquisitions.

Keywords: CEO power, M&As, corporate governance, kurtosis, tail risk

JEL Classification: G34

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* Ning Gong is at Deakin Business School, Deakin University, Melbourne, Australia; e-mail: ning.gong@deakin.edu.au. Lixiong Guo is at the School of Business Administration, University of Mississippi, USA; email: lguo2@olemiss.edu. Ruowen Shi is at Deakin Business School, Deakin University; email: r.shi@deakin.edu.au. Hong Feng (John) Zhang is at Deakin Business School, Deakin University; email: hong.zhang@deakin.edu.au. The earlier version was circulated under the title of "CEO Power and Mergers and Acquisitions."

1. Introduction

Mergers and acquisitions (M&A) are among the most consequential corporate investments and can generate very large gains or losses for acquirer shareholders (Moeller, Schlingemann, and Stulz, 2005; Fich, Nguyen, and Officer, 2018). While the literature has extensively analysed the mean of acquirer announcement returns and its cross-sectional determinants (e.g., Andrade, Mitchell, and Stafford, 2001; Masulis, Wang, and Xie, 2007), considerably less is known about the factors that influence the distribution of these returns and, in particular, the probability mass at the tails where the most significant wealth effects occur. Extreme outcomes are where agency problems, monitoring frictions, and managerial incentives are most salient, yet most empirical work aggregates these outcomes into averages that obscure the underlying risk. This paper redirects attention to that distribution and examines how CEO power is related to the dispersion of acquirer announcement returns and the probability of tail events.

We begin by documenting a time-series regularity in U.S. M&A announcements since the mid-1990s. The tails of acquirer cumulative abnormal returns (CARs) have thickened over time: kurtosis rises monotonically across subperiods, and the frequency of large positive and negative outcomes increases, coinciding with a parallel decline in our measure of CEO power, consistent with the gradual strengthening of internal and external governance mechanisms. The joint evolution of these series motivates our central question: How does CEO power relate to the dispersion—and especially the tails—of acquirer announcement returns? Our analysis reveals that more powerful CEOs are associated with lower dispersion and lower probabilities of tail events, with effects that are asymmetric across the two tails and contingent upon state-specific market-wide uncertainty and external governance.

Our conceptual framework draws on the economics of decision centralization and managerial career concerns. In hierarchical organizations, a centralized, sequential approval process screens projects more stringently than a decentralized, parallel process (Sah and Stiglitz, 1988, 1991). In high-salience decisions, such as M&As, CEOs acting as gatekeepers also face asymmetric personal costs from visible failure, including reputational penalties and dismissal risk (e.g., Gormley and Matsa, 2016; Lehn and Zhao, 2006). We synthesize these ideas in a simple model and introduce the notion of a *safety wedge*. The safety wedge captures the implicit penalty on outcome variance that enters the CEO's effective approval rule when the CEO has discretion. As CEO power increases, the wedge becomes larger, which narrows the set of acceptable projects along the variance dimension. High-variance deals—those that are most likely to produce tremendous gains or losses—are screened out more frequently. This mechanism predicts risk compression in announcement outcomes and generates several testable hypotheses, which are detailed in Section 2.

To test our predictions, we assembled a comprehensive dataset of 3,180 U.S. mergers and acquisitions (M&A) announced between 1996 and 2023. Our primary measure of CEO power is the CEO Power Index, which aggregates five widely used indicators of governance and managerial discretion. We find that CEO power is economically and statistically associated with the dispersion of M&A announcement returns. A one-standard-deviation increase in CEO power is associated with a 5.69% reduction in the average CARs associated with positive market reactions and a 5.05% reduction for negative reactions. These results support the view that powerful CEOs act as a risk-compression mechanism in high-stakes corporate investments.

Our tail analysis reveals an asymmetric effect: CEO power has a stronger impact on the right (positive) tail of the return distribution, consistent with powerful CEOs screening out high-variance projects with uncertain upside. At the same time, the improvement in average

returns appears to stem primarily from reducing exposure to value-destroying deals in the left tail. This risk-compression effect is amplified during periods of heightened market volatility, such as the Global Financial Crisis and the COVID-19 pandemic. These patterns in announcement returns extend to the post-merger period: firms led by powerful CEOs exhibit higher average post-merger operating performance (ROA) and long-run stock returns (BHAR), coupled with lower dispersion in these metrics, reinforcing our core hypothesis. Finally, a difference-in-differences analysis shows that regulatory shocks such as the Sarbanes-Oxley Act significantly weaken the relationship between CEO power and return dispersion, indicating that external governance can effectively constrain managerial discretion.

We are also mindful of potential endogeneity concerns, particularly that powerful CEOs may be a function of firm-specific characteristics that also drive M&A outcomes. Our use of Cumulative Abnormal Returns (CARs) as the dependent variable helps to mitigate these concerns by construction, as CARs capture the unanticipated, short-term market reaction to an announcement rather than slow-moving or omitted firm-level variables that might be correlated with CEO power. First, we employ a comprehensive set of firm- and deal-level control variables to account for observable confounding factors. To further mitigate endogeneity concerns, we exploit the quasi-exogenous shock of the Sarbanes-Oxley Act (SOX) in a difference-in-differences framework, which allows us to isolate the causal effect of a reduction in CEO power on M&A outcomes. The consistency of our results across these diverse approaches increases our confidence that the relationship between CEO power and the dispersion of M&A returns is causal.

Our findings are robust to a wide range of alternative specifications and checks. We confirm the results using alternative measures of CEO power and M&A returns, including different event windows, raw returns, and subsample periods. We also address potential

selection concerns by modelling the determinants of deal inclusion in our sample. Across all these robustness exercises, the results remain consistent with our main findings, indicating that neither modelling choices nor sample selection issues drive our conclusions.

In summary, this paper presents new evidence on the role of corporate governance in shaping the distributional outcomes of high-stakes corporate decisions. We introduce a novel stylized fact: the long-term increase in the kurtosis of M&A announcement returns and demonstrate that this trend is systematically related to the decline in CEO power. Our theoretical framework, which integrates insights from decision theory and managerial career concerns, predicts that powerful CEOs act as a risk-compression mechanism by screening out high-variance projects. Our empirical results, which are robust to a wide range of endogeneity concerns and alternative specifications, provide strong support for these predictions.

This paper makes three primary contributions to the literature on corporate governance and M&A. First, we provide a new framework for understanding acquirer returns through the role of CEO power. By focusing on the shape of the return distribution, our work provides a richer understanding of how managerial risk-taking incentive affects their acquisition decisions. Second, we document a novel time-series phenomenon: the long-term rise in the kurtosis of acquirer returns. We empirically link this trend to the simultaneous decline in CEO power, offering a new explanation for this "stylized fact." Finally, we show that the effect of CEO structural power on M&A outcomes is moderated by an overall strengthening of corporate governance mechanisms. Using a difference-in-differences design around the Sarbanes-Oxley Act (SOX), we find that more intensive monitoring of CEOs by all parties can significantly attenuate how CEO structural power translates into managerial discretions. Our findings provide novel insights into the interplay between firm-level and market-wide governance mechanisms in high-stakes corporate decisions such as M&As.

The rest of the paper proceeds as follows. Section 2 develops the theoretical framework and presents the hypotheses. Section 3 describes our data and sample. Section 4 presents the empirical findings and robustness checks. Section 5 concludes with a discussion of the broader implications of our findings.

2. Hypothesis Development and the Related Literature

2.1 Hypothesis Development

Our central argument is that CEO power acts as a risk-compression mechanism in high-stakes M&A decisions, influencing not only the average outcome but the entire distribution of announcement returns. We base this argument on two complementary theoretical mechanisms, which are formalized in a simple model in Appendix B.

The first mechanism is rooted in the decision centralization framework of Sah and Stiglitz (1988, 1991). In a hierarchical organization where a single decision-maker—in our context, a powerful CEO with significant discretion—acts as a gatekeeper. The approval process yields approvals that are inherently more cautious than a decentralized, parallel approval process. A powerful CEO's discretion enables them to impose their own screening criteria in addition to the board's simple positive NPV rule. This centralized, sequential approval process leads to the rejection of projects that are both very good (high-variance and high-return) and very bad (high-variance and low-return), thereby thinning the tails of the outcome distribution.

The second mechanism is related to managerial career concerns in high-salience decisions. Acquisitions are highly visible, and failures can lead to asymmetric career penalties for CEOs, including reputational loss or even dismissal. A powerful CEO who both internalizes these costs and has discretion over which projects to pursue may "play it safe," especially when faced with high outcome uncertainty. The deal selection process shifts away from high-variance

projects, thereby compressing the dispersion of announcement returns. Both mechanisms are formalized in Proposition B1 of our simple model, which shows that increasing CEO power shrinks the acceptance set along the variance dimension. Based on these two mechanisms, we formulate our first hypothesis:

Hypothesis 1 (Risk Compression and Return Dispersion): CEO power is negatively associated with the dispersion of M&A announcement returns.

While powerful CEOs screen out both extreme successes and failures, the effect is not symmetric. Our model in Appendix B shows that when the opportunity set includes projects with both high expected value and high risk, a powerful CEO's preference for lower variance disproportionately excludes these projects. This occurs because the CEO's utility function introduces a safety wedge that makes high-variance projects less attractive, especially those with uncertain but potentially large upside. Therefore, we state our second hypothesis:

Hypothesis 2 (Asymmetric Tail Impact): The risk-compression effect of CEO power is more pronounced on the right (positive) tail of the M&A announcement return distribution.

The Sarbanes-Oxley Act (SOX) significantly strengthened external governance and reduced managerial discretion. The simple model formalizes this by showing that external governance reduces the effective level of CEO power. As such, we expect that the risk-compression effect of CEO power will be attenuated in the post-SOX period. Thus, our third hypothesis is stated below.

Hypothesis 3 (External Governance as a Moderator): External governance, as proxied by the Sarbanes-Oxley Act (SOX), moderates the relationship between CEO power and M&A return dispersion.

The CEO's career penalty is a function of the probability of failure. During periods of high market uncertainty, the variance of all potential projects is amplified. This makes the variance cost and the potential career penalty more salient, as the probability of a negative outcome increases. As shown in Proposition B3 of our model, this "uncertainty amplification" effect strengthens the relationship between CEO power and the decision to reject high-variance deals.

Hypothesis 4 (The Impact of Market Volatility): The risk-compression effect of CEO power will be more pronounced during periods of high overall market volatility.

The next hypothesis follows directly from the risk-compression mechanism. Since powerful CEOs are theorized to select lower-variance projects, this choice should manifest not only in short-term market reactions but also in the long-term fundamentals of the firm. The selection into safer projects should result in a more compressed distribution of post-merger outcomes.

Hypothesis 5 (Post-Merger Performance) Firms with powerful CEOs will have lower dispersion in their post-merger long-term performance metrics (e.g., ROA and BHAR).

2.2 Related Literature

Our study contributes to several distinct but related streams of the corporate finance literature. We begin by highlighting the primary research gap we address: the extensive focus on the mean of M&A returns at the expense of their distributional properties. We then position our paper within the literature on CEO power and, more broadly, within the study of agency problems associated with managerial risk-taking incentives.

2.2.1 M&A Returns: The Mean vs. the Distribution

The vast majority of the M&A literature has focused on the determinants of average announcement returns. Classic surveys and large-sample studies emphasize average announcement effects (combined gains positive; acquirer means sensitive to governance and context) rather than the distribution of outcomes. For example, see Andrade, Mitchell, and Stafford (2001) and Masulis, Wang, and Xie (2007). However, this focus on the mean can obscure the high-stakes nature of M&As, which are characterized by a wide dispersion of outcomes and significant tail risk. Recent macro-finance work has highlighted the importance of this dispersion by showing that the sorting and reallocation of assets via M&A have aggregate economic implications (David, 2021). Our paper shifts the focus from the average outcome to the full distribution of returns, arguing that this is where a more nuanced understanding of managerial discretion and governance mechanisms can be found.

2.2.2 CEO Power, Governance, and Risk

Our paper contributes to the extensive literature on the role of CEO power in corporate decision-making. Since Adams, Almeida, and Ferreira (2005) established a theoretical framework for understanding CEO power and firm risk, a rich body of empirical work has emerged. The general finding is that powerful CEOs, with fewer checks and balances, tend to engage in riskier behavior that can lead to both higher average returns and greater variance. For example, powerful CEOs have been found to undertake riskier investments, engage in more acquisitions, and pursue more aggressive financial policies.

Our paper offers a more nuanced, context-dependent view of CEO power. Consistent with recent reviews that emphasize the importance of domain- and institution-specific factors in shaping the effects of CEO power (Brahma & Economou, 2024; Ozgen et al., 2025), we argue that the relationship between CEO power and risk is context-dependent. In the context of high-salience corporate events like M&As, powerful CEOs may use their discretion to reduce risk.

Our argument relates to, but is distinct from, the "playing it safe" hypothesis of Gormley and Matsa (2016). They examine how weakened external governance (via antitakeover laws) induces managers to reduce firm-wide risk, primarily through diversifying acquisitions and lower stock volatility. In contrast, we focus on high-salience M&A decisions and study how CEO power shapes the entire distribution of deal-level announcement returns. We introduce the concept of a safety wedge to formalize the mechanism and document a novel stylized fact: the long-term increase in the kurtosis of M&A returns as CEO power declines. This distributional perspective and our evidence on tail asymmetry and governance moderation extend the literature on managerial discretion and risk-taking in a new direction.

2.2.3 Firm-Level Risk and the Distribution of Outcomes

Our paper also joins a growing body of literature that studies how firm-level characteristics and governance mechanisms shape the distribution of corporate outcomes, rather than just their mean. For example, recent work has shown that corporate governance, through mechanisms like staggered boards (Johnson, Karpoff, and Yi, 2022) or shareholder activism (Wu & Chung, 2021), can influence the types of deals a firm undertakes, thereby affecting the distribution of returns. Additionally, a paper by David, Schmid, and Zeke (2022) directly connects a firm's risk-adjusted capital allocation to the distribution of corporate returns.

In sum, we connect organizational architecture (centralized screening), agency under career concerns, and governance moderation to a context-dependent prediction for M&A. In high-salience corporate investments, more powerful CEOs compress dispersion by forgoing risky upside and limiting downside exposure, with effects stronger when uncertainty is high and weaker when external governance is tighter. This perspective reconciles evidence that power can increase variance in routine decisions (Adams et al., 2005) with findings that managers play it safe when dismissal risk is salient (Gormley & Matsa, 2016; Lehn & Zhao, 2006), and

it aligns with existing body of evidence that the impact of CEO power is institution- and context-dependent (see the review by Brahma & Economou, 2024).

3. Data and Sample

This section outlines our data collection process, the construction of our key variables, and the empirical methodology used to test the hypotheses developed in Section 2.

3.1 Data and Sample Selection

Our initial sample of mergers and acquisitions is drawn from the Securities Data Corporation's (SDC) Platinum database from 1996 to 2023. Our sample includes completed and withdrawn deals with a deal value of at least $10 million[1]. The acquirer in the deals must be a publicly traded US company with daily stock market data available from the Center for Research in Security Prices (CRSP) database. Targets in our sample include private firms, public firms, and subsidiaries. We limit the sample of M&A transactions by excluding spinoffs, recapitalizations, exchange offers, repurchases, self-tenders, acquisitions of remaining interests, leveraged buyouts, privatizations, rumored deals, and miscellaneous deals that lack disclosed deal value or an unspecified target/buyer. We require that the bidder controls less than 50% of the target's shares prior to the announcement and seeks to control greater than 50% of the target subsequently. This allows us to focus on deals with significant risk and facilitate understanding our results in the context of existing M&A studies that focus on the mean return. Lastly, we exclude deals within the financial services industry (SIC code between 6000 and 6999) as implemented in Graham, Lemmon, and Wolf (2002).

[1] This sample includes both "completed" and "withdrawn" deals, whereby "intent to withdraw" and "unconditional" deals are removed. The threshold of $10 million for the deal size is based on the consideration that failures of smaller deals are not highly visible and do not lead to substantial reputational damage for CEOs.

To investigate the impact of CEO power on deals, we require that the bidders have corporate governance information from Institutional Shareholder Services (ISS) and non-missing financial information from Compustat. We start our sample in 1996 because that is the first year the ISS data is available. All initial bids were announced between January 1, 1996, and December 31, 2023. Our final sample consists of 3,180 announced deals. These deals are from 46 of the Fama and French 48 industries, thereby representing a wide range of industries.

3.2 Variable Construction

3.2.1 CEO Power Index

To measure CEO power, we construct a composite CEO power index because power can arise from multiple sources and a single dimension alone cannot capture the full complexity of the construct. For example, in Jensen (1993), several factors are mentioned that can render the board of directors ineffective, including culture, board size, the lack of outside directorship, and the lack of separation of CEO and Chairman duties. Following the methodology of Adams, Almeida, and Ferreira (2005) and others, the index is constructed as a simple count of five key indicators of CEO structural power:

1. Chairman Dummy Variable: equal to 1 if the CEO is also the chairman and zero otherwise.
2. Large Board Size Dummy Variable: equal to 1 if the board size is in the top quartile (the 75th percentile) of the sample, and it is equal to zero otherwise.
3. Low Board Independence Dummy Variable: equal to 1 if the percentage of independent directors is in the bottom half (median) of the sample and zero otherwise.
4. Long Tenure Dummy Variable: equal to 1 if the CEO tenure is in the top quartile (the 75th percentile) of the sample, and it is equal to zero otherwise.

5. High Entrenchment Index (E-Index) Dummy Variable: equal to 1 if the entrenchment index is in the top quartile (the 75th percentile) of the sample, and it is equal to zero otherwise.

The CEO Power Index equals the sum of the five indicators. Its value ranges from 0 to 5, with 5 indicating the most powerful CEOs and 0 the least powerful. Our rationale for the 75th percentile for three of the components is to focus on the most powerful CEOs. Based on the CEO and board characteristics of the acquirers in our deal sample, the cut-off points for large board size, long CEO tenure, high E-index are 11 directors, 10 years of tenure, and E-index of 4, respectively. We use a 77.8% threshold in our independence component, corresponding to the median value in our sample. For firm-level analysis, we also construct a sample of nonfinancial U.S. acquirers in Compustat with non-missing financial information and the CEO power index from 1996 to 2023. The merged panel sample has 37,019 firm-year observations.

3.2.2 Acquirer Returns (Dependent Variables)

We calculate the acquirers' Cumulative Abnormal Returns (CARs) over a 5-day event window based on a Fama-French and Carhart four-factor model. The estimation window is [-210, -11] relative to the M&A announcement dates in days. The CARs are calculated using the Eventus program from Wharton Research Data Services (WRDS). Studies examining the announcement returns 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.[2]

[2] 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 show in a random sample of 500 acquisitions from 1990 to 2000 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.

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 result in a considerable dollar loss to the bidder's shareholders. Malatesta (1983) recognizes that the most appropriate measure for merger-related gains is the cumulative abnormal rates of return multiplied by the market capitalization of the bidder over this period. Hence, we 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 capitalization (multiplying the closing adjusted stock price and shares outstanding, adjusted using the GDP deflator) for the bidder 3 days prior to announcement. As DRs provide a measure of the dollar value change for the bidder, they are useful for assessing the economic significance of the announcement return. To capture the total dispersion of returns, we use the absolute value of both CARs and DRs, as noted in our hypotheses and abstract. For our analysis of post-merger performance, we use Return on Assets (ROA) and Buy-and-Hold Abnormal Returns (BHARs) over various periods following the deal completion.

We include a comprehensive set of firm- and deal-level control variables to account for confounding factors. These include deal characteristics such as deal value, relative deal size, method of payment, and industry-relatedness, as well as firm characteristics: acquirer size, market-to-book ratio, leverage, cash holdings, and firm-level stock volatility in the relevant regression analysis.

4. Empirical Results

This section presents our primary empirical findings, which test the hypotheses developed in Section 2. We first provide descriptive statistics of our sample, followed by the results from our main regression analyses and a series of robustness checks.

4.1 Descriptive statistics and univariate analysis

We begin by presenting summary statistics for our key variables in Table 1. This table shows the mean, standard deviation, and key percentiles for our measures of CEO power, M&A returns (CAR and DR), and other firm and deal characteristics. 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 panel sample at the firm level.

<< INSERT TABLE 1 >>

In Panel A of Table 1, the CAR over the 5-day window has a mean of 0.23% with a standard deviation of 7.02%. Extreme returns exist in both tails, as the minimum and maximum values are -22.52% and 19.88%, respectively. Meanwhile, the 25th percentile and 75th percentile CAR values are -2.96% and 3.84%, respectively. Similar conclusions can be drawn from the DR measure, which has a mean of $-58.98 million,[3] yet with a median of $3.91million. Within our sample, there are 297 instances where the DR, either positive or negative, has exceeded the $ 1 billion mark. This suggests that although the 25th percentile and 75th percentile DR values are -$67.02 and $75.54 million, respectively, we do have instances of extremely large value-creating and value-destructing deals. The distribution of CARs and the frequency of completed deals are illustrated in Figures 1 and 2, respectively.

<< INSERT FIGURES 1 & 2 >>

[3] The reported dollar amount is in real terms, with the base year in 2017. The data on the Consumer Price Index (CPI) are from the Federal Reserve Economic Data (FRED) database of the Federal Reserve Bank of St. Louis.

By construction, the total CEO Power Index ranges from 0 to 5. The median CEO Power Index is 2.000, and the mean is 1.975. Approximately 7.5% of the sample has a CEO Power Index of 0, indicating that those firms have the least powerful CEOs. Approximately 7% of the sample has a CEO Power Index of 4 or 5, indicating that these firms have the most powerful CEOs.

<< INSERT FIGURE 3 >>

To provide initial evidence for our core hypotheses, Table 2 presents univariate results. Table 2 explores firm-level characteristics across each level of the CEO Power Index. There is a monotonic relationship between the CEO Power Index and Tobin's Q, Firm Size, leverage, and free cash flow. It appears that powerful CEOs are more prevalent in large firms, those with lower market valuations and lower leverage ratios, and those with less free cash flow. Firms with more powerful CEOs are not necessarily older, having lower profitability, or lower sales growth.

<< INSERT TABLE 2 >>

Our central testable hypothesis, H1 (risk compression), is whether more powerful CEOs engage in deals that have less uncertain returns than less powerful CEOs. Before conducting the complete empirical tests, we provide a preliminary univariate analysis of this potential relationship.

Figure 4 illustrates the dispersion of acquirers' returns around M&A announcements for firms with High Power (with CEO Power Index ≥ 3) and Low Power (with CEO Power Index ≤ 1). Figure 4a presents the cumulative abnormal returns (CARs), indicating that firms led by Low Power CEOs exhibit a significantly wider dispersion, particularly with more extreme positive returns. Figure 4b presents the absolute Dollar returns (DRs), which exhibit a similar pattern: Low-power CEOs experience dispersed |DR|s. In contrast, High Power CEOs tend to

have deal returns clustered around lower values. Together, these results suggest that CEO power plays a key role in the dispersion of deal returns: Low-power CEOs are more likely to engage in high-uncertainty outcomes, but High-Power CEOs tend to behave more conservatively.

<< INSERT FIGURE 4 >>

Table 3 reports summary statistics for CAR and DR across six levels of the CEO Power Index. The table shows no clear relationship between the dispersion of CARs and the CEO power index levels. This may be due to combining CARs from different years into the same groups and the change in the average CEO power index over time. In Section 4, we use regressions to isolate the CEO power impacts from other confounding factors.

<< INSERT TABLE 3>>

4.2 Kurtosis Analysis of Announcement Returns

To examine whether the kurtosis of CARs varies across subperiods, we conduct several subperiod tests of kurtosis.

1. Pre-SOX vs. Post-SOX

We define 2002 as the starting point of the Sarbanes–Oxley Act (SOX) and restrict the post-SOX period to observations before 2008. The estimated kurtosis in the pre-SOX period is 3.8031, compared to 4.9258 in the post-SOX period, suggesting that the distribution of CARs exhibits thicker tails following the enactment of SOX.

2. Pre-2009 vs. Post-2009

Using 2009 as the cutoff, we find that the kurtosis increases from 4.3921 in the pre-2009 period to 5.2844 in the post-2009 period. This pattern indicates that tail thickness becomes more pronounced after 2009.

3. Decade-Based Partition

When splitting the sample into three subperiods—before 2007, between 2007 and 2016, and after 2016—the estimated kurtosis values are 4.2815, 4.7970, and 5.4220, respectively.

In the last column of Table 4, we also list the average CEO Power Index for the relevant sample in each sub-period, which shows a monotonic declining trend. These results suggest a gradual intensification of tail thickness over time, coinciding with the weakening of CEO power due to the gradual reform of corporate governance over recent decades. That is the focus of our study.

<< INSERT TABLE 4>>

4.3 Dispersion in Announcement Returns

4.3.1 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:

$$\left|CAR_{i,t}\right| \text{ or } \left|DR_{i,t}\right| = \alpha + \beta_1 CEO\ Power\ Index_{\ i,t-1} + \beta_2 Acquirer\ Controls_{i,t-1} + \beta_3 Deal\ Controls_{i,t} + Industry\ FE + Year\ FE + \epsilon_{i,t} \quad (1)$$

where $CAR_{i,t}$ is the cumulative abnormal return to the 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 are less likely to make both the most value-enhancing (extremely positive deal return) and the most value-destroying (extremely negative deal return) deals. To control for other factors that may affect the dispersion in announcement returns, we include several 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[4], pre-existing leverage, and free cash flow. Of particular interest is firm age, which has been shown to affect profitability, firm value, and growth potential[5]. 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 determine whether the firm has underperformed or outperformed its industry peers. The latter allows us to establish if

[4] 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.

[5] See Dunne, Roberts, and Samuelson (1989) and Baker and Kennedy (2002).

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, and Return on Assets, as a measure of operating performance. 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. Hence, we control for the percentage of equity-based compensation in CEO total compensation. 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

We also include deal characteristics that have been found to affect announcement returns in prior studies, as they may also impact the dispersion of M&A returns. This includes stock price-up, indicators for public, private, and subsidiary targets, and an indicator for high-tech targets. We also control for all-cash and stock deals, as we believe the payment method is potentially 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.

4.3.2. Main Results

We estimate the model in equation (3) as an OLS regression and report the results in Table 5. We find a negative coefficient for the CEO Power Index at the 1% level when using the absolute value of the CAR as the dependent variable. The coefficient of -0.224 represents the decrease in the absolute CAR for each point increase in the CEO Power Index. Indeed, the magnitude of this coefficient reflects that a substantial degree of conservativeness is associated with more powerful CEOs in M&A decision-making. This conclusive result is also evident when we utilize the logarithm transformation of the absolute value of DR as our dependent variable. Moreover, we find a negative relationship between the CEO Power Index and the log-transformed absolute value of DR at the 5% level. The OLS model has an adjusted R^2 of 19.8% and 54.2% for the CAR and DR measures, respectively. Given that we have consistency in direction across both CAR and DR, we can confirm that powerful CEOs do engage in less extreme M&A deals, as predicted by Hypothesis 1.

Regarding the control variables, we find that firm size has 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 because larger firms, as measured by the book value of assets, have an inherent capacity to generate 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 huge market capitalization. Interestingly, we find that firm age has a statistically significant negative relationship, which is also observed 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 infer that younger firms that are in pursuit of high growth may engage in more risky deals. We observe, at the 1% significance level, that highly levered firms are less likely to engage 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 DR specifications.

In Columns (3) and (4) of Table 5, 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 CAR measure at the 5% significance level. Similarly, the CEO Power index is negatively related to the absolute value of DR at the 10% significance level.

<< INSERT TABLE 5>>

4.3.3. Positive and negative deal returns

In this subsection, we seek to further validate our previous result. We have demonstrated that our CEO Power Index exhibits a negative relationship with respect to the absolute value of our deal return measures. However, this could be driven by either positive or negative deals. For example, if less powerful CEOs are more likely to make positive CAR deals than powerful CEOs but no more likely to make negative CAR deals than powerful CEOs, then we may still find a negative coefficient on CEO power index. However, this scenario does not suggest that powerful CEOs are more likely to avoid high variance acquisitions. In order to validate our inferences, we need to conclusively show that the relationship holds for *both* tails, respectively.

In Columns (1) – (2) of Table 6, 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 both positive CARs and positive log(DR)s as our dependent variable. Overall, we can deduce that powerful CEOs are less prevalent the larger a given value-enhancing M&A deal.

In Columns (3) – (4) of Table 6, we examine the relationship between our CEO Power Index and *negative* deal returns only. The CEO Power Index is statistically significant at the 5% level when utilizing negative CAR as the dependent variable. We can conclude that powerful CEOs are also less prevalent in the larger a given value-destroying M&A deal.

<< INSERT TABLE 6>>

The results are economically significant. Based on the regressions reported in Columns (1) and (3), we find that a one-standard-deviation increase in CEO power is associated with a reduction of 5.69% in the average CARs associated with positive market reactions, and a reduction of 5.05% for negative reactions, indicating a powerful CEO's role as a risk-compression mechanism.

This consistency in findings when examining positive and negative deal returns separately supports our main findings. We thus conclude that our CEO Power Index is negatively related with the dispersion of CARs. In combination with our previous findings on the absolute value of deal return, we show that powerful CEOs are less likely to make acquisitions whose CARs are in the extremes of *both* tails. Furthermore, these findings are not simply driven by entrenchment per se, but rather a combination of organizational factors that give the CEO more structural power.

4.4. Robustness checks

We perform a list of robustness checks to verify whether our main results are susceptible to the choice of specific sample periods, alternative measures of CEO power, or using alternative sample selection criteria.

4.4.1. Excluding the Influence of the GFC and COVID-19

Since our sample spans a relatively long period, including the Global Financial Crisis (GFC) and the COVID-19 pandemic, our results may be influenced by deals announced during these

extreme events. Columns (1) and (2) in Table 7 present the results of the sample by excluding the GFC period (2008-2010) and the pandemic period (post-2020). The coefficients on the CEO Power Index for |CAR| and Log(|DR|) increase slightly from those reported in Table 5, but remain statistically significant. This suggests that the GFC and Pandemic do not have substantial adverse effects on our results.

To further explore this issue, we re-estimate the model using only deals announced during the GFC. The estimated coefficient is substantially larger in magnitude (-0.478), suggesting that the negative impact of CEO power on deal outcomes is considerably stronger in periods of heightened uncertainty. This is consistent with the view that powerful CEOs become particularly conservative in crisis times. In periods of heightened uncertainty, such as the GFC, powerful CEOs may prioritize job security and personal reputation, and therefore deliberately avoid deals that could generate highly volatile outcomes, resulting in significantly lower absolute deal returns.

<< INSERT TABLE 7>>

4.4.2. Alternative CEO Power measure

To address potential concerns regarding the sample-specific thresholds used in constructing the CEO Power Index, we employ an alternative method to construct the index. The alternative index employs the exact five dimensions but uses different calculation methods. Specifically, we sort CEO tenure, board size, and board independence into quintiles each year from low to high CEO power. For board independence, since higher board independence corresponds to lower CEO power, we sort the variable in descending order. Each measure is then rescaled linearly to a number between 0 and 1. As the E index is discrete, we rescale it by dividing the raw index by 6. Finally, we combine CEO duality with all four scaled scores to construct a new CEO power index and reinvestigate our main results. Consistent with the previous findings,

the CEO Power Index in Table 8 remains statistically significant at 1% level for |CAR| and at 5% level for Log(|DR|),

Columns (3) and (4) in Table 8 further explore the findings for positive and negative deals using the alternative power index. We still find the negative relationship between |CAR| and this alternative power index for both positive deals and negative deals, although the statistical significance is only at the 10% level.

<< INSERT TABLE 8>>

4.4.3. Alternative Sample Selection

In our main results, we impose certain restrictions on deal selections, including a relative deal size of at least 2% of the bidder's market capitalization and an absolute deal value of at least $10 million, which results in 3,180 observations. We next carry out three additional regressions with alternative selection criteria.

The first sample selection requires that the relative deal size be greater than 1% of the bidder's market equity value and deal value greater than $1 million, resulting in 3,795 observations. The second sample includes deals with relative deal size greater than 1% of the bidder's market equity value and deal value greater than $10 million, yielding 3,732 observations. The third sample only requires deals with relative deal size greater than 2% of the bidder's market value, with 3,207 observations.

Table 9 shows that the CEO Power Index remains negative and statistically significant at the 1% level in all three alternative samples. The economically significant estimates on the CEO Power Index provide further evidence that our main findings are robust and not driven by the specific deal size thresholds used in the baseline analysis.

<< INSERT TABLE 9>>

Taken together, the results from these robustness checks are consistent with our baseline findings, demonstrating that our results are not sensitive to alternative sample selections or alternative measures of CEO power.

4.5 The Sarbanes-Oxley Act: A quasi-natural experiment

4.5.1 Difference-in-Differences (DiD) Analysis

In this section, we utilize the Sarbanes-Oxley Act of 2002 (SOX) as a quasi-natural experiment to provide causal evidence for Hypothesis 3, which posits that an increase in external governance, reducing CEO discretion, attenuates the risk-compression effect. Following the SOX, regulatory scrutiny and the demands for internal controls intensified, which is expected to cause an exogenous reduction in effective CEO power. If our risk-compression mechanism is causal, this reduction in effective CEO power should lead to a greater increase in return dispersion (|CAR|) for firms initially led by more powerful CEOs.

To test this, we employ a DiD methodology, comparing the Treated Group, which comprises bidders with a high CEO Power Index (3 to 5), with the Control Group, which consists of bidders with a low CEO Power Index (0 or 1). The empirical tests utilize the deals announced between 1999 and 2005 (three years pre- and three years post-SOX).

Figure 5 illustrates the trends of the average |CAR| for both high- and low-power groups. Prior to SOX (2002), the two groups exhibited a relatively stable difference. However, after the enactment of SOX, the gap in |CAR| between the two groups substantially narrows. Specifically, the |CAR| of bidders with high CEO Power Indices exhibits a noticeable increase, while the |CAR| for the low-power group decreases. This convergence is consistent with the structural power of high-power CEOs being more constrained by the new regulatory environment.

<< INSERT FIGURE 5>>

To formally test this effect, we define a dummy variable, *Post*, which equals to 1 for years after 2002 (post-SOX) and 0 for years prior to 2002. Treated equals to 1 for deals in the "high CEO power index" group and 0 for deals in the "low CEO power index" (Control)group. The model is shown in Equation (2).

To formally test this effect, we specify a difference-in-differences model with repeated cross-sections of M&A deals. We define a dummy variable, *Post*, which equals to 1 for years after 2002 (post-SOX) and 0 for years prior to 2002. *Treated* equals to 1 for deals in the "high CEO power index" group and 0 for deals in the "low CEO power index" (*Control*)group. The model is shown in Equation (2).

$$|CAR_{it}| = \beta_0 + \beta_1 \cdot Treated \times Post + \beta_2 \cdot Treated + \beta_3 \cdot Post + Control\ variables_{it} + Industry\ FE + u_{it} \quad (2)$$

According to our hypothesis, we expect $\beta_1 > 0$, i.e., the gap in |CARs| between *Treated* and *Control* should decrease after the SOX.

We estimate Equation (2) using M&A deals announced between 1999 and 2005 and report the results in Column (1) of Table 10. In support of our prediction, the coefficient of the interaction term $Treated \times Post$ is positive and significant. These findings strongly support the conclusion that the gradual governance reform attenuated the influence of CEO structural power on M&A tail outcomes, which is consistent with Hypothesis 3.

4.5.2. Parallel trend assumption and dynamic analysis

To validate whether the parallel trend assumption holds in our DiD setting, we use the following dynamic specification, in which *Treated* interacts with year indicators.

$$|CAR_{it}| = \beta_0 + \sum_{t=-3}^{3} \beta_t \cdot Treated \times year_t + \gamma \cdot Treated + \sum_{t=-3}^{3} \theta_t \cdot year_t + Control\ variables_{it} + u_{it} \quad (3)$$

All the interaction terms pre-SOX in Table 10 are statistically insignificant at least at the 10% level, indicating that the difference in |CAR| between the high- and the low-power CEO bidders was stable, and no systematic pre-trends existed. After SOX, the interaction terms become significantly positive, suggesting that SOX had a notable impact on the relative dispersion of M&A returns between the high- and low-power bidders. This is consistent with our main DiD hypothesis that the acquirers with more powerful CEOs are more sensitive to the SOX, with relatively consistent changes in the gaps of |CAR|s between high- and low-power CEOs.

<< INSERT TABLE 10>>

In the three years prior to SOX, the estimates are mostly insignificant, as indicated by the confidence intervals that include zero. It suggests that there was no systematic difference in |CAR|s between the groups before the regulatory change. In contrast, in the three years following SOX, the estimates turn significantly positive, with confidence intervals lying entirely above zero. This shift indicates a narrowing gap between the firms with high- and low-power CEOs. The evidence in Columns (2) and (3)[6] in Table 10 suggests that the parallel assumption in our DiD setting is less likely to be violated.

Consistent with the gradual nature of SOX implementation and the fact that its provisions were not designed as an immediate curb on deal-level risk, the estimated treatment effect is modest in magnitude and only marginally significant in 2005 (t = 3). We therefore interpret the DiD evidence as supportive. Furthermore, the gradual governance reform attenuated the influence of CEO structural power on M&A tail outcomes.

4.6 Post-merger performance

[6] In Column (3), t = 3 includes the observation from 2005 to 2008 to capture a longer period of the SOX impact.

As stated in Hypothesis 2, powerful CEOs are expected to have a positive impact on post-merger performance**.** To measure the post-merger operating performance, we consider three different time horizons: the average of three years after the merger (t+1 to t+3), the average of five years after the merger (t+1 to t+5), and the average between the third and fifth years after the merger (t+3 to t+5).

First, when using the raw ROA as the dependent variable, we find that CEO power is positively associated with post-merger ROA, suggesting that more powerful CEOs can deliver strong operating outcomes following M&A.

Next, to examine the dispersion of post-merger performance, we use the absolute value of ROA as the dependent variable. The results show a negative association between CEO power and |ROA|, indicating that more powerful CEOs are linked to less volatile post-merger operating performance. This result is consistent with the dispersion-compressing mechanism of powerful CEOs we documented earlier in the announcement returns.

<< INSERT TABLE 11>>

Lastly, we separate the sample into positive-deal and negative deals subsamples, classified by whether CAR[-2,2] around the announcement is positive or negative. In both subsamples, we also find a negative relationship between CEO power and |ROA|, consistent with the overall results.

<< INSERT TABLE 12>>

To measure the post-merger market performance, we use the buy-and-hold abnormal return (BHAR) (Barber and Lyon, 1997) for acquirers over the three years following the deal announcement and examine its relationship with CEO power. When using the raw BHAR as the dependent variable, we find that CEO power is positively associated with post-merger

BHAR, consistent with the results for ROA. We then use the absolute value of BHAR to capture the dispersion of market performance. The results show a negative association with CEO power, suggesting that powerful CEOs are linked to less volatile long-term market outcomes. We then split the sample into positive and negative deals (based on announcement CAR), and the negative association remains significant for positive deals but becomes insignificant for negative deals.

<< INSERT TABLE 13>>

Taken together, the evidence from both operating-based (ROA) and market-based (BHAR) measures suggests that CEO power is associated with higher post-merger performance on average, as well as with reduced variability in outcomes. This pattern is consistent across specifications, with the only exception being that the effect becomes insignificant for negative-deal subsamples when using BHAR. Our study complements recent work on CEO power and post-merger performance, such as Brahma et al. (2025), who examine the moderating role of governance mechanisms in the UK. While their focus is on average post-merger outcomes, we differ by analyzing how CEO power shapes the entire distribution of announcement returns and tail risk in U.S. M&A deals, introducing a novel distributional perspective.

5. Concluding Remarks

This paper presents new evidence on how corporate governance affects the distributional outcomes of high-stakes mergers and acquisitions (M&A) decisions. We introduce the novel stylized fact that the long-term increase in M&A return kurtosis is systematically related to the decline in CEO power. Our theoretical framework, which integrates decision theory and managerial career concerns, predicts that powerful CEOs act as a risk-compression mechanism by utilizing a "safety wedge" to screen out high-variance projects.

Our empirical results confirm this prediction: CEO power is negatively associated with return dispersion. This effect is asymmetric (stronger on the positive tail), amplified during periods of high market volatility, and attenuated by external governance shocks like the Sarbanes-Oxley Act (SOX). We further find that powerful CEOs are associated with less volatile long-run outcomes.

Overall, the paper presents a new framework that demonstrates how CEO power influences the entire distribution of M&A returns, explains the observed kurtosis trend, and highlights the crucial role of external governance in moderating managerial discretion.

Moving forward, future research could investigate the long-term implications of this risk compression, particularly on innovation and firm growth. While our current findings are strong, we also acknowledge the need for a formal instrumental variable (IV) approach to further strengthen our causal claims, which we plan to implement in future versions of the paper.

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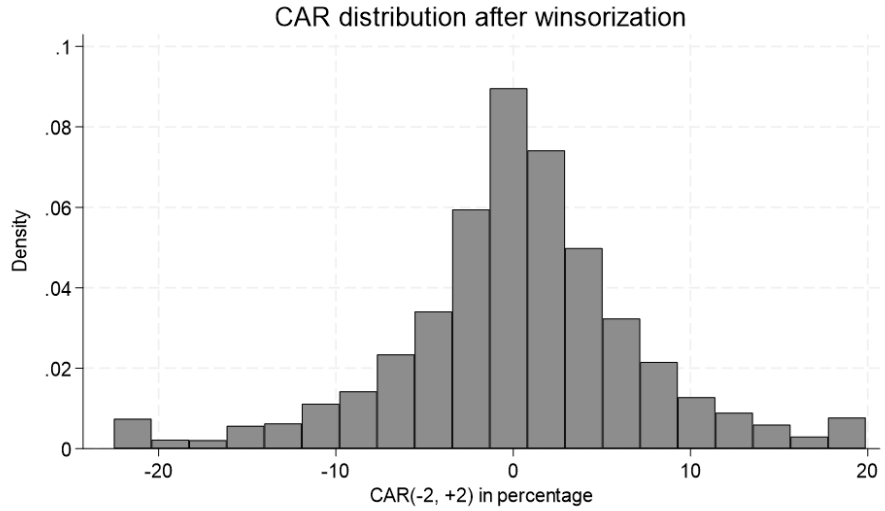
Figure 1: Distribution of Acquirers' CARs over Announcement

This graph illustrates the distribution of the cumulative abnormal returns (CARs) of acquirers over the (−2,+2) deal announcement window in our sample of mergers and acquisitions drawn from the Securities Data Corporation's (SDC) Mergers and Acquisitions database from 1996 to 2023. The sample includes completed and withdrawn deals in which the deal value is at least $10 million, with a deal value of at least 2% of the acquirer's market value of equity. The acquiring company in the deals must be a publicly traded US company with stock market data available from the Center for Research in Security Prices (CRSP) database. Targets in our sample include private firms, public firms, or subsidiaries. The sample excludes spinoffs, recapitalizations, exchange offers, repurchases, self-tenders, acquisitions of remaining interest, leveraged buyouts, privatizations, rumoured deals, and miscellaneous deals that without disclosed deal value or a specified target/buyer. The financial services industry (SIC code between 6000 and 6999) is excluded. The final sample includes 3,180 deals. Panel A presents the distribution of the CAR after winsorization, and Panel B presents the distribution before winsorization.

Panel A: distribution of CAR after winsorization



Panel B: distribution of CAR before winsorization

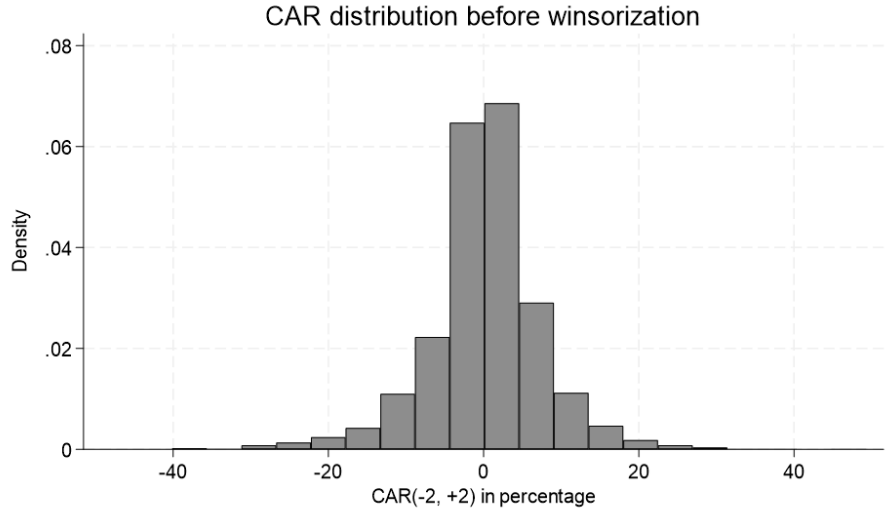


Figure 2: Frequency of Sampled Deals from 1996 to 2023

This graph illustrates the annual frequency distribution of the completed and withdrawn deals in our final sample of 3,180 deals from 1996 to 2023. The sample selection criteria are described in Figure 1.

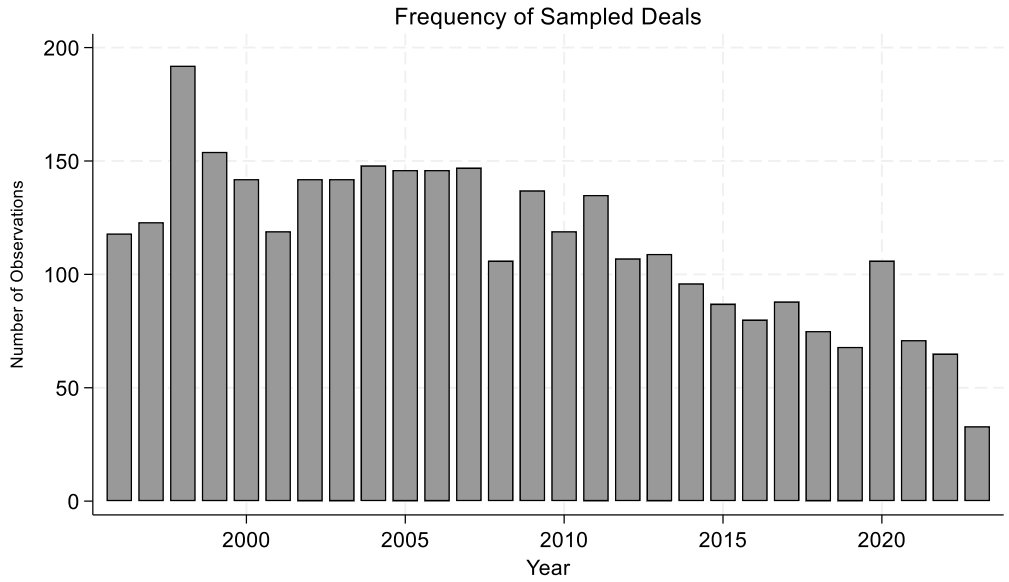


Figure 3: Distribution of CEO Power Index

This graph shows the histogram of the CEO power index of the 37,019 firm-year observations from 1996 to 2023. The merged sample includes all nonfinancial U.S. acquirers in Compustat with non-missing CEO power index from 1996 to 2023. The CEO Power index ranges from 0 to 5, where a point is added for each of the following categories if a threshold value is satisfied: the number of Board of Directors, E Index of Bebchuk, Cohen and Ferrell (2009), CEO Tenure, CEO is the Chairman of the Board of Directors, and the percentage of independent directors in the board. The detailed criteria are defined in Appendix: Variable Definition.

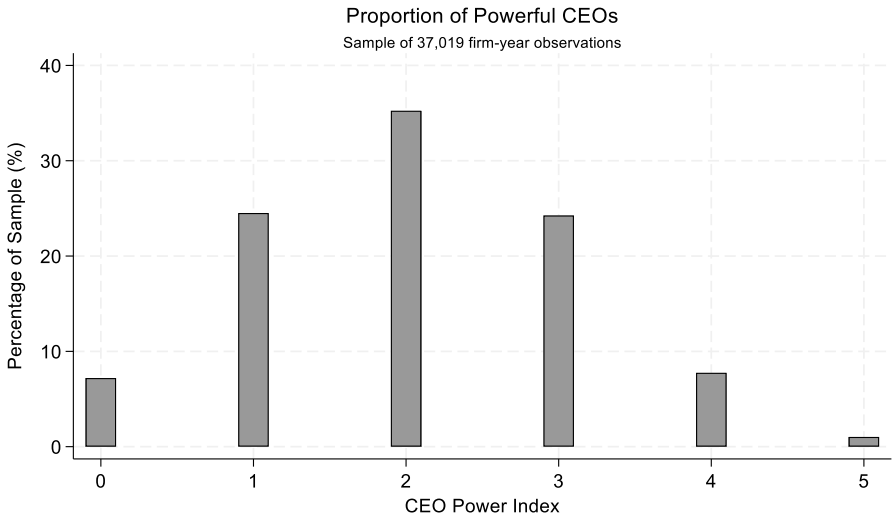
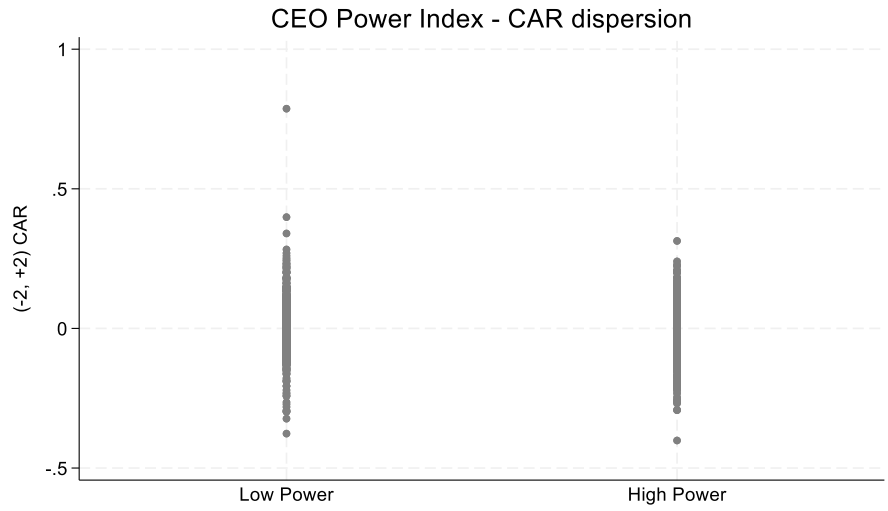


Figure 4: Dispersion of Acquirer Returns around M&A Announcement: High vs Low CEO Power

This figure illustrates the dispersion of acquirers' announcement returns over the (−2,+2) window from 1996 to 2023. Panel A reports the distribution of cumulative abnormal returns (CARs), while Panel B reports the distribution of absolute dollar returns. In both panels, acquirers are split into High Power (CEO Power Index ≥ 3) and Low Power (CEO Power Index ≤ 1) groups. The sample includes 3,180 completed and withdrawn deals, with selection criteria described in Figure 1.

Panel A: Dispersion of Cumulative Abnormal Returns (CARs)



Panel B: Dispersion of Dollar Returns (DR)

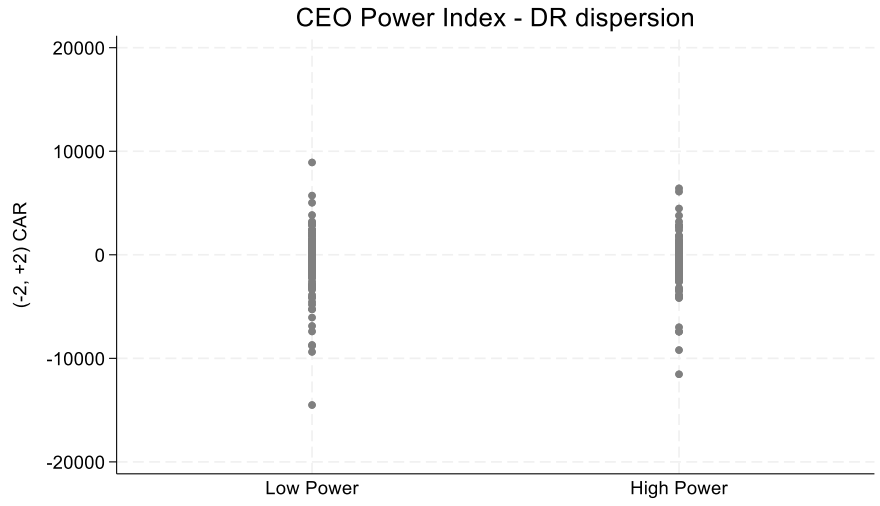


Figure 5: Trend of Absolute CAR for Most and Least Powerful CEOs

This graph shows the trend of average |CAR| each year for the most powerful CEOs and the least powerful CEOs over the period 1998 to 2008.

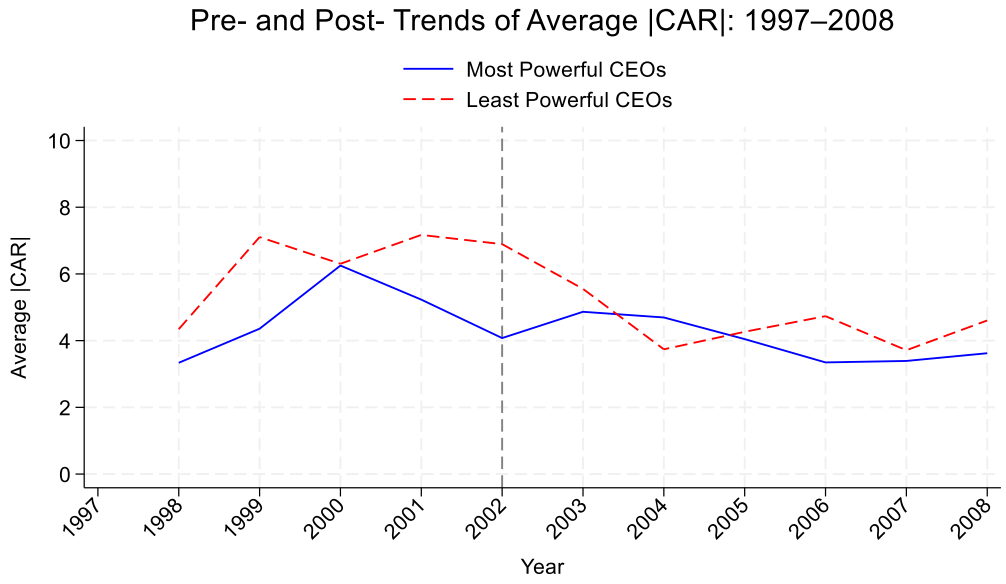


Table 1 Summary Statistics

This table reports summary statistics of the sampled acquirers from 1996 to 2023. The sample selection criteria are described in Figure 1. Panel A reports characteristics at the deal level. CAR (in percentage) is the cumulative abnormal return over the (−2,+2) deal announcement window. DR (in $US million, adjusted to the 2017 terms) is calculated by multiplying the CAR by the market capitalization of the acquirer's equity 3 days prior to the announcement date. Panel B presents the firm-year observation sample for all nonfinancial U.S. acquirers in Compustat with a non-missing CEO power index during the same period, irrespective of whether firms made any deal announcements or not. All variables are defined in Appendix A.

Variable	Number of Observations	Mean	Median	Standard Dev.	Minimum	Maximum	25th Percentile	75th Percentile
Panel A: Deals Sample								
CAR	3,180	0.233	0.327	7.020	-22.521	19.88	-2.957	3.836
DR	3,180	-58.984	3.907	1082.902	-14506.927	19588.867	-67.024	75.536
Free Cash Flow	3,180	0.054	0.060	0.07	-0.245	0.244	0.029	0.089
Firm Size	3,180	7.736	7.608	1.423	4.904	11.639	6.679	8.645
Firm Age	3,180	25.881	20.000	19.658	2	87	11	36
Leverage	3,180	0.178	0.159	0.172	0	0.688	0	0.3
Tobin's Q	3,180	2.016	1.669	1.184	0.786	8.309	1.277	2.349
Stock Price Run up	3,180	-0.101	-0.054	0.543	-2.277	1.24	-0.322	0.198
Board Size	3,180	8.911	9.000	2.242	1	19	7	10
Tenure	3,180	6.855	5.000	6.854	0	58	2	9
Entrenchment Index	3,180	2.986	3.000	1.316	0	6	2	4
Independent Directors	3,180	0.723	0.750	0.17	0	1	0.625	0.857
CEO Power Index	3,180	1.975	2.000	1.052	0	5	1	3
Panel B: Firm Year Sample								
Free Cash Flow	37,019	0.044	0.043	0.070	-0.225	0.245	0.011	0.082
Firm Size	37,019	8.142	7.986	1.677	4.887	12.715	6.894	9.243
Firm Age	37,019	28.042	24.000	20.003	2	90	13	38
Leverage	37,019	0.194	0.157	0.196	0	0.795	0	0.322
Tobin's Q	37,019	1.899	1.456	1.277	0.752	8.098	1.106	2.155
Board Size	37,019	9.437	9.000	2.524	1	39	8	11
Tenure	37,019	7.537	5.000	7.473	0	61	2	10
Entrenchment Index	37,019	3.102	3.000	1.215	0	6	2	4
Independent Directors	37,019	0.750	0.778	0.153	0	1	0.667	0.875
CEO Power Index	37,019	2.039	2.000	1.085	0	5	1	3

Table 2 Descriptive Statistics by CEO Power Index - Firm Characteristics

This table reports descriptive statistics for the sampled acquirers' characteristics across each level of the CEO power index from 1996 to 2023. The sample selection criteria are described in Figure 3. The CEO Power index ranges from 0 to 5, where a mark is given for each of the following categories if a threshold value is satisfied: the number of Board of Directors, E Index of Bebchuk, Cohen and Ferrell (2009), CEO Tenure, CEO is the Chairman of the Board of Directors, and the percentage of independent directors in the board. The detailed criteria are defined in Appendix: Variable Definition. All firm characteristics variables are defined in Appendix A.

CEO Power Index	No #	Firm Age	Tobin's Q	Firm Size	Leverage	FCF	Sales Growth	ROA
0	2,666	25.653	1.925	7.926	0.258	0.048	0.068	0.038
1	9,076	27.324	1.965	7.976	0.216	0.048	0.083	0.045
2	13,048	28.940	1.926	8.172	0.189	0.045	0.087	0.045
3	8,980	28.330	1.853	8.229	0.172	0.041	0.095	0.044
4	2,870	27.689	1.762	8.392	0.161	0.037	0.094	0.042
5	379	26.953	1.390	8.612	0.167	0.028	0.067	0.033
Total	37,019	28.042	1.899	8.142	0.194	0.044	0.087	28.042

Table 3: Descriptive Statistics by CEO Power Index - Deal Returns

This table shows summary statistics of two measures of the deal returns, Cumulative Abnormal Returns (CARs) and Dollar Returns (DR), at each level of the CEO Power Index, respectively. The sample includes both completed and withdrawn deals. CAR (in percentage) is the cumulative abnormal return over the (−2,+2) deal announcement window. DR (in $US million) is calculated by multiplying the CAR by the market capitalization of the equity of an acquirer 3 days prior to the announcement date.

CEO Power Index	Mean		Median		25th Percentile		75th Percentile		Skewness		Standard Deviation		Kurtosis	
	CAR	DR	CAR	DR	CAR	DR	CAR	DR	CAR	DR	CAR	DR	CAR	DR
0	0.952	-27.063	0.712	11.299	-2.515	-74.017	5.307	113.790	-0.288	-1.519	7.156	617.272	4.501	24.494
1	0.514	-89.013	0.247	3.058	-2.959	-63.410	4.089	75.374	-0.041	-4.444	7.391	1145.499	4.293	57.296
2	0.014	-40.362	0.416	4.472	-3.069	-66.973	3.784	72.106	0.446	0.919	6.970	1234.517	4.377	96.485
3	-0.019	-48.834	0.228	3.438	-2.808	-67.553	3.243	67.347	-0.348	-4.039	6.686	901.986	4.836	62.431
4	0.371	-109.230	0.317	2.796	-3.205	-72.889	4.253	93.427	-0.680	-4.801	6.698	962.737	5.318	46.088
5	0.804	-163.489	0.118	0.913	-2.143	-67.395	4.103	99.800	-0.391	-3.568	7.652	777.332	6.074	16.100
Total	0.233	-58.984	0.327	3.907	-2.957	-67.024	3.836	75.536	-0.298	-1.631	7.020	1082.902	4.549	86.969

Table 4: Subperiod Tests of Kurtosis

This table reports the kurtosis of acquirers' announcement returns across different subperiods. The first column indicates the partition criteria, the second column provides the definition of each subperiod, and the third column presents the corresponding kurtosis estimates. The last column presents the mean of CEO Power Index in that subperiod.

Partition	Subperiod Definition	Kurtosis	Average CEO Power Index
SOX (2002 cutoff)	Pre-SOX (≤ 2001)	3.8031	2.339
	Post-SOX (2002–2007)	4.9258	1.967
2009 cutoff	Pre-2009 (≤ 2008)	4.3921	2.136
	Post-2009 (≥ 2009)	5.2844	1.780
Decade partition	Before 2007 (≤ 2006)	4.2815	2.185
	2007–2016	4.7970	1.984
	After 2016 (≥ 2017)	5.4220	1.471

Table 5: CEO Power and the Dispersion of Acquirer Returns

This table presents the relationship between the CEO Power Index and dispersion of M&A returns in two samples: columns (1)–(2) report results for the full sample, including both completed and withdrawn deals, while columns (3)–(4) report results for the sample of completed deals only. The dependent variables are the absolute value of CAR and the logarithm transformation of the absolute Dollar Return (DR). CAR (in percentage) is the cumulative abnormal return over the (−2,+2) deal announcement window. DR (in $US million) is calculated by multiplying the CAR by the market capitalization of the equity of an acquirer 3 days prior to the announcement date. Models (1) and (2) are Ordinary Least Squares regressions with industry and year fixed-effects. The standard errors are robust standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two-sided tests.

	All Announced Deals		Completed Deals	
	|CAR|	Log(|DR|)	|CAR|	Log(|DR|)
	(1)	(2)	(3)	(4)
CEO POWER INDEX	-0.224***	-0.049**	-0.209**	-0.043*
	(0.084)	(0.024)	(0.086)	(0.025)
Bidder Controls				
Free Cash Flow	-5.796***	-0.526	-5.038***	-0.414
	(1.536)	(0.375)	(1.600)	(0.394)
Log (Total Assets)	-0.364***	0.862***	-0.354***	0.858***
	(0.071)	(0.021)	(0.074)	(0.022)
Firm Age	-0.011**	-0.005***	-0.010**	-0.005***
	(0.005)	(0.001)	(0.005)	(0.001)
Leverage	-0.667	-0.843***	-0.490	-0.763***
	(0.606)	(0.167)	(0.632)	(0.178)
Tobin's Q	0.299***	0.435***	0.316***	0.437***
	(0.095)	(0.025)	(0.100)	(0.025)
Industry Controls				
Return to Industry	3.440	2.645***	2.404	2.480***
	(3.662)	(0.899)	(3.836)	(0.952)
Industry Underperform	12.657*	4.395**	9.671	4.108**
	(7.626)	(1.894)	(8.081)	(2.003)
Deal Controls				
Stock price run-up	0.072	0.135***	0.133	0.181***
	(0.166)	(0.044)	(0.174)	(0.047)
Relative deal size	3.855***	0.331***	4.281***	0.359***
	(0.387)	(0.091)	(0.454)	(0.111)
Hostile	-1.430*	-0.042	-1.155	-0.210
	(0.833)	(0.204)	(1.133)	(0.455)
High tech	0.122	0.211**	0.134	0.212**
	(0.280)	(0.082)	(0.289)	(0.087)
High tech x relative deal size	2.290***	0.445***	1.796**	0.388**
	(0.868)	(0.152)	(0.914)	(0.164)
Public Target x stock deal	0.994***	0.498***	0.897**	0.469***
	(0.333)	(0.084)	(0.356)	(0.092)
Public Target x all-cash deal	-0.186	0.073	-0.115	0.065
	(0.264)	(0.081)	(0.286)	(0.087)
Private Target x all-cash deal	1.006***	0.397***	0.974**	0.395***
	(0.365)	(0.092)	(0.378)	(0.096)
Private Target x stock deal	-0.283	-0.080	-0.295	-0.089
	(0.248)	(0.076)	(0.263)	(0.081)
Subsidiary target x all-cash deal	-0.313	-0.016	-0.334	-0.018
	(0.230)	(0.070)	(0.247)	(0.075)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Number of Observations	3,180	3,180	2,865	2,865
Adjusted R-squared	0.198	0.542	0.192	0.540

Table 6: CEO Power and Positive vs. Negative Dispersions of Acquirer Returns

This table illustrates the relationship between the CEO Power Index and deal returns, broken down by positive and negative returns. The sample includes both completed and withdrawn deals. The dependent variables are the absolute value of CAR for columns (1) and (3) and the logarithm transformation of the absolute Dollar Return (DR) for columns (2) and (4). Columns (1) and (2) use samples with positive returns, while columns (3) and (4) use samples with negative returns. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two-sided tests. We controlled for year fixed effects and industry fixed effects in all regressions and suppressed the coefficients. The standard errors are robust standard errors.

	Positive CAR		Negative CAR	
	|CAR|	Log(|DR|)	|CAR|	Log(|DR|)
	(1)	(2)	(3)	(4)
CEO POWER INDEX	-0.268**	-0.065**	-0.245**	-0.034
	(0.110)	(0.032)	(0.102)	(0.037)
Bidder Controls				
Free Cash Flow	-5.547***	-0.481	-5.306***	-0.729
	(2.095)	(0.520)	(1.811)	(0.557)
Firm Size	-0.433***	0.818***	-0.237***	0.907***
Log (Total Assets)	(0.095)	(0.030)	(0.087)	(0.030)
Firm Age	-0.003	-0.004**	-0.011*	-0.006***
	(0.006)	(0.002)	(0.006)	(0.002)
Leverage	1.073	-0.394*	-1.707**	-1.201***
	(0.810)	(0.229)	(0.735)	(0.248)
Tobin's Q	0.332**	0.442***	0.074	0.402***
	(0.129)	(0.034)	(0.111)	(0.036)
Industry Controls				
Return to Industry	2.461	1.787	3.596	3.428**
	(4.733)	(1.217)	(4.794)	(1.343)
Industry Underperform	17.521*	5.554**	7.516	3.129
	(10.247)	(2.737)	(8.866)	(2.685)
Deal Controls				
Stock price run-up	-0.120	0.087	0.362*	0.198***
	(0.215)	(0.061)	(0.211)	(0.066)
Relative deal size	4.158***	0.357***	2.609***	0.131
	(0.503)	(0.119)	(0.471)	(0.138)
Hostile	-0.270	0.111	-1.331	-0.043
	(1.088)	(0.369)	(0.965)	(0.244)
High tech	-0.096	0.186*	0.567	0.311**
	(0.374)	(0.112)	(0.349)	(0.127)
High tech x relative deal size	1.425	0.104	1.367	0.472**
	(1.405)	(0.323)	(0.973)	(0.199)
Public Target x stock deal	-0.689	0.090	1.614***	0.776***
	(0.480)	(0.131)	(0.386)	(0.123)
Public Target x all-cash deal	-0.515	0.025	0.170	0.189
	(0.351)	(0.106)	(0.348)	(0.124)
Private Target x all-cash deal	1.020**	0.314***	0.655	0.484***
	(0.458)	(0.119)	(0.494)	(0.146)
Private Target x stock deal	-0.480	-0.166*	-0.182	0.025
	(0.321)	(0.097)	(0.348)	(0.125)
Subsidiary target x all-cash deal	-0.159	-0.037	-0.500	-0.008
	(0.298)	(0.088)	(0.323)	(0.115)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Number of Observations	1,686	1,686	1,494	1,494
Adjusted R-squared	0.199	0.532	0.233	0.596

Table 7: Absolute Deal Returns – Subsample Tests

This table shows the relationship between the CEO Power Index and the deal returns. Models (1) and (2) use the sample that excludes deals during the Global Financial Crisis and the COVID-19 pandemic periods. Models (3) and (4) use the sample of deals during the Global Financial Crisis. The dependent variables are the absolute value of CAR and the logarithm transformation of the absolute Dollar Return (DR). CAR (in percentage) is the cumulative abnormal return over the (−2,+2) deal announcement window. DR (in $US million) is calculated by multiplying the CAR by the market capitalization of the acquirer's equity 3 days prior to the announcement date. Models (1) - (4) are Ordinary Least Squares regressions with industry and year fixed-effects. The standard errors are robust standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two-sided tests.

	Excluding GFC and Covid		GFC	
	|CAR|	Log(|DR|)	|CAR|	Log(|DR|)
	(1)	(2)	(3)	(4)
CEO POWER INDEX	-0.202**	-0.047*	-0.478**	-0.086
	(0.097)	(0.028)	(0.219)	(0.061)
Bidder Controls				
Free Cash Flow	-5.173***	-0.179	-10.139**	-2.057*
	(1.758)	(0.450)	(4.415)	(1.202)
Firm Size	-0.281***	0.881***	-0.319*	0.827***
Log (Total Assets)	(0.084)	(0.025)	(0.168)	(0.058)
Firm Age	-0.011*	-0.005***	0.005	-0.004
	(0.005)	(0.002)	(0.013)	(0.004)
Leverage	-0.505	-0.778***	-3.043*	-1.692***
	(0.689)	(0.193)	(1.569)	(0.506)
Tobin's Q	0.279***	0.427***	0.459	0.482***
	(0.104)	(0.028)	(0.337)	(0.101)
Industry Controls				
Return to Industry	5.671	3.346***	-11.311	-3.717
	(4.288)	(1.058)	(8.756)	(2.519)
Industry Underperform	11.934	3.395	-25.600	6.842
	(8.479)	(2.105)	(26.415)	(6.884)
Deal Controls				
Stock price run-up	0.119	0.156***	-0.005	0.061
	(0.198)	(0.051)	(0.374)	(0.124)
Relative deal size	3.706***	0.368***	3.761***	0.211
	(0.426)	(0.100)	(0.997)	(0.248)
Hostile	-1.558	-0.098	-1.126	-0.153
	(1.000)	(0.237)	(1.369)	(0.438)
High tech	0.203	0.262***	-1.281*	-0.210
	(0.321)	(0.096)	(0.718)	(0.220)
High tech x relative deal size	2.914***	0.553**	1.392	0.389*
	(1.125)	(0.225)	(1.078)	(0.210)
Public Target x stock deal	0.879**	0.493***	0.957	0.563**
	(0.361)	(0.092)	(0.947)	(0.250)
Public Target x all-cash deal	-0.133	0.057	-0.991	0.233
	(0.304)	(0.094)	(0.708)	(0.230)
Private Target x all-cash deal	1.047***	0.412***	1.005	0.664**
	(0.403)	(0.101)	(1.168)	(0.326)
Private Target x stock deal	-0.021	-0.012	-0.326	-0.172
	(0.282)	(0.089)	(0.765)	(0.217)
Subsidiary target x all-cash deal	-0.237	0.028	-0.167	-0.070
	(0.254)	(0.079)	(0.710)	(0.221)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Number of Observations	2,457	2,457	389	389
Adjusted R-squared	0.197	0.532	0.355	0.606

Table 8: robustness check – Alternative measure of CEO power

This table shows the relationship between an alternative measure of the CEO Power Index and the deal returns. The sample includes deals for both completed and withdrawn deals. The dependent variables are the absolute value of CAR (columns (1) (3), and (4)) and the logarithm transformation of the absolute Dollar Return (DR) (column (2)). CAR (in percentage) is the cumulative abnormal return over the (−2,+2) deal announcement window. DR (in $US million) is calculated by multiplying the CAR by the market capitalization of the equity of an acquirer 3 days prior to the announcement date. The key independent variable, the CEO power index, is the alternative measure calculated from the quintiles of each of the 5 proxies for CEO power each year. Columns (1) and (2) use the full sample. Column (3) uses the subsample of deals with positive returns and column (4) use the subsample of deals with negative returns. All Models include industry and year fixed-effects. The standard errors are robust standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two side tests.

	Full sample		Positive CAR	Negative CAR
	|CAR|	Log(|DR|)	|CAR|	|CAR|
	(1)	(2)	(3)	(4)
CEO POWER INDEX	-0.315***	-0.067**	-0.267**	-0.318*
	(0.106)	(0.031)	(0.134)	(0.168)
Bidder Controls				
Free Cash Flow	-5.785***	-0.523	-5.501***	-6.181***
	(1.534)	(0.375)	(2.090)	(2.156)
Firm Size	-0.348***	0.865***	-0.429***	-0.300***
Log (Total Assets)	(0.071)	(0.021)	(0.095)	(0.105)
Firm Age	-0.011**	-0.005***	-0.002	-0.021***
	(0.005)	(0.001)	(0.006)	(0.007)
Leverage	-0.645	-0.838***	1.087	-2.212**
	(0.607)	(0.167)	(0.812)	(0.877)
Tobin's Q	0.306***	0.436***	0.333***	0.256*
	(0.095)	(0.025)	(0.129)	(0.142)
Industry Controls				
Return to Industry	3.367	2.630***	2.486	5.652
	(3.660)	(0.898)	(4.736)	(5.748)
Industry Underperform	12.894*	4.447**	17.482*	9.442
	(7.623)	(1.894)	(10.283)	(11.307)
Deal Controls				
Stock price run-up	0.079	0.136***	-0.112	0.298
	(0.166)	(0.044)	(0.215)	(0.256)
Relative deal size	3.862***	0.333***	4.162***	3.410***
	(0.386)	(0.091)	(0.503)	(0.563)
Hostile	-1.436*	-0.043	-0.189	-1.773
	(0.831)	(0.203)	(1.080)	(1.196)
High tech	0.098	0.206**	-0.109	0.457
	(0.280)	(0.082)	(0.374)	(0.419)
High tech x relative deal size	2.302***	0.448***	1.419	2.643**
	(0.870)	(0.152)	(1.416)	(1.102)
Public Target x stock deal	0.971***	0.493***	-0.725	2.098***
	(0.334)	(0.085)	(0.481)	(0.471)
Public Target x all-cash deal	-0.184	0.073	-0.511	0.172
	(0.264)	(0.081)	(0.350)	(0.402)
Private Target x all-cash deal	0.990***	0.394***	1.003**	1.010*
	(0.365)	(0.092)	(0.458)	(0.605)
Private Target x stock deal	-0.289	-0.082	-0.486	-0.052
	(0.248)	(0.076)	(0.321)	(0.406)
Subsidiary target x all-cash deal	-0.319	-0.017	-0.162	-0.674*
	(0.230)	(0.070)	(0.299)	(0.354)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Number of Observations	3,180	3,180	1,686	1,494
Adjusted R-squared	0.199	0.542	0.198	0.274

Table 9: Robustness Check – Alternative samples

This table shows the relationship between the CEO Power Index and the absolute CAR for alternative samples. The sample includes deals for both completed and withdrawn deals. The dependent variable is the absolute value of CAR. CAR (in percentage) is the cumulative abnormal return over the (−2,+2) deal announcement window. The model is estimated using the Ordinary Least Squares estimator with industry and year fixed-effects. Columns (1) uses the sample with the relative deal size > 1% of the acquirer's market value of equity and deal value > 1 million. Columns (2) uses the sample with the relative deal size > 1% of the acquirer's market value of equity and deal value >10 million. Columns (3) uses the sample with the relative deal size > 2% of the acquirer's market value of equity. The standard errors are robust standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two-sided tests.

	(1)	(2)	(3)
	|CAR|	|CAR|	|CAR|
CEO POWER INDEX	-0.171**	-0.175**	-0.230***
	(0.074)	(0.074)	(0.084)
Controls	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
Number of Observations	3,795	3,732	3,207
Adjusted R-squared	0.201	0.204	0.196

Table 10: Endogeneity tests – The Passage of the Sarbanes-Oxley Act

This table presents the difference-indifferences (DiD) estimates of the differential effects of the 2002 Sarbanes-Oxley Act (SOX) on the dispersion of M&A returns over the (−2,+2) deal announcement window for bidders with high and low CEO Power Indices. The reference year is 2002. The dependent variable for all models is the absolute value of the Cumulative Abnormal Return (CAR). Model (1) uses the sample including deals announced 3 years before and 3 years after the shock (between 1999 and 2005). The variable *Treated* equals 1 if the deals that involve a high level of CEO power index and 0 for the deals that involve a low level of CEO power index. The variable *Post* is 1 if deals are announced after the shock and 0 if deals are announced before the shock. Model (2) and (3) estimates of the treatment effects of SOX across years. Model (2) uses the sample including deals announced 3 years before and 3 years after the shock (between 1999 and 2005). Model (3) uses the sample including deals announced between 1998 and 2008, but suppresses all years after 2005 into the group 2005; all years before 1999 into the group 1999. We include all control variables and control for both year fixed effects and industry fixed effects in both models. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two-sided tests. The stand errors are robust standard errors.

	(1)	(2)	(3)
Treated × *Post*	1.552*		
	(0.903)		
1999 × Treated		0.232	0.388
		(1.752)	(1.462)
2000 × Treated		2.776	2.797
		(1.737)	(1.694)
2001 × Treated		1.885	2.025
		(1.726)	(1.673)
2003 × Treated		3.314**	3.427**
		(1.684)	(1.613)
2004 × Treated		3.724**	3.664**
		(1.617)	(1.532)
2005 × Treated		2.639*	2.428**
		(1.518)	(1.234)
Industry Fixed Effect	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Observations	530	607	956
R-squared	0.153	0.156	0.179

Table 11: Post M&A analysis: Operating Performance and CEO Power Index

This table shows the relationship between the CEO Power Index and post-M&A Return on Assets (ROA) as well as its dispersion. The dependent variables are the absolute values of the Return on Assets (ROA) 3-year after M&A, 5-year after M&A, and between 3 and 5-year after M&A. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two-sided tests. We suppress the coefficients of all control variables. We controlled for year fixed effects and industry fixed effects in all regressions and suppressed the coefficients. The standard errors are robust standard errors.

	(1)	(2)	(3)
	3-year	5-year	3-5 year
CEO POWER INDEX	-0.006**	-0.005***	-0.004***
	(0.002)	(0.002)	(0.002)
Controls	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Number of Observations	3,122	3,122	2,770
Adjusted R-squared	0.066	0.083	0.083

Table 12: Dispersion of Return on Assets and CEO Power Index: Positive vs Negative deals

This table shows the relationship between the CEO Power Index and Return on Assets after M&A, separately for positive and negative returns. The dependent variables are the absolute value of Return on Assets (ROA) 3-year after M&A, 5-year after M&A, and between 3 and 5 years after M&A. Columns (1) - (3) use samples with positive returns, while columns (4) - (6) use samples with negative returns. Respectively***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two-sided tests. We suppress the coefficients of all control variables. We controlled for year fixed effects and industry fixed effects in all regressions and has suppressed the coefficients. The standard errors are robust standard errors.

	Positive deals			Negative deals		
	3-year	5-year	3-5 year	3-year	5-year	3-5 year
CEO POWER INDEX	-0.004**	-0.004**	-0.005**	-0.008*	-0.006**	-0.005**
	(0.002)	(0.002)	(0.002)	(0.004)	(0.003)	(0.002)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	1,654	1,654	1,478	1,464	1,464	1,287
Adjusted R-squared	0.056	0.061	0.021	0.074	0.104	0.108

Table 13: Post M&A analysis: Market Performance and CEO Power Index

This table shows the relationship between the CEO Power Index and the market performance of acquirers after M&A. The dependent variable in column (1) is the Buy-and-Hold Abnormal Returns (BHAR) 3-year after M&A. The dependent variable in columns (2)-(4) is the absolute values of BHAR. Models (1) and (2) use the full sample, Model (3) uses the subsample of positive deals, and Model (4) uses the subsample of negative deals. The signs ***, **, and * denote statistical significance at the 1%, 5%, and 10% level based on the two-sided tests, respectively. We suppress the coefficients of all control variables. We controlled for year fixed effects and industry fixed effects in all regressions and suppressed the coefficients. The standard errors are robust standard errors.

Dependent Variable	BHAR	|BHAR|	|BHAR|	|BHAR|
	Full sample	Full sample	Positive deals	Negative deals
CEO POWER INDEX	0.217**	-0.192**	-0.255**	-0.140
	(0.098)	(0.096)	(0.115)	(0.141)
Controls	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Number of Observations	2,942	2,942	1,578	1,360
Adjusted R-squared	0.239	0.209	0.167	0.248

Appendix A: 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 the 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 f 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

Appendix B: A Simple Model of CEO Power and Tail Compression in M&A

In this appendix, we present a simple, stylized model that provides a theoretical foundation for the hypotheses and empirical findings in our paper. The model formalizes our core argument: powerful CEOs, by acting as centralized gatekeepers and facing asymmetric career concerns, systematically screen out high-variance M&A projects, thereby compressing the distribution of deal outcomes.

B.1 Model Setup

We consider a firm evaluating a potential acquisition with an uncertain outcome, X. We assume X is normally distributed with mean μ and variance σ^2, so $X \sim N(\mu,\sigma^2)$. The value of the project to diversified shareholders is its expected net present value (NPV), $V = \mu$. We assume a board of directors, representing the shareholders, follows a first-best NPV rule and accepts any project with $\mu \geq 0$. In contrast, the CEO has preferences that differ from those of a diversified shareholder. In addition to the project's expected value, the CEO faces two personal costs: (1) A variance cost, $\alpha \cdot \sigma^2$, which reflects a general aversion to risk. (2) A career penalty, $k \cdot Pr[X<0]$, which captures the asymmetric costs of a deal's failure. This penalty is a function of the probability of a negative outcome, given by $k \cdot \Phi(-\mu/\sigma)$, where Φ is the cumulative distribution function of a standard normal. This career penalty is particularly relevant in high-salience events like M&As, where a failed deal can lead to reputational loss or dismissal.

We model CEO power, $p \in [0, 1]$, as the degree to which the CEO's personal preferences influence the final decision. The project is approved if the CEO's personal utility, adjusted for their power, is non-negative. The following rule captures this:

$$W(p;\mu,\sigma) = \mu - p[\alpha \cdot \sigma 2 + k \cdot \Phi(-\mu/\sigma)] \geq 0.$$

Notice that when $p = 0$, the CEO's rule is identical to the board's variance-neutral NPV rule ($\mu \geq 0$). However, as p increases, the CEO's decision rule includes a "safety wedge" that accounts for personal variance costs and career penalties. This wedge makes the CEO's acceptance criterion stricter, especially for high-variance projects.

Finally, we model the effect of external governance, such as the Sarbanes-Oxley Act, by assuming it reduces the CEO's effective discretion to $p' = p(1-\lambda)$, where $\lambda \in (0,1)$.

B.2 Model Results

Lemma (Monotone screening in variance). For $\mu > 0$, $p > 0$, W is strictly decreasing in σ and in p.

Proof: $\partial W/\partial p = -[\alpha \cdot \sigma^2 + k \cdot \Phi(-\mu/\sigma)] < 0$ and $\partial W/\partial \sigma = -p[2\alpha\sigma + k\phi(-\mu/\sigma)\cdot\mu/\sigma^2] < 0$, where $\phi(x)$ is the density function of a standard normal distribution.

The model generates several propositions that align with the core hypotheses of our paper.

- Risk Compression (Proposition B1): This is the direct interpretation of the Lemma. For projects with a positive expected value, the CEO's acceptance rule is strictly decreasing in both the project's variance (σ) and the CEO's power (p). This means that a more powerful CEO will reject a greater number of high-variance projects. The model directly maps this selective approval process to a reduction in the cross-sectional variance of accepted projects and, consequently, lower dispersion in the final abnormal returns (CARs and DRs).

- Asymmetric Impact (Proposition B2): If the firm's opportunity set contains high-variance, high-return projects, an increase in CEO power disproportionately excludes these from the acceptance set. This is because the CEO's safety wedge, driven by personal costs, makes these projects less attractive despite their high potential NPV. This provides a theoretical basis for our empirical finding that CEO power has a more pronounced effect on the right (positive) tail of the return distribution.

- Moderation by External Governance (Proposition B3): A reduction in a CEO's effective discretion (due to an event like SOX) shrinks the safety wedge. This means that the marginal effect of CEO power on a project's acceptance diminishes, leading to a narrower dispersion gap between high- and low-power firms. This result provides a causal mechanism for the attenuation we observe in our difference-in-differences analysis.

- Moderation by Market Volatility (Proposition B4): When market volatility increases (modelled as an increase in σ for all projects), the CEO's safety wedge rises. This makes the CEO's personal costs more salient, which in turn strengthens the negative relationship between CEO power and the acceptance of high-variance

deals. This result provides a direct theoretical link to our empirical finding that the power-dispersion relationship is more pronounced during periods of high market volatility, like the GFC or the COVID-19 pandemic.

B.3 Post-Merger Implications

The model's core prediction that powerful CEOs select into lower-variance projects has direct implications for post-merger performance. If the selection mechanism holds, the dispersion of post-merger accounting performance (ROA) and long-run stock returns (BHAR) should also be lower for firms with powerful CEOs. The model predicts a reduction in the variability of these outcomes, which is consistent with our empirical findings, while remaining agnostic about their mean levels.