GOVERNANCE PROVISIONS AND MANAGERIAL ENTRENCHMENT: EVIDENCE FROM FORCED CEO TURNOVER OF ACQUIRING FIRMS

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Abstract

This study examines the effect of governance provisions on forced CEO turnover following value-reducing acquisitions. Results show that managers of firms with staggered boards are less likely to be replaced by the takeover market than are managers of firms with annually-elected boards. Combined with the evidence that CEOs of firms with staggered boards are more likely to pursue value-reducing acquisitions, this finding is consistent with the notion that managers can use staggered board structure to pursue their self interests and to facilitate managerial entrenchment. However, the aggregate indices of governance provisions are not significantly related to forced CEO turnover suggesting that they do not measure entrenchment effectively.

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Despite over 20 years of research on the topic, there is still no consensus regarding the effects of takeover defenses on firm shareholders. While some studies maintain that takeover defenses reduce firm value and facilitate managerial entrenchment, other studies argue that takeover defenses benefit shareholders.¹ This study adds to the debate on this topic by examining how the deployment of antitakeover provisions affects forced CEO turnover. Specifically, I examine whether CEOs of firms with more antitakeover provisions are less likely to lose their jobs following value-reducing acquisition decisions.

Recent studies argue that takeover defenses and other rules that restrict shareholder rights are associated with managerial entrenchment. Gompers, Ishii, and Metrick (2003) (GIM) document a negative relation between the index of governance provisions (G-Index) and firm value and long-term stock returns.² GIM maintain that it is difficult to replace managers of firms with a high number of governance provisions because these provisions restrict shareholder rights and increase managerial power. Consequently, these managers may extract private benefits at the expense of shareholders, leading to greater agency costs and lower firm value. Supporting this notion, Masulis, Wang, and Xie (2007, page 1854) conclude that "antitakeover provisions allow managers to make unprofitable acquisitions without facing a serious threat of losing corporate control". Yet, while Berger, Ofek, and Yermack (1997) argue that CEO turnover is an

¹ The literature on takeover defenses is vast. Some studies argue that takeover defenses insulate managers from the market for corporate control (e.g., Karpoff and Malatesta (1989), Bebchuk, Coates, and Subramanian (2002), Daines and Klausner (2004), Cremers and Nair (2005)). Other studies suggest that takeover defenses improve the bargaining power of target management (e.g., DeAngelo and Rice (1983), Stulz (1988), Machlin, Choe, and Miles (1993), Comment and Schwert (1995), Cotter, Shivdasani, and Zenner (1997)) or allow managers to pursue long-term projects without facing a threat of immediate replacement (e.g., Fisman, Khurana, and Rhodes-Kropf (2005)). Yet another strand of literature argues that the relation between firm value and the deployment of provisions is spurious (e.g., Core, Guay, and Rusticus (2006), Lehn, Patro, and Zhao (2007)).

² GIM define governance provisions as firm-level charter and bylaw provisions and state antitakeover laws that restrict shareholder rights through takeover protection and limitations on voting power and other forms of shareholder activism. GIM combine 24 provisions into the Governance Index, also known as G, GIM Index, G-Index, or index of antitakeover provisions. High G-Index value represents weak shareholder (or strong managerial) power.

important element of managerial entrenchment³, neither GIM nor Masulis et al. (2007) examine whether managers of firms that deploy these provisions are replaced less frequently following value-reducing decisions.

Other studies that examine the relation between the deployment of governance provisions and CEO turnover provide mixed results. Kaplan and Minton (2006) and Jagannathan, Paul, and Pritchard (2007) find no evidence that the G-Index is a significant determinant of internal CEO turnover and forced CEO turnover, respectively. Dezso (2005) finds that firms with many antitakeover provisions perform worse in the year prior to forced CEO turnover but show greater performance improvements after the turnover. He concludes that governance provisions insulate inferior managers as an entrenched manager gets fired only when performance is so poor that the expected improvement exceeds the high cost of firing. Contrary to the idea that firms with strong shareholder power are more likely to discipline a poorly performing manager, Bhagat and Bolton (2008) document that firms with strong shareholder power are less likely to fire CEOs in light of poor performance than are firms with weak shareholder power.

This paper focuses on CEO turnover of firms that engage in mergers and acquisitions because agency problems are inherent in acquisition decisions since managers can extract private benefits at the expense of shareholders through empire building and investing in managerspecific assets (e.g., Jensen (1986), Murphy (1985), Shleifer, and Vishny (1989)). Moreover, prior studies show that managers who make bad acquisitions become takeover targets themselves (Mitchell and Lehn (1990)) and are replaced by the board of directors, by the market for corporate control, or through bankruptcy (Lehn and Zhao (2006)). However, these studies do not examine the effects of shareholder rights' restrictions on CEO turnover. Furthermore, this study

³ Berger, Ofek, and Yermack (1997) define entrenchment as "the extent to which managers fail to experience discipline from the full range of corporate governance and control mechanisms, including monitoring by the board, the threat of dismissal or takeover, and stock- or compensation-based performance incentives".

differentiates between internal (board driven) and external (takeovers and bankruptcy) disciplinary mechanisms. The deployment of governance provisions is typically associated with takeover protection (e.g., Cremers and Nair (2005), Masulis, Wang, and Xie (2007)). However, Kini, Kracaw, and Mian (2004) and Kaplan and Minton (2006), show that, with the decline in hostile takeover activity in the late 1980s, internal governance mechanisms have become a more important source of managerial discipline. Moreover, Jensen (1986, 1988) argues that the corporate takeover market serves as a "court of last resort"- that is, it disciplines managers when internal control mechanisms are ineffective. Thus, even if governance provisions protect managers from the discipline of the takeover market, internal monitoring mechanisms could still be effective in disciplining poorly performing managers.

The main findings of this paper are summarized as follows. Using a sample of 355 CEOs who make acquisitions during 1993-2001, I find that entrenched managers are less likely to lose their jobs following value-reducing acquisition decisions. However, results show that *all* provisions do not have the same effects on forced CEO turnover. Staggered boards are associated with lower probability of forced CEO replacement. Acquiring CEOs of firms with staggered boards have about 15% lower odds of being replaced for one standard deviation decrease in the acquirer's abnormal stock return around the acquisition announcement date. The relative magnitude of this effect is substantial given that the observed frequency of forced CEO turnover is 21% for the subsample of firms with staggered boards. In contrast, the aggregated measures of governance provisions, such as, the G-Index and the E-Index⁴, are not significantly related to the probability of forced CEO turnover, suggesting that these indices do not measure entrenchment

⁴ Bebchuk, Cohen, and Ferrell (2008) argue that their refined index of six governance provisions (E-Index) drives the negative correlation between the G-Index and firm value and serves as a better measure of managerial entrenchment.

effectively. These results are robust to controlling for the endogenous relation between the deployment of governance provisions and forced CEO turnover.

This study adds to the literature on managerial entrenchment and on the effects of takeover defenses on firm shareholders. This paper provides evidence that aggregating the number of governance provisions is not very useful in terms of measuring managerial entrenchment. However, consistent with Faleye (2007), this study finds that staggered boards are associated with managerial entrenchment. Furthermore, I find that the negative relation between the staggered-board structure and forced CEO turnover is driven by protection from the discipline imposed by the takeover market. This suggests that staggered boards undermine the ability of the takeover market to discipline managers for taking value-destroying actions and, thus, fail to provide managers with proper incentives to pursue actions that are in the best interests of shareholders. This result, combined with the evidence that CEOs of firms with staggered boards are more likely to pursue value-reducing acquisitions, is consistent with the notion that managers can use staggered-board structure to pursue their self interests, generating higher shareholder-manager agency costs.

The remainder of this paper is organized as follows. The next section provides a sample description of acquiring firms. Section II describes the CEO turnover sample and the methodology for documenting and examining forced CEO turnover. The empirical results on forced CEO turnover following mergers and acquisitions are presented in Section III. Section IV concludes the paper.

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I. Sample Description

A. Data Sources

Using Securities Data Corporation's (SDC) U.S. Mergers and Acquisitions database, I

identify 876 firms that made 2,163 mergers and acquisitions and meet the following criteria:

- (1) The deal is announced between January 1, 1993 and December 31, 2001.
- (2) The acquirer owns less than 50% of target stock at the announcement date and 100% of target stock after the deal is completed.
- (3) The deal value, as reported by SDC, is more than one million dollars and is at least one percent of a bidder's market capitalization on the 21st trading day prior to the announcement.
- (4) The acquirer is listed on the Center for Research in Securities Prices (CRSP) Daily Stock Price and Returns database (210 trading days prior to deal announcement) and has annual financial data on Standard and Poor's COMPUSTAT for the three years prior to the acquisition announcement.
- (5) The acquiring firm is included in the Investor Responsibility Research Center (IRRC) Governance database.
- (6) Compustat Executive Compensation (Execucomp) database identifies the name of the bidder's Chief Executive Officer (CEO) at the time the deal is announced.

These data-screening criteria are similar to those used in Masulis, Wang, and Xie (2007), with the exception of Execucomp data availability. Because of the IRRC and Execucomp data requirements, the sample is limited to firms from the S&P 1500.

B. Descriptive Statistics

Table I presents the annual distribution of takeovers and bidder abnormal returns around the acquisition announcement date. Panel A provides the annual and sample distribution of the number of acquisitions, bidder market capitalization, deal value, and relative deal value. The trend in takeover frequency is similar to that documented in recent studies, such as Masulis, Wang, and Xie (2007) and Moeller, Schlingemann, and Stulz (2004). At the beginning of the sample period, the number of acquisitions generally increases each year until it reaches its highest level in 1998, and then it drops at the end of the sample period. For the overall sample, the mean (median) bidder's market capitalization is \$7.1 (\$2.4) billion, and the mean (median) deal value reported by SDC is \$817 (\$162) million. The bidder's size and the deal values reach the highest levels around the 1999-2000 "bubble" period. An average deal is valued at about 16% of the acquirer's market capitalization.

[Insert Table I here]

Panel B presents cumulative abnormal returns (CARs) to acquiring firms. Assuming informational efficiency of the stock market, the acquirer stock price reaction to an acquisition announcement provides an unbiased estimate of the acquisition's profitability from the perspective of acquiring firm's shareholders (see, e.g., Mitchell and Lehn (1990), Schwert (1996), Andrade, Mitchell, and Stafford (2001), Moeller, Schlingemann, and Stulz (2004), Lehn and Zhao (2006), Masulis, Wang, and Xie (2007)).⁵ Acquirer returns are measured as market

⁵ While market reaction around the merger announcement is the traditional measure of value creation or destruction, some studies argue that it is difficult to interpret the announcement returns for acquiring firms (e.g., Malatesta (1983), Fuller et al. (2002), and Moeller et al. (2004)). However, Andrade, Mitchell, and Stafford (2001) and Mitchell, and Stafford (2000) examine the long-term effects of acquisitions on shareholders and conclude that the

model adjusted stock returns on the announcement day (day 0), three days (-1,+1), and five days (-2,+2) around the acquisition announcement. The return on the CRSP value-weighted index is used as the market return, with market model parameters estimated over the period from event day -210 to event day -21, where event day 0 is the acquisition announcement date. The results indicate that acquisitions in this sample are value decreasing from the perspective of acquiring shareholders. The average return on the announcement day is -0.18%, significantly different from zero at the 10% level. This evidence is consistent with prior studies that document negative or non-positive returns to acquiring shareholders. ⁶

Prior studies find that bidder announcement returns vary depending on deal characteristics. Asquith, Bruner, and Mullins (1987) and Travlos (1987) document that bidders experience negative abnormal returns when they pay with equity and earn positive or nonnegative returns when they pay with cash. Fuller, Netter, and Stegemoller (2002) and Moeller, Schlingemann, and Stulz (2004) find that acquirers experience negative abnormal returns when buying public firms and positive abnormal returns when buying private firms or subsidiaries. Panel B presents bidder announcement returns for different deal types and provides evidence consistent with these studies. Acquisitions financed entirely with cash have an insignificant market reaction. In contrast, transactions at least partially financed with stock are associated with a negative market reaction (significant at 1%). Acquisitions of subsidiary targets generate the highest bidder returns, with a mean (median) CAR of 1.11% (0.55%) for the five-day event

long-run abnormal performance results do not change the conclusions from the announcement- period studies. In the analysis that follows in this paper, I focus on short-run stock price reaction and also control for long-term stock effects of acquisitions.

⁶ Masulis, Wang, and Xie (2007) use CRSP equal-weighted return as the benchmark return and document positive bidder returns surrounding acquisition announcements. However, Moeller, Schlingemann, and Stulz (2004) document the existence of a size effect in acquiring-firm abnormal returns. They show that equally-weighted returns are positive for acquiring firms, but value-weighted returns are negative for the same sample of firms. In an unreported analysis, I find positive CARs for the sample and methodology similar to Masulis et al. (2007). For a summary of the announcement period returns that occur to shareholders, see Jensen and Ruback (1983), Jarrell, Brickley, and Netter (1988), and Andrade, Mitchell, and Stafford (2001).

window. In contrast, acquisitions of public firms generate the lowest returns, with a mean (median) CAR of -1.71% (-1.25%) for the five-day event window. These results are statistically different from zero at the 1% level.

The focus of this study is on acquisitions made by firms with strong managerial power, measured by the deployment of governance provisions. Throughout this study, I use three classifications of the degree of managerial power. Prior studies that associate the deployment of governance provisions with managerial entrenchment typically use these three indices as measures of managerial power (see, for example, Masulis, Wang, and Xie (2007), Wang and Xie (2009), Duarte, Young, and Yu (2007)). The first is the low G-Index ("Democracy") and high G-Index ("Dictatorship") classification as in Gompers, Ishii, and Metrick (2003). According to this classification, firms with a G-Index value below six are categorized as "Democracies" (i.e., they have strong shareholder power), and firms with a G-Index value above 13 are categorized as "Dictatorships" (i.e., they have strong managerial power). The second classification is the E-Index of six governance provisions constructed by Bebchuk, Cohen, and Ferrell (2008), who argue that their refined index is a better measure of managerial entrenchment than the aggregate G-Index.⁷ Firms with a E-Index greater than two (sample median) are classified as having a higher degree of managerial power than firms with a E-Index at or below two. The third measure of managerial power is the staggered board indicator. Bebchuk and Cohen (2005) and Faleye (2007) argue that staggered boards protect management from removal. In contrast, Wilcox (2002) and Koppes, Ganske, and Haag (1999) suggest that staggered boards provide stability and continuity and encourage board independence. However, Faleye (2007) shows that staggered

⁷ E-Index includes six out of 24 G-Index components: staggered board, poison pill, supermajority voting requirement, limits to amend bylaws, limits to amend charters, and golden parachute. Bebchuk et al. (2008) show that this reduced index drives the negative relation between the deployment of governance provisions and firm value.

boards are associated with a significant reduction in firm value even in firms that are more likely to benefit from institutional stability, suggesting that staggered boards are associated with managerial entrenchment.

Panel C in Table I presents differences in bidder announcement returns around the acquisition announcement date between firms with different degrees of managerial power. Consistent with Masulis, Wang, and Xie (2007), acquirers with strong managerial power experience lower returns around the acquisition announcement than do acquirers with weak managerial power. For example, the mean (median) abnormal return on the announcement date is 0.66% (0.83%) higher for low G-Index firms than for high G-Index firms. The mean (median) five-day abnormal return is 0.52% (0.67%) higher for acquiring firms with annually-elected boards than for acquiring firms with staggered boards. The magnitude of the difference in returns is generally higher for the GIM classification, but the statistical significance is highest for the staggered board indicator.⁸ In unreported analysis, I find that firms with strong managerial power make more acquisitions, are more likely to pay for acquisitions with cash rather than stock, and are more likely to acquire public targets or subsidiaries rather than private firms. Masulis et al. (2007) find that even after controlling for various merger deal and firm characteristics, the difference in bidder announcement returns between firms with strong and weak managerial power remain statistically and economically significant. The negative returns to acquiring firms with strong managerial power suggest that these acquisitions are value-reducing from the perspective of acquiring firm's shareholders.

⁸ This is consistent with Masulis et al. (2007). The lower statistical significance for the GIM classification could be due to a smaller number of observations.

II. Forced CEO Turnover

A. CEO Turnover Sample

Out of 876 acquiring firms used in this study, 473 completed more than one acquisition during the sample period. In 356 out of 473 firms, the same CEO completed each acquisition. In the remaining 117 firms, different CEOs completed different acquisitions. Thus, 2,163 mergers and acquisitions performed by 876 firms during 1993-2001 involved 1,001 different CEOs. Since the analysis requires hand-collecting data on the reason for CEO turnover, age, board and ownership characteristics, I randomly pick one third of the observations (out of 1,001 CEOs).⁹ The following discussion and analyses pertain to 359 randomly picked CEOs (334 different firms). Following Lehn and Zhao (2006), only the first deals are included for CEOs who make several acquisitions during the sample period. The main results do not change when I examine the largest acquisitions made by each CEO during the sample period and the acquisitions with the highest negative bidder returns around the announcement date (results are unreported but available upon a request).

B. Definition of Forced CEO Turnover

To identify the incidence of forced CEO turnover, I track the firm's trading and CEO employment status during five years after the acquisition announcement using the Execucomp database. The Lexis-Nexis Academic Business News and companies' proxy statements are used to identify the date of the succession announcement and to determine the circumstances surrounding the CEO turnover. Disciplinary (forced) CEO turnover is defined as CEO replacement by internal governance, takeovers, or bankruptcy.

⁹ Data on board and ownership characteristics are available for some firms during 1997-2001 from the IRRC Directors and Blockholders databases. I identify from Execucomp the date when CEO leaves the position and his / her tenure as the CEO.

Board driven CEO replacement by internal governance is defined as in Parrino (1997).¹⁰ All CEO successions are classified as disciplinary if the news articles state that the CEO is fired, forced to step down, or departs due to unspecified policy differences. All other successions are classified as disciplinary if the departing CEO is under the age of 60 and either (1) the news reports that the CEO is retiring but does not announce the retirement at least six month prior to the succession, or (2) the announcement does not report that the reason for the departure involves death, poor health, or the acceptance of another position elsewhere or within the firm.¹¹

CEO replacement by external governance (due to a merger or bankruptcy / delisting) is defined as in Lehn and Zhao (2006). Specifically, for firms that are acquired within five years of the merger announcement, I examine the first post-acquisition proxy statement of the acquiring firm to determine if the CEO has any type of position in the merged firm. If the CEO of the acquired firm stays with the merged firm, then the observation is classified as not involving forced CEO turnover, otherwise, the observation is classified as involving forced CEO turnover. To classify CEO turnover in bankrupt or delisted firms, I examine news articles to determine whether the CEO is replaced during the reorganization process. If the CEO is in charge of the reorganization, then the observation is classified as not having a disciplinary CEO turnover, otherwise, the observation is classified as having a disciplinary turnover.

Table II summarizes CEO turnover. Information on CEO turnover is not available for four firms that were acquired by foreign companies. Of the remaining 355 CEOs, 89 are replaced

¹⁰ Other studies that examine CEO turnover include Coughlan and Schmidt (1985), Warner, Watts, and Wruck (1988), Weisbach (1988), Gilson (1989), Gibbons and Murphy (1990), Murphy and Zimmerman (1993), Blackwell, Brickley, and Weisbach (1994), Denis and Denis (1995), Kang and Shivdasani (1995), Kini, Kracaw, and Mian (1995), Denis and Serrano (1996), Denis, Denis, and Sarin (1997), Farrell and Whidbee (2000), Huson, Parrino, and Starks (2001), Denis and Kruse (2000), Goyal and Park (2002), Huson, Malatesta, and Parrino (2004).

¹¹ In several cases, the classification of the CEO departure as either "forced" or "voluntary" requires subjective judgment. I perform three robustness tests: (1) reclassify these "unclear" cases, (2) omit the unclear cases, and (3) include a dummy variable that takes a value of 1 if CEO is aged 63-65, since prior studies assume that turnover of CEOs around age 65 are more likely to be due to normal retirements than to forced departures (e.g., Goyal and Park (2002)). In every specification, the main results remain the same (not reported, but available upon a request).

involuntarily: 60 by the board of directors, 27 through takeovers, and 2 through bankruptcy. The non-forced turnover involves 112 CEOs: 82 internal replacements (due to retirement, death, or acceptance of a similar position somewhere else), 27 through mergers, and three through bankruptcy. Of the 355 CEOs that engage in acquisitions, 154 still hold top executive positions within five years of making an acquisition. Overall, in a sample of firms that make acquisitions during 1993-2001, 25% of acquiring CEOs are replaced involuntarily within five years after the acquisition announcement. Lehn and Zhao (2006) document that 47% of CEOs acquiring public firms during 1990-1998 are replaced involuntarily within five years.¹²

[Insert Table II here]

C. Methodology

This section describes the methodology for examining the relation between the deployment of governance provisions and forced CEO turnover. Masulis, Wang, and Xie (2007) argue that governance provisions protect managers from external discipline but do not exclude the possibility of internal discipline. This suggests that firms protected from corporate takeovers through the deployment of antitakeover provisions may have effective internal monitoring mechanisms. In contrast, GIM argue that the G-Index proxies for the quality of firm governance. This implies that high G-Index value is also associated with ineffective internal monitoring.

¹² Lehn and Zhao (2006) examine the acquisitions of public targets during 1990-1998 and use age 65 instead of 60 as the determining point for classifying forced CEO turnover. When I restrict my sample to public targets and use Lehn and Zhao's (2006) definition of CEO turnover, I find that 32% of the acquiring CEOs during 1993-2001 are replaced involuntarily within five years of the acquisition announcement.

To examine whether the degree of managerial power affects the probability of forced CEO turnover, I examine the internal and external disciplinary mechanisms and estimate the following three logit models:

$$Prob(Forced \ CEO \ Turnover) = \exp(\alpha + BX) / (1 + \exp(\alpha + BX))$$
(1)

$$Prob(Forced External CEO Turnover) = \exp(\alpha + BX) / (1 + \exp(\alpha + BX))$$
(2)

$$Prob(Forced Internal CEO Turnover) = \exp(\alpha + BX) / (1 + \exp(\alpha + BX))$$
(3)

Model 1 estimates forced CEO turnover for the full sample of firms, without accounting for the disciplinary mechanism involved. The dependent variable, *Forced CEO Turnover*, is a dummy variable that takes the value of one if the acquiring firm's CEO is replaced involuntarily (either internally or externally) within five years following the acquisition announcement, and takes the value of zero otherwise.

Model 2 estimates the probability of CEO turnover imposed externally by the market for corporate control. The dependent variable, *Forced External CEO Turnover*, is a dummy variable that equals one if the acquiring CEO is replaced through a corporate takeover (i.e., the CEO of the acquired firm does not have a position in the merged firm) and equals zero otherwise. This model is estimated for a subsample of acquiring CEOs, which excludes the CEOs replaced involuntarily by internal governance or through bankruptcy.¹³

Model 3 estimates the probability of forced CEO turnover imposed by internal governance. The dependent variable, *Forced Internal CEO Turnover*, is a dummy variable that equals one if the acquiring CEO is replaced by the board of directors, and zero otherwise. This

¹³ I exclude two CEOs that were replaced through bankruptcy to focus the interpretation of empirical results on the discipline imposed by the market for corporate control. Including these observations does not change the results.

model is estimated for a subsample of acquiring firms, which excludes the CEOs replaced involuntarily through takeovers or bankruptcies.

In all three models, *X* is the vector of independent variables including the measures of managerial power, cumulative abnormal returns, pre-merger and post-merger stock performance, CEO age and tenure, and deal characteristics. In several specifications, I also control for other governance characteristics. The variables are defined in section II. D.

According to these models' specifications, observations with non-forced CEO turnovers (e.g., due to retirement, poor health, etc.) are treated the same way as observations with no CEO turnover. A similar methodology is applied in prior studies that examine forced CEO turnover. For robustness, I also estimate the multinomial logit model, where the dependent variable has three different levels: CEOs who are subject to non-forced turnover, CEOs who are subject to forced turnover, and CEOs who remain with the firm within five years after the acquisition. The main results remain the same and are not reported for the sake of brevity.

D. Variable Definitions and Summary Statistics

Table III presents summary statistics of each of the independent variables used in the regressions. These include the following groups of variables:

Measures of Managerial Power

The variables of main interest are the three measures of managerial power: *High G-Index, High E-Index,* and *Staggered Board. High G-Index* is a dummy variable that equals one if the G-Index value of acquiring firm is equal to or greater than ten (sample median), and zero otherwise.¹⁴ *High E-Index* is a dummy variable that equals one if the E-Index value of acquiring

¹⁴ I deviate from the GIM definitions of "Dictatorship" and "Democracy" because of the small number of observations. In an unreported analysis, I confirm the main results of this paper, using GIM definition, continuous

firm is greater than two (sample median), and zero otherwise. *Staggered Board* is a dummy variable that equals one if acquiring firm has a staggered board (63% of the sample firms), and zero otherwise. If the degree of managerial power, measured by the deployment of these provisions, is associated with managerial entrenchment, then these variables should have negative effects on the probability of forced CEO turnover. This would imply that managers use the provisions to protect their incumbency. Furthermore, if managers with strong power are disciplined less often than managers with weak power when making value-destroying acquisitions, the interaction effect between a measure of managerial power and a variable that defines the acquisition quality should be negative.

Stock Performance

Following prior studies (see section I.B. of this paper), the five-day bidder announcement return around the acquisition announcement date (CAR(-2,+2)) measures the effect of an acquisition on acquiring firms' shareholders.¹⁵ Assuming efficient capital markets, negative returns indicate acquisitions that reduce shareholder value, and positive returns indicate acquisitions that reduce of acquiring firms. If CEOs who make value-reducing acquisitions are more likely to be replaced following the acquisition, then we should see a negative relation between CAR(-2,+2) and the probability of forced CEO turnover.

I also include a long-term measure of post-acquisition stock performance of acquiring firms. *Post-BHAR* is a market-adjusted (using CRSP value-weighted index) buy-and-hold return measured over the three years after the completion of merger or acquisition for firms that do not experience forced CEO turnover and measured from the completion date of merger or

measure of the G-Index, and other thresholds (i.e., lowest and highest quartiles, quintiles, and sample median). Similarly, using the actual E-Index score and other thresholds for the E-Index does not change the results.

¹⁵ Fuller, Netter, and Stegemoller (2002) find that the announcement dates on SDC are correct for 92.6% of the random sample of firms and are off by no more than two trading days for the remainder of the firms. Thus, five-day event window captures most, if not all, of the announcement effects.

acquisition to the CEO replacement date for firms that experience forced CEO turnover. Table III shows that there is a large variation in post-acquisition stock performance of acquiring firms, with mean value of 3.4%, median -6%, and standard deviation of 80.3%. Acquisitions done in the interests of acquiring shareholders should be associated with better post-acquisition performance. If managers are punished for poor post-acquisition stock performance, then the relation between *Post-BHAR* and the probability of forced CEO turnover should be negative.

Pre-BHAR(-3 years) controls for firm performance prior to the acquisition. It is measured as market-adjusted (using CRSP value-weighted index) buy-and-hold return over the three years prior through 21 trading days before the merger or acquisition announcement. On average, firms in this study have good stock performance during the three years prior to making an acquisition (mean=51%, median=2%). This is consistent with free cash flow theory that predicts that many acquirers will have good performance prior to making an acquisition (Jensen (1986)).

Deal Characteristics

Franks, Harris, and Titman (1991) and Servaes (1991) argue that acquisitions paid for with stock signal to the market that the acquiring firm's stock is overvalued. To control for the possibility that announcement returns are driven by the information about the acquiring firm's value rather than by the information about the quality of the acquisition, I include a dummy variable (*Stock Deal*) that equals one if the deal is at least partially paid with stock, and zero otherwise. Thirty nine percent of the deals in the sample are paid by at least some stock. The results do not change if instead I restrict the dummy variable to deals financed 100% with stock.

Relative Deal Value is included to control for the size of the acquisition. It is defined as deal value, reported by SDC, divided by the acquirer's market value, measured on the 21st trading day prior to the acquisition announcement date. Agency based theories (Jensen and

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Meckling (1976), Jensen (1986)) and managerial hubris theories of acquisitions (Roll (1986)) suggest a negative relation between abnormal returns and deal value, as empire-building and overconfident managers would seek larger acquisitions even at the cost to shareholders. Similarly, models based on market misvaluation (Schleifer and Vishny (2003), and Rhodes-Kropf and Viswanathan (2004)) imply that larger transactions would lead to lower abnormal returns. Alternatively, Ray and Warusawitharana (2007) argue that the positive relation between relative value and acquisition returns captures efficiency gains arising from reallocating capital to more productive owners.

I also control for the trading status of target firms because Fuller, Netter, and Stegemoller (2002) and Moeller, Schlingemann, and Stulz (2004) document that acquirers earn negative abnormal returns when buying public firms and positive abnormal returns when buying private firms or subsidiaries. The authors attribute the difference in returns to the liquidity discount associated with the purchase of the private firms (see also, Officer (2007)). *Public Target* is a dummy variable that equals one if the target firm is publicly trading, and zero otherwise. Thirty four percent of the deals in the sample involve public targets.

CEO Age and Tenure

Murphy and Zimmerman (1993) and Weisbach (1988) document a positive relation between CEO turnover and CEO age. Salancik and Meindl (1984) suggest that longer CEO tenure may be associated with more control of the firm and greater influence on the board, thereby reducing the likelihood of forced CEO turnover. Alternatively, CEO tenure and CEO turnover could be positively related if long CEO tenure proxies for the retirement age.

Board Characteristics and Ownership Variables

In several specifications I examine whether the baseline results are robust to controlling for the firm's board and ownership characteristics. The board characteristics include board size, the proportion of independent directors, and the CEO/Chairman duality. Board Size is the number of directors. Jensen (1993) and Yermack (1996) argue that small boards are more effective monitors of managerial performance, which suggests that forced CEO turnover should be higher for firms with smaller boards. Proportion Independent is the proportion of board members consisting of independent (outside) directors (i.e., directors who are not employees, relatives of employees, or former employees of the firm). Fama and Jensen (1983), Hermalin and Weisbach (1988), and Weisbach (1988) argue that outside directors are better monitors of firms' managers, and Weisbach (1988) shows that outside directors are more likely than inside directors to replace a poorly performing CEO. CEO/Chairman is a dummy variable that equals one if the CEO of the firm also serves as chairman of the board, and zero otherwise. Fama and Jensen (1983) and Jensen (1993) argue that consolidating the positions of CEO and board chairman in one person reduces the effectiveness of board's monitoring. Goyal and Park (2002) document a negative relation between the sensitivity of CEO turnover to firm performance and the combination of CEO and chairman duties in one person.

Other control variables measure ownership concentration in the hands of managers and outside blockholders. *Insider Ownership* is the percent of a firm's common stock owned by executives and directors, as a group.¹⁶ Increased managerial ownership vests additional control, which may be used to deter unwanted takeovers (Walkling and Long (1984)). In this case, managerial ownership is expected to have a negative effect on the probability of forced CEO turnover. *Blockholder Ownership* is defined as five percent or higher ownership by non-

¹⁶ The results remain the same if I separate CEO ownership from ownership by other executives and directors.

executives and non-directors of the firm. Results do not change if I use a dummy variable for the presence of a blockholder instead of a continuous measure of blockholder ownership (unreported). Outside blockholders facilitate internal control mechanisms, because they have greater incentives to monitor managers than stockholders with a low level of ownership (Denis, Denis, and Sarin (1997), Denis and Serrano (1996)). Thus, *Blockholder Ownership* is expected to have a positive effect on the probability of forced CEO turnover.

[Insert Table III here]

All governance provisions' variables are measured the year of or, if not available, the year prior to the acquisition announcement, and are from the IRRC Governance database. Data on CEO age, CEO tenure, board and ownership characteristics are collected from the acquiring firm's proxy statements or, where available, from the Execucomp, IRRC Directors and Blockholders databases. Following Lehn and Zhao (2006), for firms that have the same CEO in the fifth year after the acquisition announcement, these variables are recorded from the proxy statements closest prior to the acquisition announcement date. For firms that experience forced CEO turnover, CEO age, board and ownership characteristics are measured prior to the CEO turnover date. For firms that are taken over or delisted, these variables are recorded from the firm's last proxy statement.

III. Governance Provisions and Forced CEO Turnover: Empirical Results

In this section, I test the relation between the deployment of governance provisions and forced CEO turnover. I first examine differences in the deployment of governance provisions and differences in stock performance between firms with disciplinary CEO turnover and firms with no disciplinary CEO turnover. I then perform a multivariate analysis. Finally, I perform several tests of endogeneity between the deployment of governance provisions and forced CEO turnover. In several specifications, I examine whether the relation between governance provisions and forced CEO turnover differs depending on the disciplinary mechanism involved.

A. Univariate Analysis

Table IV compares the mean and the median values of governance provisions' indices and stock performance measures for the subsamples of firms with forced CEO turnover and firms without forced CEO turnover. Panel A presents the results for the overall sample, where forced CEO turnover represents CEO replacements by either internal or external disciplinary mechanisms. Panel B differentiates between the discipline imposed internally (by the board of directors) and discipline imposed externally (through takeovers or bankruptcy).

[Insert Table IV here]

Both panels reveal no significant differences in the G-Index or E-Index values for acquiring firms with or without disciplinary CEO turnover. However, firms with staggered boards are significantly less likely to have forced CEO turnover. Moreover, Panel B suggests that this result is due to CEOs being replaced by the takeover market not by internal mechanisms. In the subsample of firms subject to internal discipline, the difference in the staggered nature of boards is not significant between firms with and without CEO turnover. However, firms that experience external forced CEO turnover are less likely to have a staggered board structure. This suggests that entrenched managers could utilize the staggered-board structure to preserve their private benefits of control from the discipline of the takeover market.

In addition, Table IV shows that firms that experience poor post-acquisition stock performance replace their CEOs. Furthermore, results in Panel B suggest that the takeover market and the board of directors use different stock performance measures in making CEO replacement decisions. In the subsample of firms subject to internal discipline, the difference in CARs is not significant between firms with and without forced CEO turnover, but the difference in long-term post-acquisition stock returns is significant at 1% (-34.05% vs. 10.8%).¹⁷ In contrast, in the subsample of firms subject to external discipline, the difference in CARs is significant at 1% (-3.35% vs. 1.11%), but the difference in long-term post-acquisition stock performance is not significant. These results suggest that CEOs who make acquisitions that generate negative market reaction are subsequently replaced by the takeover market, while CEOs who make acquisitions that have negative long-term effects on the firm are replaced by the board of directors.

¹⁷ Post-acquisition performance (*Post-BHAR*) is measured as market-adjusted (using CRSP value-weighted index) buy-and-hold return from the acquisition completion date to the CEO replacement date for firms that replace the CEO and over the three years from the acquisition completion date for firms that do not replace the CEO.

B. Multivariate Analysis

B.1. Logit Estimates of the Probability of Forced CEO Turnover: Overall Sample

Table V presents the results of logit estimates of the probability of forced CEO turnover for the overall sample of firms.¹⁸ The dependent variable equals one if the acquiring firm's CEO is replaced through internal governance, takeovers, or bankruptcy within five years of the acquisition announcement date, and equals zero, otherwise. Model 1 provides a benchmark with which to compare the expanded models that include governance provisions. The results in model 1 are generally consistent with those presented by Lehn and Zhao (2006). Cumulative abnormal returns around the acquisition announcements, post acquisition long-term stock performance, and CEO tenure are all negatively associated with the probability of forced CEO turnover.

[Insert Table V here]

Models 2 through 4 test the effects of the measures of managerial power on the probability of forced CEO turnover. Of the three indices of governance provisions, only the staggered board indicator is negative and significant. For firms that have staggered boards, the odds of CEO replacement following the acquisition is 44% lower than for firms that have annually elected boards.¹⁹

Models 5 through 7 add the interaction terms between CAR and the corresponding index of governance provisions in order to test whether managers who make bad acquisitions and are in firms with weaker shareholder rights face weaker discipline than managers in firms with

¹⁸ Data on CEO age or tenure is not available for 24 observations, reducing the sample to 331 CEOs.

¹⁹ The percent change in the odds ratio is calculated as $100^{*}(e^{\beta}-1)$.

stronger shareholder rights. The results show that of the three indices only the staggered board indicator is a significant determinant of forced CEO turnover.

Managers of firms with staggered boards are less likely to experience disciplinary turnover in general and are less likely to be disciplined for value-reducing acquisition decisions. This result, combined with the evidence that firms with staggered boards are more likely to engage in acquisitions that are value-reducing from the perspective of acquiring shareholders, provides support for the hypothesis that staggered boards are associated with managerial entrenchment.

To account for possible effects of other governance measures on CEO turnover, models 8 through 14 add board and ownership characteristics to the variables examined in models 1 through 7. Results in models 8 - 14 show that CEOs of firms with larger boards are less likely to face disciplinary turnover than CEOs of firms with smaller boards, consistent with the idea that smaller boards provide greater monitoring. This result is significant at 1% in every specification. Additionally, higher insider ownership is associated with lower probability of forced CEO turnover in most specifications (significant at 10% or lower), consistent with the entrenchment effect of managerial ownership documented by Denis, Denis, and Sarin (1997). Furthermore, the interaction effect of the staggered board indicator and CAR remains negative and significant at the 5% level (Model 14).

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B.2. Logit Estimates of the Probability of Forced CEO Turnover: External versus Internal Discipline

I examine the effects of governance provisions on forced CEO turnover for different types of disciplinary mechanisms: external and internal. Table VI presents the results for disciplinary CEO turnover imposed externally by the takeover market (see model 2 in section II.C.), and Table VII presents the results for the internal discipline imposed by the board of directors (see model 3 in section II.C.).

Similar to the results for the overall sample in Table V, the coefficients on *High G-Index* and *High E-Index* are not significant and the coefficient on *Staggered Board* is negative and significant at 5%. When interaction terms between governance provisions and CAR(-2, +2) are included in the analysis (models 4-6), the coefficients on the staggered board indicator and on the interaction term are significant at 1%. Interestingly, the post-acquisitions stock performance, which was significant at 1% in the overall sample, is not significant in the sample of external forced CEO turnovers; the coefficients on CAR(-2, +2) are negative and significant at 5% in models 1-3.

[Insert Table VI here]

Overall, the results in Table VI are consistent with univariate analysis and suggest that the takeover market disciplines managers who make acquisitions that generate negative bidder announcement returns. However, staggered boards protect managers who make bad acquisitions from the discipline of the takeover market. Table VII estimates the probability of internal disciplinary CEO turnover. Models 1 through 3 estimate the effects of governance provisions, controlling for stock performance, deal, CEO, and other governance characteristics. Consistent with the univariate analysis presented in Panel B of Table IV, none of the governance provisions' indices are significant determinants of forced internal CEO turnover. Furthermore, bidder's market reaction to the merger or acquisition announcement is not a significant determinant of internal CEO replacement. However, the post acquisition long-term abnormal stock performance has a significant (at 1%) negative effect on forced internal CEO turnover. Models 4 through 6 add the interaction term between governance provisions and stock performance. Since internal turnover is affected by bidder's post-acquisition long-term performance, and not by the acquisition announcement returns, the corresponding governance provisions' dummy variable is interacted with post-acquisition long-term abnormal stock performance matching and post-acquisition long-term abnormal stock performance. Since internal turnover is affected by bidder's post-acquisition long-term performance, and not by the acquisition announcement returns, the corresponding governance provisions' dummy variable is interacted with post-acquisition long-term abnormal stock performance with post-acquisition long-term abnormal stock performance with post-acquisition long-term abnormal stock performance.

[Insert Table VII here]

Overall, Table VII does not provide any evidence that governance provisions isolate managers from the discipline imposed internally by the board of directors. The insignificant coefficients suggest that either firms choose these provisions optimally, such that poorly performing CEOs are disciplined regardless of the number of provisions deployed, or that these measures of the degree of managerial power are not important in explaining the internal disciplinary turnover of acquiring managers.

B.3. Governance Provisions and Forced CEO Turnover: Endogeneity Tests

The coefficient estimates in the previous tests could reflect a potential endogeneity bias, i.e., the types of firms that deploy a large number of provisions are also the types of firms that are more likely to experience forced CEO turnover, either imposed internally or externally. Despite the extensive use of control variables, if managers with greater ex ante exposure to disciplinary turnovers are also more likely to adopt a higher number of governance provisions to protect their incumbency, the coefficient on the G-Index or E-Index could be biased downward. Similar self-selection bias applies to firms with staggered boards. Even though board classification requires shareholder approval and is more difficult to incorporate than some other provisions (e.g., poison pills, golden parachutes), firms adopting and maintaining staggered boards might also be more likely to be targets of disciplinary takeovers.²⁰

To address these endogeneity concerns, I estimate two-stage probit models. The first stage estimates the likelihood of adopting and maintaining governance provisions. The second stage estimates the likelihood of forced CEO turnover. I use two different instrumental variables. Firm age is used to model firm G-Index and E-Index values. It is measured as the number of years from the first date when firm data on Compustat are available to the delist date for firms that are delisted or to the end of 2006 for firms that are still publicly trading. While older firms are more likely to have a higher number of provisions because they have had more time to accumulate them and because they are more likely to have complex business types, firm age per se should not affect the disciplinary turnover of a given CEO.

The second group of variables is the industry average values of G-Index and E-Index. While firms in the same industry may have somewhat similar levels of governance provisions due to similar industry environment and business type complexity, the industry average value of

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²⁰ Field and Karpoff (2002) document that firms typically adopt staggered boards when they go public.

provisions should not affect the disciplinary CEO turnover of an individual firm. To model the likelihood of adopting and maintaining a staggered board structure, I use an indicator variable that equals one if more than 50% of the firms in the industry have staggered boards. If the majority of the firms in the industry have staggered boards, it is more likely to be due to the complexity of the business type, as argued by Wilcox (2002) and Koppes, Ganske, and Haag (1999), rather than due to managerial entrenchment. To calculate industry average values of G-Index, E-Index, and staggered boards, I use a universe of IRRC firms and 12 Fama-French industry classifications, which ensures that I have at least ten firms in each industry group. The sample firm is excluded from the calculations, and average values are calculated for each IRRC publication year.

Table VIII summarizes the results. Models 1 and 2 present a two-stage estimation of the firm level G-Index value and the likelihood of forced CEO turnover. The results of this analysis suggest that firm age and industry average G-Index values are valid instruments (first-stage results are significant and have the predicted signs) but do not change the main findings of this paper regarding the effects of governance provisions on forced CEO turnover. The coefficient on G-Index remains statistically insignificant. The results for E-Index are similar and are omitted for the sake of brevity.

[Insert Table VIII here]

Model 3 estimates the likelihood of board classification and disciplinary CEO turnover imposed by the market for corporate control for the subsample of firms that excludes involuntary internal CEO replacements. The p-value associated with the Wald test of exogeneity is 0.031,

providing evidence that correcting for self-selection bias is appropriate in this context. In the second stage equation modeling the turnover likelihood, the coefficient on staggered board remains negative and significant (p-value = 0.073), indicating that board classification reduces the likelihood that a firm CEO is replaced involuntarily through the takeover channel. To assess the economic significance of this result, I calculate marginal effect. The marginal effect suggests that CEOs of firms with staggered boards are 65% less likely to face disciplinary turnover from the market for corporate control relative to comparable firms with a single class of directors.

IV. Conclusion

Recent studies document that governance provisions reduce shareholder value. Several studies argue that these provisions are associated with higher agency costs and managerial entrenchment. Managerial entrenchment implies that managers pursue their self-interests at the expense of shareholders *and* avoid the discipline from various governance mechanisms (Berger, Ofek, and Yermack (1997)). Despite a common perception in academic literature that the deployment of governance provisions is associated with takeover protection and managerial entrenchment, the empirical evidence regarding the effects of governance provisions on CEO turnover is, at best, mixed. This paper contributes to the existing literature by investigating the relation between the deployment of governance provisions and disciplinary turnover of managers who engage in corporate mergers and acquisitions.

The main findings of this paper can be summarized as follows. Governance provisions *in general* do not affect the probability of forced CEO turnover following acquisition decisions. Empirical analysis shows that CEOs of acquiring firms with weak shareholder power are as likely to be replaced as are CEOs of acquiring firms with strong shareholder power. Results do

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not change when I differentiate between internal (board driven) and external (takeover market) CEO turnovers. Results are robust controlling for endogeneity and various firm and merger deal characteristics. These findings question the general notion that anti-takeover provisions allow managers to pursue value-reducing decisions without facing a threat of losing corporate control. The important implication is that the indices that merely count the number of provisions deployed by a given firm (e.g., G-Index, E-Index) are poor measures of managerial entrenchment.

While there is no evidence that CEOs of firms with a large number of provisions are less likely to be disciplined for bad corporate decisions, results show that managers of firms with staggered boards are less likely to be replaced following bad acquisitions. Further analysis suggests that managers who make bad acquisitions use staggered boards to protect themselves from the discipline of the takeover market. This finding supports prior literature which argues that board classification is a strong antitakeover mechanism that facilitates managerial entrenchment (e.g., Bebchuk and Cohen (2005), Bebchuk, Cohen, and Ferrell (2008), Faleye (2007)). This study shows that staggered boards undermine the ability of the market for corporate control to discipline managers who pursue bad acquisitions. Combined with the evidence that CEOs of firms with staggered boards are more likely to pursue value-destroying acquisitions, the findings of this paper suggest that staggered boards fail to provide managers with proper incentives to pursue decisions that are in the best interests of shareholders.

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Table I: Sample Summary Statistics and Bidder Announcement Returns

This table presents annual distribution of takeovers and descriptive statistics on deal characteristics and bidder announcement returns for the sample of 2,163 completed mergers and acquisitions made by 876 firms during 1/1/1993 - 12/31/2001. Sample firms are covered by the IRRC Governance and Execucomp databases, and have annual financial and daily stock return data available on Compustat and CRSP. *Deal Value* is acquisition value, as reported by SDC. *Acquirer Market Value* is bidder market capitalization (stock price*number of shares outstanding), measured on the 21^{st} trading day prior to the acquisition announcement date. *Relative Deal Value* is deal value, divided by the acquirer market value. *Acquirer Market Value* and *Deal Value* are presented in constant 2001 dollars. *CAR* is the cumulative abnormal return to the acquiring firm around merger or acquisition announcement date, measured over several event windows, with market model parameters estimated over a period of 220 through 21 trading days prior to the merger announcement, using CRSP value-weighted index. *G-Index* is the index of 24 governance provisions constructed by Bebchuk, Cohen, and Ferrell (2008). *N* is the number of observations.

Panel A: Sample I	Distribution by A	Announcement Year		
Year	Number of Acquisitions	<u>Acquirer Market Value</u> Mean (Median) (\$ million)	<u>Deal Value</u> Mean (Median) (\$ million)	<u>Relative Deal Value</u> Mean (Median)
1993	174	2 403	214	0 12
1770	1,1	(1.533)	(71)	(0.05)
1994	187	3.366	292	0.13
		(1,771)	(96)	(0.04)
1995	201	3.487	572	0.16
		(1,688)	(108)	(0.07)
1996	219	4,787	703	0.17
		(2,451)	(151)	(0.06)
1997	216	6,690	698	0.16
		(2,878)	(196)	(0.07)
1998	372	7,468	1,188	0.17
		(2,774)	(164)	(0.07)
1999	299	13,031	1,545	0.18
		(2,846)	(236)	(0.06)
2000	257	14,013	1,277	0.19
		(3,435)	(267)	(0.06)
2001	238	8,797	868	0.14
		(2,460)	(172)	(0.06)
Overall Sample	2,163	7,116	817	0.16
*		(2,426)	(162)	(0.06)
			× /	(continued

			Table I (con	tinued)			
	CA	R (0)	CAR	(-1,+1)	CAR	(-2, +2)	
Variable	Mean	Median	Mean	Median	Mean	Median	Ν
Panel B: Bidder Abnormal Re	turns (CARs), in	percent					
All Firms	-0.18 °	-0.17 ^a	-0.10	-0.19 ^c	-0.19	-0.19	2,163
Payment Method							
All Cash	0.02	-0.03	0.40 ^c	0.25	0.38	0.32	503
All Stock	-0.72 ^a	-0.62 ^a	-1.08 ^a	-0.71 ^a	-1.23 ^a	-1.02 ^a	719
<u>Target Status</u>							
Public	-1.30 ^a	-0.75 ^a	-1.59% ^a	-1.04 ^a	-1.71 ^a	-1.25 ^a	829
Private	0.41 ^a	0.09	0.72% ^a	0.36 ^c	0.46 ^c	0.46 ^c	716
Subsidiary	0.63 ^a	0.10 ^b	0.95% ^a	0.36 ^b	1.11 ^a	0.55 ^a	618
Panel C: Bidder Abnormal Re	turns (CARs) for	r Different Deg	grees of Manag	erial Power, ir	n percent		
Low G-Index (<=5)	0.24	0.17	-0.09	0.72	0.29	0.85	165
High G-Index (>=14)	-0.42	-0.66	-0.02	-0.28	-0.49	-0.43	177
Difference	0.66	0.83 ^b	-0.07	1.00	0.78	1.28 ^c	
Low E-Index (<=2)	-0.04	-0.04	0.05	0.11	0.08	0.30	1,179
High E-Index (>=3)	-0.36	-0.32	-0.28	-0.40	-0.51	-0.53	984
Difference	0.32 ^c	0.28 ^c	0.33	0.51 ^b	0.59 ^b	0.83 ^a	
Annually-Elected Board	0.06	0.03	0.08	0.12	0.14	0.30	800
Staggered Board	-0.33	-0.30	-0.20	-0.31	-0.38	-0.37	1.363
Difference	0.39 ^b	0.33 ^a	0.28	0.43 ^b	0.52 ^c	0.67^{a}	, -

$\frac{1}{a}, \frac{b}{b}, \text{ and } c \text{ indicate significant difference from zero at 1%, 5%, and 10%, respectively, using$ *t* $-test for the means and Wilcoxon signed-rank test for the medians.}$

Table II: Distribution of CEO Turnover

This table reports the frequency of CEO turnover. The sample consists of 359 CEOs who engage in mergers or acquisitions during 1993-2001. *Forced CEO Turnover* is defined as CEO replacement within 5 years of the merger or acquisition by one of the following mechanisms: (1) the board of directors, that is, the CEO is fired, forced to step down, or departs due to unspecified policy differences; or if the departing CEO is under 60 and either (a) the CEO is retiring, but the retirement is not announced at least six month prior to the succession, or (b) the reason for the departure does not involve death, poor health, or the acceptance of another position elsewhere or within the firm; (2) by the takeover market, that is, the firm is acquired by another firm, and the CEO of acquired firm does not stay with the merged firm; (3) through bankruptcy, that is, the firm is undergoing bankruptcy or delisted due to not meeting the exchange financial requirements, and the CEO is not in charge of the reorganization process. *Non-forced CEO Turnover* by the board of directors includes CEOs who left the firm due to retirement, poor health, death, or acceptance of a similar position somewhere else. *Non-forced CEO Turnover* by the takeover market includes CEOs whose firms were acquired and the CEO stays with the merged firm. *Non-forced CEO Turnover* through bankruptcy includes CEOs whose firms are undergoing the reorganization process and the CEO is in charge of the reorganization process and the CEO is in charge of the reorganization process and the CEO stays with the merged firm. *Non-forced CEO Turnover* through bankruptcy includes CEOs whose firms are undergoing the reorganization process and the CEO is in charge of the reorganization.

	Number of Observations
Forced CEO Turnover (N=89)	
by the board of directors	60
by the takeover market	27
through bankruptcy	2
Non-forced CEO Turnover ($N=112$)	
by the board of directors	82
by the takeover market	27
through bankruptcy	3
The same CEO within 5 years after the acquisition	154
Missing data on CEO turnover	4
-	
Total Sample	359

Table III: Summary Statistics

The sample consists of 355 firms-years that engage in corporate acquisitions during 1993-2001. G-Index is the index of 24 governance provisions constructed by Gompers, Ishii, and Metrick (2003). E-Index is the index of 6 governance provisions constructed by Bebchuk, Cohen, and Ferrell (2008). Staggered *Board* is a dummy variable that equals 1 for firms with only a portion of directors being elected each year, and equals zero otherwise. CAR (-2, +2) is acquirer's cumulative abnormal return measured over the fiveday event windows surrounding the acquisition announcement date. Pre-BHAR(-3 years) is marketadjusted (CRSP value-weighted) buy-and-hold return measured over the three years prior through 21 trading days prior to the merger or acquisition announcement. Post-BHAR is market-adjusted (CRSP value-weighted) buy-and-hold return measured over the three years after the completion of merger or acquisition for the sample of firms with no forced CEO turnover, and from the acquisition completion date to the CEO replacement date for firms with forced CEO turnover. Relative Deal Value is deal value, divided by the acquirer market value. Stock Deal is a dummy variable that equals 1 if the deal is at least partially paid with stock. *Public Target* is a dummy variable that equals 1 if the target is a public firm. CEO/Chairman is a dummy variable that equals 1 for firms where the CEO is also the chairman of the board. Insider Ownership is the percent of the firm's common stock owned by executives and directors, as a group. Blockholder Ownership is the ownership of at least five percent of common stock by nonexecutives and non-directors of the firm. Board Size is the number of directors. Proportion Independent is the proportion of the firm's board consisting of independent directors, which are defined as directors who are not employees, relatives of the employees, or former employees of the firm.

		Standard	25^{th}		75 th
Variable	Mean	Deviation	Percentile	Median	Percentile
<u>Measures of Managerial Power</u>					
G-Index	9.49	2.82	7	10	12
E-Index	2.18	1.28	1	2	3
Staggered Board	0.63	0.48	0	1	1
Stock Performance and Deal Chara	<u>cteristics</u>				
CAR (-2,+2) (%)	0.86	7.70	-2.94	0.26	3.98
Pre-BHAR (-3 years) (%)	50.84	273.00	-47.83	2.34	67.14
Post-BHAR (%)	3.38	80.29	-46.55	-6.01	38.23
Relative Deal Value	0.17	0.29	0.03	0.07	0.18
Stock Deal	0.39	0.49	0	0	1
Public Target	0.34	0.47	0	0	1
CEO Characteristics and other Gov	ernance Var	riables			
CEO age	55.94	7.02	51	56	61
CEO Tenure	10.41	7.37	5.56	8.40	13.65
CEO/Chairman	0.73	0.44	0	1	1
Board Size	10.23	3.34	8	10	12
Proportion Independent	0.66	0.68	0.50	0.64	0.77
Insider Ownership	5.85	8.56	0.00	2.45	7.08
Blockholder Ownership	18.48	14.63	6.80	16.80	27.20

Table IV: Differences in Governance Provisions and Stock Performance between Firms with Forced CEO Turnover and Firms without Forced CEO Turnover

This table reports the mean and the median values of governance provisions and stock performance across various subsamples. The overall sample in Panel A consists of 355 firm-years that engage in corporate acquisitions during 1993-2001. "Forced CEO Turnover" includes 89 firms, in which the CEO is replaced within 5 years of the merger or acquisition, meeting one of following criteria: (1) the CEO is fired, forced to step down, or departs due to unspecified policy differences; or if the departing CEO is under 60 and either (a) the CEO is retiring, but the retirement is not announced at least six month prior to the succession, or (b) the reason for the departure does not involve death, poor health, or the acceptance of another position elsewhere or within the firm; (2) the firm is acquired by another firm, and the CEO of acquired firm does not stay with the merged firm; (3) the firm is undergoing bankruptcy or delisted due to not meeting the exchange financial requirements and the CEO is not in charge of the reorganization process. "No Forced CEO Turnover" includes the remaining 238 firms. In Panel B, "Internal" subsample includes 298 firms that are not delisted due to mergers or bankruptcy; of these, 60 firms (group "Yes") have forced CEO replacement by internal governance, defined as in (1); the remaining 238 firms are included in group "No". In Panel B, "External" are 295 firms from the overall sample, excluding firms with forced CEO replacement by internal governance. Of these, 29 firms (group "Yes") are firms, in which the CEO is replaced by the market for corporate control or through bankruptcy, defined as in (2) and (3); the remaining 266 firms are included in group "No". G-Index is the index of 24 governance provisions constructed by Gompers, Ishii, and Metrick (2003). E-Index is the index of 6 governance provisions constructed by Bebchuk, Cohen, and Ferrell (2008). Staggered Board is a dummy variable that equals 1 for firms with only a portion of directors being elected each year, and equals zero otherwise. All governance provisions' variables are measured the year of or, if not available, the year prior to the acquisition announcement. CAR (-2, +2) is the cumulative abnormal return to the acquiring firm measured over the five-day event windows surrounding the acquisition announcement date. Post-BHAR is market-adjusted (CRSP value-weighted) buy-and-hold return measured over the three years after the completion of merger or acquisition for the sample of firms with no forced CEO turnover, and from the acquisition completion date to the CEO replacement date for firms with forced CEO turnover. Median values are provided in brackets. N is the number of observations. t-statistics correspond to the differences in means t-test, and z-statistics correspond to the differences in medians Wilcoxon test.

(continued)

Panel A: Overall Sample			
	Forced CEO	No Forced CEO	
	Turnover	Turnover	Test for
	(N=89)	(N=266)	Differences
	Mean	Mean	<i>t</i> -
	[Median]	[Median]	[z] statistic
Governance Provisions:			
G-Index	9.52	9.48	-0.17
	[10.00]	[9.00]	[-0.21]
E-Index	2.09	2.21	0.7
	[2.00]	[2.00]	[-0.53]
Staggered Board	0.53	0.67	2.32 ^b
	[1.00]	[1.00]	[2.31] ^b
<u>Stock Performance</u> :			
CAR (-2, +2) (%)	0.10	1.11	1.07
	[-0.24]	[0.46]	[1.02]
Post-BHAR (%)	-19.48	11.03	3.14 ^a
	[-24.68]	[3.60]	[-3.96] ^a

Table IV (continued)

Panel B: Subsamples of Internal and External Forced CEO Turnovers										
		Internal		External						
	Yes No $t-[z]$		<i>t</i> - [<i>z</i>]	Yes	No	<i>t</i> - [<i>z</i>]				
	(N=60)	(N=238)	statistic	(N=29)	(N=266)	statistic				
Governance Provisions:										
G-Index	9.42	9.48	0.15	9.72	9.46	-0.44				
	[10.00]	[9.00]	[-0.04]	[10.00]	[9.00]	[0.26]				
E-Index	2.07	2.21	0.80	2.10	2.21	0.43				
	[2.00]	[2.00]	[-0.54]	[2.00]	[2.00]	[0.07]				
Staggered Board	0.55	0.66	1.65	0.48	0.67	1.96°				
	[1.00]	[1.00]	[-1.64]	[0.00]	[1.00]	[-1.86] ^c				
<u>Stock Performance</u> :										
CAR (-2, +2) (%)	1.77	1.11	-0.63	-3.35	1.11	2.90 ^a				
	[0.74]	[0.46]	[0.61]	[-2.86]	[0.48]	[-3.23] ^a				
Post-BHAR (%)	-34.05	10.80	4.19 ^a	17.29	11.03	-0.38				
	[-30.54]	[6.83]	[-4.38] ^a	[0.23]	[3.60]	[0.36]				

^a, ^b, and ^c indicate statistical significance at the 1%, 5%, and 10%, respectively.

Table V: Logistic Regressions of the Probability of Forced CEO Turnover after the Merger or Acquisition – Total Sample

This table provides the results of logit estimations based on the sample of 331 completed mergers and acquisitions announced during 1993-2001. The dependent variable equals 1 if the acquiring firm's CEO is replaced involuntarily within 5 years after the acquisition through internal governance, takeovers, or bankruptcy, and equals 0 otherwise. Involuntarily (forced) CEO replacement is defined as meeting one of the following criteria: (1) the CEO is fired, forced to step down, or departs due to unspecified policy differences; or if the departing CEO is under 60 and either (a) the CEO is retiring, but the retirement is not announced at least six month prior to the succession, or (b) the reason for the departure does not involve death, poor health, or the acceptance of another position elsewhere or within the firm; (2) the firm is acquired by another firm, and the CEO of acquired firm does not stay with the merged firm; (3) the firm is undergoing bankruptcy or delisted due to not meeting the exchange financial requirements and the CEO is not in charge of the reorganization process. *High G-Index* is a dummy variable that equals 1 if the G-Index value is greater than 9. High E-Index is a dummy variable that equals 1 if the E-Index value is greater than 2. Staggered Board is a dummy variable that equals 1 for firms with only a portion of directors being elected each year, and zero otherwise. All governance provisions' variables are measured the year of or, if not available, the year prior to the acquisition announcement. CAR is the cumulative abnormal return to the acquiring firm measured over the five-day event windows surrounding the acquisition announcement date. Pre-BHAR(-3 years) is market-adjusted (CRSP value-weighted) buy-andhold return measured over the three years prior through 21 trading days prior to the merger or acquisition announcement. Post-BHAR is market-adjusted (CRSP value-weighted) buy-and-hold return measured over the three years after the completion of merger or acquisition for the sample of firms with no forced CEO turnover, and from the acquisition completion date to the CEO replacement date for firms with forced CEO turnover. CEO Age and CEO Tenure are in years. CEO/Chairman is a dummy variable that equals 1 for firms where the CEO is also the chairman of the board, and equals 0 otherwise. Insider Ownership is the percent of the firm's common stock owned by executives and directors, as a group. Blockholder Ownership is the ownership of at least five percent of common stock by non-executives and non-directors of the firm. Board Size is the number of directors. Proportion Independent is the proportion of the firm's board consisting of independent directors, which are defined as directors who are not employees, relatives of employees, or former employees of the firm. For firms that are not delisted and do not have forced CEO turnover, CEO and governance characteristics are from the proxy statements closest prior to the merger announcement; for firms with forced CEO turnover, these variables are measured prior to the CEO turnover date; for delisted firms these variables are from the last proxy statement. Relative Deal Value is acquisition value reported by the SDC, divided by the acquirer market value, which is measured as stock price multiplied by the number of shares outstanding on the 21st trading day prior to the acquisition announcement. Stock Deal is a dummy variable that equals one if the deal is at least partially paid with stock, and equals zero otherwise. Public Target is a dummy variable that equals 1 if the target is a public firm, and equals zero otherwise, z- statistics are in parentheses.

(continued)

Variables	1	2	3	4	5	6	7
High G-Index		0.214			0.221		
		(0.73)			(0.76)		
High E-Index			-0.223			-0.205	
			(-0.75)			(-0.69)	
Staggered Board				-0.581 ^b			-0.568
				(-1.99)			(-1.93)
CAR	-3.205 ^c	-3.345 °	-3.096	- 3.144 ^c	-2.317	-1.896	0.182
	(-1.69)	(-1.75)	(-1.63)	(-1.65)	(-0.96)	(-0.83)	(0.07)
High G-Index*CAR					-2.585		
					(-0.67)		
High BCF*CAR						-3.534	
						(-0.89)	
Staggered Board*CAR							-8.089 ^t
							(-1.99)
Pre-BHAR (-3 years)	0.053	0.058	0.050	0.047	0.055	0.048	0.036
	(1.11)	(1.18)	(1.05)	(0.98)	(1.09)	(0.96)	(0.69)
Post-BHAR	-0.658 ^a	-0.662 ^a	-0.652 ^a	-0.662 ^a	-0.682 ^a	-0.676 ^a	-0.685
	(-3.01)	(-3.01)	(-2.98)	(-3.02)	(-3.04)	(-3.04)	(-3.09)
CEO Age	-0.008	-0.009	-0.006	-0.007	-0.009	-0.006	-0.003
	(-0.37)	(-0.43)	(-0.29)	(-0.34)	(-0.44)	(-0.28)	(-0.14)
CEO Tenure	-0.226 ^a	-0.225 ^a	-0.228 ^a	-0.228 ^a	-0.225 ^a	-0.229 ^a	-0.230*
	(-6.02)	(-5.99)	(-6.03)	(-6.05)	(-6.01)	(-6.06)	(-6.07)
Stock Deal	0.135	0.135	0.142	0.122	0.153	0.151	0.135
	(0.46)	(0.46)	(0.48)	(0.41)	(0.51)	(0.51)	(0.45)
Public Target	0.433	0.500	0.485	0.535	0.489	0.474	0.495
	(1.33)	(1.32)	(1.28)	(1.28)	(1.28)	(1.25)	(1.49)
Relative Deal Value	-0.387	-0.421	-0.336	-0.345	-0.376	-0.376	-0.450
	(-0.66)	(-0.71)	(-0.57)	(-0.59)	(-0.63)	(-0.64)	(-0.76)
Constant	1.171	1.120	1.171	1.511	1.123	1.174	1.289
	(0.97)	(0.92)	(0.97)	(1.23)	(0.92)	(0.97)	(1.04)
Pseudo R^2 (%)	20.49	20.64	20.64	21.54	20.75	20.86	22.49
Chi ² <i>p</i> -value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table V (continued)

a, b, and c indicate statistical significance at the 1%, 5%, and 10%, respectively.

(continued)

Variables	8	9	10	11	12	13	14
High G-Index		0.426					
-		(1.25)					
High E-Index			-0.097		0.464	-0.070	
			(-0.30)		(1.35)	(-0.22)	
Staggered Board				-0.510			-0.484
				(-1.63)			(-1.53)
CAR	-3.113	-3.389°	-3.076	-3.073	-1.222	-1.478	1.388
	(-1.59)	(-1.70)	-(1.57)	(-1.56)	(-0.50)	(-0.62)	(0.49)
High G-Index*CAR					-5.478		
					(-1.35)		
High BCF*CAR						-4.500	
						(-1.09)	Ŀ
Staggered Board*CAR							-10.058°
							(-2.34)
Pre-BHAR (-3 years)	0.024	0.031	0.023	0.018	0.024	0.018	0.002
	(0.50)	(0.64)	$(0.48)_{h}$	(0.38)	(0.47)	(0.37)	(0.03)
Post-BHAR	-0.510	-0.509	-0.510	-0.523 °	-0.555	-0.546	-0.549 °
	(-2.44)	(-2.43)	(-2.44)	(-2.50)	(-2.54)	(-2.53)	(-2.59)
CEO Age	-0.005	-0.004	-0.004	-0.004	-0.004	-0.004	0.000
	(-0.20)	(-0.18)	(-0.17)	(-0.18)	(-0.17)	(-0.18)	(0.00)
CEO Tenure	-0.235 °	-0.231 °	-0.236 °	-0.237 ª	-0.233 °	-0.238 °	-0.238 ª
	(-5.78)	(-5.68)	(-5.78)	(-5.83)	(-5.74)	(-5.82)	(-5.84)
Stock Deal	0.257	0.268	0.259	0.225	0.317	0.279	0.260
	(0.80)	(0.84)	(0.81)	(0.70)	(0.98)	(0.87)	(0.80)
Public Target	0.662	0.700°	0.660°	0.627	0.725	0.685	0.715
	(1.85)	(1.94)	(1.84)	(1.75)	(1.99)	(1.90)	(1.95)
Relative Deal Value	-0.286	-0.433	-0.253	-0.209	-0.360	-0.287	-0.286
	(-0.44)	(-0.64)	(-0.39)	(-0.32)	(-0.54)	(-0.44)	(-0.44)
CEO/Chairman	0.238	0.203	0.237	0.230	0.165	0.206	0.254
D 10.	(0.66)	(0.56)	(0.65)	(0.63)	(0.45)	(0.57)	(0.68)
Board Size	-0.232	-0.250	-0.229	-0.220	-0.261	-0.231	-0.233
	(-3.6/)	(-3.80)	(-3.59)	(-3.48)	(-3.92)	(-3.61)	(-3.59)
Prop. Independent	-0./22	-0.935	-0./16	-0.//9	-0.950	-0.691	-0.823
	(-0.69)	(-0.88)	(-0.68)	(-0./4)	(-0.89)	(-0.66)	(-0.//)
Insider Ownership	$-0.04/^{3}$	-0.043	-0.048	-0.049	-0.046	-0.050°	-0.055
	(-1.82)	(-1.62)	(-1.84)	(-1.89)	(-1./2)	(-1.91)	(-2.04)
Block. Ownership	-0.015	-0.014	-0.015	-0.01/	-0.015	-0.016	-0.018
	(-1.32)	(-1.24)	(-1.33)	(-1.46)	(-1.31)	(-1.39)	(-1.53)
Constant	4.0/4	4.097	4.051	4.336	4.21/	4.104	4.280
	(2.60)	(2.60)	(2.58)	(2.73)	(2.67)	(2.61)	(2.65)
Pseudo R^2 (%)	25.80	26.22	25.82	26 50	26 71	26.15	27.86
Chi ² <i>n</i> -value	0 000	0 000	0 000	0 000	0,000	0 000	0,000
$a^{a} b$ and ^c indicate statistic	al significan	$\frac{0.000}{100}$	5% and 1	0% respecti	velv.	0.000	0.000

Table V (continued)

Table VI: Logistic Regressions of the Probability of External Forced CEO Turnover after the Merger or Acquisition

This table provides the results of logit estimations based on the sample of 275 completed mergers and acquisitions announced during 1993-2001, which excludes firms with forced CEO replacement by internal governance (board of directors). The dependent variable equals one if the acquiring firm's CEO is replaced within 5 years after the acquisition through corporate takeover. High G-Index is a dummy variable that equals 1 if the G-Index value is greater than 9. High E-Index is a dummy variable that equals 1 if the E-Index value is greater than 2. Staggered Board is a dummy variable that equals 1 for firms with only a portion of directors being elected each year, and zero otherwise. All governance provisions' variables are measured the year of or, if not available, the year prior to the acquisition announcement. CAR is the cumulative abnormal return to the acquiring firm measured over the five-day event windows surrounding the acquisition announcement date. Pre-BHAR(-3 years) is market-adjusted (CRSP valueweighted) buy-and-hold return measured over the three years prior through 21 trading days prior to the merger or acquisition announcement. Post-BHAR is market-adjusted (CRSP value-weighted) buy-andhold return measured over the three years after the completion of merger or acquisition for the sample of firms with no CEO turnover, and from the acquisition completion date to the CEO replacement date for firms with CEO turnover. CEO Age and CEO Tenure are in years. CEO/Chairman is a dummy variable that equals 1 for firms where the CEO is also the chairman of the board, and equals 0 otherwise. Insider *Ownership* is the percent of the firm's common stock owned by executives and directors, as a group. Blockholder Ownership is the ownership of at least five percent of common stock by non-executives and non-directors of the firm. Board Size is the number of directors. Proportion Independent is the proportion of the firm's board consisting of independent directors, which are defined as directors who are not employees, relatives of employees, or former employees of the firm. For firms that are not delisted and do not have the CEO turnover, CEO and governance characteristics are from the proxy statements closest prior to the merger announcement; for firms with CEO turnover, these variables are measured prior to the CEO turnover date; for delisted firms these variables are from the last proxy statement. Relative Deal Value is acquisition value reported by the SDC, divided by the acquirer market value, which is measured as stock price multiplied by the number of shares outstanding on the 21st trading day prior to the acquisition announcement. Stock Deal is a dummy variable that equals one if the deal is at least partially paid with stock, and equals zero otherwise. Public Target is a dummy variable that equals 1 if the target is a public firm, and equals zero otherwise. z- statistics are in parentheses.

(continued)

Variables	1	2	3	4	5	6
High G-Index	0.094			-0.015		
-	(0.17)			(-0.03)		
High BCF		-0.422			-0.661	
-		(-0.78)			(-1.09)	
Staggered Board			-1.070 ^b			-2.031 ^a
			(-2.07)			(-2.79)
CAR	-6.491 ^b	-6.478 ^b	-6.405 ^b	-4.000	-4.041	-0.961
	(-2.23)	(-2.23)	(-2.19)	(-1.19)	(-1.27)	(-0.28)
High G-Index*CAR				-9.175		
				(-1.27)		
High BCF*CAR					-12.958	
					(-1.45)	
Staggered Board*CAR						-32.396 ^a
						(-2.93)
Pre-BHAR (-3 years)	0.047	0.040	0.029	0.052	0.053	-0.004
	(0.39)	(0.34)	(0.24)	(0.43)	(0.45)	(-0.03)
Post-BHAR	0.023	0.056	-0.001	0.028	0.061	-0.031
	(0.08)	(0.19)	(0.00)	(0.09)	(0.19)	(-0.10)
CEO Age	0.012	0.014	0.007	0.012	0.015	0.024
	(0.27)	(0.33)	(0.17)	(0.30)	(0.37)	(0.54)
CEO Tenure	-0.386 ^a	-0.402 ^a	-0.430 ^a	-0.372 ^a	-0.398 ^a	-0.433 ^a
	(-4.02)	(-4.08)	(-4.12)	(-4.05)	(-4.15)	(-4.21)
Stock Deal	-0.110	-0.174	-0.119	0.004	-0.054	-0.047
	(-0.20)	(-0.31)	(-0.21)	(0.01)	(-0.09)	(-0.08)
Public Target	0.985	0.895	0.729	1.106 ^c	0.992	1.092
	(1.61)	(1.48)	(1.19)	(1.75)	(1.59)	(1.60)
Relative Deal Value	-1.164	-0.995	-0.985	-1.091	-1.273	-2.035
	(-0.85)	(-0.72)	(-0.72)	(-0.79)	(-0.94)	(-1.48)
CEO/Chairman	0.286	0.300	0.270	0.240	0.222	0.234
	(0.48)	(0.50)	(0.44)	(0.40)	(0.37)	(0.36)
Board Size	-0.243 ^b	-0.225 ^b	-0.216 ^b	-0.258 ^b	-0.209 ^b	-0.178
	(-2.09)	(-2.00)	(-1.98)	(-2.16)	(-1.86)	(-1.64)
Proportion Independent	-0.389	-0.460	-0.638	-0.349	-0.374	-1.067
	(-0.23)	(-0.26)	(-0.34)	(-0.21)	(-0.23)	(-0.53)
CEO Ownership	0.061	0.060	0.064	0.063	0.072	0.033
	(0.69)	(0.67)	(0.73)	(0.72)	(0.83)	(0.38)
Blockholder Ownership	0.002	0.001	-0.002	-0.001	0.000	-0.004
-	(0.12)	(0.08)	(-0.12)	(-0.06)	(0.01)	(-0.19)
Constant	2.424	2.508	3.592	2.486	2.280	2.886
	(0.84)	(0.87)	(1.22)	(0.88)	(0.82)	(0.96)
	, ,	. /	. ,	. /	. ,	. /
Pseudo R^2 (%)	31.65	32.00	34.19	32.71	33.57	41.73
Chi ² <i>p</i> -value	0.000	0.000	0.000	0.000	0.000	0.000

Table	VI	(continued)

a, b, and c indicate statistical significance at the 1%, 5%, and 10%, respectively.

Table VII: Logistic Regressions of the Probability of Internal Forced CEO Turnover after the Merger or Acquisition

This table provides the results of logit estimations based on the sample of 306 completed mergers and acquisitions announced during 1993-2001, which excludes firms with forced CEO replacement by external governance (through takeovers or bankruptcy). The dependent variable equals one if the acquiring firm's CEO is replaced involuntarily within 5 years after the acquisition by internal governance. CEO replacement by internal governance is defined as meeting one of the following criteria: (1) the CEO is fired, forced to step down, or departs due to unspecified policy differences; or if the departing CEO is under 60 and either (a) the CEO is retiring, but the retirement is not announced at least six month prior to the succession, or (b) the reason for the departure does not involve death, poor health, or the acceptance of another position elsewhere or within the firm. *High G-Index* is a dummy variable that equals 1 if the G-Index value is greater than 9. High E-Index is a dummy variable that equals 1 if the E-Index value is greater than 2. Staggered Board is a dummy variable that equals 1 for firms with only a portion of directors being elected each year, and zero otherwise. All governance provisions' variables are measured the year of or, if not available, the year prior to the acquisition announcement. CAR is the cumulative abnormal return to the acquiring firm measured over the five-day event windows surrounding the acquisition announcement date. Pre-BHAR(-3 years) is market-adjusted (CRSP value-weighted) buy-andhold return measured over the three years prior through 21 trading days prior to the merger or acquisition announcement. Post-BHAR is market-adjusted (CRSP value-weighted) buy-and-hold return measured over the three years after the completion of merger or acquisition for the sample of firms with no forced CEO turnover, and from the acquisition completion date to the CEO replacement date for firms with forced CEO turnover. CEO Age and CEO Tenure are in years. CEO/Chairman is a dummy variable that equals 1 for firms where the CEO is also the chairman of the board, and equals 0 otherwise. Insider Ownership is the percent of the firm's common stock owned by executives and directors, as a group. Blockholder Ownership is the ownership of at least five percent of common stock by non-executives and non-directors of the firm. Board Size is the number of directors. Proportion Independent is the proportion of the firm's board consisting of independent directors, which are defined as directors who are not employees, relatives of employees, or former employees of the firm. For firms that are not delisted and do not have the CEO turnover, CEO and governance characteristics are from the proxy statements closest prior to the merger announcement; for firms with CEO turnover, these variables are measured prior to the CEO turnover date; for delisted firms these variables are from the last proxy statement. Relative Deal Value is acquisition value reported by the SDC, divided by the acquirer market value, which is measured as stock price multiplied by the number of shares outstanding on the 21st trading day prior to the acquisition announcement. Stock Deal is a dummy variable that equals one if the deal is at least partially paid with stock, and equals zero otherwise. Public Target is a dummy variable that equals 1 if the target is a public firm, and equals zero otherwise. z- statistics are in parentheses.

(continued)

Variables	1	2	3	4	5	6
High G-Index	0.322			0.277		
	(0.79)			(0.66)		
High E-Index		0.011			-0.226	
		(0.03)			(-0.53)	
Staggered Board			-0.270			-0.345
			(-0.71)			(-0.89)
CAR	-2.284	-1.965	-1.793	-2.414	-2.452	-1.763
	(-0.91)	(-0.80)	(-0.73)	(-0.97)	(-1.00)	(-0.72)
Pre-BHAR (-3 years)	0.010	0.004	0.001	0.012	0.008	0.001
	(0.20)	(0.09)	(0.03)	(0.25)	(0.17)	(0.01)
Post-BHAR	-0.852 ª	-0.860 ^a	-0.862 ^a	-0.706°	-0.510°	-0.618
	(-3.08)	(-3.12)	(-3.13)	(-1.87)	(-1.67)	(-1.55)
High G-Index*Post-BHAR				-0.282		
				(-0.53)		
High E-Index*Post-BHAR					-1.111	
					(-1.86)	0.44.6
Staggered Board*Post-BHAR						-0.416
	0.001	0.000	0.021	0.021	0.025	(-0.79)
CEO Age	-0.021	-0.022	-0.021	-0.021	-0.025	-0.021
	(-0.77)	(-0.79)	(-0.75)	(-0.76)	(-0.90)	(-0.77)
CEO Tenure	-0.219"	-0.221 "	-0.222 "	-0.219	-0.223 "	-0.222*
	(-4.81)	(-4.87)	(-4.89)	(-4./8)	(-4.80)	(-4.85)
Stock Deal	0.344	0.335	0.306	0.322	0.261	0.322
	(0.91)	(0.89)	(0.80)	(0.84)	(0.68)	(0.84)
Public Target	0.647	0.595	0.590	0.644	0.649	0.646
Deleting Deel Veles	(1.60)	(1.48)	(1.47)	(1.59)	(1.58)	(1.60)
Relative Deal Value	-0.483	-0.3/2	-0.329	-0.515	-0.4/5	-0.358
	(-0.59)	(-0.46)	(-0.41)	(-0.62)	(-0.55)	(-0.44)
CEO/Chairman	0.206	0.218	0.202	0.190	0.217	0.193
	(0.47)	(0.50)	(0.46)	(0.43)	(0.49)	(0.44)
Board Size	-0.213	-0.200°	-0.190°	-0.210°	-0.188	-0.188
Decad Indexed and	(-2.68)	(-2.55)	(-2.48)	(-2.64)	(-2.41)	(-2.44)
Board Independence	-1.138	-0.963	-0.947	-1.0/0	-0.88/	-0.856
In ai dan Oran anabin	(-0.90)	(-0.78)	(-0.76)	(-0.84)	(-0.71)	(-0.69)
Insider Ownersnip	-0.038	-0.040	-0.041	-0.035	-0.039	-0.043
	(-1.38)	(-1.50)	(-1.56)	(-1.29)	(-1.46)	(-1.63)
Biocknoider Ownersnip	-0.021	-0.021	-0.021	-0.021	-0.022	-0.021
Constant	(-1.33)	(-1.52)	(-1.53)	(-1.5/)	-(1.01)	(-1.38)
Constant	4.729°	4.703	4.750°	4.091	(2.52)	(2, 40)
	(2.49)	(2.48)	(2.51)	(2.48)	(2.53)	(2.49)
$\mathbf{P}_{\mathrm{courde}} \mathbf{P}^2(0/0)$	27.00	27 76	27.04	20 00	20.08	1 0 16
rseudo K ($\frac{7}{0}$)	27.99	2/./0	27.94	28.08	29.08	28.10
	0.000	0.000	0.000	0.000	0.000	0.000

Table VII (continued)

a, b, and c indicate statistical significance at the 1%, 5%, and 10%, respectively.

Table VIII: Two-stage Probit Regressions of the Probability of Forced CEO Turnover

This table provides the results of two-stage probit estimations, testing the endogeneity between the deployment of governance provisions and forced CEO turnover. Models 1 and 2 are estimated for the sample of 331 CEOs who completed mergers and acquisitions announced during 1990-2001. CEO Turnover in Models 1 and 2 equals 1 if the acquiring firm's CEO is replaced involuntarily within 5 years after the acquisition through internal governance, takeovers, or bankruptcy, and equals 0 otherwise. Involuntarily (forced) CEO replacement is defined as meeting one of the following criteria: (1) the CEO is fired, forced to step down, or departs due to unspecified policy differences; or if the departing CEO is under 60 and either (a) the CEO is retiring, but the retirement is not announced at least six month prior to the succession, or (b) the reason for the departure does not involve death, poor health, or the acceptance of another position elsewhere or within the firm; (2) the firm is acquired by another firm, and the CEO of acquired firm does not stay with the merged firm; (3) the firm is undergoing bankruptcy or delisted due to not meeting the exchange financial requirements and the CEO is not in charge of the reorganization process. Model 3 is estimated for the subsample of 275 completed mergers and acquisitions announced during 1993-2001, which excludes firms with forced CEO replacement by internal governance (board of directors). CEO Turnover in Model 3 equals one if the acquiring firm's CEO is replaced within 5 years after the acquisition through corporate takeover. Firm Age is the number of years from the first date when firm data on Compustat are available to the delist date for firms that are delisted or to the end of 2006 for firms that are still publicly trading. Industry Average G-Index is the average value of G-Index for each industry, based on 12 Fama-French industry classification, in a given IRRC publication year. Industry Staggered Board is a dummy variable that equals 1 if a majority of firms in the industry have a staggered board. All governance provisions' variables are measured the year of or, if not available, the year prior to the acquisition announcement. CAR(-2,+2) is the cumulative abnormal return to the acquiring firm measured over the five-day event windows surrounding the acquisition announcement date. Pre-BHAR(-3 years) is market-adjusted (CRSP value-weighted) buy-andhold return measured over the three years prior through 21 trading days prior to the merger or acquisition announcement. Post-BHAR is marketadjusted (CRSP value-weighted) buy-and-hold return measured over the three years after the completion of merger or acquisition for the sample of firms with no forced CEO turnover, and from the acquisition completion date to the CEO replacement date for firms with forced CEO turnover. CEO Age and CEO Tenure are in years. CEO/Chairman is a dummy variable that equals 1 for firms where the CEO is also the chairman of the board, and equals 0 otherwise. Insider Ownership is the percent of the firm's common stock owned by executives and directors, as a group. Blockholder Ownership is the ownership of at least five percent of common stock by non-executives and non-directors of the firm. Board Size is the number of directors. Proportion Independent is the proportion of the firm's board consisting of independent directors, which are defined as directors who are not employees, relatives of employees, or former employees of the firm. For firms that are not delisted and do not have forced CEO turnover, CEO and governance characteristics are from the proxy statements closest prior to the merger announcement; for firms with forced CEO turnover, these variables are measured prior to the CEO turnover date; for delisted firms these variables are from the last proxy statement. Relative Deal Value is acquisition value reported by the SDC, divided by the acquirer market value, which is measured as stock price multiplied by the number of shares outstanding on the 21st trading day prior to the acquisition announcement. Stock Deal is a dummy variable that equals one if the deal is at least partially paid with stock, and equals zero otherwise. Public Target is a dummy variable that equals 1 if the target is a public firm, and equals zero otherwise. z- statistics are in parentheses.

(continued)

Table VIII (continued)										
	Mode	el 1 (N=331)	Mode	el 2 (N=331)	Model 3 (N=xxx)				
	1 st stage:	2 nd stage:	1 st stage:	2 nd stage:	1 st stage:	2 nd stage:				
Variable	G-Index	CEO Turnover	G-Index	CEO Turnover	Staggered Board	CEO Turnover				
Firm Age	0.028 ^a									
	(3.48)									
Industry Average G-Index			0.561 ^b							
			(2.21)							
Industry Staggered Board					0.202 ^b					
					(2.49)					
G-Index		0.052		-0.202						
		(0.29)		(-0.66)						
Staggered Board						-3.968 °				
						(-1.79)				
CAR (-2,+2)	2.521	-1.655	2.577	-1.092	0.008	-3.501 ^c				
	(1.39)	(-1.40)	(1.41)	(-0.80)	(0.02)	(-1.74)				
Pre-BHAR (-3 years)	-0.110 ^b	0.029	-0.119 ^b	-0.002	0.005	0.035				
	(-1.98)	(0.77)	$(-2.13)^{b}$	(-0.05)	(0.25)	(0.37)				
Post-BHAR	-0.061	-0.181 ^c	-0.071	-0.209 ^c	-0.003	0.025				
	(-0.36)	(-1.83)	(-0.41)	(-1.88)	(-0.09)	(0.13)				
Stock Deal	-0.027	0.010	-0.044	-0.059	-0.053	-0.687				
	(-0.08)	(0.05)	(-0.13)	(-0.27)	(-0.79)	(-1.47)				
Relative Deal Value	0.676	-0.319	0.458	-0.146	0.158	-0.020				
	(1.20)	(-0.80)	(0.80)	(-0.33)	(1.35)	(-0.02)				
Public Target	0.010	0.379 °	0.162	0.392 °	-0.145 ^b	-0.071				
	(0.03)	(1.87)	(0.49)	(1.79)	(-2.11)	(-0.13)				
CEO Age	0.006	0.002	0.001	0.005	-0.006	-0.021				
	(0.27)	(0.13)	(0.04)	(0.31)	(-1.34)	(-0.75)				
CEO Tenure	-0.042 ^b	-0.116 ^a	-0.042 ^b	-0.127 ^a	-0.001	-0.212 ^a				
	(-2.03)	(-5.53)	(-2.03)	(-5.29)	(-0.33)	(-4.11)				

Table VIII (continued)

CEO/Chairman	0.226	0.190	0.223	0.248	-0.088	0.184
	(0.66)	(0.86)	(0.64)	(1.02)	(-1.23)	(0.39)
Board Size	0.166 ^a	-0.150 ^a	0.196 ^a	-0.093	0.018 ^c	-0.078
	(3.63)	(-2.66)	(4.35)	(-1.22)	(1.87)	(-0.85)
Prop. Independent	-0.109	-0.732	-0.083	-0.704	-0.046	-0.203
	(-0.53)	(-1.21)	(-0.40)	(-1.18)	(-1.20)	(-0.67)
Insider Ownership	-0.061 ^a	-0.016	-0.069 ^a	-0.033	-0.006 ^c	-0.021
	(-3.48)	(-0.94)	(-3.92)	(-1.34)	(-1.66)	(-0.87)
Block. Ownership	-0.023 ^b	-0.008	-0.027 ^a	-0.015	-0.003	-0.014
	(-2.36)	(-0.97)	(-2.74)	(-1.37)	(-1.61)	(-1.02)
Constant	7.610 ^a	1.690	3.467	3.660	0.855 °	5.318 ^b
	(5.93)	(1.05)	(1.41)	(1.42)	(3.26)	(2.13)
Adjusted R ²		20.080		18.300		5.790
Wald Chi ²		61.630		58.340		27.750
p-value		(0.000)		(0.000)		(0.015)
Wald Test of Exogeneity						
Chi ²		0.01		0.68		4.640
p-value		0.9164		0.4086		0.031

a, b, and c indicate statistical significance at the 1%, 5%, and 10%, respectively.