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Powerful blockholders and CEO turnover

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Abstract

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Keywords*:* Institutional investors, Powerful blockholders, CEO turnover, Corporate governance
JEL Classification: G23, G32, G34

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Powerful Blockholders and CEO Turnover *

Abstract

We identify the power of institutional blockholders to influence management using previous occurrences of forced CEO turnover at *other firms* in the blockholders' overall portfolio. We create a "powerful blockholder linkage" measure that strongly predicts future forced CEO turnover. These effects are larger when "powerful" blockholders are more motivated to monitor and when they have had valuable monitoring experience. Moreover, firms with powerful blockholders display higher CEO turnover-performance sensitivity, pursue more value-increasing mergers, and have higher firm value. Overall, our results suggest that an identifiable group of powerful blockholders play an important role in corporate governance.

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JEL Classification: G23, G32, G3

1 Introduction

It is widely argued that prominent shareholders – often called blockholders – should be important monitors of corporate managers.[1] However, the extent of blockholder influence and power over management remains difficult to empirically quantify. For example, the decision to dismiss a CEO is an important disciplinary governance outcome (e.g., Kang and Shivdasani, 1995; Huson, Parrino, and Starks, 2001). Yet, empirical evidence on the relation between blockholders and CEO turnover is inconclusive. Denis, Denis, and Sarin (1997) find some evidence that blockholders are associated with CEO dismissal while Kaplan and Minton (2012) find no effects of blockholder ownership on forced CEO turnover.

One possible reason for this lack of clear empirical evidence is the heterogeneity among blockholders. Cronqvist and Fahlenbrach (2009) find that blockholders differ in their preferences, skills, experiences, and governing styles. Another important reason is that shareholder power and influence are difficult to observe, particularly when large institutional investors tend to intervene "behind the scenes" (McCahery, Sautner, and Starks, 2015) or threaten to exit if management performs poorly (Admati and Pfleiderer, 2009; Edmans, 2009; Edmans and Manso, 2011).[2] In either case, the private nature of large shareholder intervention makes it difficult to assess the impact of these mechanisms.

In this paper, we propose a technique to extract the power and influence of institutional blockholders. Our approach is based on the idea that "powerful" blockholders should have a proven track record of achieving influential governance outcomes – such as forced CEO turnover – in their portfolio companies. By chance, an institutional investor may be a blockholder in a firm with forced CEO turnover. However, serving as a blockholder in multiple companies that undergo forced CEO turnover is unlikely to be mere coincidence. Therefore, a strong track record is likely to reflect an institutional blockholder's governance ability and monitoring style. We

[1] See, for example, Shleifer and Vishny (1986), Kahn and Winton (1998), and Maug (1998).
[2] Also see, for example, Smith (1996), Carleton, Nelson, and Weisbach (1998), Becht, Franks, Mayer, and Rossi (2009), and Dimson, Karakas, and Li (2015).

hypothesize that powerful blockholders are likely to influence future governance outcomes of their portfolio companies.

To identify powerful blockholders, we focus on institutional blockholders with holdings greater than 5 percent of the firm's shares outstanding. Then, we classify an institutional blockholder as "powerful" if its portfolio contains a high proportion of blockholdings with forced CEO turnover.[3] Specifically, we define a powerful blockholder linkage measure as the fraction of blockholder holdings that are held by powerful blockholders. We test our hypothesis by examining the relation between powerful blockholder linkage and future CEO turnover as well as other governance outcomes.

As a direct validation of our identification of powerful blockholders, we examine their voting records in director elections. Their opposition to director nominations should provide a window into their willingness to intervene, even when intervention may reduce business opportunities and access to management.[4] Based on mutual fund voting data, we find that powerful blockholders are less likely to vote "For" on director elections than other blockholders. For example, the average fraction of "For" votes in excess of the overall vote outcome is -7.5% for powerful blockholders versus -3.3% for other blockholders. The difference in voting is highly statistically significant between the two groups of investors. Further analysis shows that this pattern is stronger for director election proposals with a "For" recommendation from Institutional Shareholder Services (ISS) than for the ones with an "Against" or "Withhold" recommendation. This indicates that powerful blockholders are also less likely to follow the recommendations of proxy advisors than other blockholders.[5] Moreover, these patterns persist among the "in-sample" stocks (i.e., stocks with available information on forced CEO turnover), as well as among the "out-of-sample" stocks (i.e., stocks which we do not use to identify powerful blockholders due to a lack of CEO turnover data). This evidence suggests that

[3] We choose various cutoffs to represent a "high" fraction of holdings in forced CEO turnover stocks. Our results are robust to the choice of these cutoffs, which we discuss in detail in later analyses.
[4] See Davis and Kim (2007), Ashraf, Jayaraman, and Ryan (2012), and Butler and Gurun (2012).
[5] Our results are consistent with Aggarwal, Erel, and Starks (2015) and Iliev and Lowry (2015) that proxy voters do not uniformly follow the recommendations of proxy advisors. We show that powerful blockholders are more likely to be such voters.

our approach represents a reasonable and robust strategy to identify blockholder power and influence in their governance roles.

Our main analysis examines the effect of powerful blockholders on future CEO turnover. The evidence indicates that the powerful blockholder linkage measure strongly predicts CEO dismissal decisions in the following year. Results from a probit regression indicate that a one standard deviation increase in powerful blockholder linkage increases the probability of a forced CEO turnover by 21% relative to the sample average probability. Conversely, our tests show that powerful blockholders have no effect on the probability of voluntary CEO turnover, as these CEOs likely depart for non-governance related reasons.

An alternative interpretation is that other underlying commonalities among firms that share common ownership by powerful blockholders drive the CEO dismissal decision. For example, firms linked by common blockholders may have interlocking board relationships. Also, they may share underlying economic links such as: 1) the same industry membership, 2) the same regional location, or 3) supply chain relationships. Therefore, we reconstruct the powerful blockholder linkage measure after excluding firms that share these potential economic links. The evidence suggests that these commonalities are not behind our findings as our results are not sensitive to these alternative specifications.

To develop a better understanding of the influence of powerful blockholders, we carefully analyze their incentives, governing style, and past experience. Previous studies find that the incentive to monitor increases with ownership (e.g., Shleifer and Vishny, 1986; Fich, Harford, and Tran, 2015). This suggests that relatively small investors are unlikely to have incentives to actively monitor and exert influence on management. Additionally, institutional blockholders may have banking or other business relationships (i.e., "grey" or "pressure sensitive" investors) with their portfolio companies, limiting their incentives to intervene in management activity (e.g., Brickley, Lease, and Smith, 1988; Almazan, Hartzell, and Starks, 2005; Borokhovich et al., 2006). Also, investment style may affect the likelihood of intervention as investors with longer holding horizons

are more likely to monitor (e.g., Chen, Harford, and Li, 2007). Therefore, we reconstruct the powerful blockholder linkage measure separately by each investor classification group and examine whether powerful blockholder influence is associated with investor characteristics.

The evidence suggests that the linkage effects of powerful blockholders reside mainly among investors with strong ex-ante monitoring incentives and interventionist styles. First, we find that shareholder linkages based on non-blockholders have no ability to predict future forced CEO turnovers. Second, the ability to dismiss CEOs resides only among powerful blockholders that are "independent" institutions and is not present among those that are "grey" institutions. Third, powerful blockholders with longer holding horizons affect the CEO dismissal decision, while short-horizon investors do not. These findings are consistent with the shareholder monitoring channel in previous studies. However, it is important to note that our findings are not simply re-documenting prior evidence. Rather, our tests provide a within classification group comparison, which indicates significant heterogeneity among "independent" and long-horizon blockholders in their ability and power to exert influence over management.

Our findings also suggest that past monitoring experience plays an important role in powerful blockholder influence. Firing CEOs may require careful shareholder coordination, boardroom restructuring, and CEO succession planning. For example, in a survey of large institutional investors (McCahery, Sautner, and Starks, 2015), 45% of respondents had private discussion with the company's board outside of management's presence in the past five years. We hypothesize that powerful blockholders are more likely to develop and learn valuable skills and knowledge during the experience of unseating "difficult-to-dismiss" CEOs. Consistent with this experience channel, the evidence suggests that the probability of CEO dismissal is associated with the powerful blockholders' experience of firing long tenured CEOs, firing chairman CEOs, or firing CEOs when the industry is performing relatively well.

Thus far, our analysis is focused on establishing the influence of powerful blockholders on CEO turnover. But it remains an open question whether their ability

reflects good governance or a style of monitoring that (inefficiently) fires CEOs. This is a concern because if these shareholders are uninformed, it may be necessary to protect managers from reckless intervention (Fisman, Khurana, Rhodes-Kropf, and Yim, 2014). To understand whether powerful blockholders are good monitors, we examine whether they affect other corporate governance outcomes.

We first examine CEO turnover-performance sensitivity. Previous studies show that greater CEO turnover-performance sensitivity may be an indication of better corporate governance (e.g., Weisbach, 1988; Denis and Denis, 1995). Our evidence suggests that CEO turnover-performance sensitivity is greater in firms with higher powerful blockholder linkages. Second, we examine the market reaction to bidder announcement. Mergers and acquisitions represent an important governance outcome because these decisions may create significant conflicts between the interests of shareholders and managers (e.g., Chen, Harford, and Li, 2007). Consistent with good governance, the results indicate that bidder announcement returns are significantly higher among firms with greater powerful blockholder linkages. Third, efficient monitoring should be associated with higher firm value. We find that firms with higher powerful blockholder linkages have higher firm valuation.

We provide a series of robustness tests to ensure that our findings are not sensitive to our methodological choices. We find that our results are robust when creating the powerful blockholder linkage measure using the top 5 largest institutional shareholders or using various cut-offs to identify powerful blockholders. Our results are also similar after controlling for additional board characteristics and other governance characteristics, such as board structure, director compensation, director characteristics, and takeover provisions (e.g. Weisbach, 1988; Kaplan and Minton, 1994; Kang and Shivdasani, 1995; Mobbs, 2013; Mikkelson and Partch, 1997). Our findings are also unchanged after controlling for blockholder concentration and busyness.

While we address a number of potential alternative explanations, we recognize the possibility of an unobserved omitted variable lingering behind our findings. Our powerful blockholder linkage measure is based on the portfolio choice of powerful blockholders

vis-à-vis other institutional blockholders, which may be endogenously determined by some unobserved firm characteristics. However, we argue that this endogeneity concern should be alleviated based on three considerations.

First, the identification of powerful blockholders relies on the occurrences of forced CEO turnovers in other companies, which are unlikely to reflect an endogenous firm choice. Also, we show that alternative economic linkages across these firms are not driving our results. Second, compared to smaller shareholders, institutional blockholders, on average, should have relatively homogenous investment mandates, liquidity preferences, or diversification needs, but may be heterogeneous in their monitoring style and governance ability. To capture this heterogeneity, our powerful blockholder linkage measure characterizes the representation of powerful blockholders amongst institutional blockholders. Third, reassuringly, there is little correlation between the powerful blockholder linkage variable and other investor ownership characteristics or major firm characteristics with a correlation coefficient always less than 0.1, suggesting that it is unlikely to be endogenously driven by an omitted firm variable that strongly affects CEO dismissal decisions.

Nonetheless, to further address the endogeneity concerns, we provide a set of falsifications tests. We expect that any possible, unaddressed omitted variable that correlates with blockholder linkages based on forced CEO turnover is likely also related to blockholder linkages based on voluntary CEO turnover. However, as previously explained, the power and influence of blockholders are reflected only through forced CEO turnover, but not through voluntary CEO turnover. Therefore, we create a "placebo" test using a similar measure of blockholder linkage with other firms that have voluntary CEO turnover. We re-estimate all of our key findings in this study using this variable and find that it is unrelated to any of our previous findings.

Our study contributes to several different strands of literature. First, our findings are consistent with recent survey evidence on the widespread use of "behind-the-scenes" engagement by large institutional investors (McCahery, Sautner, and Starks, 2015). We provide new empirical evidence that the "track record" of a prominent governance

outcome (i.e., forced CEO turnover) embeds institutional blockholders' governance preferences and monitoring abilities. Consistent with McCahery, Sautner, and Starks (2015), this suggests that an identifiable group of large institutional investors are more active and influential than what can be inferred from aggregate ownership data alone. Also, we contribute to a literature on the governance role of large institutional investors. Recent studies focus on the intervening activities of some institutional investors such as activist hedge funds (e.g., Brav, Jiang, and Kim, 2010). However, hedge funds are in general much smaller than institutional blockholders in terms of ownership stakes. We provide a more generalized view on the governance outcome of large institutional investors.

Second, our findings contribute to a large literature that uses broad-based shareholder characteristics to uncover the monitoring incentives of institutional investors (e.g., Brickley, Lease, and Smith, 1988; Bushee, 2001; Chen, Harford, and Li, 2007). We extend this literature in three ways. To our knowledge, we are the first to propose that an investor's track record of prominent governance outcomes in the portfolio companies provides important clues on their monitoring ability. Second, this approach provides a parsimonious method of identifying shareholder influence within broad-based shareholder classifications. Identifying a group of powerful blockholders allows us to create sharper tests and draw stronger inferences across multiple governance outcomes. Third, our approach potentially identifies a clear set of blockholders that wield considerable influence and power in the corporate boardrooms.

Our results also contribute to a literature examining how blockholders affect corporate outcomes (e.g., Holderness, 2003). Kang and Kim (2006) find that the presence of local blockholders improves the quality of mergers and acquisitions. Cronqvist and Fahlenbrach (2009) show that blockholder styles affect investment, financial leverage, and executive compensation. Our study extends this line of research by showing that a group of blockholders identified as powerful have significant influence on CEO dismissal and other governance outcomes.

Importantly, our results provide a potential resolution to the mixed evidence surrounding the effect of blockholders on CEO turnover. Denis, Denis, and Sarin (1997) find limited evidence that blockholders are associated with CEO dismissal while Kaplan and Minton (2012) find no effects of blockholder ownership on forced CEO turnover. Consistent with these studies, we also find that blockholder ownership is an insignificant predictor of forced CEO turnover in our tests. However, the powerful blockholder linkage measure strongly predicts forced CEO turnover, highlighting the importance of isolating heterogeneity among blockholders.

Finally, we add to a growing literature on the effects of common shareholder linkages. Previous studies focus on the spillover effects of common shareholder linkages on stock price co-movement and liquidity (Greenwood and Thesmar, 2011; Anton and Polk, 2014; Bartram, et al, 2015). To our knowledge, we are the first to show that institutional blockholder linkages affect prominent corporate governance outcomes such as CEO turnover across different firms.

2 Data and Variables

2.1 Data

The data on CEO turnover, including both forced turnover and voluntary turnover, for all firms in the S&P ExecuComp database during the period of 1993 to 2010 is from Jenter and Kanaan (2015) and Peters and Wagner (2014).[6] The data on CEO characteristics is obtained from ExecuComp. Information on the board of directors is from the IRRC Riskmetrics database. Mutual fund voting data from 2003-2008 is from the ISS Voting Analytics database. We collect quarterly equity holdings data of institutional investors from Thomson 13F filings.[7] Investor style (transient, non-transient) and investor types (banks, insurance companies, investment companies, investment advisors, and others) are based on classifications available on Brian Bushee's

[6] We thank Dirk Jenter for generously providing this data.
[7] The SEC requires that all institutional investment managers with investment discretion over $100 million in 13(f) securities report holdings positions each quarter.

website.[8] Stock return and accounting data from CRSP and COMPUSTAT are used to construct firm level variables including size, market-to-book, book leverage, profitability, cash holdings, ILLIQ, and stock return volatility. Detailed descriptions of all these variables are provided in the Appendix.

2.2 Identification of Powerful Blockholders

We identify powerful blockholders as follows. We start by identifying institutional blockholders as institutional investors with greater than 5% ownership in a company's common stock. In each year t, we select firms from the ExecuComp universe that experienced a forced CEO turnover during the year and determine the institutional blockholders in these firms. For each blockholder, we calculate the fraction of holdings in "forced CEO turnover" stocks in its overall portfolio. Among blockholders with at least one block position in a "forced CEO turnover" stock, we classify a blockholder as "*powerful*" if its fraction of holdings of "forced CEO turnover" stocks in its portfolio is above the bottom tercile of these blockholders. We use the bottom tercile as a cutoff point to ensure that we do not *inadvertently* misclassify blockholders that simply *by chance* held a block in a firm that experienced a forced CEO turnover. As there is no theoretical guidance on this empirical decision, in later analyses we identify powerful blockholders using the median and first quintile as alternative cutoff points and find consistent results.

As we focus on examining firm-level governance outcomes, we develop a powerful blockholder linkage measure to represent the influence and power among each firm's blockholders, as revealed through their portfolio record of forced CEO turnover in other firms. For each firm i without any forced CEO turnovers during year t, we calculate the fraction of block holdings that are held by powerful blockholders among the institutional blockholders of firm i. Specifically, for firm i at quarter s, the powerful blockholder linkage measure is defined as:

[8] The data are available at http://acct.wharton.upenn.edu/faculty/bushee/IIclass.html.

$$Powerful\ Blockholder\ Linkage_{i,s} = \frac{\sum_{j \in\ Powerful\ Blockholder\ among\ Institutional\ Blockholders} H_{i,j,s}}{\sum_{j \in\ Institutional\ Blockholders} H_{i,j,s}},$$

where $H_{i,j,s}$ is the institutional holdings of stock i by investor j. Since 13f data is reported quarterly, we use the average across the four quarters to create an annual powerful blockholder linkage as our main measure in later analyses.

The powerful blockholder linkage measure represents the fraction of block holdings held by powerful blockholders. We choose the fraction definition for the following reasons. First, it captures heterogeneity in terms of governing abilities and styles within the group of investors with the greatest ex-ante incentives to govern based on their large ownership stakes. Second, variables such as total institutional ownership or institutional block ownership (i.e., defined as a percentage of common shares outstanding) tend to be endogenously determined by other firm characteristics (e.g., Demsetz, 1983; Demsetz and Lehn, 1985). As a whole, institutional blockholders should have relatively homogenous investment mandates, liquidity preferences, and diversification needs, but may have heterogeneous monitoring styles and abilities. This suggests that the fraction of powerful blockholders amongst institutional blockholders is less likely to be endogenously determined by other firm characteristics. To verify, we find low correlations between the powerful blockholder linkage variable and other investor ownership characteristics or major firm characteristics. For example, the correlation coefficient between powerful blockholder linkage and institutional block ownership is 0% in our sample. Therefore, the fraction of powerful blockholders may provide direct information on the ability of the blockholder group to intervene. In our empirical tests, we always control for the overall level and change in institutional block ownership while analyzing the importance of the powerful blockholder linkage measure. In robustness tests, we also control for blockholder concentration and busyness.

We also create additional powerful blockholder linkage measures to ensure that our results are robust. First, we follow the same procedure as above to calculate the measure of powerful blockholder linkage, but define a blockholder if its ownership is above 1% of

the firm's share outstanding or if they are among the top 5 largest institutional investors. Second, to ensure that industry or regional effects are not behind our results, we calculate alternative measures of powerful blockholder linkage by excluding forced CEO turnover stocks from the same industry or the same geographical region. Third, we separately calculate powerful blockholder linkage measures for "independent" investors (i.e., investment companies, independent investment advisors, and public pension funds) and "grey" investors (i.e., bank trusts, insurance companies, corporate pension funds, and other institutions) as well as investors with long- and short- holding horizons.

2.3 Summary Statistics

Table I summarizes our overall sample. About 2.4% of sample firms have forced CEO turnovers, while 3.5% have voluntary CEO turnovers. Using the 5% ownership cutoff to define blockholders, the *powerful blockholder linkage* measure is around 22% for the average firm, with a standard deviation of 26%. This indicates that 22% of blockholdings are held by "powerful" blockholders under this specification. Using the 1% ownership cutoff definition, this percentage increases to around 38%. Using the top 5 institutional investor definition, around 26% of the top 5 institutional investors are designated as "powerful" by our methodology for the average firm in our sample.

Table II reports the summary statistics for powerful blockholders. Panel A presents the size of portfolio holdings of institutional blockholders. An institutional blockholder is defined as an investor that owns a 5% stake in at least one of its portfolio companies. The first row shows that the average institutional blockholder has $3,312 million in equity portfolio holdings of which 3.0% of their portfolio companies experience a forced CEO turnover event. This is roughly similar to the fraction of firms experiencing forced CEO turnover in our sample of stocks.

The second row shows that institutional blockholders with at least one forced CEO turnover event in the past year manage larger portfolios in terms of dollar holdings. The final column shows that these large blockholders are around 13.6% of all institutional blockholders (3,450 out of 25,305 investor-quarter observations). Next, we split these institutional blockholders into "powerful" and "other" blockholders to ensure that we are

not mis-classifying certain blockholders that by chance hold a block in a firm that experiences a forced CEO turnover. We define "other" blockholders as those blockholders whose fraction of portfolio holdings of forced CEO stocks is in the bottom tercile.[9] By this classification, the third row shows that powerful blockholders hold much more forced CEO turnover stocks than other blockholders. The fraction of holdings in forced CEO turnover stocks of other blockholders is reasonably low (1.6% on average). This suggests that the tercile cutoff is a reasonable approach to addressing the possibility of misclassifying these blockholders as powerful.[10]

Panel B of Table II reports the correlation between the *powerful blockholder linkage* measure and firm characteristics. Since our analysis is focused on the stock level, it is important to understand whether the measure is strongly related to firm characteristics. The correlations suggest that this is not a concern. The correlations are less than 0.1 with all the major firm characteristics including potential determinants of CEO turnover such as institutional ownership, firm size, profitability, past return, etc.

2.4 Voting Records in Director Elections

As a direct validation of our identification of powerful blockholders, we examine their voting records in director elections. We provide an analysis of the voting records by powerful blockholders and by the rest of the institutional blockholders. We obtain a sample of mutual fund voting data from ISS Voting Analytics from 2003 to 2008 and aggregate the voting data at the institutional investor level. First, for each institution-stock-quarter, we calculate the average fraction of "For" votes among total votes by the investor across different director proposals of the stock. We also calculate an excess fraction as the difference between the investor's fraction of "For" votes and the overall

[9] As mentioned before, we perform our full set of analysis using the bottom quartile and median cutoff to ensure our results are not sensitive to this definition. We report these findings and additional robustness tests in Table IX.

[10] In the Internet Appendix, we report examples of institutional blockholders that are "powerful" as defined by our criteria. We list the top 40 powerful institutional blockholders ranked by the fraction of forced CEO turnover stocks (time-series median). A number of notable institutional investors appear on the list including Blackrock, Goldman Sachs, and Berkshire Hathaway. Some large mutual fund families are on the list (American Express Financial Advisors, Janus Capital Management, Invesco Capital Management). A few hedge funds also make the list including Jeffrey Gendell, Rutabaga Capital, and Sterling Capital.

fraction of "For" votes among all investors. Then, for each investor-quarter, we calculate the average (excess) fraction of "For" votes across different stocks in its portfolio. We perform both t-tests and Wilcoxon tests to compare the voting differences between powerful blockholders and other blockholders.

In addition, we separately report the results for director election proposals with and without "For" recommendations from Institutional Shareholder Services (ISS). We also provide both an "in-sample" analysis on director elections of stocks covered in the ExecuComp database and an "out-of-sample" analysis on director elections of stocks not covered in ExecuComp (i.e, stocks not included to identify powerful blockholders).

Table III presents the results. Panel A shows that powerful blockholders are less likely to vote "For" on director elections than other blockholders. The average fraction of "For" votes by powerful blockholders in excess of the overall vote outcome is -7.5% versus -3.3% by other blockholders. The voting difference between the two groups of investors is highly statistically significant. Importantly, this pattern is stronger for director election proposals with a "For" recommendation from ISS than for the ones with an "Against" or "Withhold" recommendation. This indicates that powerful blockholders are more likely to make their own voting decisions, consistent with active monitoring.

Moreover, Panel B shows that these results persist among "in-sample" stocks and "out-of-sample" stocks. Interestingly, the results are even stronger for "out-of-sample" stocks,[11] which is intuitive considering that the non-ExecuComp stocks are relatively smaller and powerful blockholders may have larger influence. This suggests that our identification of powerful blockholders is unlikely to be driven by any "within-sample" selection bias, but rather represents a valid strategy to identify blockholder power and influence in their governance roles.

[11] For the "out-of-sample" stocks, the average fraction of "For" votes in excess of overall voting outcome is -13% by powerful blockholders, compared to that of -5% by other blockholders.

3 Powerful Blockholders and CEO Turnover

This section examines the effect of powerful blockholders on CEO turnover. We focus primarily on forced CEO turnover because these dismissals represent influential governance actions, but we also examine voluntary CEO turnover to assess both the classification of CEO turnover and the *powerful blockholder linkage* measure.

3.1 Predicting Forced CEO Turnover

To examine the effect of powerful blockholders on the probability of forced CEO turnover, we estimate the following probit model in equation (1):

$$Forced\ CEO\ Turnover_{i,t+1} = \alpha + \beta \times Powerful\ blockholder\ linkage_{i,t} + \delta \times X_{i,t} + \varepsilon_{i,t+1} \qquad (1)$$

where *Forced CEO Turnover* is equal to 1 if the firm experiences a forced CEO turnover in year t+1. *Powerful blockholder linkage*$_{i,t}$ is defined as the fraction of holdings by powerful blockholders among the firm's blockholders, and $X_{i,t}$ is a vector representing firm control variables estimated in year t. All specifications include year fixed effects to capture time-varying macroeconomic trends and cluster standard errors at the firm level.

The evidence suggests that *powerful blockholder linkages* strongly forecast future forced CEO turnover. Table IV reports the regression results. Column (1) shows that the *Powerful blockholder linkage* measure significantly predicts the probability of a forced CEO turnover in the following year at the 1% confidence level. As reported in the bottom row, the conditional marginal effect implies that a one standard deviation increase in the *powerful blockholder linkage* measure increases the probability of forced CEO turnover by 21% relative to the sample average probability. This large economic magnitude suggests that the presence of powerful blockholders reflects important information on a company's future forced CEO turnover. The estimates on the control variables also show that older, founder, chairman CEOs are less likely to be dismissed. This is consistent with prior findings in the literature.[12] Also, CEOs with more share

[12] For example, see Coughlan and Schmidt (1985), Warner, Watts, and Wruck (1988), Weisbach (1988),

ownership are less likely to be dismissed, consistent with Denis, Denis, and Sarin (1997).

The results are not sensitive to the inclusion of ownership characteristics. Column (2) includes additional ownership-based variables: the average level of block institutional ownership, other institutional ownership in year *t*, as well as the change in these variables from year *t-1* to year *t*. The coefficient estimate on the *powerful blockholder linkage* measure remains positive and statistically significant at the 1% level, and the conditional marginal effect remains economically large at 21%.

It is important to note that the level of blockholder ownership is not associated with forced CEO turnover, consistent with the evidence in Kaplan and Minton (2012). The parameter estimate is statistically insignificant (t= 0.82), suggesting that large heterogeneity among blockholders makes drawing clear inferences difficult. On the contrary, both the level and the change in other non-block institutional ownership is related to lower forced CEO turnover, suggesting that relatively smaller investors lack incentives to actively influence CEO turnover decisions and tend to "vote with their feet" (Parrino, Sias, and Starks, 2003). More importantly, the inclusion of these variables does not significantly change the predictive power of the *powerful blockholder linkage* measure.

The results in Column (3) shows that the coefficient estimate on the *powerful blockholder linkage* measure remains positive and statistically significant at the 1% level with the inclusion of firm characteristics. The conditional marginal effect remains economically large at 20%. We include *firm size*, *book leverage* ratio, *market-to-book* ratio, *profitability,* as well as industry fixed effects at the two-digit SIC level. The results also show that forced CEO turnover is negatively associated with the market-to-book ratio and profitability, which indicates that poor recent performance increases the probability of dismissal, consistent with the findings in Jenter and Kanaan (2015).

The evidence also suggests that firm risk is not behind our findings. Column (4) shows that the coefficient estimate on *powerful blockholder linkage* remains positive and statistically significant after controlling for past annual stock return, return volatility,

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Denis, Denis, and Sarin (1997), and Goyal and Park (2002).

and stock illiquidity following Goyal and Park (2002). The economic effect of powerful blockholder linkage remains large, as a one standard deviation change increases the probability of forced CEO turnover by 22% relative to the sample average probability.

In sum, these results indicate that the *powerful blockholder linkage* measure strongly predicts future forced CEO turnover beyond previously identified CEO characteristics and firm-level factors. In later analyses, we provide robustness tests to ensure that our results are not driven by industry, regional, supply chain, or interlocking board connections.

3.2 Predicting Voluntary CEO Turnover

The ability of the *powerful blockholder linkage* measure to predict future forced CEO turnover is consistent with the view that powerful blockholders are able to exert influence in the boardroom. It may also reflect the propensity for powerful blockholders to selectively own shares in a firm where the CEO is likely to change. Perhaps future CEO turnover – of both the forced and voluntary nature – is correlated with an unobservable firm characteristic, such as managerial restructuring, that powerful blockholders use to select companies to invest. This alternative non-monitoring explanation would be consistent with the evidence in the previous section.

This restructuring explanation predicts that powerful blockholders select firms with both impending forced and voluntary CEO dismissal. However, our shareholder influence explanation predicts that the *powerful blockholder linkage* measure affects forced CEO turnover but not voluntary CEO turnover. This is because forced turnover requires a considerable amount of boardroom influence and power, whereas in voluntary CEO turnover, CEOs typically leave for personal reasons. We design a simple test of these two interpretations by estimating the following probit model in equation (2):

$$Voluntary\,CEO\,Turnover_{i,t+1} = \alpha + \beta \times Powerful\,blockholder\,linkage_{i,t} + \delta \times X_{i,t} + \varepsilon_{i,t+1} \qquad (2)$$

where *Voluntary CEO Turnover* is equal to 1 if the firm experiences a voluntary CEO turnover in year t+1. *Powerful blockholder linkage*$_{i,t}$ is defined the fraction of holdings by

powerful blockholders among the firm's blockholders, and $X_{i,t}$ is a vector representing firm control variables estimated in year t. As before, all specifications include year fixed effects to capture time-varying macroeconomic trends and cluster standard errors at the firm level.

Table V reports the regression results. Across all four columns, the *powerful blockholder linkage* measure is an insignificant predictor of the probability of voluntary CEO turnover.[13] These results suggest that powerful blockholders are unlikely to selectively own companies with impending CEO turnover. If that were the case, the *powerful blockholder linkage* measure would also predict voluntary CEO turnover. As we find no evidence of this prediction, we conclude that this particular type of omitted variable concern is unlikely to explain earlier findings. We also note that the stark difference between the results of forced CEO turnover and voluntary CEO turnover lends additional support to the accuracy of the CEO turnover classifications in Jenter and Kanaan (2015) and Peters and Wagner (2014). Throughout the paper, we provide tests to rule-out additional omitted variable concerns.

3.3 Sources of Influence: Blockholder Experience

Given the ability of powerful blockholders to unseat standing CEOs, we ask a natural question: what could be the potential source of their ability? In this section, we hypothesize that powerful blockholders may learn from the valuable experience of dismissing CEOs in the past. Dismissing CEOs requires careful shareholder and boardroom coordination and also requires finding viable external candidates. Additionally, some CEOs have considerable power over corporate decisions (Adams, Almeida, and Ferreira, 2005) and may be difficult to dismiss. We predict that the experience of unseating a "difficult-to-dismiss" CEO is one potential source of their ability to fire CEOs in the future. We test this prediction by first defining powerful

[13] The estimates on the control variables show that older, founder, chairman CEOs are more likely to voluntarily quit, consistent with our previous findings. Also, CEOs with more share ownership are less likely to voluntarily resign their position. Institutional ownership is not associated with voluntary turnover as none of the institutional shareholder measures are significant. CEOs of larger firms with higher market valuations are more likely to voluntarily quit their positions. The results also show that voluntary CEO turnover is negatively associated with stock returns.

CEOs as CEO with long tenure[14] and CEOs who are also the chairman of the board, following Adams, Almeida, and Ferreira (2005). Then we reconstruct our *powerful blockholder linkage* measure using the same procedure but separately identify powerful blockholders from forced CEO turnover stocks with long tenure CEO versus short tenure CEOs, as well as from forced CEO turnover stocks with chairman CEOs versus non-chairman CEOs. Using these measures, we repeat the regression analysis in Table IV.

Table VI presents evidence which suggests that monitoring experience is an important source of powerful blockholder influence. Panel A shows that the coefficient estimate on the powerful blockholder linkage measure constructed from long-tenure CEO dismissals is positive and statistically significant at better than the 1% level across all four regression specifications. The Chi-square tests shows that the differences in coefficient estimate between the two powerful blockholder linkage measures are statistically different.

The results in Panel B suggest that the experience of firing chairman CEOs strongly relates to the ability to fire CEOs in the future. The coefficient estimate on the powerful blockholder linkage measure constructed with chairman CEO dismissals is positive and statistically significant at better than the 1% level across all specifications. In contrast, the past experience of firing non-chairman CEOs is insignificantly related to the ability to dismiss future CEOs as the coefficient estimates are insignificant on the powerful blockholder linkage measure constructed with non-chairman CEO dismissals across all four specifications.

Aside from CEO characteristics, market conditions may also affect the difficulty of removing a CEO. Not surprisingly, we find that for stocks with forced CEO turnover, around 80% of them have negative industry-adjusted returns in the previous year. However, Jenter and Kanaan (2015) find that CEOs who underperform relative to their industry peers are more likely to be fired during industry downturns, but less so during

[14] We define "Founder" CEO as a dummy variable that is equal to 1 if the CEO is the same CEO when the firm first appears in the ExecuComp database and 0 otherwise. Instead of using the "Founder" CEO dummy, we use the more accurate actual CEO tenure reported in ExecuComp to identify "difficult-to-dismiss" CEOs.

good times. This implies that it may be particularly challenging to remove an underperforming CEO from power when the industry is doing well. We expect that if blockholders are able to remove CEOs during periods of good industry performance, this track record likely reflects the extent of their governing ability and influence. As before, we test this prediction by separately reconstructing our powerful blockholder linkage measure from stocks with forced CEO turnover during good industry returns and during bad industry returns relative to the overall market.

Panel C of Table V presents evidence that supports this view. The experience of firing of CEOs during times of good industry performance strongly relates to the ability to fire CEOs in the future. The coefficient estimate on the powerful blockholder linkage measure constructed with CEO dismissals during good industry stock performance is positive and statistically significant at better than the 1% level across all specifications. The Chi-square tests shows that differences in coefficients between the two powerful blockholder linkage measures are statistically different.

Taken together, the evidence suggests that the experience of removing "difficult-to-dismiss" CEOs or firing CEO during good industry performance is a source of blockholder influence and governing ability. These results offer new insights into the battle inside the corporate boardroom. In the next section, we explore another potential source behind the influence of powerful blockholders – their monitoring incentives.

3.4 Sources of Influence: Incentives to Monitor

Another potential reason certain blockholders are influential is that they have strong incentives to actively monitor the management of their portfolio companies. Existing studies identify a number of ex-ante incentives that motivate shareholder monitoring, which we explore in detail in this section. A particularly strong economic motivation is the amount of ownership in a firm (Shleifer and Vishny, 1986). For this reason, we focus on institutional blockholders with more than 5% ownership stakes in the firm. A clear ancillary prediction of our influence story is that relatively small investors should *not* have a role in forced CEO turnover. Non-block institutional investors may invest in stocks for diversification purposes or because of private information with no intention to

monitor. In either case, the occurrences of forced CEO turnover in their portfolio companies is unlikely to reflect their governing style or ability to monitor in this particular firm.

To test this prediction, we gather other large institutional investors, who are not blockholders. Specifically, we focus on all of the top 10 largest institutional investors of each firm but with ownership below 5% of the firm's shares outstanding. We compare the linkage effects from these investors with the effects from powerful blockholders. These non-block large investors have less motivation to monitor (Shleifer and Vishny, 1986) but are sophisticated investors and not necessarily suffer a significant information disadvantage relative to the blockholders. Following the same methodology, we create a shareholder linkage measure based on forced CEO turnover in the portfolio companies of these top 10 non-block investors and re-estimate our main tests.

Panel A of Table VII presents evidence consistent with our prediction. The coefficient estimate on non-block large shareholder linkage is not significant in any of the regression specifications. This evidence largely mitigate the concern that the powerful blockholder linkage effects are driven by certain private information advantage of large institutional investors rather than their governing styles and monitoring abilities. This test also serves as a check that the construction of our linkage variable does not inadvertently capture underlying economic links across different firms. In a later section, we address this concern in detail.

Our second test for monitoring incentives separates blockholders based on their investment horizons. Transient investors have short investment horizons while non-transient investors on average hold stocks for longer periods (Bushee, 2001). Investors with longer holding horizons have greater incentives to monitor their portfolio firms because they are not likely to exit when they disagree with management (Chen, Harford, and Li, 2007). Transient investors on the other hand are less likely to monitor and may choose to sell their shares.

The evidence suggests that the ability to force CEO turnover exists only among non-transient investors. Panel B of Table VII shows that the coefficient estimate on the

powerful blockholder linkage measure constructed within non-transient investors is positive and statistically significant at the 1% level. The chi-squared test of difference between the two coefficient estimates is also statistically significant. This finding suggests that the influence of powerful blockholders is predominantly held by those with longer horizons.

Our third test distinguishes independent investors from grey investors. Independent investors are less likely to have potential business conflicts with their portfolio companies (e.g., Brickley, Lease, and Smith, 1988; Almazan, Hartzell, and Stark, 2005), which increases their willingness to disrupt management. We therefore expect that the linkage effects of powerful blockholders are more pronounced among independent investors. Panel C of Table VII shows that the linkage effects on forced CEO turnover from powerful blockholders is concentrated within the group of independent blockholders. This is consistent with the findings in our prior two tests. Together, these results are consistent with the view that the ex-ante incentives to monitor is related to powerful blockholder influence.

3.5 Robustness Tests

We design a number of tests to ensure that our results are robust. One concern is that the *powerful blockholder linkage* measure embeds other underlying economic links that are potentially behind our findings. Examples include inter-locked boards, industry overlap, regional effects, supply-chain relationships, or previous history of forced CEO turnovers. As it is difficult to adequately control for these economics links in a regression, we re-construct our *powerful blockholder linkage* measure by excluding in turn each one of these potential economic channels. Then, we re-estimate the regression tests from Table IV using these re-constructed measures.

Table VIII shows that our main inferences are unchanged after excluding economic links relating to: interlocked boards, industry overlaps, regional commonality, supplier- and customer relationships. In particular, the power of the powerful blockholder linkage measure to predict forced CEO dismissal is similar after accounting for these alternative linkage channels. This evidence strongly suggests that the effects of powerful blockholder

are not driven by other omitted underlying economic connections among the blockholders' portfolio companies.

Next, we examine measurement issues in the construction of the powerful blockholder linkage measure. We motivate our measure based on the idea that past governance outcomes reflect the underlying monitoring ability and style of blockholders, which continues into the future behavior. However, this notion does not provide guidance on the design of the measure. In particular, we make two empirical choices in our variable construction. First, we define blockholders as institutional investors with greater than 5% ownership in the firm. Second, we set the cutoff at the bottom tercile of the sample in designating powerful/non-powerful blockholders.

We address the sensitivity of our results to each of this choices. First, we change the definition of blockholder from more than 5% ownership to more than 1% ownership. We also use an alternative definition of "blockholder", defined as one of the top 5 largest institutional investors of the firm. Second, we use alternative cutoffs at the median and 1st quintile fraction of holdings in stocks with forced CEO turnover. The median cutoff imposes a stricter identification for powerful blockholders, while using the 1st quintile expands the quantity of powerful blockholders.

The results in Table IX show that the main conclusions are unchanged using these alternative measures. Panel A reports results using the top five institutional investors to create the powerful blockholder linkage measure. Across the four specifications, the conditional marginal effects remain between 19% and 22%. This is similar to the main specification results in Table III. In Panel B, we define blockholders as institutional investor with greater than 1% ownership and find similar results. Panel C and panel D reports results using the median and 1st quintile cutoffs for identification of powerful blockholders. The coefficient estimate on the powerful blockholder linkage measure in both panels remain statistically significant at the 1% level. However the conditional marginal effects in these specifications are smaller than in our main specifications. This suggests that the use of tercile cutoffs provides an optimal classification of powerful blockholders.

Next, we examine if our findings are due to board and other corporate characteristics. Studies show that the probability of CEO turnover is greater for outsider-dominated boards (Weisbach, 1988; Kaplan and Minton, 1994), directors with outside directorships (Mobbs, 2013), and takeover provisions (Mikkelson and Partch, 1997). One possible alternative interpretation is that our measure of powerful blockholders simply reflects the characteristics of the board of directors. To address this concern, we re-estimate our main probit specification and control for additional board characteristics.

The evidence suggests that our main inferences are unchanged with the inclusion of board characteristics. The results in Panel A of Table X show that the coefficient estimate on powerful blockholder linkage remains positive and statistically significant, and the conditional marginal effects (19%) are similar to our main estimates. Columns (1) and (2) presents results using our main blockholder definition (>5% ownership). Column (3) shows the results are not sensitive to using top 5 institutional investors to construct the powerful blockholder linkage measure. The results are also similar using the >1% ownership definition for blockholder.

A remaining concern with the powerful blockholder linkage measure is that it may capture other institutional blockholder characteristics. For example, because the measure is a fraction of powerful blockholders among all blockholders, it may correlate with the concentration of blockholders. Or it may inadvertently capture blockholder busyness which may distract from monitoring focus. To ensure that our measure is not affected by these characteristics, we control for blockholder concentration and busyness. Blockholder concentration is defined as the Herfindahl index of ownership among the firm's institutional blockholders. Blockholder busyness is defined as the logarithm of the holdings-weighted number of block holdings across the each institutional blockholder in the firm.

The results in Panel B of Table X show that our results are not sensitive to the inclusion of these additional blockholder characteristics. The coefficient estimate on powerful blockholder linkage remains positive and statistically significant, and the

conditional marginal effects (20%-23%) are slightly higher than the main estimates. The coefficient estimate on blockholder concentration is negative and statistically significant while blockholder busyness is insignificant.

Overall, the evidence in this section provides a series of robustness tests showing that our results are not sensitive to: 1) measurement choices on the powerful shareholder linkage measure, 2) underlying economic firm links associated with shareholder linkages, 3) board characteristics, and 4) blockholder concentration and busyness. These results help to rule out potential alternative interpretations.

4 Are Powerful Blockholders Good Monitors?

Our tests to this point focus on one particular governance outcome – CEO turnover. However, it remains an open question whether the influence of powerful blockholders over management reflects good monitoring or simply "power". If powerful shareholders are generally uninformed and tend to engage in reckless interventions (Fisman, Khurana, Rhodes-Kropf, and Yim, 2014), their influence may represent inefficient shareholder monitoring and destruction of firm value. On the other hand, if powerful shareholder monitoring is beneficial, then we should also expect other types of good governance outcomes.

In this section, we answer this question by examining three additional governance outcomes. Our first test examines whether powerful blockholders affects CEO turnover-performance sensitivity. In our second test, we follow Chen, Harford, and Li (2007) and examine whether the presence of powerful blockholders improves acquisition announcement returns. Finally, we test whether powerful blockholder linkages are associated with higher market valuations.

4.1 CEO Turnover-Stock Performance Sensitivity

Previous studies show that CEO turnover sensitivity to recent firm performance is associated with measures of corporate governance (e.g., Kang and Shivdasani, 1995; Fich and Shivdasani, 2006; Kaplan and Minton, 2012). In some instances however, the results remain inconclusive. Kang and Shivdasani (1995) find that block ownership is not

related to CEO turnover-performance sensitivity in their sample of Japanese firms. Kaplan and Minton (2012) also find that CEO turnover-performance sensitivity is not related to the Gompers, Ishii, and Metrick (2003) governance index or SOX legislation. We examine whether the sensitivity of CEO turnover to stock performance relates to the *powerful blockholder linkage* measure in our sample.

We separate the sample into two groups based on whether the powerful blockholder linkage measure is above or below the median. We perform analysis within each group in case there are systematic differences in characteristics between firms with high and low powerful blockholder linkage. We standardize the stock return in the previous year to have a mean of 0 and a standard deviation of 1.[15] Then, within each group, we estimate a probit model of forced CEO turnover on the firm's stock return in the previous year using the following equation (3):

$$Forced\,CEO\,Turnover_{i,t+1} = a + \beta \times Standardized\,Stock\,Return_{i,t} + \delta \times X_{i,t} + \varepsilon_{i,t+1}. \quad (3)$$

The dependent variable is the forced CEO turnover dummy. $X_{i,t}$ is a vector representing firm control variables estimated in year t. All specifications include year fixed effects to capture macro-economic effects and cluster standard errors at the firm level. We report the marginal effects of the probit regressions in Panel A of Table XI. The first two columns reports results from the high powerful blockholder linkage sample, while the next two columns report results from the low powerful blockholder linkage sample.

The results indicate that CEO dismissal is more sensitive to past stock performance among stocks with higher *powerful blockholder linkages*. Column (1) shows that for stocks with high *powerful blockholder linkage* measure, the coefficient estimate on the standardized stock return is -0.015 (t=-4.75). The regression specification includes controls for CEO and ownership characteristics. The same coefficient estimate in column (3) for the low *powerful blockholder linkage* measure sample is -0.007 (t=-3.08). The

[15] This procedure is helpful for three reasons. First, it allows for comparability in the coefficient estimates across the two groups. Second, it acts as a market-adjustment for stock returns. Third, it creates a relative performance metric.

relative comparison suggests that stocks with high powerful blockholder linkage are twice as likely to dismiss CEOs for poor performance. Columns (2) and (4) show that the results are similar with the inclusion of firm characteristics and industry fixed effects. The coefficient estimate remains twice as large for the high *powerful blockholder linkage* sample compared to the low *powerful blockholder linkage* sample.

Overall, the evidence suggests that CEOs are more likely to be dismissed after poor stock performance at firms with higher *powerful blockholder linkages*. This is consistent with the view that powerful blockholders are associated with better governance outcomes. In the next two sections, we explore whether powerful blockholders are related to direct valuation outcomes.

4.2 Announcement Returns in Acquisitions

For our second governance test, we examine mergers and acquisitions. These decisions have the potential to generate deviations in shareholder and manager interest (Chen, Harford, and Li, 2007). We hypothesis that powerful blockholders mitigate these divergent interests. To measure the quality of an M&A deal, we estimate the bidder announcement return as the 3-day cumulative abnormal returns using an estimation window from t=-300 to t-46. We ensure that the deals are material by requiring that the deal value exceeds 50 million dollars. We estimate a panel regression using the following equation (4):

$$Bidder\,CAR_{i,t+1} = a + \beta \times Powerful\,blockholder\,linkage_{i,t} + \delta \times X_{i,t} + \varepsilon_{i,t+1}\,. \tag{4}$$

Bidder CAR is the three day cumulative abnormal return around acquisition announcement at t+1. The dependent variable is the *powerful blockholder linkage* measure used throughout the paper. $X_{i,t}$ is a vector representing firm control variables, estimated in year *t*. For the acquisitions regressions, we include additional merger characteristics such as deal value, tender offer dummy, cash offer dummy, and same industry dummy following the convention in the literature. All specifications include year fixed effects to capture macro-economic trends and industry fixed effects to capture heterogeneity in industry merger activity. We cluster standard errors at the year-level

because acquisitions tend to happen in waves.

The results show that the *powerful shareholder linkage* measure significantly predicts higher bidder announcement returns. Panel B of Table XI shows that the coefficient estimate on *powerful blockholder linkage* remains positive and statistically significant at the 1% level. Column (1) shows that a one standard deviation increase in powerful shareholder linkage increases the bidder announcement returns by 0.45%, which is considerably large relative to the sample average of -0.36%. This specification includes controls for deal characteristics, ownership attributes, and firm characteristics. Cash offers are associated with favorable market reactions while larger deal values tend to receive lower market reactions. Column (2) shows that results are robust to the inclusion of additional firm risk and liquidity characteristics including stock return, return volatility, and illiquidity. As a robustness tests, we re-estimate the regressions without stocks that experienced forced CEO turnovers in the next year. This ensures that our results are not due to the same underlying process for forced CEO turnover. The results presented in Columns (3) and (4) show that the patterns are similar among this sample of firms.

In sum, the pattern of higher bidder announcement returns is consistent with the view that powerful blockholders provide good monitoring and governance of their portfolio firms. In the next section, we consider firm value as another governance outcome.

4.3 Firm Valuation

To the extent that the monitoring actions of powerful blockholders represent good governance, we expect firms with a greater fraction of powerful blockholders to have higher market valuations. Previous studies show that governance mechanisms are associated with higher Tobin's Q (e.g., Yermack, 1996; Fich and Shivdasani, 2006). We test this hypothesis by estimate panel regressions using the following equation (5):

$$Tobin's\,Q_{i,t+1} = \alpha + \beta \times Powerful\,blockholder\,linkage_{i,t} + \delta \times X_{i,t} + \varepsilon_{i,t+1}. \quad (5)$$

The dependent variable is Tobins' Q measured as the market-to-book ratio at the

end of year t+1. $X_{i,t}$ is a vector representing firm control variables estimated in year t. We include measures of ownership since they relate to firm value (McConnell and Servaes, 1990).

Table XI, Panel C reports the results. Column (1) shows that the *powerful blockholder linkage* measure is a positive and significant predictor of firm value. The coefficient estimate remains significant with the inclusion of firm characteristics in Columns (2). Columns (3) and (4) show that the coefficient on *powerful blockholder linkage* measure remains positive and statistically significant at the 1% level for stocks without forced CEO turnovers. A one standard deviation increase in powerful shareholder linkage increases Tobin's Q by 1.6% relative to the unconditional sample average.

4.4 Falsification Test

One remaining concern is that the *powerful blockholder linkage* measure spuriously captures an unobserved firm variable that is correlated with governance outcomes. We have constructed tests to address and rule out numerous alternative explanations in the previous sections. For example, we have addressed concerns relating to underlying economic firm links associated with shareholder linkages, board characteristics, and blockholder concentration and busyness. Yet, we recognize the lingering possibility of an omitted variable that is behind our findings.

For our final attempt to address this issue, we provides a set of falsifications tests using a measure of blockholder linkage with other firms that have *voluntary* CEO turnover. We re-estimate *all* of our key findings in this study using this variable. We argue that any possible, unaddressed omitted variable that correlates with blockholder linkages based on forced CEO turnover is likely to also relate to linkages based on voluntary CEO turnover. However, as previously explained, our power and influence channel only works through forced CEO turnover, and not voluntary CEO turnover. Therefore, we create a "placebo" test to examine whether our results are indeed working through the power and influence hypothesis we put forth in the paper. We follow the same procedure to link firms using voluntary CEO turnovers. We first identify powerful

blockholder using voluntary CEO turnover, then construct an alternative blockholder linkage measure using this definition of powerful blockholders.

Table XII presents the results. From Panel A to Panel E, we examine the forced CEO turnover, voluntary CEO turnover, bidder announcement return, CEO turnover-performance sensitivity, and firm value, respectively. We repeat the previous analyses with the same specifications and for brevity we only report the variables of interest. Overall, the results show that there is little blockholder linkage effects from voluntary CEO turnovers. These results lend further support to our argument that the governing styles/abilities of powerful blockholders can be inferred from the track records of prominent governance outcomes such as forced CEO turnovers in their portfolio companies.

5 Conclusion

It is widely recognized that institutional blockholders are monitors of corporate managers. However, monitoring activities often occurs during private, "behind-the-scenes" meetings. This makes it difficult for researchers to draw clear inferences regarding the effectiveness of blockholder monitoring.

We propose an approach to detect the ability of institutional blockholders to influence management using the occurrences of forced CEO turnover at *other* firms in the blockholders' overall portfolio. One benefit of this track-record approach is that it is unlikely to be endogenously related to the firm itself. We identify a group of powerful blockholders and find a consistent pattern of evidence to suggest that these investors have considerable power and influence in the boardroom. Our findings suggest that powerful blockholders are less likely to vote with management recommendations in director elections than other blockholders. We create a "powerful blockholder linkage" measure that strongly predicts future forced CEO turnovers. There is no effect on voluntary CEO turnovers.

These "powerful" blockholders tend to be among long-term and independent investors, and are more likely to be those who have experienced the firing of long-

tenured CEOs and chairman CEOs, or the firing of under-performing CEOs even when the overall industry performance is good. Moreover, firms with powerful blockholders display higher CEO turnover-performance sensitivities, pursue more value-increasing acquisitions, and have higher firm value. Overall, our evidence suggests that an identifiable group of powerful blockholders play an important role in corporate governance.

Our study focuses on a primary internal governance mechanism – large shareholder monitoring. It would be interesting for future research to examine whether the strength of this internal mechanism interacts with external governance.

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Appendix: Variable Definitions

Forced CEO Turnover Dummy: A dummy variable that is equal to 1 if the firm has a forced CEO turnover in the year and 0 otherwise. We obtain the data on forced and voluntary CEO turnovers for all firms in the S&P ExecuComp database during the period of 1993 to 2010 from Jenter and Kanaan (2015).

Voluntary CEO Turnover Dummy: A dummy variable that is equal to 1 if the firm has a voluntary CEO turnover in the year and 0 otherwise. We obtain the data on forced and voluntary CEO turnovers for all firms in the S&P ExecuComp database during the period of 1993 to 2010 from Jenter and Kanaan (2015).

Powerful Blockholder Linkage (Ownership>5%): We focus on the institutional blockholders of each firm. An institutional investor is considered to be a blockholder if its ownership is above 5 percent of the firm's share outstanding. We construct this measure in two steps. First, we identify a group of "powerful" block institutional investors. For each year t, we split the universe of firms in the ExecuComp database into two subsamples by whether firms have forced CEO turnovers during the year. We select the complete set of these institutional investors from all of the firms that have forced CEO turnovers. Then, among this set of investors, we define an investor as a powerful blockholder if the fraction of holdings of stocks with forced CEO turnovers in its portfolio is above the bottom tercile fraction. Second, for each firm i without any forced CEO turnovers during year t, we calculate the fraction of blockholdings that are held by the powerful blockholers among the institutional blockholders of firm i, as the degree of powerful blockholder linkage. Specifically, for firm i at quarter s, the powerful blockholder linkage is defined as:

$$\text{Powerful Blockholder Linkage}_{i,s} = \frac{\sum_{j \in \text{ Powerful Blockholders among Institional Blockholders}} H_{i,j,s}}{\sum_{j \in \text{ Institutional Blockholders}} H_{i,j,s}},$$

where $H_{i,j,s}$ is the institutional holdings of stock i by investor j. We use the yearly average powerful blockholder linkage (across four quarters) as our main measure in later analyses. The data on quarterly institutional holdings are from Thomason CDA/Spectrum 13F database.

Powerful Blockholder Linkage (Ownership>1%): We follow the same procedure as above to calculate the measure of forced blockholder linkage, but we define an institutional investor to be a blockholder if its ownership is above 1 percent of the firm's share outstanding.

Powerful Blockholder Linkage (Top 5 Institutional Investor): We follow the same procedure as above to calculate the measure of forced blockholder linkage, but we focus on the top 5 institutional investors ranked by the amount of holdings of the company's common stock.

Block Inst. Ownership (Ownership>5%): the number of shares held by the block institutional investors divided by the total number of shares outstanding. We define an institutional investor to be a blockholder if its ownership is above 5 percent of the firm's share outstanding.

Block Inst. Ownership (Ownership>1%): the number of shares held by the block institutional investors divided by the total number of shares outstanding. We define an institutional investor to be a blockholder if its ownership is above 1 percent of the firm's share outstanding.

Block Inst. Ownership (Top 5 Inst. Investor): the number of shares held by the top 5 institutional investors divided by the total number of shares outstanding.

Total Institutional Ownership: the number of shares held by all of the institutional investors divided by the number of shares outstanding.

Other Inst. Ownership (5%, 1%, Top 5): the difference between total institutional ownership and block institutional ownership (>5%, >1%, Top5), defined respectively.

CEO Tenure: the logarithm of the number of years since the CEO resumes office.

CEO Age: the logarithm of the CEO's age.

Chairman: a dummy variable that is equal to 1 if the CEO is also the chairman of the board and 0 otherwise. We obtain the information from the annual job titles of the CEO.

Founder: a dummy variable that is equal to 1 if the CEO is the same CEO when the firm first appears in the ExecuComp database and 0 otherwise.

CEO Ownership: the number of stocks held by the CEO divided by the number of shares outstanding.

Firm Size: the log value of book assets (AT).

Market-to-Book: market value of assets/book assets (AT), where the market value of assets is calculated as: stock price (PRCC_F) * shares outstanding (CSHO) + short term debt(DLC) + long term debt(DLTT) + preferred stock liquidation value (PSTKL) – deferred taxes and investment tax credits (TXDITC).

Book Leverage: total debt/book assets (AT), where the total debt is long term debt (DLTT) + short term debt (DLC).

Profitability: operating income before depreciation (OIBDP)/book assets (AT).

Stock Return: the cumulative stock return in a year.

Return Volatility: the standard deviation of monthly stock returns in a year.

Amihud Illiquidity: the Amihud (2000) illiquidity measure, at annual frequency. It averages the square root of the ratio of the absolute price change divided by daily dollar volume over each day in year *t*. It is calculated as: $Illiquidity_{i,t} = \frac{1}{D_t}\sum_{days \in t}(1000 * \sqrt{\frac{|daily\ return|}{daily\ dollar\ volume}})$,

Staggered Board Dummy: a dummy variable equal to 1 if the firm has a classified board and 0 otherwise. We obtain the data on board characteristics from RiskMetrics.

Board Size: the logarithm of the number of directors on the board.

Board Age: the logarithm of the average age of the directors on the board.

Busy Board Dummy: a dummy variable that is equal to 1 if at least one of directors of the firm is also on the boards of other companies.

Affiliated Board Members: the percentage of affiliated board members, as the ratio of the number of affiliated outside directors divided by the total number of directors on the board.

Insider Board Members: the percentage of insider board members, as the ratio of the number of inside directors divided by the total number of directors on the board.

Supermajority Dummy: a dummy variable equal to 1 if the firm has supermajority provisions in the shareholder voting and 0 otherwise.

Poison Pill Dummy: a dummy variable equal to 1 if the firm has poison pills as the anti-takeover devices and 0 otherwise.

Golden Parachute Dummy: a dummy variable equal to 1 if the CEO has severance agreement with the firm contingent on a change in corporate control and 0 otherwise.

Table I
Summary Statistics

This table presents summary statistics of the main variables used in the study. The data on quarterly stock holdings of institutional investors are from Thomson CDA/Spectrum (13F). The data on daily and monthly stock returns, trading volumes and annual accounting information are from Compustat and CRSP. We obtain the data on forced and voluntary CEO turnovers for all firms in the S&P ExecuComp database during the period of 1993 to 2010 from Jenter and Kanaan (2015). The data on CEO characteristics are obtained from ExecuComp. The data on board characteristics are obtained from ISS RiskMetrics. In our later multivariate analyses, all of the sample firms do not have forced CEO turnovers during the year in which we calculate the powerful blockholder linkage (by construction). The complete sample includes 18540 firm-year observations. For each variable, we report the mean, the median, the standard deviation and the number of observations. The detailed definitions can be found in the appendix.

	Mean	Median	Std. Dev.	N
Forced CEO Turnover Dummy	0.024	0.000	0.154	18540
Voluntary CEO Turnover Dummy	0.035	0.000	0.185	18540
Powerful Blockholder Linkage (Ownership>5%)	0.221	0.133	0.258	16385
Powerful Blockholder Linkage (Ownership>1%)	0.376	0.375	0.177	17950
Powerful Blockholder Linkage (Top 5 Inst. Investor)	0.264	0.238	0.187	17950
Block Inst. Ownership (Ownership>5%)	0.200	0.176	0.121	16385
Block Inst. Ownership (Ownership>1%)	0.470	0.470	0.189	17950
Block Inst. Ownership (Top 5 Inst. Investor)	0.267	0.262	0.100	17950
Total Inst. Ownership	0.663	0.684	0.213	18540
CEO Tenure	1.693	1.792	0.931	18540
CEO Age	4.023	4.025	0.134	18540
Chairman	0.584	1.000	0.493	18540
Founder	0.543	1.000	0.498	18540
CEO Ownership	0.026	0.001	0.066	18540
Firm Size	7.276	7.107	1.659	18540
Book Leverage	0.217	0.204	0.180	18540
Market-to-Book	1.800	1.251	2.200	18540
Profitability	0.136	0.134	0.121	18540
Stock Return	0.210	0.103	0.681	18540
Return Volatility	0.028	0.024	0.016	18540
Amihud Illiquidity	0.080	0.045	0.103	18540
Staggered Board Dummy	0.419	0.000	0.493	11464
Board Size	2.187	2.197	0.263	11464
Board Age	4.092	4.103	0.081	11464
Busy Board Dummy	0.506	1.000	0.500	11464
Affiliated Board Members	0.113	0.100	0.129	11464
Insider Board Members	0.192	0.167	0.107	11464
Supermajority Dummy	0.120	0.000	0.325	10925
Poison Pill Dummy	0.524	1.000	0.499	10925
Golden Parachute Dummy	0.631	1.000	0.482	10925

Table II
Identification of Powerful Blockholders

In this table, we identify powerful blockholders by the holding fraction of stocks with forced CEO turnover in their portfolios, from which we construct the measure of powerful blockholder linkage. For each firm, we focus on the institutional blockholders with ownership more than 5% of the company's shares outstanding.

In Panel A, for each block institutional investor, we calculate the size of portfolio holdings, and the fraction of portfolio holdings in stocks with forced CEO turnovers in the year. We separately report the statistics for the blockholders with at least one forced CEO turnover stocks. Among these investors, we identify an investor as powerful blockholder if the fraction of holdings of forced CEO turnover stocks in its portfolio is above the bottom tecile fraction in the sample. We report the mean, median and the number of investor-quarter observations.

In Panel B, we report the Pearson's correlation coefficients between the measure of powerful blockholder linkage and other major firm characteristics as well as the p-values. For each firm, powerful blockholder linkage is the fraction of intuitional holdings that are held by the powerful blockholders among all of the block institutional investors. By construction, all of the firms here do not have forced CEO turnovers in the year in which we construct the powerful blockholder linkage.

Panel A: Blockholder Holdings of Forced CEO Turnover Stocks

	Size of Portfolio Holdings ($millions)		Fraction of Holdings in Forced CEO Turnover Stocks		Number of Obs.
	Mean	Median	Mean	Median	(Quarter)
Block Institutional Investors	3312.18	302.41	3.0%	0.0%	25305
Block Institutional Investors (Holding at least 1 stock with forced CEO turnover)	15699.07	1994.95	22.3%	7.2%	3450
Powerful Blockholders (Holding at least 1 stock with forced CEO turnover)	8856.27	854.52	32.0%	15.8%	2346
Other Blockholders (Holding at least 1 stock with forced CEO turnover)	30240.04	9980.34	1.6%	1.4%	1104

Panel B: Correlation between Powerful Blockholder Linkage and Other Variables

Pearson's Correlation	Powerful Blockholder Linkage	p-value
Block Institutional Ownership	0.00	0.84
Other Institutional Ownership	0.05	0.00
Firm Size	0.06	0.00
Book Leverage	0.01	0.37
Market-to-Book	-0.02	0.00
Profitability	-0.05	0.00
Yearly Return	-0.04	0.00
Return Volatility	0.01	0.08
Amihud Illiquidity	-0.01	0.13
CEO Tenure	0.00	0.53
CEO Age	-0.01	0.17
Chairman	0.00	0.32
Founder	-0.08	0.00
CEO Ownership	-0.01	0.00

Table III
Director Voting of Powerful Institutional Blockholders

In this table, we provide an analysis of the voting records of director elections by powerful blockholders and other blockholders. We obtain a sample of mutual fund voting data from Voting Analytics from 2003 to 2008, and we aggregate the voting data at the institutional investor level. First, for each institution-stock-quarter, we calculate the average fraction of "For" votes among total votes by the investor across different director proposals of the stock. We also calculate an excess fraction as the difference between the investor's fraction of "For" votes and the overall fraction of "For" votes among all voting investors. Then, for each investor-quarter, we calculate the average (excess) fraction of "For" votes across different stocks in its portfolio. We perform both t-tests and Wilcoxon tests to compare the results between powerful blockholders and other blockholders.

Panel A reports the results based on the overall sample of stocks in the Voting Analytics data. We separately report the results for director election proposals with "For" recommendations from Institutional Shareholder Services (ISS), and the ones with "Against" or "Withhold" ISS recommendations. Panel B provides both an "in-sample" analysis on director elections of stocks covered in the ExecuComp database, and an "out-of-sample" analysis on director elections of stocks not covered in ExecuComp (i.e, we do not rely on these stocks to identify powerful blockholders).

Panel A: Full Sample Tests

Director Elections: All Proposals	Powerful Blockholders	Other Blockholders	T-test	Wilcoxon
Fraction of "For" Votes	0.876	0.917	-4.19***	-5.42***
	(322)	(939)		
Excess Fraction of "For" Votes	-0.075	-0.033	-4.27***	-5.91***
	(322)	(939)		
Director Elections: ISS Recommendation "For"				
Fraction of "For" Votes	0.909	0.948	-3.98***	-5.57***
	(322)	(939)		
Excess Fraction of "For" Votes	-0.057	-0.016	-4.09***	-5.39***
	(322)	(939)		
Director Elections: ISS Recommendation "Against" or "Withhold"				
Fraction of "For" Votes	0.489	0.516	-0.99	-1.05
	(285)	(810)		
Excess Fraction of "For" Votes	-0.284	-0.244	-1.46	-1.89*
	(285)	(810)		

Panel B: In-sample and Out-of-Sample Tests

Director Elections: Proposals of ExecuComp Stocks	Powerful Blockholders	Other Blockholders	T-test	Wilcoxon
Fraction of "For" Votes	0.881	0.922	-4.11***	-5.08***
	(318)	(939)		
Excess Fraction of "For" Votes	-0.070	-0.029	-4.14***	-5.61***
	(318)	(939)		
Director Elections: Proposals of Non-ExecuComp Stocks				
Fraction of "For" Votes	0.821	0.901	-5.55***	-5.85***
	(241)	(641)		
Excess Fraction of "For" Votes	-0.130	-0.050	-5.72***	-6.07***
	(241)	(641)		

Table IV
Predicting Forced CEO Turnover by Powerful Blockholder Linkage

In this table, we examine the relation between powerful blockholder linkage and the probability of future forced CEO turnovers. Specifically, we estimate the following probit model:

$$\text{Forced CEO Turnover Dummy}_{i,t+1} = \alpha + \beta \times \text{Powerful Blockhoder Linkage}_{i,t} + \delta \times X_{i,t} + \varepsilon_{i,t+1},$$

where the dependent variable is a dummy variable that is equal to 1 if the firm has a forced CEO turnover in year t+1 and 0 otherwise. We always cluster the errors at the firm level. All the independent variables are taken in year t. For each column, we report the conditional marginal effect of powerful blockholder linkage, as the ratio of the increase in CEO turnover probability due to one standard deviation increase in powerful blockholder linkage divided by the predicted probability. ***, ** and * represent significance levels at 1%, 5%, and 10%, respectively, using robust standard errors with t-statistics given in parentheses.

Dep. Var.: Forced Turnover Dummy	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.338***	0.339***	0.313***	0.290***
	(4.18)	(4.13)	(3.73)	(3.44)
Controls				
CEO Tenure	-0.022	-0.025	-0.021	-0.023
	(-0.69)	(-0.80)	(-0.65)	(-0.68)
CEO Age	-0.638***	-0.610***	-0.509***	-0.393**
	(-3.84)	(-3.67)	(-2.86)	(-2.21)
Chairman	-0.111**	-0.097**	-0.100**	-0.099**
	(-2.45)	(-2.12)	(-2.08)	(-2.04)
Founder	-0.206***	-0.199***	-0.207***	-0.235***
	(-3.63)	(-3.48)	(-3.39)	(-3.74)
CEO Ownership	-1.614**	-1.891***	-2.009***	-2.089***
	(-2.56)	(-2.88)	(-2.85)	(-2.81)
Block Inst. Ownership		0.152	0.023	0.085
		(0.82)	(0.12)	(0.43)
Other Inst. Ownership		-0.462***	-0.337**	-0.185
		(-2.97)	(-1.97)	(-0.96)
Change in Block Inst. Ownership		-0.405	-0.278	0.052
		(-1.30)	(-0.93)	(0.18)
Change in Other Inst. Ownership		-1.000***	-0.798***	0.009
		(-3.31)	(-2.76)	(0.03)
Firm Size			0.002	0.031
			(0.10)	(1.51)
Book Leverage			0.192	0.113
			(1.42)	(0.82)
Market-to-Book			-0.039**	-0.016
			(-2.19)	(-1.08)
Profitability			-0.693***	-0.223
			(-3.70)	(-1.10)
Stock Return				-0.302***
				(-5.45)
Return Volatility				12.190***
				(6.11)
Amihud Illiquidity				0.025
				(0.08)
Year FE	Y	Y	Y	Y
Industry FE (2-digit SIC)	-	-	Y	Y
Cluster	Firm	Firm	Firm	Firm
Number of Observations	16,385	16,385	16,385	16,385
Conditional Marginal Effects	21%***	21%***	20%***	19%***

Table V
Predicting Voluntary CEO Turnover by Powerful Blockholder Linkage

In this table, we examine the relation between voluntary blockholder linkage and the probability of future voluntary CEO turnovers. Specifically, we estimate the following probit model:

$$\text{Voluntary CEO Turnover Dummy}_{i,t+1} = \alpha + \beta \times \text{Powerful Blockhoder Linkage}_{i,t} + \delta \times X_{i,t} + \varepsilon_{i,t+1},$$

where the dependent variable is a dummy variable that is equal to 1 if the firm has a voluntary CEO turnover in year t+1 and 0 otherwise. We always cluster the errors at the firm level. All the independent variables are taken in year t. For each column, we report the conditional marginal effect of powerful blockholder linkage on voluntary CEO turnover, as the ratio of the increase in voluntary CEO turnover probability due to one standard deviation increase in powerful blockholder linkage divided by the predicted probability at the mean. ***, ** and * represent significance levels at 1%, 5%, and 10%, respectively, using robust standard errors with t-statistics given in parentheses.

Dep. Var.: Voluntary Turnover Dummy	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.027	0.022	0.024	0.028
	(0.29)	(0.24)	(0.25)	(0.30)
Controls				
CEO Tenure	-0.009	-0.011	-0.014	-0.014
	(-0.34)	(-0.42)	(-0.49)	(-0.47)
CEO Age	2.232***	2.227***	2.352***	2.379***
	(9.93)	(9.92)	(10.21)	(10.28)
Chairman	0.166***	0.164***	0.152***	0.150***
	(3.20)	(3.11)	(2.82)	(2.78)
Founder	0.133**	0.139**	0.164***	0.160**
	(2.28)	(2.37)	(2.65)	(2.55)
CEO Ownership	-1.347***	-1.364***	-1.322***	-1.296***
	(-3.38)	(-3.30)	(-3.03)	(-2.98)
Block Inst. Ownership		-0.271	-0.219	-0.190
		(-1.27)	(-1.02)	(-0.89)
Other Inst. Ownership		0.006	-0.175	-0.259
		(0.04)	(-1.00)	(-1.34)
Change in Block Inst. Ownership		-0.034	-0.019	0.082
		(-0.11)	(-0.06)	(0.27)
Change in Other Inst. Ownership		-0.344	-0.372	-0.103
		(-1.31)	(-1.36)	(-0.34)
Firm Size			0.045**	0.038*
			(2.51)	(1.70)
Book Leverage			-0.191	-0.181
			(-1.33)	(-1.25)
Market-to-Book			0.018**	0.020**
			(2.32)	(2.48)
Profitability			0.040	0.108
			(0.18)	(0.46)
Stock Return				-0.104**
				(-2.10)
Return Volatility				1.975
				(0.86)
Amihud Illiquidity				-0.449
				(-1.14)
Year FE	Y	Y	Y	Y
Industry FE (2-digit SIC)	-	-	Y	Y
Cluster	Firm	Firm	Firm	Firm
Number of Observations	16,385	16,385	16,385	16,385
Conditional Marginal Effects	2%	2%	2%	2%

Table VI
Predicting Forced CEO Turnover: Blockholder Experience

In this table, we deepen our analysis of the blockholder linkage effects on CEO turnovers, by distinguishing whether the fired CEO from the linked firm is the chairman of the board or by the CEO tenure. We follow the same specifications as in Table IV where the dependent variable is always the forced CEO turnover dummy in the next year. For brevity, we only report the coefficients of the interested variables.

In Panel A, we distinguish the linked firms with forced CEO turnovers by CEO tenure. In each year, we separate the fired CEOs into long-tenured CEOs and short-tentured CEOs by the sample median. We calculate two powerful blockholder linkage measures: one is only based on the forced turnover firms in which the fired CEO has short tenture, and the other one is only based on the forced turnover firms in which the fired CEO has long tenure. To compare the economic significances, we standardize the two linkage measures to have a mean of 0 and a standard deviation of 1 (by subtracting the mean and dividing by the standard deviation, respectively). We test the statistical difference in coefficient of the two linkage measures and report the Chi-square statistics accordingly.

In Panel B, we distinguish the linked firms with forced CEO turnovers by whether the fired CEO is the chairman of the board or not. We calculate two powerful blockholder linkage measures: one is only based on the forced turnover firms in which the fired CEO is not the chairman of the board, and the other one is only based on the forced turnover firms in which the fired CEO is the chairman of the board. To compare the economic significances, we standardize the two linkage measures to have a mean of 0 and a standard deviation of 1 (by subtracting the mean and dividing by the standard deviation, respectively). We test the statistical difference in coefficient of the two linkage measures and report the Chi-square statistics accordingly.

In Panel C, we distinguish the linked firms with forced CEO turnovers by the overall industry performance. We calculate two powerful blockholder linkage measures: one is only based on the forced turnover firms for which the industry average return is above the market return, and the other is based on the forced turnover firms for which the industry average return is below the market return. To compare the economic significances, we standardize the two linkage measures to have a mean of 0 and a standard deviation of 1 (by subtracting the mean and dividing by the standard deviation, respectively). We test the statistical difference in coefficient of the two linkage measures and report the Chi-square statistics accordingly. ***, ** and * represent significance levels at 1%, 5%, and 10%, respectively, using robust standard errors with t-statistics given in parentheses.

Table VI (Continued)

Panel A: Linkages with Forced Turnover Firms by CEO Tenure

Dep. Var.: Forced Turnover Dummy	(1)	(2)	*(3)*	(4)
Powerful Blockholder Linkage	0.013	0.010	0.006	0.006
(with Forced CEO Turnover Firms: CEO	(0.61)	(0.45)	(0.27)	(0.28)
with Short Tenure)				
Powerful Blockholder Linkage	0.080***	0.082***	0.079***	0.075***
(From Forced CEO Turnover Firms: CEO	(3.83)	(3.92)	(3.73)	(3.53)
with Long Tenure)				
Same Specification as in Table IV	Y	Y	Y	Y
Chi-square Test: Difference in Coefficients	4.08**	4.80**	4.80**	4.21**
Number of Observations	15,915	15,915	15,915	15,915

Panel B: Linkages with Forced Turnover Firms by Whether CEO is Chairman

Dep. Var.: Forced Turnover Dummy	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.027	0.024	0.014	0.008
(with Forced Turnover Firms: CEO not as Chairman)	(1.25)	(1.09)	(0.62)	(0.36)
Powerful Blockholder Linkage	0.070***	0.072***	0.068***	0.066***
(with Forced Turnover Firms: CEO as Chairman)	(3.36)	(3.41)	(3.19)	(3.08)
Same Specification as in Table IV	Y	Y	Y	Y
Chi-square Test: Difference in Coefficients	1.86	2.26	2.72*	3.01*
Number of Observations	15,915	15,915	15,915	15,915

Panel C: Linkages with Forced Turnover Firms by Overall Industry Performance

Dep. Var.: Forced Turnover Dummy	(1)	(2)	*(3)*	(4)
Powerful Blockholder Linkage	0.086***	0.088***	0.084***	0.081***
(with Forced CEO Turnover Firms: Industry	(4.17)	(4.22)	(3.93)	(3.75)
Average Return above Market Return)				
Powerful Blockholder Linkage	0.026	0.023	0.018	0.015
(with Forced CEO Turnover Firms: Industry	(1.24)	(1.07)	(0.82)	(0.70)
Average Return below Market Return)				
Same Specification as in Table IV	Y	Y	Y	Y
Chi-square Test: Difference in Coefficients	3.70**	4.32**	4.28**	4.10**
Number of Observations	15,915	15,915	15,915	15,915

Table VII
Predicting Forced CEO Turnover: Blockholder Motivation

In this table, we further explore the shareholder linkage effects on CEO turnovers, by distinguishing blockholders by their investment styles and investor types. We also provide a "placebo" test based on the linkage from non-block large institutional investors that hold stocks with forced CEO turnovers. We follow the same specifications as in Table IV where the dependent variable is always the forced CEO turnover dummy in the next year. For brevity, we only report the coefficients of the interested variables.

In Panel A, we provide a "placebo" test and examine the relationship between the linkage from non-block large institutional investors and the forced CEO turnover. We focus on all of the top 10 largest institutional investors of each firm but with an ownership below 5% of the firm's shares outstanding. We follow the exact same steps as before to calculate the non-block large shareholder linkage.

In Panel B, we distinguish blockholders by their investment styles. We use data on institutional investor style classification (Transient/Quasi-indexer/Dedicated) obtained from Brian Bushee's website. We follow the same steps as before to calculate the transient (non-transient) powerful blockholder linkage, as the fraction of holdings of transient (non-transient) powerful blockholders among the firm's blockholders. To compare the economic significances, we standardize the measures of transient and non-transient powerful block linkage to have a mean of 0 and a standard deviation of 1 (by subtracting the mean and dividing by the standard deviation, respectively). We test the statistical difference in coefficient of the two linkage measures and report the Chi-square statistics accordingly.

In Panel D, we distinguish blockholders by their types. First, we divide institutions into two groups: independent institutions (investment companies, independent investment advisors, public pension funds) and grey institutions (bank trusts, insurance companies, corporate pension funds, and other institutions). Second, we separately calculate the powerful blockholder linkage measures based on the independent institutions and the grey institutions. We follow the same steps as before to calculate the grey (independent) powerful blockholder linkage, as the fraction of holdings of grey (independent) powerful blockholders among the firm's blockholders. To compare the economic significances, we standardize the two linkage measures to have a mean of 0 and a standard deviation of 1 (by subtracting the mean and dividing by the standard deviation, respectively). We test the statistical difference in coefficient of the two linkage measures and report the Chi-square statistics accordingly. ***, ** and * represent significance levels at 1%, 5%, and 10%, respectively, using robust standard errors with t-statistics given in parentheses.

Table VII (Continued)

Panel A: Linkage from Non-Block Large Institutional Investors

Dep. Var.: Forced Turnover Dummy	(1)	(2)	(3)	(4)
Non-block Large Shareholder Linkage	0.097	0.111	0.158	0.145
	(0.63)	(0.72)	(1.03)	(0.94)
Same Specification as in Table IV	Y	Y	Y	Y
Number of Observations	16,385	16,385	16,385	16,385

Panel B: Linkages from Transient and Non-Transient Blockholders

Dep. Var.: Forced Turnover Dummy	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.022	0.020	0.011	0.001
(Transient Investors)	(0.98)	(0.90)	(0.46)	(0.02)
Powerful Blockholder Linkage	0.085***	0.086***	0.084***	0.079***
(Non-transient Investors)	(4.09)	(4.07)	(3.88)	(3.66)
Same Specification as in Table IV	Y	Y	Y	Y
Chi-square Test: Difference in Coefficients	5.16**	5.38**	6.38**	6.93***
Number of Observations	15,813	15,813	15,813	15,813

Panel C: Linkages from Grey and Independent Blockholders

Dep. Var.: Forced Turnover Dummy	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.022	0.021	0.019	0.016
(Grey Investors)	(1.09)	(1.05)	(0.93)	(0.76)
Powerful Blockholder Linkage	0.083***	0.084***	0.079***	0.072***
(Independent Investors)	(3.97)	(3.93)	(3.62)	(3.29)
Same Specification as in Table IV	Y	Y	Y	Y
Chi-square Test: Difference in Coefficients	5.09**	5.26**	4.79**	4.13**
Number of Observations	15,813	15,813	15,813	15,813

Table VIII
Predicting Forced CEO Turnover: Excluding Other Linkage Channels

In this table, we perform robustness checks to the previous results on forced CEO turnovers, and consider specifications that help to rule-out alternative linkage channels. We repeat all of the previous analyses with the same specifications as in Table IV. For brevity we only report the variables of interests. We always report the conditional marginal effect of powerful blockholder linkage, as the ratio of the increase in CEO turnover probability due to one standard deviation increase in powerful blockholder linkage divided by the predicted probability.

In Panel A, we exclude the interlocking board channel. We use the data on firm directors from the IRRC Risk Metrics database from 1996 to 2010. We exclude all of the sample firms that have one or more common directors with the firms with forced CEO turnovers in the year when we construct the powerful blockholder linkage measure.

In Panel B, we exclude the industry linkage channel. We only identify powerful blockholders of firms from different industries (different 1-digit SIC code) with respect to the sample firms when we construct the powerful blockholder linkage.

In Panel C, exclude the regional linkage channel. We only identify powerful blockholders of firms located in different regions with respect to the sample firms when we construct the powerful blockholder linkage. We identify the locations of firms by ten regions: New England (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut), Middle Atlantic (New York, Pennsylvania, New Jersey), East North Central (Wisconsin, Michigan, Illinois, Indiana, Ohio), West North Central (Missouri, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa), South Atlantic (Delaware, Maryland, Washington D.C., Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida), East South Central (Kentucky, Tennessee, Mississippi, Alabama), West South Central (Oklahoma, Texas, Arkansas, Louisiana), Rocky Mountain (Montana, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico), Northwest (Oregon, Washington, Idaho) and California.

In Panel D, we exclude the supply chain channel. We perform the analyses by excluding the sample firms whose suppliers or customers have been subject to forced CEO turnovers in the year when we construct the powerful blockholder linkage measure. We identify the supply chain relationship using the Compustat Customer Segments data.

In Panel E, we exclude the historical CEO turnover channel. We perform the analyses only based on firms that that do not have forced CEO turnovers in the previous five years. ***, ** and * represent significance levels at 1%, 5%, and 10%, respectively, using robust standard errors with t-statistics given in parentheses.

Table VIII (Continued)

Dep. Var.: Forced Turnover Dummy				
Panel A: Excluding Interlock Board Channel	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.425***	0.437***	0.449***	0.423***
	(3.96)	(4.09)	(4.01)	(3.69)
Same Specification as in Table IV	Y	Y	Y	Y
Conditional Marginal Effects	26%***	27%***	29%***	28%***
Number of Observations	10,544	10,544	10,544	10,544
Panel B: Excluding Industry Channel	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.308***	0.312***	0.315***	0.289***
	(3.82)	(3.83)	(3.79)	(3.47)
Same Specification as in Table IV	Y	Y	Y	Y
Conditional Marginal Effects	19%***	19%***	20%***	19%***
Number of Observations	16,385	16,385	16,385	16,385
Panel C: Excluding Regional Channel	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.323***	0.322***	0.299***	0.274***
	(4.06)	(3.99)	(3.60)	(3.25)
Same Specification as in Table IV	Y	Y	Y	Y
Conditional Marginal Effects	20%***	20%***	19%***	18%***
Number of Observations	16,129	16,129	16,129	16,129
Panel D: Excluding Supply Chain Channel	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.345***	0.346***	0.318***	0.295***
	(4.25)	(4.20)	(3.77)	(3.47)
Same Specification as in Table IV	Y	Y	Y	Y
Conditional Marginal Effects	21%***	21%***	20%***	19%***
Number of Observations	16,195	16,195	16,195	16,195
Panel E: Excluding Forced History Channel	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.330***	0.335***	0.310***	0.292***
	(3.92)	(3.92)	(3.54)	(3.30)
Same Specification as in Table IV	Y	Y	Y	Y
Conditional Marginal Effects	20%***	21%***	20%***	19%***
Number of Observations	15,127	15,127	15,127	15,127

Table IX
Predicting Forced CEO Turnover: Alternative Measures

In this table, we perform additional robustness checks to the previous results on forced CEO turnovers, using alternative measures of powerful blockholder linkage. We repeat all of the previous analyses with the same specifications as in Table IV and for brevity we only report the variables of interests. We always report the conditional marginal effect of powerful blockholder linkage, as the ratio of the increase in CEO turnover probability due to one standard deviation increase in powerful blockholder linkage divided by the predicted probability.

In Panel A, we follow the same procedure as before to calculate the measure of powerful blockholder linkage, but focus on the top 5 institutional investors of each firm ranked by the amount of holdings of the company's common stock. In Panel B, we follow the same procedure as before to calculate the measure of powerful blockholder linkage, but identify an investor as a block holder if its ownership is above 1 percent of the firm's share outstanding. In Panel C, we still define blockholder by the 5 percent criteria. However, we identify an investor as the powerful blockholder if the fraction of holdings of stocks with forced CEO turnovers in its portfolio is above the sample median fraction. In Panel D, we still define blockholder by the 5 percent criteria. However, we identify an investor as the powerful blockholder if the fraction of holdings of stocks with forced CEO turnovers in its portfolio is above the bottom quintile fraction.

Dep. Var.: Forced Turnover Dummy				
Panel A: Top 5 Institutional Investors	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.486***	0.479***	0.431***	0.403***
	(3.87)	(3.86)	(3.40)	(3.13)
Same Specification as in Table IV	Y	Y	Y	Y
Conditional Marginal Effects	22%***	21%***	20%***	19%***
Number of Observations	17,950	17,950	17,950	17,950
Panel B: Blockholders (ownership>1%)	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.535***	0.532***	0.471***	0.426***
	(3.42)	(3.46)	(3.03)	(2.72)
Same Specification as in Table IV	Y	Y	Y	Y
Conditional Marginal Effects	23%***	23%***	21%***	19%***
Number of Observations	17,950	17,950	17,950	17,950
Panel C: Alternative Cutoff (median)	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.399***	0.381***	0.343***	0.321***
	(3.63)	(3.43)	(2.95)	(2.71)
Same Specification as in Table IV	Y	Y	Y	Y
Conditional Marginal Effects	16%***	15%***	14%***	14%***
Number of Observations	16,385	16,385	16,385	16,385
Panel D: Alternative Cutoff (1st quintile)	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.224***	0.229***	0.201***	0.180**
	(3.26)	(3.27)	(2.83)	(2.51)
Same Specification as in Table IV	Y	Y	Y	Y
Conditional Marginal Effects	17%***	18%***	16%***	14%**
Number of Observations	16,385	16,385	16,385	16,385

Table X
Predicting Forced CEO Turnover: Additional Controls

In this table, we examine the relation between powerful blockholder linkage and the probability of future forced CEO turnovers with additional controls.

In Panel A, we include additional controls on board characteristics and other corporate governance characteristics. Columns (1)-(2) are based on the main measure used in Table IV. Columns (3) and (4) are based on alternative measures of powerful blockholder linkage, with blockholders identified by whether the investor holds more than 1% of the shares outstanding, or is one of the top 5 institutional investors ranked by the amount of holdings of the company's common stock, respectively. All the independent variables are taken in year t. Year and industry fixed effects at the two-digit SIC level are included in all specifications. For each column, we report the model-based predicted probability at the mean. We also calculate the conditional marginal effect of powerful blockholder linkage, as the ratio of the increase in CEO turnover probability due to one standard deviation increase in powerful blockholder linkage divided by the predicted probability.

In Panel B, we control for blockholder concentration and blockholder busyness. For every firm, we define blockholder concentration as the Herfindahl index of ownerships among the institutional blockholders that hold the firm's stock. We define blockholder busyness as the logarithm of the holdings-weighted number of block-owned stocks across the institutional blockholders that hold the firm's stock. We repeat all of the previous analyses with the same specifications as in Table IV. For brevity we only report the variables of interests. ***, ** and * represent significance levels at 1%, 5%, and 10%, respectively, using robust standard errors with t-statistics given in parentheses.

Panel A: Control for Board Characteristics and Other Governance Characteristics

Dep. Var.: Forced Turnover Dummy	Main Measure		Top 5 Inst. Investors	Blockholder Ownership>1%
	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.282***	0.282***	0.419**	0.576***
	(2.64)	(2.64)	(2.56)	(2.69)
Controls				
CEO Tenure	-0.017	-0.016	-0.020	-0.017
	(-0.36)	(-0.34)	(-0.45)	(-0.37)
CEO Age	-0.302	-0.300	-0.137	-0.152
	(-1.10)	(-1.09)	(-0.52)	(-0.57)
Chairman	-0.123**	-0.125**	-0.171***	-0.172***
	(-1.96)	(-2.01)	(-2.80)	(-2.80)
Founder	-0.191**	-0.192**	-0.204**	-0.195**
	(-2.16)	(-2.16)	(-2.36)	(-2.25)
CEO Ownership	-3.062*	-3.021*	-1.855	-1.909
	(-1.70)	(-1.69)	(-1.43)	(-1.47)
Block Inst. Ownership	0.257	0.252	0.273	0.119
	(1.00)	(0.98)	(0.86)	(0.59)
Other Inst. Ownership	-0.043	-0.051	-0.087	-0.868*
	(-0.16)	(-0.19)	(-0.32)	(-1.72)
Change in Block Inst. Ownership	0.458	0.456	1.428**	0.601
	(1.04)	(1.04)	(2.55)	(1.43)
Change in Other Inst. Ownership	0.245	0.246	0.164	-0.554
	(0.56)	(0.56)	(0.36)	(-0.76)
Firm Size	0.040	0.039	0.048*	0.062**
	(1.32)	(1.29)	(1.67)	(2.02)
Book Leverage	0.249	0.246	0.168	0.136
	(1.43)	(1.42)	(1.00)	(0.82)

Market-to-Book	-0.003	-0.003	-0.004	0.002
	(-0.10)	(-0.10)	(-0.13)	(0.08)
Profitability	-0.456	-0.454	-0.433	-0.323
	(-1.27)	(-1.27)	(-1.31)	(-0.98)
Stock Return	-0.304***	-0.304***	-0.296***	-0.290***
	(-3.82)	(-3.82)	(-3.92)	(-3.80)
Return Volatility	13.508***	13.472***	15.158***	15.118***
	(4.37)	(4.36)	(5.04)	(5.05)
Amihud Illiquidity	-0.138	-0.148	-0.229	-0.425
	(-0.33)	(-0.35)	(-0.53)	(-0.98)
Staggered Board Dummy	0.081	0.086	0.088	0.090
	(1.17)	(1.20)	(1.27)	(1.30)
Board Size	0.077	0.079	0.074	0.076
	(0.56)	(0.57)	(0.55)	(0.57)
Board Age	-0.334	-0.326	-0.328	-0.362
	(-0.87)	(-0.85)	(-0.87)	(-0.95)
Busy Board Dummy	0.055	0.056	0.054	0.052
	(0.87)	(0.88)	(0.86)	(0.83)
Affiliated Board Members (%)	-0.147	-0.150	-0.201	-0.181
	(-0.61)	(-0.63)	(-0.88)	(-0.79)
Insider Board Members (%)	-0.411	-0.402	-0.641**	-0.630**
	(-1.33)	(-1.31)	(-2.08)	(-2.05)
Supermajority Dummy		-0.044	-0.035	-0.033
		(-0.52)	(-0.43)	(-0.40)
Poison Pill Dummy		-0.019	-0.033	-0.029
		(-0.31)	(-0.53)	(-0.48)
Golden Parachute Dummy		0.035	0.053	0.058
		(0.54)	(0.84)	(0.90)
Year FE	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y
Clustering	Firm	Firm	Firm	Firm
Number of Observations	10,024	10,024	10,741	10,741
Conditional Marginal Effects	19%	19%	21%	26%

Panel B: Control for Blockholder Concentration and Blockholder Busyness

Dep. Var.: Forced Turnover Dummy	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.371***	0.355***	0.327***	0.308***
	(4.26)	(4.08)	(3.69)	(3.46)
Blockholder Concentration	-0.232**	-0.343***	-0.294**	-0.337**
	(-2.55)	(-2.77)	(-2.25)	(-2.49)
Blockholder Busyness	-0.027	-0.018	-0.015	-0.016
	(-1.24)	(-0.84)	(-0.67)	(-0.69)
Same Specification as in Table IV	Y	Y	Y	Y
Number of Observations	16,385	16,385	16,385	16,385
Conditional Marginal Effects	23%	22%	21%	20%

Table XI
Powerful Blockholder Linkage and Other Governance Outcomes

In this table, we examine the relation between powerful blockholder linkage and other commonly used corporate governance outcomes in the literature. Specifically, we focus on the CEO turnover-performance sensitivity, the bidder announcement returns in mergers and the Tobin's Q.

In Panel A, we focus on the CEO turnover and firm performance sensitivity. The dependent variable is the forced CEO turnover dummy. We split the full sample into two subsamples by the median value of powerful blockholder linkage. Our focus is on the sensitivity of forced CEO turnover on stock returns. For the convenience of comparsion, we standardize the stock returns in the previous year to have a mean of 0 and a standard deviation of 1. We also report the marginal effects of the probit regressions. Columns (1) and (2) are based on the subsample with powerful blockholder linkage above sample median, while columns (3)-(4) are based on the subsample with powerful blockholder linkage below the sample median.

In Panel B, we focus on the bidder announcement returns, and estimate the following model:

$$\text{Bidder CAR } (-1, \ +1)_{i,t+1} = \alpha + \beta \times \text{Powerful Blockhoder Linkage}_{i,t} + \delta \times X_{i,t} + \varepsilon_{i,t+1},$$

where the dependent variable is the 3-day cumulative abnormal returns of the bidder around the merger announcement date in year t+1. We use the market model to estimate the abnormal returns with window (-300, -46) before the announcement date as the estimation period. We obtain the data on mergers from SDC Platinum's M&A database for the period of 1994 to 2010. We require the deal value to be more than 50 million dollars. We always control for major deal characteristics: *Deal Value, as* the logarithm of the dollar value of the merger; *Tender Offer Dummy, as* a dummy variable equal to 1 if the merger is a tender offer and 0 otherwise; *Cash Offer Dummy, as* a dummy variable equal to 1 if the method of payment is only by cash and 0 otherwise; *Same Industry Dummy, as* a dummy variable equal to 1 if the target and the bidder have the same two-digit SIC industry code. We always cluster the errors at the year level. All the independent variables are taken in year t.

In Panel C, we examine the relation between powerful blockholder linkage and firm value in the next year. Specifically, we estimate the following model:

$$\text{Tobin's Q}_{i,t+1} = \alpha + \beta \times \text{Powerful Blockhoder Linkage}_{i,t} + \delta \times X_{i,t} + \varepsilon_{i,t+1},$$

where the dependent variable is the Tobin's Q (market-to-book ratio) at the end of year t+1. Columns (1)-(2) are based on the full sample while in columns (3)-(4) we exclude the firms with forced CEO turnover in year t+1. We always cluster the errors at the firm level. All the independent variables are taken in year t. ***, ** and * represent significance levels at 1%, 5%, and 10%, respectively, using robust standard errors with t-statistics given in parentheses.

Table XI (Continued)

Panel A: CEO Turnover-Performance Sensitivity (Marginal Effects)

Dep. Var.: Forced Turnover Dummy	Power Blockholder Linkage (above sample median)		Power Blockholder Linkage (below sample median)	
	(1)	(2)	(3)	(4)
Stock Return (Standardized)	-0.015***	-0.010***	-0.007***	-0.005***
	(-4.75)	(-4.59)	(-3.08)	(-3.10)
Controls				
CEO Tenure	-0.003	-0.002	-0.000	-0.000
	(-1.16)	(-0.83)	(-0.27)	(-0.08)
CEO Age	-0.040***	-0.024**	-0.018*	-0.004
	(-3.31)	(-2.31)	(-1.68)	(-0.47)
Chairman	-0.004	-0.004	-0.005*	-0.004
	(-1.19)	(-1.35)	(-1.66)	(-1.56)
Founder	-0.007*	-0.007**	-0.011***	-0.012***
	(-1.68)	(-1.98)	(-3.22)	(-3.61)
CEO Ownership	-0.128**	-0.107**	-0.061*	-0.058*
	(-2.55)	(-2.46)	(-1.74)	(-1.75)
Block Inst. Ownership	0.006	0.006	-0.004	-0.008
	(0.45)	(0.53)	(-0.37)	(-0.87)
Other Inst. Ownership	-0.011	0.007	-0.027***	-0.021**
	(-0.96)	(0.58)	(-2.78)	(-2.45)
Change in Block Inst. Ownership	0.005	0.018	-0.025	-0.014
	(0.24)	(1.03)	(-1.41)	(-1.07)
Change in Other Inst. Ownership	0.001	0.013	-0.024	-0.010
	(0.03)	(0.81)	(-1.19)	(-0.70)
Firm Size		0.001		0.001
		(1.09)		(1.24)
Book Leverage		0.008		0.004
		(1.00)		(0.55)
Market-to-Book		-0.001		-0.000
		(-0.83)		(-0.91)
Profitability		-0.011		-0.000
		(-0.84)		(-0.14)
Return Volatility		0.520***		0.400***
		(4.62)		(4.09)
Amihud Illiquidity		0.013		-0.000
		(0.81)		(-0.03)
Year FE	Y	Y	Y	Y
Industry FE (2-digit SIC)	-	Y	-	Y
Cluster	Firm	Firm	Firm	Firm
Number of Observations	8,193	8,193	8,192	8,192

Table XI (Continued)

Panel B: Bidder Announcement Returns in Mergers

Dep. Var.: Bidder CAR (-1,+1)	Full Sample		No Forced CEO Turnover	
	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.018***	0.017***	0.020***	0.019***
	(3.26)	(3.17)	(3.72)	(3.57)
Controls				
Deal Value	-0.005***	-0.005***	-0.005***	-0.005***
	(-5.00)	(-5.17)	(-5.59)	(-5.55)
Tender Offer Dummy	0.002	0.002	0.003	0.003
	(0.35)	(0.39)	(0.53)	(0.61)
Cash Offer Dummy	0.016***	0.015***	0.015***	0.014***
	(4.84)	(4.21)	(4.70)	(4.05)
Same Industry Dummy	0.002	0.002	0.001	0.001
	(0.36)	(0.35)	(0.24)	(0.22)
CEO Tenure	0.002	0.002	0.003	0.003
	(0.92)	(0.81)	(1.55)	(1.49)
CEO Age	0.023	0.022	0.022	0.023
	(1.60)	(1.49)	(1.55)	(1.51)
Chairman	0.002	0.002	0.001	0.000
	(0.70)	(0.49)	(0.25)	(0.03)
Founder	0.003	0.005	0.001	0.003
	(0.55)	(0.81)	(0.23)	(0.45)
CEO Ownership	0.017	0.016	0.030	0.029
	(0.51)	(0.46)	(0.89)	(0.83)
Block Inst. Ownership	0.020	0.017	0.015	0.012
	(1.27)	(1.12)	(0.93)	(0.80)
Other Inst. Ownership	0.018	0.016	0.022	0.022
	(1.38)	(1.17)	(1.61)	(1.48)
Change in Block Inst. Ownership	0.032	0.030	0.038	0.037
	(1.06)	(1.03)	(1.27)	(1.27)
Change in Other Inst. Ownership	0.011	-0.003	0.011	-0.006
	(0.31)	(-0.07)	(0.29)	(-0.15)
Firm Size	-0.002	-0.002	-0.003*	-0.002
	(-1.72)	(-1.74)	(-1.85)	(-1.59)
Book Leverage	0.017*	0.014	0.021*	0.018
	(2.02)	(1.62)	(2.08)	(1.73)
Market-to-Book	0.001**	0.001*	0.001**	0.001*
	(2.53)	(1.92)	(2.55)	(1.92)
Profitability	0.040***	0.037**	0.038***	0.035**
	(3.27)	(2.78)	(3.18)	(2.64)
Stock Return		0.007**		0.008***
		(2.59)		(3.47)
Return Volatility		-0.391		-0.370
		(-1.28)		(-1.17)
Amihud Illiquidity		0.031		0.050
		(0.56)		(0.87)
Year FE	Y	Y	Y	Y
Industry FE (2-digit SIC)	Y	Y	Y	Y
Cluster	Year	Year	Year	Year
R-squared	0.142	0.150	0.152	0.161
Number of Observations	1,309	1,309	1,282	1,282

Table XI (Continued)

Panel C: Firm Value

Dep. Var.: Tobin's Q	Full Sample		No Forced CEO Turnover	
	(1)	(2)	(3)	(4)
Powerful Blockholder Linkage	0.076**	0.097***	0.084**	0.106***
	(2.29)	(2.97)	(2.50)	(3.18)
Controls				
CEO Tenure	0.006	0.010	0.006	0.009
	(0.41)	(0.62)	(0.36)	(0.56)
CEO Age	-0.314***	-0.242**	-0.319***	-0.250**
	(-2.92)	(-2.45)	(-2.91)	(-2.49)
Chairman	-0.036	-0.037	-0.038	-0.039
	(-1.40)	(-1.47)	(-1.48)	(-1.54)
Founder	0.055*	0.032	0.057*	0.033
	(1.83)	(1.12)	(1.86)	(1.16)
CEO Ownership	0.257	0.219	0.255	0.216
	(1.25)	(1.08)	(1.22)	(1.05)
Block Inst. Ownership	-0.237**	-0.295***	-0.235**	-0.298***
	(-2.20)	(-2.79)	(-2.15)	(-2.76)
Other Inst. Ownership	0.308***	-0.134	0.315***	-0.136
	(2.97)	(-1.37)	(3.00)	(-1.37)
Change in Block Inst. Ownership	-0.157	-0.219**	-0.136	-0.197*
	(-1.53)	(-2.10)	(-1.29)	(-1.85)
Change in Other Inst. Ownership	0.005	-0.108	0.020	-0.093
	(0.04)	(-0.99)	(0.17)	(-0.83)
Firm Size	-0.067***	-0.109***	-0.069***	-0.112***
	(-5.11)	(-6.58)	(-5.23)	(-6.72)
Book Leverage	-0.436***	-0.367***	-0.444***	-0.374***
	(-4.56)	(-4.14)	(-4.58)	(-4.16)
Market-to-Book	0.293***	0.275***	0.289***	0.272***
	(5.39)	(4.75)	(5.32)	(4.69)
Profitability	2.273***	2.244***	2.303***	2.272***
	(7.30)	(7.20)	(7.28)	(7.17)
Stock Return		0.036		0.034
		(0.84)		(0.80)
Return Volatility		2.015		1.981
		(1.19)		(1.14)
Amihud Illiquidity		-1.567***		-1.593***
		(-6.05)		(-6.08)
Year FE	Y	Y	Y	Y
Industry FE (2-digit SIC)	-	-	Y	Y
Cluster	Firm	Firm	Firm	Firm
R-squared	0.480	0.488	0.480	0.488
Number of Observations	14,603	14,603	14,251	14,251

Table XII
"Placebo" Tests: Blockholder Linkage with Voluntary CEO Turnovers

In this table, we provide some placebo tests using a measure of blockholder linkage with other firms that have voluntary CEO turnovers. We follow the same procedure as previously used when we construct the powerful blockholder linkage. However, instead of linking with firms with forced CEO turnovers, we now calculate the linkage measure using voluntary CEO turnovers. From Panel A to Panel E, we examine the forced CEO turnover, voluntary CEO turnover, bidder announcement return, CEO turnover-performance sensitivity and firm value, respectively. We repeat the previous analyses with the same specifications and for brevity we only report the variables of interests.

Panel A: Forced CEO Turnover

Dep. Var.: Forced Turnover Dummy	(1)	(2)	(3)	(4)
Blockholder Linkage	-0.146*	-0.127	-0.155*	-0.155*
(From Voluntary CEO Turnovers)	(-1.81)	(-1.56)	(-1.85)	(-1.82)
Same Specification as in Table IV	Y	Y	Y	Y

Panel B: Voluntary CEO Turnover

Dep. Var.: Voluntary Turnover Dummy	(1)	(2)	(3)	(4)
Blockholder Linkage	0.028	0.023	0.017	0.023
(From Voluntary CEO Turnovers)	(0.37)	(0.31)	(0.23)	(0.30)
Same Specification as in Table V	Y	Y	Y	Y

Panel C: CEO Turnover-Performance Sensitivity (Marginal Effects)

Dep. Var.: Forced Turnover Dummy	Blockholder Linkage (above sample median)		Blockholder Linkage (below sample median)	
	(1)	(2)	(3)	(4)
Stock Return (Standardized)	-0.012***	-0.008***	-0.009***	-0.007***
	(-4.09)	(-3.88)	(-3.54)	(-3.93)
Same Specification as in Table XI, Panel A	Y	Y	Y	Y

Panel D: Bidder Announcement Returns

Dep. Var.: Bidder CAR (-1, +1)	(1)	(2)	(3)	(4)
Blockholder Linkage	0.001	0.001	0.001	0.000
(From Voluntary CEO Turnovers)	(0.22)	(0.08)	(0.19)	(0.01)
Same Specification as in Table XI, Panel B	Y	Y	Y	Y

Panel E: Firm Value

Dep. Var.: Tobin's Q	(1)	(2)	(3)	(4)
Blockholder Linkage	-0.038	-0.034	-0.035	-0.032
(From Voluntary CEO Turnovers)	(-1.13)	(-1.05)	(-1.06)	(-0.97)
Same Specification as in Table XI, Panel C	Y	Y	Y	Y

Internet Appendix

Examples of Powerful Institutional Blockholders (Ranked by Fraction of Holdings in Forced CEO Turnover Stocks)

In this table, we provide a list of examples of powerful institutional blockholders ranked by their median fraction in holdings in forced CEO turnover stocks across the sample period. We require the number of stocks under blockholding to be above 10. We report the names of institutional investors, their identifiers from Thomson database, the size of total holdings, and the number of sample stocks under blockholding.

Name of Institutional Investor	MGRNO Number (Identifier)	Size of Portfolio Holdings in $millions (Median)	Fraction of Forced CEO Turnover Stocks (Median)	Number of Stocks under Blockholding (Median)
Nicholas-Applegate Cap	64240	1077.46	35.4%	15
Primecap Mgmt Company	71200	2134.09	30.6%	11
Clearbridge Advr	12058	4965.36	29.9%	11
Southeastern Asset Mgmt	79600	20165.29	28.8%	15
Denver Invt Advisors Llc	22860	1133.79	25.7%	10
Marsico Capital Mgmt, Llc	54314	27013.25	23.4%	14
American Express Finl Advr	45639	2903.42	21.8%	15
Janus Capital Corp	48170	15451.98	20.5%	19
Invesco Capital Mgmt Inc.	47400	4145.61	19.4%	19
Baron Capital Inc	8000	5017.44	19.1%	15
Shapiro Capital Mgmt Co	78542	1167.15	18.4%	10
Equitable Companies Inc	25610	55068.61	18.1%	48
State Of WI Investment Board	93405	2731.09	17.7%	25
Blackrock Investment Mgmt	39539	1053.28	17.7%	20
Geocapital Corporation	41000	755.69	17.1%	14
Travelers Inc	84900	3236.77	17.0%	13
Legg Mason Capital Mgmt, Inc	50130	11441.89	15.9%	15
Barrow, Hanley, Mewhinney	8100	8976.92	15.8%	16
Massachusetts Finl Serv Co	54600	13444.19	15.4%	39
Allianz Dresdner Asset Mgmt	70470	3383.86	14.8%	26
Legg Mason Fund Advisors, Inc	50160	4676.23	14.7%	12
Heine Securities Corp	44438	2099.82	14.6%	13
Blackrock Advisors, Llc	11386	1166.57	14.1%	12
Scudder Kemper Invts, Inc	76960	6707.08	13.5%	24
ICM Asset Management Inc	45620	492.54	13.3%	15
Goldman Sachs & Company	41260	12113.63	13.2%	25
Artisan Ptnr L.P.	4719	2065.83	13.1%	17
Berkshire Hathaway Inc	8350	30419.01	13.0%	12
Fleet Boston Corporation	38260	860.09	12.8%	14
Heartland Advr Inc.	44434	1460.00	12.6%	12
Wachovia Corporation	37700	2267.63	12.4%	21
Brandes Invt Partners, L.P.	10005	3086.32	11.8%	11
Ariel Investments, Llc	4690	1513.24	11.6%	14
Manning & Napier Advisors Inc	53300	1101.37	11.5%	11
Gendell Jeffrey L	40175	5328.09	11.0%	20
RS Investments	74530	2580.30	10.7%	17
JP Morgan & Company Inc	58835	5996.83	10.6%	16
Neuberger&Berman Mgmt	63060	2219.25	10.6%	13
Rutabaga Capital Mgmt Llc	75095	486.90	10.5%	11
Sterling Capital Mgmt, Llc	81900	893.37	10.3%	11