

Board Involvement in the M&A Negotiation Process

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Abstract

This paper examines whether the active engagement of target firm directors in the sale process affects merger outcomes. Using data manually extracted from merger-related SEC filings, I create two measures of target board involvement in merger negotiations: the number of days it takes for the board to meet after the beginning of the sale process and the number of board meetings held throughout the entire process. I find that early board involvement in merger talks increases target shareholder returns and premiums, especially when shareholders have weak control over their firms and are thus in greater need of board protection. Although the two measures of target board activity do not affect acquirer or combined cumulative abnormal returns or the likelihood of competition, such activity does reduce the likelihood of an excessive target termination fee. Robustness analyses dismiss an alternative explanation whereby attractive initial bids lead to both early board involvement and attractive final bids.

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1 Introduction

“If a company is running along smoothly, then it’s advice and counsel that directors are called upon to give, but if there is some sort of crisis, then a director will have to devote far more time to study all of the ramifications of the issue in order to be able to make the right decision. In the case of a takeover, you have to meet constantly in order to fulfill your fiduciary responsibilities, or else you may be liable at some future date.”

Comment by a board director
- quoted from Lorsch and MacIver (1989)

The potential takeover of a company has always been one of the most controversial corporate events because it leads to a sharp divergence between shareholder and management interests. Shareholders’ main concern during the sale of their company is the offer price, whereas the energies of CEOs are also directed toward planning their careers for the post-takeover period. This conflict of interest establishes the basis for CEOs trading off their own benefits with those of shareholders when negotiating the sale of the company, as evidenced by the prior literature (Wulf, 2004; Hartzell, Ofek and Yermack, 2004; Fich, Cai and Tran, 2011; and Qui, Trapkov and Yakoub, 2014). In this setting of heightened agency conflicts, the target board is responsible for protecting shareholder interests by closely monitoring the sale process, which is typically led by the CEO. In addition to its monitoring role, the board is also expected to serve as an advisor and to guide management through the complex sale process. The above quotation by a board member interviewed by Lorsch and MacIver (1989) clearly illustrates how strongly directors feel the pressure of these increased expectations, which, if not fulfilled, may lead to litigation.

Krishnan et al. (2012) report that approximately 10% of all M&A offers are followed by shareholder litigation against target firm executives and directors. Although the U.S. courts refrain from imposing a single blueprint of the steps to be followed by directors during the sale of a company, an analysis of litigation materials reveals a set of red flags that are raised when investigating the adequacy of the target board’s decision-making process. These red flags are (i) the failure to conduct an adequate auction process and/or limitations on the firm’s ability to receive future bids, (ii) the lack of a fairness opinion, and (iii) the board’s failure to become actively involved in the sale process. Although the first point has been studied by Boone and Mulherin (2007), Officer (2003) and Bates and Lemmon (2003) and the second by Kisgen et al. (2009), the last point has not been addressed in previous work. In this study, I attempt to fill this gap by manually collecting data on target board meetings held

throughout the negotiation process and by analyzing the effect of the target board's active involvement in the sale process on merger outcomes.

For a sample of 483 M&A transactions announced between 2004 and 2008, I identify the filing(s) made with the SEC in relation to each deal. From these filings, I first extract the date on which the target and the acquirer make the first tangible contact to initiate the takeover process. Beginning with this first contact date through the date of announcement, I record the date of each target board meeting in which the directors discuss the current state of merger negotiations. Based on evidence from lawsuits filed by shareholders complaining about their board's ineffectiveness during the sale of the company, I define two binary variables to measure target board activity. The high meeting count variable is equal to one if the number of target board meetings held during merger talks is greater than or equal to the sample median value of 5. The early board involvement variable equals one if the target board meets within a month of the date of first contact between the target and the acquirer. The one-month cut-off point also corresponds to the median number of days it takes for the target board to meet after the initiation of merger talks.

The arguments in shareholder litigation cases suggest skepticism toward target boards that are involved late in the sales process and toward those boards that commit very little time before approving the sale of the company. Indeed, a target board actively engaged in the sale process can be expected to be better informed about the strategic alternatives before the firm, the intrinsic value of their firm and that of bidders, the details of each bidder's proposal and information regarding how potential conflicts of interest may affect deal outcomes. This information advantage may allow the board to perform its monitoring role more effectively and to provide higher-quality advice, both of which may lead to better outcomes for target shareholders. Consistent with these expectations, when controlling for other factors that have been shown to affect target shareholder returns, I find that the early involvement of the target board in the negotiation process is associated with an increase of 6 percentage points in target cumulative abnormal returns (CARs). By contrast, the number of meetings held by the board during the merger negotiation phase does not appear to affect target shareholder wealth.

Further analysis reveals that the positive effect of early board involvement on target CARs is confined to cases in which the target shareholders have a low level of control over their firms. This observation also holds when takeover premiums are considered. Specifically, when target shareholder control is weak, the early involvement of the board in the sale process increases target CARs and takeover premiums by 7.8 and 5.7 percentage points, respectively. However, these effects disappear when the level of target shareholder

control in the firm is high, suggesting that close monitoring by the target board serves to protect shareholder interests only when shareholders cannot adequately protect their own interests.

I also examine whether the higher target CARs associated with early board involvement arise from a wealth transfer from acquirers to target shareholders. Regression results indicate that neither early board involvement nor a high number of target board meetings has an impact on acquirer CARs or on CARs accruing to the combined firm (i.e., a value-weighted portfolio for the target and acquirer firms). Hence, prompt involvement of the target board in the sale process appears to benefit target shareholders without disadvantaging acquirer firm shareholders.

In further analysis, I investigate the potential channels through which target directors may create value for their shareholders. Firstly, I examine the competitiveness of the private negotiation process because creating a competitive bidding environment may be one method by which active target boards achieve higher bids. Contrary to this expectation, the results suggest that neither of the two measures of target board activity increases the likelihood of competition. Second, I examine whether active target boards reduce the likelihood of agreeing to unreasonably high termination fees, which are frequently cited in shareholder lawsuits as a major deterrent to receiving topping bids after the deal announcement. The results indicate that if the target board meets within one month of the beginning of negotiations or if it meets more than 5 times during the entire negotiation process, the likelihood of an unreasonably high termination fee decreases by approximately 9 percentage points.

An alternative explanation for the positive relationship between early board involvement and target CARs is that receiving an attractive bid at the beginning of the process may cause the target managers to take action by immediately calling a board meeting. Such an attractive initial bid is likely to lead to an attractive final bid. In such a setting, the relationship between early board involvement and target CARs may be spurious. In an effort to evaluate the relevance of this alternative explanation, I show that the positive relationship between early board involvement and target CARs continues to hold even in cases in which the target has not received a formal bid before the date of the first board meeting.

This study builds on and contributes to two strands of literature. First, the work relates to the literature that investigates the effect of board activity on firm performance in normal times. In his seminal work on the subject, Vafeas (1999) finds a negative relationship between the annual number of board meetings and firm value, as measured by Tobin's Q.

Vafeas (1999) shows that this counterintuitive finding results from stock price declines being followed by more frequent board meetings. Other studies follow Vafeas (1999) in examining the link between annual board meeting frequency and financial outcomes. Some of these studies find that an increased frequency of annual board meetings is associated with favorable outcomes for shareholders, implying a proactive role for boards (Carcello et al., 2002; Xie, Davidson and DaDalt, 2003; Laksmana, 2008; and Bowen, Rajgopal and Venkatachalam, 2008), whereas others report that this increased frequency is associated with poorer outcomes for shareholders, implying a reactive role for boards (Zhang, Zhou and Zhou, 2007; Ebrahim, 2007; Johnson, Ryan and Tian, 2009; and Chen et al., 2006). This study extends this research in two directions first by focusing on a crisis situation rather than on times of normalcy and then by investigating whether the exact number of board meetings targeted to resolve an extraordinary event improves the outcome of that event for shareholders.

The other closely related literature examines the link between the level of monitoring exerted by the target board and target shareholder returns surrounding a merger announcement. These studies assume that certain board characteristics, such as independence, lead to better board monitoring. Lee et al. (1992), Cotter, Shivdasani and Zenner (1997) and Moeller (2005) show that an independent target board is associated with significantly higher target shareholder gains, whereas Bange and Mazzeo (2004) find no significant relationship between the two. Bange and Mazzeo (2004) find that target shareholder gains are higher when the target CEO is also the chairman of the board, a setting that would in fact be expected to result in poor board monitoring. My paper contributes to this literature by using a more direct measure of board diligence during the negotiation process without needing to assume that certain board features lead to stronger board diligence.

The remainder of the paper is organized as follows. In Section 2, I provide the empirical and legal background on what is expected from the target board in an M&A context. In Section 3, I discuss the potential effect of an actively engaged target board on shareholder wealth and review the related literature. In Section 4, I introduce my sample and my methodology for gathering data and for constructing the board activity measures and other corporate governance variables. In Section 5, I analyze the effect of increased target board involvement on announcement period returns. In Section 6, I explain how the active involvement of the target board affects the private negotiation process with a focus on the likelihood of competition and excessive target termination fees. Section 7 presents a robustness check, and Section 8 concludes the paper.

2 Empirical and Legal Background on the Expectations from the Target Board

2.1 The Role of Board Monitoring and Advice

During the process of selling a firm, conflicts of interests between managers and shareholders are particularly exacerbated. Whereas the sole concern of shareholders is to receive the highest price available for their shares, the firm's CEO has many other concerns. Only approximately 50% of target CEOs are retained as an officer in the combined firm, and even when they are retained, their turnover rates are extremely high relative to the normal turnover rate observed in the literature (Hadlock, Houston and Ryngaert, 1999; Hartzell, Ofek and Yermack, 2004). Moreover, when target CEOs lose their jobs, they have a difficult time securing another executive post (Agrawal and Walkling, 1994; Hartzell, Ofek and Yermack, 2004).

Confronting this uncertain employment outlook, CEOs may be tempted to use their privileged position in merger negotiations to agree on a lower offer price in exchange for higher personal benefits. Ample evidence in the prior literature supports this expectation. Using a sample of 2,198 completed deals announced between 1994 and 2010, Qui, Trapkov and Yakoub (2014) find that the retention of the target CEO is associated with a reduction of 6 percentage points in the takeover premium paid to shareholders. Similarly, Wulf (2004) shows that deals in which the target CEO obtains higher post-merger control rights are associated with target CARs that are 9% lower on average.

Target CEOs exchange shareholder returns not only for better post-takeover employment prospects but also for increased pecuniary benefits. Fich, Cai and Tran (2011) study the effects of granting target CEOs unscheduled options during the confidential negotiation process, and they estimate that for every dollar that target CEOs receive from these options, the deal value decreases by an average of \$62. Likewise, for deals in which the target CEO is not retained, Qui, Trapkov and Yakoub (2014) document a negative relationship between the relative importance of the severance pay received by the CEO and the premiums paid to shareholders. Hartzell, Ofek and Yermack (2004) also find that in deals involving extraordinary personal treatment of the CEO, target shareholders receive lower premiums.

Given this setting of severe agency conflicts, the monitoring role of target boards is critical. By closely monitoring the CEO and negotiations with bidders, the target board can protect shareholders' interests from the potential self-serving behavior of the CEO.

Although overseeing management has always been viewed as the primary responsibility of the board, recent empirical evidence suggests that during the takeover process, the board may also add value through its advisory role. Schmidt (2014) finds that social ties between the CEO and directors are associated with higher acquirer announcement returns when advisory needs are high. He attributes this finding to the willingness of the CEO to share information with friendly directors, which allows the board to give better advice. Similarly, Faleye, Hoitash and Hoitash (2013) find that acquirer CARs are higher by 80 basis points for firms with advisory directors, while the time needed for deal completion decreases by 17.1%.

In the case of target firms, which are the focus of this study, the incremental value of a board's advice might remain limited relative to the case of acquirer firms studied in the papers cited above. This expectation is related to the difference in the extent to which acquirers and targets seek external professional advice. It is almost a standard practice for target firms to retain a financial advisor and to obtain a fairness opinion during the sale process, whereas acquirer firms are less likely to do so¹. This difference may be partly explained by the higher litigation threat confronted by target executives and directors. Investment banks have an advantage in providing advice because of their superior experience in structuring deals; thus, for target firms, the marginal value of board advice may be relatively small.

2.2 Legal Background

If the target board fails to adequately fulfill the responsibilities associated with its monitoring and advisory roles during the sale of the company, it may face shareholder class action lawsuits after the deal is disclosed to the public. Indeed, Krishnan et al. (2012) report that between 1999 and 2000, approximately 10% of all M&A offers led to litigation by target shareholders.

When determining whether target directors should be held liable for breaching their fiduciary duties in a takeover event, the judge evaluates the case after the fact. At this point, it becomes possible that the final decision made by the board is revealed to be suboptimal or even completely false. However, according to the business judgment rule, the judge evaluates the adequacy of the decision-making process rather than the final outcome of the deal. Having adopted this process-oriented perspective, U.S. courts do not impose a single

¹ In my sample of 513 deals, 506 targets have retained financial advisors, and 466 have obtained a fairness opinion. By contrast, 401 acquirers have a financial advisor, and only 166 have requested a fairness opinion.

blueprint of the steps that a target board should take to avoid breaching its fiduciary duties in a takeover event. Nevertheless, a review of litigation materials reveals that a set of indicators is referenced when claiming (or defending against) a breach of the duty of care or the duty of “extra” care under Revlon. In this regard, target boards are primarily sued on the basis of a combination of the following factors: (i) the failure to conduct an adequate auction process and/or limitations on the firm’s ability to receive future bids², (ii) the lack of a fairness opinion³, and (iii) the board’s failure to become actively involved in the sale process.

The first two points on this list have been studied in the prior literature with regard to their impact on merger outcomes. Boone and Mulherin (2007) find that wealth effects for target shareholders do not significantly differ in auctions and negotiations. Officer (2003) investigates whether the use of target termination fees actually deters competing bids and finds weak support for a reduced level of competition in the existence of termination fees. However, he also finds evidence that such fees are associated with higher premiums and ultimately do not harm target shareholders. Similarly, Bates and Lemmon (2003) demonstrate that target termination fees are associated with higher takeover premiums and an increased probability of deal completion. Regarding the second point on the list, Kisgen, Qian and Song (2009) show that when the target board does not obtain a fairness opinion, deal outcomes do not change. Hence, when considered in isolation, neither of these two bases for plaintiff complaints appear to harm target shareholders.

The last listed item (regarding active involvement of the board) typically becomes an issue when the target board holds only a few meetings before approving the sale or when it fails to become involved early in the sale process. These two aspects of the sale process have not been studied previously, presumably because of a lack of relevant information in readily available databases. However, these issues have been cited in plaintiffs’ complaints and in court rulings for numerous significant lawsuits.⁴

² See, among others, the plaintiffs’ complaints in the following cases: *In re Openlane, Inc. Shareholders Litigation*, *In re Bioclinica, Inc. Shareholder Litigation*, *Omnicare, Inc. v. NCS Healthcare, Inc.*, *In Re BJ's Wholesale Club, Inc. Shareholders Litigation*, *In re Dollar Thrifty Shareholder Litigation*.

³ In the 1985 case of *Smith v. Van Gorkom*, the court held the target directors liable for breaching their duty of care by insufficiently informing themselves about the adequacy of the offer price. Failure to obtain a fairness opinion was one of the factors leading to this ruling. After this decision and subsequent cases, the use of a fairness opinion became standard in protecting managers and directors from subsequent shareholder litigation.

⁴ See, among others, the following cases: *In Re BJ's Wholesale Club, Inc. Shareholders Litigation*, *In re Openlane, Inc. Shareholders Litigation*, *In re Plains Exploration & Production Company Stockholder Litigation*, *Smith v. Van Gorkom*, *In re Toys “R” Us, Inc. Shareholder Litigation*, *In re McAfee, Inc. Shareholder Litigation*, *Lyondell Chemical v. Ryan*.

An example of shareholders' frustration when their board remains inactive during merger negotiations is the shareholder class action against the Lyondell Chemical Company directors. In the spring of 2007, Lyondell Chemical was the third-largest independent, publicly traded chemical company in the U.S., was financially strong and was not seeking to offer itself for sale. In early June, the Lyondell CEO met with his counterpart at Basell NV to negotiate a potential acquisition. The board was aware of Basell's potential interest in Lyondell because on May 11, 2007, a Basell affiliate had disclosed in a 13D filing their intent to possibly engage in discussions with Lyondell. On July 9, 2007, the Lyondell CEO received an offer from Basell, subject to the condition that the Lyondell board signs a merger agreement within a week. The board became involved in the negotiations only during this last week and signed the documents after considering the issue for a sum of 7 hours spread over 4 board meetings. The plaintiffs claimed that the Lyondell board breached its duty of care by not making an effort to understand the true value of the company or to explore strategic alternatives to maximize shareholder value over the period from May to July. The trial court depicted this period as follows:

“[T]he opinion clearly questions whether the Defendants ‘engaged’ in the sale process... This is where the 13D filing in May 2007 and the subsequent two months of (apparent) Board inactivity became critical... [T]he directors made no apparent effort to arm themselves with specific knowledge about the present value of the Company in the May through July 2007 time period despite admittedly knowing that the 13D filing . . . effectively put the company ‘in play’...⁵”

The plaintiffs argued that the board could not have adequately informed itself about the value of the firm over a 7-day period and after deliberating the matter over the course of only 4 meetings. The court opined in favor of the plaintiffs and found the process chosen by the Lyondell directors “troubling” under Revlon⁶.

3 Possible Effects of Active Target Board Involvement on Shareholder Wealth and Related Literature

Evidence from shareholder litigation suggests skepticism toward boards that do not become involved in merger discussions early in the process and toward those boards that

⁵ *Ryan v. Lyondell Chemical Co.*, 2008 WL 4174038 (Del. Ch. 2008)

⁶ Although the Delaware Court of Chancery denied the defendants' motion for summary judgment with respect to the plaintiffs' Revlon claims, this ruling was subsequently reversed by the Supreme Court of Delaware on the basis of a technical interpretation of when the Revlon duties begin to apply.

commit very little time to processing the deal proposal. By contrast, boards that closely monitor negotiations by holding regular meetings are viewed as having taken necessary steps to adequately inform themselves about the deal and to control agency conflicts. Therefore, shareholders and courts alike appear to assume a hypothesis that the target board's active involvement in the negotiation process will improve merger results for target shareholders. In this study, I test this hypothesis using (i) the number of days to the first board meeting after the initiation of merger negotiations and (ii) the total number of meetings that the target board holds during the negotiation process as measures of board involvement in the sale process. Target boards that become involved early in the process and meet frequently throughout the negotiations can be expected to be more informed about the strategic alternatives before the firm, the true value of the firm and that of bidders, and the details regarding each bidder's proposal. Such boards will have a better understanding of how potential conflicts of interest may affect deal outcomes and will have more time to discuss strategies for protecting shareholders' interests. This enhanced information may enable target boards to exercise more effective monitoring and provide more useful advice, presumably resulting in better outcomes for shareholders.

Although the relationship between board activity and M&A outcomes has not been investigated in the literature, some studies have examined the effect of board activity on firm value in the normal course of business. The work of Vafeas (1999) is the first to consider board meeting frequency as a measure of board activity and board diligence. Using panel data from 307 firms over the period from 1990 to 1994, he investigates whether an increased number of annual board meetings leads to higher firm value (as measured by Tobin's Q). Counterintuitively, he finds that firms whose boards meet more frequently have lower value. However, this result appears to be driven by stock price declines being followed by more frequent board meetings. In an article that focus on the same questions explored by Vafeas (1999), Brick and Chidambaran (2010) use a simultaneous equations model with three equations to address endogeneity concerns, and they report that increases in board meeting frequency lead to increases in firm value, all else being equal.

Following Vafeas' (1999) seminal work, further empirical evidence regarding the effect of board activity on corporate outputs and practices has been provided in the literature. Some studies show that as the frequency of annual board meetings increases, better monitoring is provided, resulting in more favorable outcomes for shareholders. These studies suggest that annual meeting frequency is positively associated with the extent of voluntary disclosures on executive compensation (Laksmana, 2008), audit quality (Carcello et al., 2002) and is

negatively associated with the degree of accounting discretion exercised by management (Bowen, Rajgopal and Venkatachalam, 2008; and Xie, Davidson and DaDalt, 2003). By contrast, other articles indicate that annual board meeting frequency is positively related to the likelihood of internal control weaknesses (Zhang, Zhou and Zhou, 2007), to the level of earnings management (Ebrahim, 2007) and to the probability of committing fraud in the U.S. (Johnson, Ryan and Tian, 2009) and in China (Chen et al., 2006). These articles suggest that the board meets more often when a firm encounters more problems, indicating that board meetings are reactive measures. Finally, other studies indicate that board meetings are only one of several ineffective tools used by boards (Andres, Azofra and Lopez, 2005; Uzun, Szewczyk and Varma, 2004; Hagendorff, Collins and Keasey, 2010). This study contributes to this literature by focusing on a crisis situation rather than on a period of normalcy and by examining whether the “exact” number of board meetings held to resolve an extraordinary event is a determinant of the outcome of that event for shareholders.

Although the relationship between the level of involvement of a target firm’s board in merger negotiations and target shareholder gains has not been studied previously, a number of studies link the level of monitoring exerted by the target board to target shareholder returns. All of these studies assume that certain board characteristics, such as independence, lead to more diligent monitoring by the board. Lee et al. (1992) investigate whether wealth gains in management buyouts are affected by the independence of the target board, which is commonly assumed to lead to better monitoring. Considering a sample of 58 going-private transactions between 1983 and 1989, the authors find that target CARs are significantly higher when independent directors dominate the target board. Similarly, using a sample of 169 tender offers from 1989 to 1992, Cotter, Shivdasani and Zenner (1997) find that an independent target board is associated with significantly higher target shareholder gains. In contrast, based on a larger sample covering 436 bids over the period from 1979 to 1990, Bange and Mazzeo (2004) find no significant relationship between target shareholder gains and board independence. In addition, these authors report that target shareholder gains are higher when the target CEO also chairs the board, which would be expected to result in less effective board monitoring. By contrast, Moeller (2005) examines a sample of 388 takeovers from the more recent period of the 1990s and finds that when inside directors hold more than 40 percent of the target board seats, takeover premiums are reduced by nearly 7 percentage points. With the more direct measures of board diligence that it employs, this study contributes to this strand of literature by examining the direct link between a higher level of board involvement in the takeover process and target shareholder returns.

4 Sample Formation and Data Collection

4.1 Sample Formation

I obtain data for a set of M&As announced between January 1, 2004, and December 31, 2008, from the U.S. Mergers and Acquisitions database of Thomson Reuters SDC Platinum. I apply the filters commonly used in the literature indicating that the transaction is completed, the deal value is greater than \$5 million and the acquirer owns less than 50% of the target when the deal is announced and increases its ownership to 100% with the deal. I further require that both the target and the acquirer are U.S. public firms available in the CRSP database as of the announcement date. To have a sufficient number of observations for estimating the market model, I retain only the observations in which both firms have at least 100 days of return data in the period (-316, -64) prior to the deal announcement. I then match the sample to Compustat and exclude those deals in which either the target or the acquirer does not have financial statement data in the fiscal year immediately prior to the announcement. After I use these filters, 540 observations remain. Because merger documents filed with the SEC are required to extract data on board involvement, I omit the 6 deals that do not have these documents in the EDGAR database. I further exclude the 40 deals for which a full set of target board characteristics or variables that have been shown to affect announcement-period shareholder returns is not available. Finally, I omit 11 deals in which the duration of the period from the start of the negotiation process to the date of announcement is below the 1st percentile or above the 99th percentile of the respective distribution. I make this exclusion because, given the way that board involvement variables are defined, an overly short or long private negotiation process may artificially suppress or exaggerate a board's involvement in the process. The resulting sample consists of 483 deals.

4.2 Collecting Data on the Background of the Deals

To collect data on board involvement in the negotiation process, I search the EDGAR filing system of the SEC for M&A filings made by the acquirer and the target after the deal is announced. Transaction details are typically found in DEFM14A, S-4, SC TO-T or 14D-9 documents. The “Background of the Merger” or “Background of the Offer” sections of these documents disclose information such as how and when the merger talks first began and how they proceeded, the meetings held and decisions made by the board of directors, contacts made with and bids received from other potential bidders. From these background sections, I extract the date on which the target and acquirer make the initial contact to seriously begin

considering an M&A transaction⁷. From that date through the announcement date, I record all the days on which the target board is reported to have met to discuss the current state of negotiations.

From the M&A filings, I also record some other aspects of the merger process: (i) the number of potential acquirers contacted and the number of potential acquirers making private bids (Boone and Mulherin, 2007), (ii) the length of the private takeover process (Aktas et al., 2012), (iii) whether the target or the acquirer initiated the talks (Masulis and Simsir, 2013), and (iv) whether the target forms an M&A committee (Boone and Mulherin, 2014).

4.3 Collecting Data on Target Board Characteristics

Because the target board's meeting activity during the negotiation process may be correlated with other board characteristics, I control for these characteristics in the regression analyses. I extract corporate governance data from the most recent proxy statement (or, in rare cases, from the annual report) of the target prior to the date of announcement.

For each director of the target, I record the independence status, tenure and level of ownership. A director is categorized as independent if s/he is neither an employee of the firm nor a grey director. A director is considered to be grey if s/he is (i) a former employee of the firm; (ii) an employee of the firm's subsidiaries; (iii) a relative of an executive; or (iv) a banker, investment banker, consultant, lawyer, or supplier to or customer of the firm and has a material relation with the firm⁸. The tenure of the director is set equal to the difference between the year of appointment and the year of the proxy statement. The ownership percentage of a director is calculated by dividing the sum of the number of options exercisable within 60 days of the proxy statement date and the number of shares that the director holds by the number of outstanding shares of the target firm.

The proxy statement also discloses the list of other firms in which the board members serve. For each independent director, I record these firms and check their public status to

⁷ For cases in which the firm initiates the sale process by itself or cases in which a firm other than the ultimate acquirer initiates the process, I do not consider the period up to the date of the first contact with the ultimate acquirer, as the M&A filing typically provides fewer details on that period. In addition, discussions between the acquirer and the target that are preliminary in nature and that do not lead to serious talks within a reasonably short period of time are not considered as the first contact.

⁸ In some cases, the independence status of each director is disclosed in the proxy statement. When a director whom I classified as independent is disclosed as non-independent, I change the director's status accordingly.

create a busy director indicator. A director is defined as busy if s/he holds two or more directorships in other public firms (Ahn, Jiraporn and Kim, 2010)⁹.

Information on CEO duality, CEO ownership and the existence of a common director between the merging firms is also extracted from the proxy statement.

4.4 Defining the Board Involvement Variables

Based on the legal background reviewed in Section 2.2, I define two binary variables to proxy for the level of board involvement in the merger negotiation process. The first variable is set equal to one if the number of board meetings held during the merger talks is greater than or equal to the median value of 5. This choice has practical relevance because in the case of *Lyondell Chemical v. Ryan*, the plaintiffs argued that approving the merger after holding a total of 4 meetings was inadequate, whereas in *In re Openlane, Inc. Shareholders Litigation*, the court opined that holding 9 board meetings could be considered satisfactory.¹⁰

The second variable equals one if the board meets within a month following the date when the target and the acquirer seriously considered the possibility of a merger for the first time¹¹. The one-month cut-off point corresponds to the median number of days that target boards take to meet after the beginning of the merger process. This cut-off point also has practical relevance because two months of board inactivity at the beginning of the sale

⁹ Prior to Ahn, Jiraporn and Kim (2010), the effect of director busyness on acquirer returns has been studied by Brown and Maloney (1999) and Harris and Shimizu (2004). I use the definition of Ahn, Jiraporn and Kim (2010) because they argue that the inclusion of all types of directors when measuring directors' busyness, as in the works of Brown and Maloney (1999) and Harris and Shimizu (2004), may prevent detection of the negative effect of multiple directorship on firm performance. Ahn, Jiraporn and Kim's (2010) measure focuses only on the busyness of independent directors.

¹⁰ Although I chose the median value of meeting count as the cut-off point, the effect of the board meeting count variable on shareholder wealth gains remains the same under many other possible definitions of this variable: (i) using the number of board meetings directly as a level, (ii) defining the cut-off for the binary variable at the 25th or 75th percentile of the board meeting count, (iii) calculating a "normal" level of board meetings (the number of meetings that would be held over the same period of time by an average firm or by the firm itself at normal times, which is computed based on the annual meeting frequency disclosed in the proxy statement published prior to the merger talks) and defining binary variables based on the level of deviation from this normal level, and (iv) defining binary variables based on the residuals obtained from a regression model of the number of board meetings in the merger process.

¹¹ In some cases, the date of the start of merger talks or, more rarely, the date of the board meeting might not be precisely specified, but statements such as "mid-September" or "early July" may be used. In such cases, I follow reasonable rules such as recording the 15th of September for "mid-September" or the 1st of July for "early July." When classifying the sample according to the 1-month cut-off, in 32 observations, the classification may change depending on how I establish these rules. However, the effect of the early board involvement variable on shareholder wealth gains continues to hold when I exclude these 32 observations from the sample.

process was one of the most important arguments against the target board in the *Lyondell Chemical v. Ryan* case¹².

One could argue that board meetings do not provide a clear measure of a board's involvement in the sale process, as the flow of information between directors can continue even in the absence of formal board meetings. Although this argument may be partially valid, as suggested by the shareholder litigation cases in Section 2.2, courts and plaintiffs frequently use meetings as evidence of greater board involvement. In addition, prior studies suggest that formal board meetings are a major means of information exchange between directors. Cukurova (2012) indicates that the information exchange that occurs during meetings is more valuable than exchanges that occur at any other time. She reaches this conclusion by analyzing outside directors' trades surrounding meeting dates and finding that outside directors earn higher returns when their trade is initiated after the meetings than when it is initiated before the meetings. Likewise, Conger, Finegold and Lawler (1998) suggest that to make effective decisions, a board should have sufficient, well-organized periods of time together as a group.

4.5 Sample Statistics

Of the sample of 483 M&A transactions, 240 target boards meet within a month of the start of merger talks, and 279 boards meet at least 5 times before approving the deal. Panel A of Table 1 provides the distribution of deals among the 12 Fama-French industries (Fama and French, 1997). In the full sample, there is a concentration in finance and business equipment industries, with 33.1% and 24.8% of the target firms operating in these two industries, respectively. In the following columns, I report the breakdown of each industry across the subsamples of late and early board involvement and across the subsamples of low and high board meeting counts, respectively. The industry distributions of the late and early board involvement subsamples closely follow the pattern in the full sample. On the other hand, there is some evidence that boards of target firms operating in business equipment, manufacturing, chemicals, healthcare or utilities sectors are more likely to meet frequently.

Panel B of Table 1 presents the distribution of transactions over announcement years. In the entire sample, the number of transactions per year is rather stable until it decreases in

¹² The effect of the early board involvement variable on shareholder wealth gains is robust to defining this variable as set equal to one if the board meets within a week, within 2 weeks, within 3 weeks or within 1.5 months. However, when the cut-off point is defined as 2 months, the statistical significance is lost. This finding suggests that for the early involvement of the target board to pay off, the first board meeting must occur within a maximum of 1.5 months after the initiation of merger talks.

2008, probably because of the decline in overall capital liquidity as the financial crisis began. Again, the distributions of late and early board involvement subsamples broadly track the trend in the full sample. With respect to low and high board meeting count subsamples, there is some evidence indicating that target boards have begun to be more active in the later years. In 2008, 71.8% of target boards met 5 or more times before approving the merger, whereas this figure was only 51.8% in 2004. To account for potential trends over years and for differences across industries, I include year and industry dummies in the multivariate regressions.

Table 2 presents summary statistics for various target, acquirer, and deal characteristics as well as for CARs accruing to the merging firm shareholders surrounding the announcement date. I calculate the CARs based on the standard event study methodology suggested by Brown and Warner (1985). I first estimate the market model parameters over the period (-316, -64) relative to the deal announcement using CRSP value-weighted portfolio returns as a proxy for market returns. Each firm is required to have at least 100 days of non-missing return data over the estimation period. I then calculate the daily abnormal returns of each firm surrounding the announcement date and sum them over the event window (-5, +5) to obtain the CARs. Following Bradley, Desai, and Kim (1988), I calculate combined CARs as those accruing to a value-weighted portfolio of the target and the acquirer. The portfolio weights are calculated based on each firm's market value of equity as of the 64th trading day before the deal announcement. If the acquirer has a toehold in the target, then I adjust the target's weight accordingly. All other variables used herein are defined in Table A.1 of the appendix.

The first column of Table 2 presents the statistics for the full sample, followed by the late and early board involvement subsamples and the low and high meeting count subsamples, respectively. I provide the medians for continuous variables and the means for discrete variables. In the subsequent two columns, I report the differences between these statistics across the subsamples.

The late and early board involvement subsamples do not seem to differ with regard to target, acquirer or deal characteristics. However, for deals in which the target board is late in becoming involved in the sale process, the median target CAR is 17.4%, whereas this figure is 22.4% when the target board promptly steps in. Furthermore, the combined CARs are 1.4 percentage points higher in the case of early target board involvement, and this difference is statistically significant at the 1% significance level. Although weak, there is also some evidence that early target board involvement is associated with higher acquirer CARs. Thus,

the univariate evidence suggests that an active target board leads to better results for both acquirer and target shareholders.

A comparison of subsamples with low and high meeting counts reveals a different picture. The two subsamples differ with respect to many target, acquirer and deal characteristics but are similar to one another in terms of shareholder wealth gains. Target firms with boards that meet at least 5 times during the sale process appear to be financially stronger because they have, on average, higher Tobin's Q values and lower leverage compared with their counterparts with less active boards. The same observation holds true for acquirer firms in such deals. With regard to deal characteristics, the incidence of all-equity financing is lower in the high meeting count sample. Because receiving cash relieves target firms' concerns regarding the true value of acquirer to some extent, holding everything else constant, payment in cash is preferred by target shareholders. Hence, active boards may be urging acquirers to pay at least partially in cash. Deals in which the target board meets more frequently are also more likely to be diversifying deals. The target boards may need more time to understand the value of the acquirer and potential synergies in inter-industry deals. The low meeting count subsample is also associated with a higher incidence of the formation of a special M&A committee by the target. This finding may suggest that the M&A committee meetings partially substitute for meetings held by the full board. Finally, Table 2 reveals that there are an average of 8 directors in the subsample of target boards that meet frequently compared with 9 directors for less active boards, possibly suggesting that a larger board makes it more difficult to establish a time for meetings as a result of heightened scheduling conflicts.

On average, the target boards in the early board involvement subsample meet within approximately 15 days of the initiation of merger negotiations, whereas this figure is 3 months for the late board involvement subsample. These two subsamples show no significant difference with respect to the number of board meetings held. An average board in the high meeting count subsample meets nearly 8 times during the process, whereas the average board in the low meeting count subsample meets only 3 times. Furthermore, boards that meet more frequently also become involved in the process approximately 16 days earlier¹³.

¹³ The correlation between the early board involvement and meeting count binary variables is 0.07, causing little concern over multicollinearity.

5 Target Board Involvement and Cumulative Abnormal Returns

The univariate analysis in Table 2 indicates that the early involvement of the target board in the merger process is associated with better outcomes for both target and acquirer shareholders. There is also some evidence that combined CARs are slightly higher when the target board is more active with respect to the number of meetings held during the sale process. This section tests whether these univariate results continue to hold in a multivariate setting.

Table 3 presents the regressions with target CARs over the period (-5, +5) as the dependent variable. The variables of interest are the binary variables *Early Board Involvement*, which equals 1 when the target board meets within a month of the beginning of merger negotiations and *High Meeting Count*, which equals 1 when the target board meets at least 5 times before approving the merger. In the first column, the only explanatory variables are these two binary variables. In the second column, I add control variables that have been shown to influence target or acquirer CARs in prior studies: acquisitions in which the target and acquirer are in the same industry (Morck, Shleifer, and Vishny, 1990), the form of acquisition (Jensen and Ruback, 1983), hostility (Schwert, 2000), competition (Bradley, Desai, and Kim, 1988; Boone and Mulherin, 2007), payment method (Travlos, 1987; Fuller, Netter, and Stegemoller, 2002), relative size (Asquith, Bruner, and Mullins, 1983), Tobin's Q (Lang, Stulz, and Walkling, 1989; Servaes, 1991), leverage (Maloney, McCormick, and Mitchell, 1993), initiation (Masulis and Simsir, 2013), toehold (Betton and Eckbo, 2000), fairness opinion obtained (Kisgen, Qien and Song, 2009), target termination fee (Officer, 2003; Bates and Lemmon, 2003), and local deal (Uysal, Kedia and Panchapagesan, 2008). Given the negative relationship between annual board meeting frequency and prior stock performance in Vafeas (1999), I also control for the target's buy-and-hold abnormal return over the period (-316, -64). Finally, I add a control variable that measures the duration of the private negotiation process.

In the third column, I add controls for target board characteristics that may be associated with the level of board involvement in the sale process and with target CARs, as omitted variable bias may result if these controls are not included in the model. Many of these variables were previously studied in the context of mergers and acquisitions: board independence (Lee et al., 1992; Cotter, Shivdasani and Zenner, 1997; and Bange and Mazzeo, 2004), the use of special M&A committees (Boone and Mulherin, 2014), board size (Bange and Mazzeo, 2004), dual CEO (Bange and Mazzeo, 2004), the percentage of busy

directors (Harris and Shimizu, 2004; Ahn, Jiraporn and Kim, 2010), CEO ownership (Moeller, 2005) and independent director ownership (Byrd and Hickman, 1992; Cotter, Shivdasani and Zenner, 1997). I also add board tenure, which has been shown by Beasley (1996) and Xie, Davidson and DaDalt (2003) to affect corporate outcomes in contexts unrelated to M&As. To control for potential conflicts of interests between directors and the shareholders, I add board interlock and target board retention variables. Recall that the definitions of all variables are provided in Table A.1 of the appendix.

The results from the first model indicate that the prompt involvement of the target board in merger negotiations is associated with a 6.8 percentage point increase in target CARs. This result is robust to the inclusion of the full set of control variables from the M&A literature in the second model and to the further addition of corporate governance variables in the third model. Given that the median target CAR is 20.1% in the full sample, the 6.0 percentage point increase in target CARs indicated in the third model is economically large. However, holding a high number of board meetings does not appear to affect target shareholder wealth.

Among the control variables in Table 3, stock payment, relative size, target size and target prior performance have strong explanatory power for target CARs in both Models (2) and (3). The coefficients of these variables are consistent with the results of earlier studies. Payment with acquirer stock reduces target CARs, in accordance with Huang and Walkling (1987), Officer (2003) and Moeller (2005), who report a positive impact of cash payment on target CARs. Cash payment is preferable by target stockholders because it reduces the need to understand the intrinsic value of the acquirer. Similar to Jarrell and Poulsen (1989), Moeller (2005) and Boone and Mulherin (2007), I find that a higher relative size reduces target shareholder wealth. A larger target size is also found to be associated with lower target returns, consistent with Schwert (2000), Officer (2003) and Barger et al. (2008). Finally, similar to Moeller (2005) and Barger et al. (2008), I find that the pre-merger performance of targets has an opposite impact on target CARs. This result suggests that investors expect the merger to improve the performance of poorly performing targets. Alternatively, poorly performing firms may have depressed share prices because of costs related to financial distress. In that case, the price increase upon merger announcement would also reflect the positive reaction to the elimination of these financial distress costs.

Among the corporate governance variables in Model (3), only the M&A committee indicator and the CEO ownership variable have a significant impact on target shareholder wealth. The positive relationship between target CEO ownership and target CARs may reflect

the better alignment of CEO incentives with shareholder interests. The existence of an M&A committee, however, is associated with significantly lower target CARs. This finding contrasts with that of Boone and Mulherin (2014), who finds an insignificant effect. However, those authors find that the propensity to form a committee is positively related to the severity of conflict of interests. Therefore, the negative coefficient observed in Model (3) may result from the M&A committee dummy proxying for greater conflict of interests.

Moeller (2005) argues that only dominant and powerful target CEOs can influence target shareholders' M&A returns in exchange for more lucrative personal benefits. Therefore, the board's active monitoring may be more critical when shareholders have a low level of control over the firm. Following Moeller (2005), I define a high shareholder control dummy that equals 1 when the CEO and board chair positions are separated, CEO ownership is less than 20%, CEO tenure is less than 5 years and the percentage of independent directors is greater than 60%. With this definition, 24% of the target firms in the sample are classified as having high shareholder control. Model (4) incorporates the high shareholder control variable and its interaction with the early board involvement variable. To avoid multicollinearity, the components of the high shareholder control variable are excluded from the model. The results indicate that when shareholder control is low, the early involvement of the target board has a critical role, as it is associated with a 7.8 percentage increase in target CARs. By contrast, when shareholder control is high, this positive effect is completely offset by the coefficient of the interaction variable, which is -8.0%. These findings suggest that close board monitoring primarily serves to protect shareholder interests when shareholders are not sufficiently capable of doing so themselves.

A direct channel through which target directors may increase returns to their shareholders involves urging potential bidders to increase their offers. To examine whether early board involvement indeed helps target shareholders to receive higher premiums, I regress target premiums on the same explanatory variables used in explaining target CARs. The dependent variable is defined as the offer price divided by the price of the target stock 64 trading days prior to the deal announcement minus 1. All four models in Table 4 indicate that high meeting count does not have a significant effect on the premiums received. Although the early board involvement variable is associated with significantly higher premiums according to Model (1), its coefficient falls short of being significant in Models (2) and (3). However, according to Model (4), early board involvement has a significantly positive impact on takeover premiums when target shareholder control is low and so when the target CEO is more capable of trading premiums for personal benefits. Furthermore, consistent with the

results in Table 3, early board involvement has no significant impact when target shareholders have a high level of control. Another interesting result from Table 3 is the 19.9 percentage point decrease in premiums associated with the existence of a common director between merging parties. This result is consistent with Cai and Sevilir (2012), who study the effects of target-acquirer board interlocks on merger outcomes.

The higher target CARs associated with early target board involvement could merely result from a wealth transfer from acquirer shareholders to target shareholders. To investigate this possibility, Table 5 presents the results from a set of regressions of acquirer CARs on the same explanatory variables used in the previous regressions. Neither the early board involvement nor the high board meeting count variable has a significant impact on acquirer CARs. Hence, although it increases target CARs, the early involvement of the target board does not seem to lower acquirer CARs. Active monitoring by the target board may force the acquirer to make more concessions to the target shareholders while simultaneously preventing the target CEOs from negotiating excessive monetary benefits or their (possibly suboptimal) retention with acquirers. This possibility may explain why the net effect of an active target board on acquirer returns is observed to be neutral.

In Table 6, I perform a regression using combined CARs as the dependent variable to investigate whether the active involvement of the target board leads to higher returns to shareholders overall. Although the early board involvement variable has a significantly positive coefficient in the first model, when control variables are added in subsequent models, the coefficient loses its significance. Given the low median relative size of approximately 17.5%, the higher CARs accruing to target shareholders are not able to sufficiently influence the returns for the combined firm.

6 Target Board Involvement and the Private Negotiation Process

The results from the previous section indicate that a factor contributing to the increase in target CARs associated with an active target board is the higher level of premiums paid by acquirers when the target board quickly becomes involved in the negotiation process. In this section, I will further investigate the potential channels through which the target directors may be improving returns to their shareholders, by focusing on competition in the private takeover process and on the level of target termination fees.

6.1 Competition in the Private Takeover Process

Revlon duties require directors to secure the highest price available for stockholders upon the sale of the company. Obtaining bids from multiple parties can be considered a natural step in achieving this goal. The target managers may be inclined to confine the merger talks to a single bidder or a few bidders, which would provide them the highest personal benefits, whereas the directors, once they are involved in the talks, may invite additional bidders to the bidding process to ensure that the final offer received is more likely to be the best price available in the market. Thus, ensuring a more competitive bidding process may be one method by which active target boards can obtain higher shareholder returns.

Following Boone and Mulherin (2007), I extract competition data from SEC M&A filings by counting the number of bidders making a formal bid (i.e., a written proposal, which contains pricing terms) in the private takeover process. Table 7 presents the results of the logistic model predicting the likelihood of a competitive takeover process. The dependent variable, Competition, is set equal to 1 when the number of bidders making a formal bid in the private takeover process is greater than 1.¹⁴ The control variables are based on the Boone and Mulherin (2007) model and are defined in Table A.1 of the appendix. Contrary to expectations, the first model indicates that neither the early involvement of the target board nor a high number of board meetings is associated with an increased likelihood of competing bids. This result continues to hold when year and industry dummies are added in Model (2) and when corporate governance variables are added in Model (3).

Model (3) provides interesting insight into the effect of other target corporate governance characteristics on the likelihood of competition. The existence of an M&A special committee is associated with a greater likelihood of competition. This evidence is consistent with Boone and Mulherin (2014), who report that deals with a special committee used an auction 77.3% of the time compared with 54.4% for deals without a special committee. The results from Model (3) also reveal a positive and significant relationship between independent director ownership and the likelihood of competition. An increased level of ownership is likely to incentivize independent directors to seek higher bids, hence increasing competition. Furthermore, conflicts of interests between directors and shareholders may lead directors to trade off their own interests with those of shareholders. Consistent with

¹⁴ The results are unchanged if I set Competition equal to 1 if the number of parties contacted by the target firm is greater than 1.

this expectation, when a higher percentage of target directors is retained on the merged company's board, the likelihood of competition decreases. Similarly, the existence of a common director on the boards of the merging companies leads to a lower probability of competition.

6.2 Target Termination Fees

A target termination fee clause in the merger agreement requires the target to pay the bidder a significant fee if the former abandons the proposed merger. Termination fees are often viewed as a mechanism used by self-interested target managers to discourage competing bids to emerge after the deal announcement and to protect the negotiated deal that offers them attractive personal benefits (Bates and Lemmon, 2003; and Officer, 2003). Given that the use of target termination fees has become almost an industry standard¹⁵, the current question is not whether there is a target termination fee in the merger agreement but whether the termination fee is reasonable. As discussed in Section 2.2, unreasonably high termination fees are frequently cited in shareholder litigation as a serious deterrent to receiving topping bids. To define the range of reasonableness for termination fees, the plaintiffs in *In re Toys "R" Us, Inc. Shareholder Litigation* referenced Coates and Subramanian (2000) and proposed that any termination fee of 3% or more "has a reasonable likelihood of foreclosing higher value bidders." Based on this definition of an unreasonably high termination fee, I investigate whether more active target boards help to reduce the likelihood of agreeing to such high termination fees.

Table 8 presents the results of a logistic regression that models the likelihood of an unreasonably high target termination fee. The dependent variable equals 1 when the target termination fee exceeds 3% of the deal value. The first model includes the variables used by Officer (2003) in modeling the existence of a target termination fee. The results indicate that target board activity during the negotiation process is negatively associated with the likelihood of agreeing to an unreasonably high termination fee. Both the early board involvement and high meeting count dummies have negative and significant coefficients, and they are jointly significant. Specifically, if the board meets promptly within 1 month of the beginning of merger talks or if it meets at least 5 times during the entire process, then the likelihood of an unreasonably high termination fee decreases by approximately 9%¹⁶. In

¹⁵ In my sample, 93.8% of the 483 deals have target termination fee clauses.

¹⁶ The marginal effects are evaluated at the medians of the other explanatory variables.

Model (2), I add year and industry dummies, and in Model (3), I further add governance-related variables for the target. The negative relationship between target board activity and the dependent variable is robust to the inclusion of these variables in the model.

7 Robustness

An alternative explanation for the positive relationship between the early board involvement variable and target CARs is that receiving an attractive bid at the beginning of the process may cause the target management to react and call a board meeting immediately. This attractive initial bid is also likely to lead to an attractive final bid. Therefore, the positive relationship observed between early board involvement and target CARs may be spurious.

To investigate the relevance of this alternative explanation, I divide the early board involvement subsample into two groups based on whether the target receives a formal bid from the acquirer before the date of the first board meeting. If the target receives a bid in this period, the board might have convened in response to an attractive initial bid. Hence, this subsample could indeed be subject to the alternative explanation given above. However, this alternative explanation is not expected to apply to deals in which the target does not receive a bid up to the first board meeting.

In Table 9, I rerun the target CAR regressions by modifying the early board involvement variable. *Early board involvement (no bid)* is set equal to 1 if the target board meets within 1 month without receiving a bid and 0 otherwise. For 167 deals, this variable takes the value of 1. By contrast, *Early board involvement (with bid)* is set equal to 1 for the 73 deals in which the target board receives a bid before the meeting.

The coefficient of *Early board involvement (no bid)* variable in Model (3) is 0.057 and is significantly greater than zero. Although the coefficient of *Early board involvement (with bid)* is greater than that of *Early board involvement (no bid)* in all three models, the difference is not statistically significant. The positive relationship between early board involvement and target CARs continues to hold even if the target has not received a bid from the acquirer prior to the first board meeting. Hence, the alternative explanation does not account for the relationship observed between early board involvement and target CARs.

8 Conclusion

Evidence from lawsuits initiated by target shareholders suggests that shareholders and courts are skeptical of target boards that are late in becoming involved in the sale process and those that approve the sale after only a few board meetings. Target boards that are actively

involved in the process may be expected to exercise better monitoring, to provide higher-quality advice and to make more informed decisions, leading to better results for target shareholders. This study examines the validity of this expectation using two measures of target board activity: the number of days it takes for the target board to meet after the start of the sale process and the number of meetings held by the board over the entire process. Data on board meetings are extracted manually from the M&A forms that the merging parties file with the SEC.

The results suggest that early involvement of the target board in merger negotiations is associated with an increase of 6 percentage points in target CARs. This finding holds even when the target board has not received a bid from the acquirer before holding its first meeting, dismissing an alternative explanation whereby attractive initial bids lead to both early target board involvement and attractive final bids. By contrast, the number of meetings held by the target board does not affect target CARs. Furthermore, neither of the two measures of target board activity appears to affect acquirer CARs or combined CARs.

The positive effect of early target board involvement on target CARs is driven by cases in which the CEO has a powerful position in the target firm, suggesting that close monitoring by the board serves to protect shareholder interests particularly when shareholders are less able to protect their own interests. In such cases, early target board involvement also leads to significantly higher takeover premiums.

Investigating the effects of an active target board on various aspects of the private negotiation process reveals that neither early board involvement nor a high meeting count leads to a higher probability of having a competitive bidding environment. However, both board activity measures are associated with a decreased likelihood of agreeing to an unreasonably high target termination fee.

Overall, my results suggest that out of the two aspects of target board activity cited in shareholder lawsuits, early involvement—rather than the number of meetings held—is critical for shareholder value creation, particularly when the CEO has a powerful position in the target firm. Early involvement in the process may allow target directors to establish a strategy at the beginning of negotiations, leaving the CEO with limited room to maneuver. Furthermore, the early involvement of directors may also send the message to the target CEO that they are powerful and that regardless of how the CEO shapes the merger agreement, the directors have the ultimate authority to reject the agreement if they are not satisfied with its terms.

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TABLES

Table 1 Sample distribution

This table presents the frequency distribution of 483 M&A transactions between U.S. public firms announced in the period from 2004 to 2008. Each deal is completed and has a value of at least \$5 million. The acquirer owns less than 50% of the target before the deal and owns 100% of it after the deal. Both the target and acquirer are covered by CRSP and Compustat. For each deal, there is a deal-related SEC filing available at EDGAR and a full set of target corporate governance variables and M&A-related control variables is available. Panel A and B provide the distribution of deals by target industry and announcement year, respectively. The first column reports the numbers for the entire sample, followed by the four subsamples of late and early target board involvement and low and high meeting count, respectively. The column percentages are provided for the full sample and row percentages for the four subsamples. If the target board meets within a month of the start of merger negotiations, the deal is classified under the “early board involvement” subsample; otherwise it is classified under the “late board involvement” subsample. If the target board meets at least 5 times during the negotiation process, the transaction is grouped under the “high meeting count” subsample; otherwise it is assigned to the “low meeting count” subsample. The target’s industry is defined by the Fama-French 12-industry categories. All variables are defined in the appendix.

Panel A: By target industry

	Full sample		Late Board Involvement		Early Board Involvement		Low Meeting Count		High Meeting Count	
FF12 industry of the target	Number	Column Percentage	Number	Row Percentage	Number	Row Percentage	Number	Row Percentage	Number	Row Percentage
Consumer NonDurables	13	2.7%	5	38.5%	8	61.5%	8	61.5%	5	38.5%
Consumer Durables	3	0.6%	2	66.7%	1	33.3%	2	66.7%	1	33.3%
Manufacturing	28	5.8%	14	50.0%	14	50.0%	8	28.6%	20	71.4%
Energy	18	3.7%	9	50.0%	9	50.0%	11	61.1%	7	38.9%
Chemicals and Allied Products	6	1.2%	1	16.7%	5	83.3%	0	0.0%	6	100.0%
Business Equipment	120	24.8%	63	52.5%	57	47.5%	30	25.0%	90	75.0%
Telephone and Television Transmission	14	2.9%	6	42.9%	8	57.1%	6	42.9%	8	57.1%
Utilities	4	0.8%	2	50.0%	2	50.0%	0	0.0%	4	100.0%
Wholesale, Retail, and Some Services	23	4.8%	13	56.5%	10	43.5%	8	34.8%	15	65.2%
Healthcare, Medical Equipment, and Drug	61	12.6%	30	49.2%	31	50.8%	18	29.5%	43	70.5%
Finance	160	33.1%	79	49.4%	81	50.6%	96	60.0%	64	40.0%
Other	33	6.8%	19	57.6%	14	42.4%	17	51.5%	16	48.5%
Total	483	100.0%	243	50.3%	240	49.7%	204	42.2%	279	57.8%

Panel B: By announcement year

	Full sample		Late Board Involvement		Early Board Involvement		Low Meeting Count		High Meeting Count	
Deal announcement year	Number	Column Percentage	Number	Row Percentage	Number	Row Percentage	Number	Row Percentage	Number	Row Percentage
2004	112	23.2%	63	56.3%	49	43.8%	54	48.2%	58	51.8%
2005	94	19.5%	48	51.1%	46	48.9%	39	41.5%	55	58.5%
2006	105	21.7%	51	48.6%	54	51.4%	50	47.6%	55	52.4%
2007	101	20.9%	45	44.6%	56	55.4%	41	40.6%	60	59.4%
2008	71	14.7%	36	50.7%	35	49.3%	20	28.2%	51	71.8%
Total	483	100.0%	243	50.3%	240	49.7%	204	42.2%	279	57.8%

Table 2 Summary statistics

This table presents the summary statistics of 483 M&A transactions between U.S. public firms announced in the period from 2004 to 2008. Medians are provided for continuous variables and means for discrete variables. Each deal is completed and has a value of at least \$5 million. The acquirer owns less than 50% of the target before the deal and owns 100% of it after the deal. Both the target and acquirer are covered by CRSP and Compustat. For each deal, there is a deal-related SEC filing available at EDGAR and a full set of target corporate governance variables and M&A-related control variables is available. The first column reports the numbers for the entire sample, followed by the four subsamples of late and early target board involvement and low and high meeting count, respectively. The subsequent two columns report the difference between the statistics across the different subsamples. If the target board meets within a month of the start of merger negotiations, the deal is classified under the “early board involvement” subsample; otherwise it is classified under the “late board involvement” subsample. If the target board meets at least 5 times during the negotiation process, the transaction is grouped under the “high meeting count” subsample; otherwise it is assigned to the “low meeting count” subsample. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively. All variables are defined in the appendix.

	(I) Full sample	(II) Late Board Involvement	(III) Early Board Involvement	(IV) Low Meeting Count	(V) High Meeting Count	(III)-(II) Early - Late Board Involvement	(V)-(IV) High - Low Meeting Count	No of Observations
Target related								
Firm size (\$ mil)	316.243	288.404	319.384	247.377	366.451	30.980	119.073	483
Tobin's q	1.438	1.427	1.463	1.183	1.670	0.035	0.487 ***	483
Leverage	0.086	0.087	0.085	0.127	0.049	-0.002	-0.079 ***	483
Adjusted return (-316, -64)	-0.079	-0.083	-0.078	-0.062	-0.088	0.005	-0.026	483
Acquirer related								
Firm size (\$ mil)	3,036.161	3,040.964	2,865.825	3,432.397	2,863.130	-175.139	-569.266	483
Tobin's q	1.493	1.491	1.504	1.226	1.705	0.013	0.479 ***	483
Leverage	0.111	0.119	0.110	0.149	0.085	-0.009	-0.064 ***	483
Adjusted return (-316, -64)	-0.013	-0.020	-0.004	-0.021	-0.001	0.016	0.020	469

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Table 2 (Continued)

	(I) Full sample	(II) Late Board Involvement	(III) Early Board Involvement	(IV) Low Meeting Count	(V) High Meeting Count	(III)-(II) Early - Late Board Involvement	(V)-(IV) High - Low Meeting Count	No of Observations
Deal characteristics								
All stock	0.226	0.247	0.204	0.314	0.161	-0.043	-0.152 ***	483
Relative size	0.175	0.175	0.177	0.142	0.192	0.001	0.050	483
Tender offer	0.101	0.086	0.117	0.064	0.129	0.030	0.065 **	483
Hostile	0.025	0.021	0.029	0.039	0.014	0.009	-0.025 *	483
Competition (No. of contacted parties > 1)	0.702	0.691	0.713	0.676	0.720	0.021	0.044	483
Diversifying	0.236	0.218	0.254	0.181	0.276	0.036	0.095 **	483
Target M&A committee	0.300	0.321	0.279	0.368	0.251	-0.042	-0.117 ***	483
Board meeting count	5.685	5.457	5.917	2.819	7.781	0.460	4.963 ***	483
Days to first board meeting	52.704	90.440	14.496	61.701	46.125	-75.944 ***	-15.576 ***	483
Governance Characteristics of Target								
Independent director percentage	0.925	0.918	0.933	0.931	0.921	0.016	-0.010	483
Board size	8.366	8.193	8.542	8.907	7.971	0.348	-0.936 ***	483
Dual CEO	0.437	0.461	0.413	0.451	0.427	-0.048	-0.024	483
Shareholder wealth gains								
Target CAR	0.201	0.174	0.224	0.197	0.201	0.050 ***	0.004	483
Takeover premium	0.310	0.301	0.318	0.307	0.311	0.017	0.004	470
Acquirer CAR	-0.011	-0.019	-0.006	-0.015	-0.011	0.013 *	0.005	483
Combined CAR	0.010	0.002	0.016	0.007	0.011	0.014 ***	0.004 *	483

Table 3 Multivariate analysis of target cumulative abnormal returns

This table reports the results of OLS regressions for target cumulative abnormal returns. The dependent variable is the cumulative abnormal returns accruing to the target over the event window (-5, +5). The early board involvement variable equals one if the target board meets within a month of the date of first contact between the target and the acquirer. The high meeting count variable is equal to one if the number of target board meetings held during the merger talks is greater than or equal to the median value of 5. High shareholder control dummy equals 1 when CEO and board chair positions are separated, CEO ownership is less than 20%, CEO tenure is less than 5 years and percentage of independent directors is greater than 60%. All other variables are defined in the appendix. The coefficients of year and industry dummies are suppressed. All continuous variables are winsorized at the 1st and 99th percentiles. In parentheses are t-statistics based on heteroskedasticity-adjusted standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)
Early board involvement	0.068*** (2.944)	0.056*** (2.788)	0.060*** (3.005)	0.078*** (3.338)
High meeting count	0.009 (0.366)	0.001 (0.056)	-0.005 (-0.185)	-0.002 (-0.080)
High shareholder control				0.006 (0.188)
Early board involvement * High sh. control				-0.080* (-1.758)
Diversifying deal		-0.037 (-1.475)	-0.040 (-1.578)	-0.035 (-1.357)
Tender offer		0.052 (1.137)	0.051 (1.097)	0.048 (1.048)
Hostile deal		-0.023 (-0.370)	-0.010 (-0.158)	-0.004 (-0.070)
Any stock payment		-0.047* (-1.745)	-0.050* (-1.776)	-0.057** (-2.039)
Competition		-0.038* (-1.673)	-0.036 (-1.509)	-0.038 (-1.617)
Toehold		-0.009 (-0.135)	0.017 (0.252)	-0.010 (-0.139)
Seller initiated		-0.006 (-0.268)	-0.003 (-0.132)	-0.005 (-0.197)
Local deal		0.008 (0.338)	0.003 (0.126)	0.001 (0.034)
Fairness opinion obtained		-0.010 (-0.354)	-0.006 (-0.186)	-0.018 (-0.587)
Private negotiation process duration (months)		-0.006* (-1.759)	-0.004 (-1.129)	-0.003 (-0.944)
Target termination fee dummy		0.043 (0.877)	0.037 (0.734)	0.042 (0.881)
ln(Relative size)		-0.042*** (-4.586)	-0.041*** (-4.222)	-0.041*** (-4.234)
ln(Target size)		-0.023*** (-2.735)	-0.027*** (-2.726)	-0.030*** (-3.091)

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Table 3 (Continued)

	Model (1)	Model (2)	Model (3)	Model (4)
Target Tobin's Q		-0.015 (-1.010)	-0.016 (-1.036)	-0.015 (-0.992)
Target leverage		0.081 (0.688)	0.085 (0.725)	0.081 (0.707)
Target adjusted return (-316, -64) > 0		-0.075*** (-3.943)	-0.075*** (-3.811)	-0.068*** (-3.464)
Acquirer Tobin's Q		0.015 (1.105)	0.016 (1.220)	0.015 (1.175)
Acquirer leverage		-0.046 (-0.577)	-0.034 (-0.408)	-0.035 (-0.437)
M&A committee			-0.059** (-2.400)	-0.054** (-2.215)
Target board size			0.009* (1.778)	0.009 (1.640)
Independent board			0.032 (0.830)	
Dual CEO			-0.023 (-1.197)	
% of busy directors			0.100 (1.622)	0.079 (1.274)
Target board tenure			0.002 (0.667)	0.002 (0.774)
CEO ownership			0.357** (2.027)	
Independent director ownership			0.161 (0.858)	0.178 (0.980)
Target directors retained as % of target board			0.000 (0.000)	0.004 (0.067)
Board interlock			-0.065 (-1.205)	-0.067 (-1.371)
Constant	0.207*** (11.283)	0.322*** (3.867)	0.184* (1.700)	0.257** (2.461)
Industry dummies	No	Yes	Yes	Yes
Year dummies	No	Yes	Yes	Yes
Adjusted R ²	0.019	0.344	0.377	0.376
Sample size	483	483	474	474

Table 4 Multivariate analysis of takeover premiums

This table reports the results of OLS regressions for takeover premiums. The dependent variable is the offer price divided by the price of the target stock 64 trading days prior to deal announcement minus 1. The early board involvement variable equals one if the target board meets within a month of the date of first contact between the target and the acquirer. The high meeting count variable is equal to one if the number of target board meetings held during the merger talks is greater than or equal to the median value of 5. High shareholder control dummy equals 1 when CEO and board chair positions are separated, CEO ownership is less than 20%, CEO tenure is less than 5 years and percentage of independent directors is greater than 60%. All other variables are defined in the appendix. The coefficients of year and industry dummies are suppressed. All continuous variables are winsorized at the 1st and 99th percentiles. In parentheses are t-statistics based on heteroskedasticity-adjusted standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)
Early board involvement	0.053* (1.855)	0.039 (1.453)	0.043 (1.543)	0.057* (1.859)
High meeting count	0.003 (0.096)	-0.003 (-0.086)	-0.017 (-0.511)	-0.005 (-0.150)
High shareholder control				-0.046 (-0.918)
Early board involvement * High sh. control				-0.069 (-1.014)
Diversifying deal		-0.038 (-1.131)	-0.046 (-1.342)	-0.035 (-1.028)
Tender offer		0.080 (1.320)	0.092 (1.543)	0.075 (1.286)
Hostile deal		-0.086 (-0.882)	-0.069 (-0.779)	-0.056 (-0.715)
Any stock payment		-0.042 (-1.130)	-0.046 (-1.180)	-0.050 (-1.317)
Competition		0.025 (0.863)	0.019 (0.606)	0.019 (0.641)
Toehold		0.016 (0.153)	0.039 (0.386)	0.019 (0.200)
Seller initiated		-0.080*** (-2.697)	-0.087*** (-2.862)	-0.082*** (-2.686)
Local deal		0.009 (0.277)	0.015 (0.440)	0.007 (0.203)
Fairness opinion obtained		-0.039 (-0.957)	-0.026 (-0.610)	-0.034 (-0.818)
Private negotiation process duration (months)		-0.008* (-1.760)	-0.007 (-1.418)	-0.007 (-1.421)
Target termination fee dummy		0.170*** (2.992)	0.139*** (2.593)	0.145*** (2.776)
ln(Relative size)		-0.010 (-0.923)	-0.005 (-0.471)	-0.006 (-0.517)
ln(Target size)		-0.031*** (-2.977)	-0.029** (-2.220)	-0.033*** (-2.661)

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Table 4 (Continued)

	Model (1)	Model (2)	Model (3)	Model (4)
Target Tobin's Q		-0.010 (-0.538)	-0.006 (-0.317)	-0.012 (-0.667)
Target leverage		0.081 (0.626)	0.116 (0.880)	0.097 (0.745)
Target adjusted return (-316, -64) > 0		-0.037 (-1.345)	-0.048* (-1.693)	-0.034 (-1.207)
Acquirer Tobin's Q		-0.001 (-0.027)	-0.001 (-0.043)	0.000 (0.005)
Acquirer leverage		-0.191 (-1.588)	-0.199 (-1.580)	-0.203* (-1.681)
M&A committee			-0.055* (-1.693)	-0.055* (-1.714)
Target board size			-0.001 (-0.190)	-0.001 (-0.079)
Independent board			-0.104** (-2.097)	
Dual CEO			-0.022 (-0.795)	
% of busy directors			0.098 (1.149)	0.059 (0.699)
Target board tenure			0.003 (0.798)	0.003 (0.913)
CEO ownership			0.298 (1.491)	
Independent director ownership			0.324 (1.421)	0.270 (1.216)
Target directors retained as % of target board			-0.008 (-0.088)	0.008 (0.090)
Board interlock			-0.199** (-2.155)	-0.193** (-2.154)
Constant	0.300*** (11.904)	0.609*** (5.003)	0.639*** (4.277)	0.625*** (4.593)
Industry dummies	No	Yes	Yes	Yes
Year dummies	No	Yes	Yes	Yes
Adjusted R ²	0.00324	0.172	0.190	0.192
Sample size	470	470	462	462

Table 5 Multivariate analysis of acquirer cumulative abnormal returns

This table reports the results of OLS regressions for acquirer cumulative abnormal returns. The dependent variable is the cumulative abnormal returns accruing to the acquirer over the event window (-5, +5). The early board involvement variable equals one if the target board meets within a month of the date of first contact between the target and the acquirer. The high meeting count variable is equal to one if the number of target board meetings held during the merger talks is greater than or equal to the median value of 5. All other variables are defined in the appendix. The coefficients of year and industry dummies are suppressed. All continuous variables are winsorized at the 1st and 99th percentiles. In parentheses are t-statistics based on heteroskedasticity-adjusted standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	Model (1)	Model (2)	Model (3)
Early board involvement	0.007 (1.016)	0.004 (0.501)	0.007 (0.911)
High meeting count	0.005 (0.717)	0.003 (0.423)	0.006 (0.676)
Diversifying deal		0.000 (0.024)	-0.001 (-0.112)
Tender offer		-0.007 (-0.522)	-0.007 (-0.543)
Hostile deal		0.016 (0.848)	0.011 (0.568)
Any stock payment		-0.045*** (-4.706)	-0.041*** (-4.176)
Competition		-0.003 (-0.435)	-0.002 (-0.216)
Toehold		-0.035 (-1.629)	-0.029 (-1.405)
Seller initiated		-0.007 (-0.924)	-0.007 (-0.894)
Local deal		-0.002 (-0.189)	-0.005 (-0.571)
Fairness opinion obtained		0.004 (0.255)	0.000 (0.025)
Private negotiation process duration (months)		0.001 (0.660)	0.001 (1.070)
Target termination fee dummy		-0.013 (-0.854)	-0.021 (-1.403)
ln(Relative size)		-0.003 (-1.362)	-0.002 (-0.894)
ln(Target size)		-0.002 (-0.674)	-0.002 (-0.672)
Target Tobin's Q		-0.001 (-0.232)	-0.001 (-0.304)
Target leverage		-0.027 (-0.944)	-0.034 (-1.185)
Target adjusted return (-316, -64) > 0		0.002 (0.242)	0.002 (0.317)

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Table 5 (Continued)

	Model (1)	Model (2)	Model (3)
Acquirer Tobin's Q		0.003 (0.573)	0.002 (0.464)
Acquirer leverage		0.081** (1.967)	0.084** (2.027)
M&A committee			-0.002 (-0.276)
Target board size			0.000 (0.079)
Independent board			0.010 (0.610)
Dual CEO			0.000 (0.057)
% of busy directors			0.034 (1.268)
Target board tenure			0.000 (0.217)
CEO ownership			0.045 (0.665)
Independent director ownership			0.066 (1.148)
Target directors retained as % of target board			-0.016 (-0.567)
Board interlock			-0.007 (-0.290)
Constant	-0.024*** (-3.936)	0.044 (1.402)	0.029 (0.737)
Industry dummies	No	Yes	Yes
Year dummies	No	Yes	Yes
Adjusted R ²	-0.001	0.088	0.089
Sample size	483	483	474

Table 6 Multivariate analysis of combined cumulative abnormal returns

This table reports the results of OLS regressions for cumulative abnormal returns accruing to the combined entity (CCAR). The dependent variable is calculated as the abnormal returns accruing to a value-weighted portfolio of the target and the acquirer over the event window (-5, +5), with portfolio weights based on each firm's market value of equity as of the 64th trading day before the deal announcement. The early board involvement variable equals one if the target board meets within a month of the date of first contact between the target and the acquirer. The high meeting count variable is equal to one if the number of target board meetings held during the merger talks is greater than or equal to the median value of 5. All other variables are defined in the appendix. The coefficients of year and industry dummies are suppressed. All continuous variables are winsorized at the 1st and 99th percentiles. In parentheses are t-statistics based on heteroskedasticity-adjusted standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	Model (1)	Model (2)	Model (3)
Early board involvement	0.016** (2.309)	0.007 (0.996)	0.009 (1.275)
High meeting count	0.008 (1.224)	0.008 (1.063)	0.010 (1.277)
Diversifying deal		-0.005 (-0.580)	-0.007 (-0.770)
Tender offer		-0.001 (-0.066)	-0.001 (-0.117)
Hostile deal		0.083*** (3.114)	0.080*** (3.138)
Any stock payment		-0.043*** (-5.082)	-0.038*** (-4.369)
Competition		-0.010 (-1.514)	-0.009 (-1.347)
Toehold		-0.008 (-0.206)	-0.002 (-0.061)
Seller initiated		-0.003 (-0.457)	-0.003 (-0.449)
Local deal		-0.001 (-0.177)	-0.004 (-0.638)
Fairness opinion obtained		-0.009 (-0.633)	-0.009 (-0.646)
Private negotiation process duration (months)		-0.001 (-0.475)	0.000 (0.088)
Target termination fee dummy		-0.007 (-0.455)	-0.016 (-0.987)
ln(Relative size)		0.013*** (5.495)	0.015*** (6.110)
ln(Target size)		-0.004 (-1.558)	-0.003 (-1.235)
Target Tobin's Q		0.000 (0.056)	-0.000 (-0.097)
Target leverage		-0.043 (-1.603)	-0.048* (-1.766)

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Table 6 (Continued)

	Model (1)	Model (2)	Model (3)
Target adjusted return (-316, -64) > 0		-0.016** (-2.284)	-0.016** (-2.334)
Acquirer Tobin's Q		0.002 (0.460)	0.002 (0.387)
Acquirer leverage		0.083** (2.322)	0.082** (2.299)
M&A committee			-0.008 (-0.964)
Target board size			0.001 (0.405)
Independent board			0.016 (0.964)
Dual CEO			-0.005 (-0.731)
% of busy directors			0.020 (0.835)
Target board tenure			0.001 (0.904)
CEO ownership			0.069 (1.097)
Independent director ownership			0.055 (1.025)
Target directors retained as % of target board			-0.039 (-1.615)
Board interlock			0.008 (0.273)
Constant	0.004 (0.730)	0.106*** (3.602)	0.079** (2.039)
Industry dummies	No	Yes	Yes
Year dummies	No	Yes	Yes
Adjusted R ²	0.011	0.163	0.182
Sample size	483	483	474

Table 7 Determinants of competition in the private takeover process

This table reports the results of logistic models designed to estimate the probability of a competitive private takeover process. The dependent variable is equal to 1 if the number of parties that made a formal bid for the target in the private takeover process exceeds one, and zero otherwise. The early board involvement variable equals one if the target board meets within a month of the date of first contact between the target and the acquirer. The high meeting count variable is equal to one if the number of target board meetings held during the merger talks is greater than or equal to the median value of 5. All other variables are defined in the appendix. The coefficients of year and industry dummies are suppressed. All continuous variables are winsorized at the 1st and 99th percentiles. In parentheses are t-statistics based on heteroskedasticity-adjusted standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	Model (1)	Model (2)	Model (3)
Early board involvement	0.085 (0.436)	0.124 (0.609)	0.028 (0.126)
High meeting count	0.123 (0.600)	0.109 (0.496)	0.253 (1.049)
ln(Relative size)	-0.031 (-0.471)	-0.044 (-0.618)	0.091 (1.089)
Target size	-0.000 (-1.489)	-0.000 (-1.638)	-0.000 (-0.825)
All cash payment	0.868*** (3.556)	0.814*** (3.206)	0.840*** (3.047)
Tender offer	0.383 (1.154)	0.090 (0.246)	0.128 (0.331)
Buyer initiated	-0.775*** (-3.872)	-0.829*** (-3.932)	-0.923*** (-3.982)
Target in regulated ind.	0.617** (2.252)	0.606 (0.867)	0.830 (1.065)
Toehold	-0.215 (-0.318)	-0.069 (-0.109)	-0.084 (-0.135)
Target idiosyncratic vol.	-13.158 (-1.315)	-15.994 (-1.421)	-9.608 (-0.825)
M&A committee			1.058*** (4.236)
Target board size			-0.006 (-0.111)
Independent board			-0.559 (-1.311)
Dual CEO			-0.158 (-0.691)
% of busy directors			-0.393 (-0.544)
Target board tenure			0.038 (1.280)
CEO ownership			-0.401 (-0.266)

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Table 7 (Continued)

	Model (1)	Model (2)	Model (3)
Independent director ownership			2.621* (1.825)
Target directors retained as % of target board			-1.962** (-2.144)
Board interlock			-2.459* (-1.932)
Constant	-0.314 (-0.740)	-0.703 (-0.887)	-0.705 (-0.600)
Industry dummies	No	Yes	Yes
Year dummies	No	Yes	Yes
Pseudo R ²	0.074	0.104	0.171
Sample size	483	483	474

Table 8 Determinants of excessive target termination fee

This table reports the results of logistic models designed to estimate the probability of an excessive target termination fee. The dependent variable is equal to 1 if the target termination fee exceeds 3% of the deal value, and zero otherwise. The early board involvement variable equals one if the target board meets within a month of the date of first contact between the target and the acquirer. The high meeting count variable is equal to one if the number of target board meetings held during the merger talks is greater than or equal to the median value of 5. All other variables are defined in the appendix. The coefficients of year and industry dummies are suppressed. All continuous variables are winsorized at the 1st and 99th percentiles. In parentheses are t-statistics based on heteroskedasticity-adjusted standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	Model (1)	Model (2)	Model (3)
Early board involvement	-0.376* (-1.903)	-0.368* (-1.799)	-0.377* (-1.780)
High meeting count	-0.377* (-1.793)	-0.441** (-1.987)	-0.458* (-1.906)
Acquirer termination fee dummy	-0.072 (-0.268)	-0.147 (-0.537)	-0.152 (-0.520)
Premium	-0.403 (-1.135)	-0.435 (-1.132)	-0.599 (-1.490)
Competition	0.299 (1.440)	0.361* (1.684)	0.467** (2.013)
Any cash payment	-0.193 (-0.824)	-0.154 (-0.632)	-0.166 (-0.623)
Diversifying deal	-0.043 (-0.175)	-0.117 (-0.453)	-0.166 (-0.637)
Hostile deal	-0.568 (-0.866)	-0.596 (-0.898)	-0.562 (-0.806)
Tender offer	0.298 (0.852)	0.284 (0.746)	0.387 (1.015)
Toehold (Officer, 2003)	-0.475 (-0.649)	-0.450 (-0.621)	-0.277 (-0.398)
Financial services	0.475* (1.875)	0.133 (0.133)	-0.259 (-0.240)
ln(Target size)	-0.309*** (-3.609)	-0.295*** (-3.042)	-0.231** (-1.971)
ln(Acquirer size)	0.162** (2.422)	0.170** (2.367)	0.152* (1.950)
M&A committee			-0.624** (-2.486)
% of busy directors			-0.986 (-1.509)
Target board size			0.017 (0.291)
Target board tenure			0.035 (1.095)
Independent board			0.208 (0.545)

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Table 8 (Continued)

	Model (1)	Model (2)	Model (3)
CEO ownership			0.974 (0.598)
Dual CEO			-0.031 (-0.136)
Independent director ownership			2.477 (1.513)
Board interlock			-0.107 (-0.152)
Target directors retained as % of target board			-0.003 (-0.004)
Constant	1.244** (2.208)	2.077** (2.132)	1.537 (1.287)
Industry dummies	No	Yes	Yes
Year dummies	No	Yes	Yes
Pseudo R ²	0.0659	0.0903	0.110
Sample size	470	470	462

Table 9 Multivariate analysis of target CARs (Robustness)

This table reports the results of OLS regressions for target cumulative abnormal returns. The dependent variable is the cumulative abnormal returns accruing to the target over the event window (-5, +5). The “early board involvement (no bid)” variable equals one if the target board meets within a month of the date of first contact between the target and the acquirer, without receiving a bid. The “early board involvement (with bid)” variable equals 1 if the target board meets within a month of the date of first contact and receives a formal bid from the acquirer before the meeting. The high meeting count variable is equal to one if the number of target board meetings held during the merger talks is greater than or equal to the median value of 5. All other variables are defined in the appendix. The coefficients of year and industry dummies are suppressed. All continuous variables are winsorized at the 1st and 99th percentiles. In parentheses are t-statistics based on heteroskedasticity-adjusted standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	Model (1)	Model (2)	Model (3)
Early board involvement (no bid)	0.053** (1.997)	0.046** (2.002)	0.057** (2.454)
Early board involvement (with bid)	0.101*** (2.948)	0.082*** (2.718)	0.070** (2.243)
High meeting count	0.014 (0.601)	0.004 (0.161)	-0.004 (-0.140)
Diversifying deal		-0.036 (-1.438)	-0.040 (-1.565)
Tender offer		0.052 (1.117)	0.050 (1.092)
Hostile deal		-0.026 (-0.417)	-0.011 (-0.176)
Any stock payment		-0.046* (-1.732)	-0.051* (-1.771)
Competition		-0.040* (-1.748)	-0.037 (-1.519)
Toehold		-0.007 (-0.105)	0.017 (0.262)
Seller initiated		-0.008 (-0.326)	-0.004 (-0.156)
Local deal		0.007 (0.310)	0.003 (0.119)
Fairness opinion obtained		-0.014 (-0.462)	-0.007 (-0.234)
Private negotiation process duration (months)		-0.005 (-1.619)	-0.004 (-1.088)
Target termination fee dummy		0.039 (0.791)	0.036 (0.714)
ln(Relative size)		-0.043*** (-4.677)	-0.041*** (-4.270)
ln(Target size)		-0.022** (-2.585)	-0.027*** (-2.667)
Target Tobin's Q		-0.015 (-0.983)	-0.016 (-1.022)

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Table 9 (Continued)

	Model (1)	Model (2)	Model (3)
Target leverage		0.080 (0.680)	0.084 (0.716)
Target adjusted return (-316, -64) > 0		-0.076*** (-4.010)	-0.076*** (-3.830)
Acquirer Tobin's Q		0.015 (1.103)	0.016 (1.223)
Acquirer leverage		-0.053 (-0.653)	-0.036 (-0.432)
M&A committee			-0.057** (-2.283)
Target board size			0.009* (1.770)
Independent board			0.031 (0.804)
Dual CEO			-0.022 (-1.149)
% of busy directors			0.098 (1.595)
Target board tenure			0.002 (0.645)
CEO ownership			0.355** (2.018)
Independent director ownership			0.164 (0.870)
Target directors retained as % of target board			0.004 (0.064)
Board interlock			-0.065 (-1.207)
Constant	0.204*** (11.091)	0.322*** (3.918)	0.185* (1.714)
Industry dummies	No	Yes	Yes
Year dummies	No	Yes	Yes
Adjusted R ²	0.017	0.294	0.311
Sample size	483	483	474

APPENDIX

Table A.1 Variable definitions

Variables	Definitions	Data sources
Panel A: Target board activity variables		
Board meeting count	The number of target board meetings from the date of first serious contact between the target and acquirer to the date of announcement.	M&A filings
Days to first board meeting	The number of days it takes for the target board to hold its first meeting after the date of first serious contact between the target and acquirer.	M&A filings
Early board involvement	Dummy variable: 1 if the target board meets within a month of the date of first contact between the target and the acquirer.	M&A filings
Early board involvement (with bid)	Dummy variable: 1 if the target board meets within a month of the date of first contact and receives a formal bid from the acquirer before the meeting.	M&A filings
Early board involvement (no bid)	Dummy variable: 1 if the target board meets within a month of the date of first contact between the target and the acquirer, without receiving a bid.	M&A filings
High meeting count	Dummy variable: 1 if the number of target board meetings held during the merger talks is greater than or equal to the median value of 5.	M&A filings
Panel B: Measures of merger performance		
ACAR(-5, +5)	Cumulative abnormal return for the acquirer over the period (-5, +5) relative to the deal announcement date, calculated based on the market model. The market model is estimated over the period (-316, -64) with the CRSP value-weighted portfolio used as the market index.	CRSP
CCAR(-5, +5)	Cumulative abnormal return for a value-weighted portfolio of the acquirer and the target over the period (-5, +5) relative to the deal announcement date, calculated based on the market model. The weights of the target and acquirer are calculated based on their market value of equity as of the 64th trading day before deal announcement. If the acquirer has a toehold in the target, target's weight is adjusted for this toehold. The market model is estimated over the period (-316, -64) with the CRSP value-weighted portfolio used as the market index.	CRSP
Takeover premium	The offer price divided by the price of the target stock 64 trading days prior to deal announcement minus 1.	SDC/CRSP
TCAR(-5, +5)	Cumulative abnormal return for the target over the period (-5, +5) relative to the deal announcement date, calculated based on the market model. The market model is estimated over the period (-316, -64) with the CRSP value-weighted portfolio used as the market index.	CRSP

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Table A.1 (Continued)

Variables	Definitions	Data sources
Panel C: Firm characteristics		
Adjusted return (-316, -64)	The buy-and-hold abnormal return over the period (-316, -64) for the firm, calculated as the difference between the buy-and-hold return for the firm minus the buy-and-hold return to the CRSP value-weighted index over the same period.	CRSP
Firm in regulated industry	Equals 1 if the firm operates in a regulated (finance or utilities) industry, 0 otherwise.	Compustat
Firm size (\$ mil)	Inflation adjusted market value of equity in millions as of the 64th trading day before deal announcement.	CRSP
Idiosyncratic volatility	The standard deviation of the residuals from the market model estimated over the period (-316, -64) relative to the deal announcement date.	CRSP
Leverage	Book value of debt over market value of total assets as of the fiscal year-end prior to the deal announcement.	Compustat
Tobin's q	Market value of assets over book value of assets as of the fiscal year-end prior to the deal announcement.	Compustat
Panel D: Deal characteristics		
All cash payment	Equals 1 if deal is financed 100% with cash, 0 otherwise.	SDC
All stock payment	Equals 1 if deal is financed 100% with acquirer stock, 0 otherwise.	SDC
Any cash payment	Equals 1 if the deal is financed partially or fully with cash, 0 otherwise.	SDC
Any stock payment	Equals 1 if the deal is financed partially or fully with acquirer stock, 0 otherwise.	SDC
Board interlock	Equals 1 if at least one of the target directors is also a director of the acquirer, 0 otherwise.	M&A filings
Buyer initiated	Equals 1 if the deal is buyer-initiated, 0 otherwise.	M&A filings
Competition	Equals 1 if the number of parties that made a formal bid for the target in the private takeover process exceeds one, 0 otherwise.	M&A filings
Diversifying deal	Equals 1 if bidder and target do not share the same Fama French - 48 industry, 0 otherwise .	Compustat
Fairness opinion obtained	Equals 1 if the target has obtained a fairness opinion, 0 otherwise.	SDC
Financial services	Equals 1 if both the acquirer and target are in the financial services industry, 0 otherwise.	Compustat
Hostile deal	Equals 1 if the bid is recorded by SDC as hostile or unsolicited, 0 otherwise.	SDC
Local deal	Equals 1 if the headquarters of the merging firms are within 100 kilometers of each other, 0 otherwise.	SDC
M&A committee	Equals 1 if the target has an M&A special committee, 0 otherwise.	M&A filings
Private negotiation process duration	The length of the period from the date of first serious contact between the target and acquirer to the date of announcement.	M&A filings
Relative size	Deal value divided by acquirer's market value of equity as of the 64th trading day before deal announcement.	SDC/CRSP
Seller initiated	Equals 1 if the deal is seller-initiated, 0 otherwise.	M&A filings
Target directors retained as a % of target board	The number of target directors who remain on the board of the combined firm as a percentage of pre-acquisition target board size.	DEF-14A filings

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Table A.1 (Continued)

Variables	Definitions	Data sources
Panel D: Deal characteristics (Continued)		
Tender offer	Equals 1 if the bid is recorded by SDC as a tender offer, 0 otherwise.	SDC
Termination fee dummy	Equals 1 if the termination fee to be paid is nonzero, 0 otherwise.	SDC
Toehold	Equals 1 if the acquirer owns a non-zero percentage of target's stock prior to deal announcement, 0 otherwise.	SDC
Toehold (Officer, 2003)	Equals 1 if the acquirer owns more than 5% of target's stock price, 0 otherwise.	SDC
Panel E: Target governance characteristics		
Board size	Number of directors serving on the board.	DEF-14A filings
Board tenure	Average tenure of directors on the board.	DEF-14A filings
High shareholder control	Equals 1 if CEO and board chair positions are separated, CEO ownership is less than 20%, CEO tenure is less than 5 years and percentage of independent directors is greater than 60%, 0 otherwise.	DEF-14A filings
Independent board	Equals 1 if the percentage of independent directors is greater than 0.5 in the board, 0 otherwise.	DEF-14A filings
Independent director ownership	The sum of the number of options exercisable within 60 days as of the date of the proxy statement and the number of shares held by independent directors divided by the number of outstanding shares of the firm.	DEF-14A filings
Independent director %	The percentage of independent directors on the board.	DEF-14A filings
Percentage of busy directors	The number of independent directors who hold two or more directorships in other public firms as a percentage of the board size.	DEF-14A filings
CEO ownership	The sum of the number of options exercisable within 60 days as of the date of the proxy statement and the number of shares held by the CEO divided by the number of outstanding shares of the firm.	DEF-14A filings
Dual CEO	Dummy variable: 1 if the CEO also chairs the board, 0 otherwise.	DEF-14A filings