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Corporate Governance and Performance in the Market for Corporate Control: The Case of REITs

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Abstract We examine 132 mergers and acquisitions by Real Estate Investment Trusts (REITs) during 1997–2006 and explore the relationship between acquirer external and internal corporate governance mechanisms and announcement abnormal returns. We argue that in regulated industries with absent active takeover market, the importance of outside governance mechanisms is diminished and substituted by internal governance controls. We focus on the REIT industry. We find that bidder returns are higher for REITs with smaller boards, with more experienced CEOs, but with shorter tenure. Acquirers' announcement returns are also significantly and positively related to higher ownership by their CEOs and board directors. We find no significant relationship between presence of staggered board and abnormal bidder returns, which supports our hypothesis that anti-takeover defense measures have reduced importance for REITs.

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Introduction

The literature has for long recognized the potential for value-reducing agency conflicts in public corporations (Jensen and Meckling 1976; Fama and Jensen 1983; Morck et al. 1988, 1990). This hazard is engendered by the separation of ownership and control, giving rise to the likelihood that courses of action that maximize the wealth of shareholders may not be in the best interest of managers. To mitigate these agency conflicts various governance mechanisms have been designed. External governance is provided by the market for corporate control in which a poorly performing firm is disciplined by hostile takeover threats. To thwart hostile takeover attempts and protect the firm, management uses numerous anti-takeover measures, such as staggered board, poison pill and golden parachutes. These takeover barriers effectively increase the cost of hostile acquisitions and decrease their likelihood of success. The reduced effectiveness of the market for corporate control allows entrenched managers to consume corporate resources for their own benefit at the cost of shareholder wealth.

A stream of literature has explored the impact of *external* corporate governance on performance, valuation, and abnormal returns of bidding firms. Gompers et al. (2003) show that a higher number of anti-takeover measures is associated with a lower profitability and valuation of the firm; Core et al. (2006) find a significant relationship between anti-takeover measures and weaker stock returns.

Managers have a natural inclination to increase firm size because larger firms afford them more visibility, power and prestige, higher compensation, and greater job security. In the absence of monitoring, managers tend to waste corporate resources on unprofitable acquisitions to enhance their personal goals. Indeed, Shleifer and Vishny (1997) characterize acquisitions as the most significant decision taken by managers when the potential for corporate waste is at its highest. The most effective device to protect shareholders from non-value-maximizing acquisitions is an active takeover market; however, its effectiveness can be reduced significantly through anti-takeover devices. This leads to the hypothesis that managers of firms with greater anti-takeover provisions will have the opportunity to make acquisitions to promote their own interests. Masulis et al. (2007) examine this hypothesis with a large sample of consummated mergers and acquisitions among conventional US corporations and report evidence consistent with the hypothesis that acquirers with more anti-takeover provisions engage in non-value-enhancing mergers and acquisitions.

Another type of governance device designed to strengthen the ability of shareholders to control management is through *internal* controls. Internal governance mechanisms include the size and composition of the board of directors, separation of the roles of the CEO and Chairman of the board, ownership of stock by managers and directors, and managerial compensation structure. Jensen and Fama (1983) posit that the board of the directors is at the core of internal corporate governance and is particularly important in its monitoring role. The literature

advances the theory that shareholders exercise more control when the board is small, when it includes a greater percentage of "independent" directors (generally defined as persons who are not employees of the firm or not otherwise affiliated with it through business relations), and when it is not chaired by the CEO of the company.[1] The link between internal corporate governance (CEO/Chairman duality, board size, board independence and CEO equity incentives) and acquirer returns has been examined for conventional corporations by Masulis et al. (2007) who fail to find any strong relationships. The only exception is the marginal significance of CEO/Chairman duality in two of the three models in which it was tested.

We argue that the observed relationships (or lack of) between corporate governance mechanisms and bidder returns may not hold for firms operating in regulated industries, and in an environment where there is lack of active takeover market. The case of REITs is a prime example for such firms. REITs are heavily regulated and face at least four important restrictions. They are required to distribute not less than 90% of their net income to their shareholders; at least 75% of REITs' income should be derived from real estate investments and REITs cannot hold more than 25% of assets that are not associated with real estate. Certain restrictions in terms of ownership structure also exist, which make control by large blockholders more difficult. Eicholtz and Kok (2008) review how regulatory provisions influence REITs' acquisition strategies. Specifically, they report that takeover targets in REIT mergers are mostly real estate companies with diversified portfolios. If diversification of operations is detrimental to performance, Eicholtz and Kok's (2008) finding implies that underperforming REITs are more likely to become takeover targets. The authors also report that the valuation gain for target REITs is lower than that for conventional firms and attribute this pattern to the regulatory restriction on the type of assets REITs can invest in, which limits their opportunity to consider diverse targets with potentially high synergistic gains. In addition to the restrictive regulation environment, the market for corporate control is virtually non-existent in the REIT sector. As Eicholtz and Kok (Ibid.) point out, in 95 property takeovers they studied, only 2 were hostile in nature. The absence of hostile takeovers in the REIT sector has also been noted by Campbell et al. (2001) and Bianco et al. (2007).

We aim to examine whether external and internal governance mechanisms affect value differently in acquisitions by public firms that operate in a regulated industry, particularly where hostile takeover threat is rare. We focus on the REIT industry. It is logical that in an environment with virtually no threat from the market for corporate control, REIT managers would feel insulated from ex-post settling up through the takeover market. If so, the existence and adoption of anti-takeover provisions will have little influence on entrenched REIT managers' propensity to undertake shareholder value-destroying acquisitions. Accordingly, there would be no significant difference in the abnormal returns of bidding firms in terms of anti-takeover provisions.

The objectives of this paper are threefold. First, our hypothesis is that the relationship between external governance mechanisms and bidders returns for REITs is likely to be different from that for conventional firms. Due to the lack of active REIT takeover market, the importance of the market for external corporate control is

[1] See Fama and Jensen (1983), Yermack (1996), Byrd and Hickman (1992) and Masulis et al. 2007).

diminished and replaced by internal governance controls. Therefore, we do not expect to observe a significant relationship between adopted takeover measures and bidder returns.

Second, we examine whether bidder returns are different when REIT mergers are conducted by firms with superior internal governance structure. We focus on the relationship between acquirers' returns and board structure, CEO characteristics and CEO, director and management equity incentives. We hypothesize that bidder returns will be higher for firms with superior board structure, short CEO tenure, more experienced CEOs and higher ownership by directors and managers.

Finally, we aim to examine if corporate governance mechanisms impact investor returns differentially in REIT mergers with private vis-a-vis public targets. Fuller et al. (2002) and Moeller et al. (2004) find that mergers with public firms induce significantly negative abnormal returns for acquirers, while those with private targets and subsidiaries are associated with significantly positive abnormal returns. The authors attribute this finding to a liquidity discount associated with private or subsidiary firms being captured by the bidder. However, absence of market data may make valuation of private firms difficult. Private firms are also relatively small and these acquisitions are unlikely to attract much publicity, or bring much visibility and fame to the top executive. As such, agency issues that raise concerns about the CEO's motives to acquire public targets are likely absent in private targets. Accordingly, presence of anti-takeover mechanisms may have no impact on abnormal returns associated with acquisitions of private firms.

To achieve our objectives, we examine the relationship between external and internal elements of corporate governance and abnormal returns to acquirer shareholders around the announcement of 132 REIT mergers over the period of 1997–2006. The sample is almost evenly distributed between public (70) and private (62) targets. We estimate linear regression models with robust errors of announcement period abnormal returns for the bidding firm against standard control variables, and selected variables proxying for internal and external governance devices.

Our findings are as follows. Larger boards are associated with greater valuation loss for the bidding firm shareholders, which supports the contention that larger boards are not conducive to effective monitoring because of lack of focus and cohesion. Ownership of stock by directors mitigates the valuation loss implying that directors who own company stock are more vigilant monitors. Age of the CEO and ownership of stock by the CEO have favorable effects, which is possibly attributable to better experience (age) and alignment with shareholder interests (ownership). However, longer CEO tenure, which is usually an indication of entrenchment, is detrimental to shareholder value.

An intriguing result is that the presence of staggered board has no significant impact on the announcement period abnormal returns of acquiring REITs. Whether the target is public or private has no bearing on this result. This finding is in sharp contrast with Masulis et al. (2007) who report that acquiring firms with staggered boards suffer a significantly higher (by 0.52%) valuation loss than those without staggered boards. The authors interpret this result as consistent with the notion that staggered boards exacerbate managerial entrenchment and reduce shareholder wealth. Recall that discipline by the market for corporate control is virtually absent among REITs. In view of this, our evidence conforms to the recent finding by Rose

(2009) that a staggered board is detrimental to shareholder wealth only for firms that are under a serious hostile takeover threat. For firms with no immediate threat, a staggered board has no discernible impact on value. As such, the non-significance of staggered boards for REIT acquirers may simply reflect the perception that additional protection to managers from the disciplining forces of the corporate control market is redundant in a traditionally non-hostile environment. Indeed, some authors argue that in firms and industries where takeover threat is weak (i.e. REITs), a multi-year commitment through a staggered board allows directors to focus on long-term projects, and may actually enhance monitoring by vigilant, non-conforming outside and independent directors by protecting them from ouster by a powerful and entrenched CEO who would normally refuse to nominate them for annual reelection. A definitive conclusion on this hypothesis is beyond the scope of our paper and must await future research.

The remainder of this paper proceeds as follows. The "Literature Review and Hypotheses" section reviews the relevant literature and develops testable hypotheses. The "Methodology and Data" section describes the sample selection procedure and summarizes the data. The "Results" section presents our empirical results, and the final section concludes.

Literature Review and Hypotheses

Mergers and Corporate Governance

Anti-takeover Provisions

Several authors have explored the impact of corporate governance on firm performance and valuation. The central hypothesis is that strong corporate governance forces managers to take decisions consistent with shareholder wealth maximization. In support of this notion, extant literature documents a positive relationship between the quality of corporate governance and various measures of firm performance (Gompers et al. 2003; Bebchuk et al. 2004; Bebchuk and Cohen 2005; Cremers and Nair 2005). Core et al. (2006) report poor stock returns for firms with weak corporate governance.

One of the most important strategic decisions taken by managers is investment in acquisitions. Shleifer and Vishny (1997) maintain that the moral hazard from agency conflict is most intense at the time of merger negotiations. Mergers can benefit managers in numerous ways by increasing the firm's annual budget, managers' span of control, and their compensation. In addition, entrenched managers undertake acquisitions to "empire build" because larger firms are less vulnerable to takeovers. As such, entrenched managers tend to make acquisitions even though these decisions are not necessarily value-enhancing. And, to protect themselves from the hostile takeover market, self-serving managers have the incentive to erect barriers to frustrate hostile suitors. Anti-takeover provisions (ATPs) are one such device. The protection by ATPs enables entrenched managers to resist hostile takeovers and undertake negative NPV projects from which they can extract private benefits of control (Manne 1965; Jensen and Ruback 1983; Shleifer and Vishny 1989; Bebchuk

2002). This leads to the prediction that acquisitions by firms with greater protection through anti-takeover provisions are viewed with skepticism by investors, inducing valuation loss for the bidders at announcement.

Consistent with the hypothesis, Masulis et al. (2007) find that acquirers with more anti-takeover provisions experience significantly lower abnormal returns. Specifically, the authors find that bidder returns decrease by 0.290% per one-standard deviation increase in the antitakeover index developed by Gompers et al. (2003), and by 0.435% per one-standard deviation increase in the index developed by Bebchuk et al. (2004). Further, acquirers with separate CEO and Chairman of the board experience higher abnormal returns. Finally, acquirers with staggered boards experience abnormal returns approximately 0.52% lower than those experienced by acquirers without staggered boards. For the average bidder in the sample of mergers used by Masulis et al. (2007), this translates into a loss of close to $30 million in shareholder value. The authors attribute these findings to increasing conflicts of interest between shareholders and managers due to greater protection from the takeover market. Specifically, protection by anti-takeover provisions makes it less likely that entrenched managers undertaking value-destroying acquisitions face disciplining by the market for corporate control. As further corroboration of this effect in a different context, Ferreira and Laux (2007) demonstrate that firms that are more open to the market for corporate control (with less anti-takeover provisions) have more informative stock prices and greater idiosyncratic risk. In their model, less anti-takeover provisions inspire speculators to collect more private information because they can profit by tendering their shares should an offer materialize. Additional evidence of investors' concern about extraction of private benefits by well protected insiders comes from Giannetti and Simonov (2006) who show that investors that have access to only security benefits (i.e. benefits accruing to all shareholders on a pro-rata basis; regular dividends, for example) generally avoid companies that have weak corporate governance.

Our objective is to examine the relation between anti-takeover provisions (ATPs) and the valuation effect of acquiring REITs. To our knowledge, this is the first study on the impact of barriers to the takeover market on shareholders wealth of REITs.[2] Some indirect evidence of the impact of monitoring on merger related abnormal returns is documented by Campbell et al. (2005) who investigate the sources of value creation in REIT mergers. They find that wealth effects associated with a change in control are positively related to the consideration paid in the form of convertible equity units of UPREIT subsidiaries, and to the minimum lock-up period prior to the conversion of these units. The authors contend that the value gains are attributable in part to the UPREIT unit holders acting as blockholders who have the incentive to monitor managers as long as they hold the stake.

[2] Several studies have examined the stock price effects of mergers and acquisitions in the REIT sector. In an early study of public-public REIT mergers, Allen and Sirmans (1987) find that, contrary to the results for conventional firms, abnormal shareholder returns for REIT acquirers are significantly positive. However, in a study of REIT mergers 1994–1998, Campbell et al. (2001) find that acquirer returns are small but significantly negative at −0.6%. In studies of REIT mergers in which the target is privately held, the effect is reversed, and acquirer returns are significantly positive in the 2% range (Campbell et al. 2001, 2005). This result is consistent with the evidence on public-private mergers for conventional firms (Chang 1998).

The relationship between governance mechanisms and valuation, investment behavior and financial performance has been recently examined for REITs by Hartzell et al. (2006) and Feng et al. (2005). Neither study finds strong evidence for such a relationship. Feng et al. (Ibid.) find that the relationship between good boards and performance is only pronounced for the firms with the best and worst boards. Hartzell et al. (2008) analyzed the impact of external and internal corporate governance structures on IPO valuation and IPO firms' long-run operating performance. As a proxy for external corporate governance they use two indexes; a Charter Index, which is a subset of 12 provisions used in the G-index by Gompers et al. (2003); and an Entrenchment Index, a subset of six charter provisions. While the authors find a strong relationship between insider ownership and IPO valuation and performance, they fail to find a robust significant relationship between Charter Index (or the Entrenchment Index) and performance.

We contend that the extent to which protection against hostile takeovers is detrimental to shareholder wealth depends on the intensity of the market for corporate control. The more active the takeover market, the more vulnerable is management to hostile threats, and the more damaging to shareholder value is the takeover-resistant impact of ATPs. Consequently, in industries where the takeover market is not very active, anti-takeover provisions may not have strongly negative impact on bidder returns. There is compelling evidence that the takeover market is ineffective in the REIT sector. For instance, Campbell et al. (2005) and Eicholtz and Kok (2008) establish that hostile takeovers are virtually non-existent among REITs. These authors and several others argue that the special regulatory provisions of REITs with respect to dividend distribution, asset structure and ownership composition make it difficult to launch hostile takeovers against REITs. To elaborate, the requirement that REITs must distribute 90% of taxable income annually leaves limited free cash flow at managers' discretion to be used for acquisitions. The requirement that 75% of a REIT's income must be derived from real estate assets gives REIT managers' limited opportunity to gain experience in diverse industries, inducing them to resist takeovers to minimize threat of job loss. Finally, the restriction on ownership composition makes formation of blockholders difficult, rendering hostile takeovers less likely. ATPs may have diminished importance in this environment. Accordingly, the performance of REIT acquisitions, as measured by abnormal returns around acquisitions would be unrelated to anti-takeover provisions.

The standard proxy for the degree of takeover vulnerability is the index developed by Gompers et al. (2003). Gompers, Ishii and Metrick identify 24 potential barriers to takeovers and assign 1 point for each barrier present for an individual firm. The maximum value of the index is 24, and the higher the value of the index, the more insulated is management from the takeover market. Unfortunately, the G-Index is available for only a handful of REITs. To address the data limitation, we focus on one of the most widely used anti-takeover measures, namely the classified or the staggered board. In a staggered board, directors are typically divided in three equal classes with only one class of directors standing for re-election every year. Thus, in a board consisting of three classes it takes three years until all board members have been re-elected. Because this creates a strong defense against director removal from the board, staggered

boards are one of the most effective anti-takeover measures to frustrate hostile suitors. The presence of staggered board is perceived as "a clear sign that a company has hung out a 'Buyers Not Welcome' sign" Starkman (2005). The role of a staggered board in causing complication and delays during a stand-alone proxy contest, as well as the diminished prospect for success of a hostile takeover has been discussed by Bebchuk and Cohen (2005). The authors present evidence that staggered boards are not merely associated with a lower firm value, but are actually the cause of significant reduction in firm valuation. Bebchuk et al. (2002, 2003) demonstrate that staggered boards are associated with an increased probability (from 31% to 64%) of a target remaining independent twelve months after a hostile bid. Staggered board is found to be far more significant anti-takeover defense mechanism than other defenses, such as pre-bid poison pills, supermajority voting and fair price provisions (Bebchuk et al. 2002, 2003; Masulis et al. 2007). Focusing on CEO turnover, executive compensation, and proxy contests, Faleye (2007, 2009) concludes that classified boards significantly insulate management from market discipline, inducing a significant reduction in firm value.

Some authors present an alternative perspective and note several advantages to a staggered board, however. They argue that a staggered board affords a measure of stability and continuity that a board elected annually does not enjoy. This may attract better directors who prefer to avoid going through reelection every year. Wilcox (2002) contends that a staggered board protects a director who refuses to succumb to pressure to comply with the agenda preferred by management. A classified board may also allow more time to review a takeover bid and solicit competing offers. These potential benefits aside, Rose (2009) asserts that the negative relation between staggered board and firm value documented in extant literature must be interpreted from the perspective of a firm's vulnerability to hostile takeovers. Rose contends that managerial entrenchment and staggered boards are more harmful for firms that are takeover targets. For firms with low takeover probability, a staggered board should have no significant impact on firm value. On the other hand, a staggered board should be detrimental to shareholder interest as the probability of hostile takeover increases. Using outside ownership concentration as a proxy for takeover probability, the author finds significant support for both hypotheses.

Several authors have documented that hostile takeovers are non-existent among REITs (Campbell et al. (2001), Eicholtz and Kok (2008)). This implies that, in general, REIT managers face no serious takeover threat. Following Rose (2009), we argue that if the adverse effect of staggered boards is attributable mainly to managerial entrenchment thwarting hostile takeover attempts, staggered boards (*STAGBOARD*) should have no discernibly adverse impact on the market value of REIT acquirers. Indeed, it may be argued that a staggered board will help attract better directors who feel more secure in a classified board. A staggered board may also offer protection to directors that tend to challenge and monitor management from possible retaliation by managers who refuse to nominate them for reelection every year. These potentially favorable effects imply a positive influence of staggered boards on acquirer returns. Conversely, if classified boards uniformly hurt shareholders' interest regardless of takeover probability, acquirer returns should be negatively related to staggered boards.

Internal Monitoring

We consider the impact of internal governance from three different aspects, board structure, ownership structure, and CEO entrenchment. We draw from previous research to identify the proxies for these governance mechanisms.

Prior research identifies independent directors as important monitoring agents (Fama and Jensen 1983), particularly in corporate events where management interests deviate from shareholder preferences (namely acquisitions). For example, Rosenstein and Wyatt (1990, 1997) document a positive market reaction to the appointment of outside directors. Shivdasani (1993) concludes that monitoring by outside directors reduces the likelihood of being a target of a hostile takeover, an event which signals a failure of the firm's internal control mechanisms. Brickley et al. (1994) find that the market reaction to poison pill adoptions increases with the proportion of outside directors, implying that the potentially adverse effects of poison pills are attenuated with independent board oversight. For REITs, Friday and Sirmans (1998) report a positive relationship between performance and independent director representation. If an independent board is an effective way of monitoring managerial decision-making, then it follows that outside dominated boards will be associated with higher-NPV mergers.

Jensen (1993) suggests that large boards suffer from lack of cohesiveness and coordination, are slow in decision making, and less likely to voice disapproval of deviant managerial behavior. Empirical evidence on this issue is mixed. Yermack (1996) tests the hypothesis that smaller boards exercise more efficient oversight and are associated with higher market valuation. In confirmation, he finds an inverse relationship between Tobin's q and board size. Eisenberg et al. (1998) corroborate the result with Finnish data. More recent literature documents a positive relationship between large outside-director-dominated boards and firm value, however.[3] Indeed, recent studies show that larger boards composed of outside directors with diverse backgrounds have problem-solving advantages, and are often better advisors to top management (Finkelstein and Hambrick 1996). Overall, the impact of bidder board size (*BRDSIZE*) on bidder returns is an empirical issue.

The literature is generally consistent with the notion of a positive relation between performance and ownership by directors and managers (Vance 1964; Pfeffer 1972; Kim et al. 1988). Lewellen et al. (1985) show that negative bidder returns are significantly correlated with low managerial ownership. Demsetz (1983) posits that there should not be a strong relationship between ownership structure and firm performance, since ownership structure is endogenous. However, Schellenger et al. (1989) find a positive relation between stockholding of directors and various measures of performance. In further corroboration, Oswald and Jahera (1991) present evidence of a significant relationship between ownership and financial performance. More recently, Khorana et al. (2007) examine the impact of ownership of portfolio managers on fund performance and conclude that future risk-adjusted

[3] Indeed, recently there has been a trend toward bigger boards for larger companies. For example, a survey of more than 1,000 CEOs and directors of large US corporations reports that the typical board has eleven directors, nine of whom are outsiders (Ferry 1999).

returns are positively related to managerial ownership. In addition, there is convincing evidence that the relation between managerial ownership and performance is non-linear. For instance, Slovin and Sushka (1993) find a bell shaped relationship between cumulative abnormal returns around the announcement of death of an officer or a member of the board of directors and shareholdings of the deceased. Similarly, Short and Keasey (1999) use a third degree polynomial to model firm value as a function of director ownership and find a significantly non-linear form. Finally, the presence of large block holders on the board is often viewed as a monitoring device to constrain managerial opportunism. Brickley et al. (1988) find that unaffiliated block holders are more likely to vote against management-sponsored proposals. Gordon and Pound (1993) reach similar conclusions for shareholder-sponsored proposals.

We use several alternative measures of ownership. Ownership by officers and directors (*DIRMNGOWN*) is used to capture the behavior of the major decision makers. Also included in our analyses are CEO ownership (*CEOOWN*), as well as block ownership (*BLOCKHLDR*).

A powerful CEO can assert considerable influence on the board and force directors to acquiesce to his/her terms to ensure continued reappointment to the board. Appointment to the board brings significant benefits to directors including greater human capital, reputation, prestige, and material gains. These benefits may induce outside directors to overlook sub-optimal decision making by management as a mark of loyalty, albeit to the detriment of shareholder wealth. This moral hazard problem intensifies as the CEO becomes more entrenched and powerful. The notion is that a powerful CEO reduces the board's ability to govern and affects performance adversely. The CEO draws power from his/her years of service (*CEO_TENURE*), dual appointment as the Chairman of the board (*CEOCBD*), and stock ownership (*CEOOWN*). In general, it is argued that CEO duality and long tenure impact firm value adversely.[4] The evidence on the effect of CEO duality on firm value and performance is inconclusive. Contrary to the popular view that CEO duality adversely impacts firm value, Brickley et al. (1997) find no relation between duality and performance. In contrast, Goyal and Park (2002) report that combined leadership position makes it more difficult to remove the CEO in poorly performing firms. The impact of CEO ownership on performance is inconclusive, as well. For example, Salancik and Pfeffer (1980) argue that ownership and performance interact to affect executive tenure. The authors suggest that tenure is most positively related to performance for externally controlled firms and least positively related in owner managed firms. In addition, the higher the proportion of inside directors the longer the tenure of the CEO, and the less vulnerable is the CEO to penalty for poor performance.

Finally, assuming that older CEOs have been in the position longer, the impact of age on value should be adverse. CEOs may also become less motivated as they get older and closer to retirement. On the other hand, older CEOs may have more

[4] The effect of ownership on firm value is non-linear. Ownership beyond a certain level may give CEO excessive power to ignore any monitoring by the board. We discuss this effect in more detail later in the paper.

experience, insight and maturity. Measuring CEO's power by his/her title, and status as a founder and board's sole insider, Adams et al. (2005) find that stock returns exhibit higher variance for companies run by powerful CEOs. Following these studies, we hypothesize a negative relation between CEO duality and tenure and merger returns, after controlling for managerial ownership and percentage of outside directors. We control for separation of management and ownership by using an indicator variable (*CEOCBD)* which has a value 1 when the CEO is also the Chairman of the board.

Control Variables: Deal and Bidder Characteristics

Moeller et al. (2004) present evidence that size of the acquiring firm is negatively correlated with bidder's announcement abnormal returns. They attribute this result to managerial over optimism. Larger firms can pay higher premiums for targets for several reasons. Since size serves as an effective anti-takeover defense mechanism, managers of larger firms are more entrenched and hence will tend to engage in value reducing acquisitions by overpaying for the target or involving in mergers with no apparent synergies. For the size of the bidder, we use the relative size of the deal, *SIZERAT*, which is defined as the offer price for the target divided by the total assets of the acquiring firm. Relative size is reported to have a negative relationship with bidder returns for larger firms by Moeller et al. (2004). But Asquith et al. (1983) find the opposite result.

Another mechanism used for anti-takeover protection is leverage (Garvey and Hanka 1999). Increasing debt levels reduces free cash flow and makes a firm less attractive to corporate raiders. Increased (moderate) leverage also motivates management to greater effort to meet mandatory interest payments, mitigates entrenchment, reduces overall cost of capital and increases the efficiency of the firm. Accordingly, we control for bidder's total leverage ratio. We measure leverage as the ratio of total debt to total assets at the end of the last fiscal quarter prior to the announcement of the merger (*TD_TA*).

Fuller et al. (2002) and Moeller et al. (2004) find that acquirers experience significantly negative abnormal returns when buying public firms and positive abnormal returns when targets are private companies or subsidiaries. They attribute this finding to a liquidity discount associated with private or subsidiary firms that is being captured by the bidder. In a similar vein, several authors have documented that stock-financed mergers experience higher negative abnormal returns as compared to those financed by cash (Mitchell and Stafford 2000). Use of stock as the method of payment can be conceived as a signal that the acquiring firm's stock is overvalued. Chang (1998) and Fuller et al. (2002) find that the impact of stock-financed deals is less negative when the target is privately held. They attribute this to the creation of new block holders in the bidder company when closely held private companies are purchased with stock. Following this literature, we control for relative size of the deal, the bidder's leverage ratio, whether the target is privately or publicly owned, and whether the means of payment is stock, cash or both. We expect a negative impact of deal relative size, positive (negative) impact when the target is private (public) and a positive (negative) impact when cash (stock) is used for financing.

Based on the extant literature, we develop the following hypotheses:

1. Because the market for corporate control is absent in the REIT sector, anti-takeover provisions may be ineffective. Specifically, as a widely used anti-takeover provision, a staggered board will have no impact on bidder returns.
2. Absence of external governance by takeover market makes monitoring by internal devices important. A board dominated by insiders, a large board will adversely impact bidder returns, as will CEO entrenchment (duality, and long tenure).

Methodology and Data

We obtain announcements of REIT mergers and acquisitions from Factiva using a variety of search routines during the years 1997–2006. Announcements must appear in the *Wall Street Journal*, the *Dow Jones Newswire*, or the *Business Wire*. The announcement day is the first day that the announcement appears in one or more of these publications, provided that it is a trading day, and that the announcement is made prior to market closing at 4 pm, US eastern standard time. For announcements made after market closing, the next trading day after the announcement is the event day. The announcement day is denoted day 0. In line with other event studies, events are excluded from the sample if any other material announcements are made during the event window (days −1, 0). We use standard event study methodology following Mikkelson and Partch (1988) to compute the abnormal return for an equally-weighted portfolio of the bidding firms. The S&P 500 Index is used as the market proxy. We obtain corporate governance data from firms' proxy statements available through Thompson Research. We use the CRSP Compustat merged database to obtain returns and financial variables data.

Data and Summary Statistics

Our initial sample includes 138 observations. We eliminate four observations since we are not able to obtain returns from CRSP for them during the estimation period. For one announcement we are not able to obtain deal size and one firm does not appear in the Compustat database. The final sample contains 132 announcements. We present sample distribution statistics by announcement year and property type in Table 1 and include average size of the acquiring REIT, the target REIT and the relative deal value. Panel A shows that merger activity peaked in 1997 and 1998, followed by relatively quiet period from 1999 to 2003. Since 2004 the number of deals has increased; both average deal size and acquirer size have also increased, although the relative deal size has remained somewhat constant. In Panel B we observe that the sample is evenly distributed between the three main property types: retail, office/industrial and apartment. In terms of relative size of the target, acquisitions in the hotel group of REITs tend to be much larger than any other property type, while apartment deals tend to be the smallest. The average acquirer size is $2.7 billion, the average deal size is $1.3 billion and the mean target size is 68% of the acquirer's total assets.

Table 1 Sample distribution by announcement year and property type, 1997–2006

	Number	Acquirer size	Average deal size	Relative deal size
Panel A. Sample Distribution by Announcement Year				
1997	41	1389	724	0.53
1998	24	1902	952	0.63
1999	11	1893	715	1.80
2000	9	4572	1464	0.62
2001	9	4942	1934	0.54
2002	6	2372	871	0.48
2003	5	1310	435	0.50
2004	10	5118	2730	0.64
2005	7	4378	2095	0.55
2006	10	4814	2565	0.65
Panel B. Sample Distribution by Property Type				
Retail	34	2781	1477	0.72
Office/Industrial	28	3221	1532	0.41
Apartment	27	3369	791	0.34
Diversified	16	2418	854	0.46
Hotel	14	1425	1818	1.88
Other	7	2460	1166	0.74
Health Care	6	1377	710	0.66
Total	132	2726	1257	0.68

The sample includes 132 mergers and acquisitions (listed in SNL M&A database) and announced in the *Wall Street Journal*, the *Dow Jones Newswire*, or the *PR Newswire* from 1997 to 2006. All acquirers are publicly traded US Real Estate Investment Trusts. Transaction amounts are in millions of U.S. Dollars. Acquirer Size is represented by the total assets of the acquiring firm the quarter immediately before the merger announcement

We use three sets of variables in our analyses. The first set of variables is related to the financial characteristics of the bidding firm. Following extant literature, we focus on the size of the acquirer (total assets of acquirer; *RSIZE*), leverage ratio (total debt over total assets; *TD_TA*) and profitability (Net income divided by total assets; *NI_TA*). The second type of variables describes deal characteristics (size of the transaction, *TSIZE*; relative size of target, target size divided by acquirer size, *SIZERAT*; public vs. private target, *PRIV*; and stock vs. cash financed deal, *ST* or *CA* or *ST_AND_CA*). The third type of variables is related to governance structure of the bidder. We control for ATP measures (staggered board, *STAGBOARD*), board characteristics (board size, *BRDSIZE*; and board independence, specifically percentage of outside and inside directors, *PCTOUTSIDER*, and *PCTINSIDER*), CEO power and entrenchment (CEO duality, *CEOCBD*; age, *CEO_AGE*; tenure, *CEO_TENURE*; and ownership, *CEOOWN*), management and director ownership (*DIRMNGOWN*), and presence of blockholders (*BLOCKHLDR*). The definitions of all the variables are presented in Table 2. These definitions are consistent with previous literature.

Table 2 Variables definitions

Acquirer Characteristics	
RSIZE	Total assets of the firm in million dollars, at the end of the last fiscal quarter prior to the announcement, obtained from COMPUSTAT
TD_TA	Total debt divided by total assets of the acquiring REIT in millions of dollars, at the end of the last fiscal quarter prior to the announcement, obtained from COMPUSTAT
NI_TA	Net income divided by total assets of the acquiring REIT in millions of dollars, at the end of the last fiscal quarter prior to the announcement, obtained from COMPUSTAT
Deal Characteristics	
TSIZE	The total size of the transaction in millions of dollars, obtained from the press releases
SIZERAT	Target Size (*TSIZE*) divided by REIT Size (*RSIZE*)
PRIV	Indicator variable equal to one if the buyer is a privately held firm, zero otherwise
ST	Indicator variable equal to one if the merger was financed by stock only
CA	Indicator variable equal to one if the merger was financed by cash only
ST_AND_CA	Indicator variable equal to one if the merger was financed by a combination of stock and cash
Corporate Governance Acquirer Characteristics	
STAGBOARD	Dummy variable, indicating whether the board of directors is classified or not; Classified boards typically have three classes of directors, with directors from one class standing for election every three years.
BRDSIZE	Variable describing the size of the Board of Directors
PCTOUTSIDER	Percentage of outside directors to the board size; Outside directors are not employees of the firm and usually do not have any ties to the firm aside from their directorship. In contrast, inside directors are employees or former employees of the firm.
PCTINSIDER	Percentage of inside directors to the board size; About 6% of a firm's directors fall into the category of "affiliated," such as attorneys or people that have some long-term relationship with the firm.
CEOCBD	Dummy variable, indicating whether the Chief Executive Officer is also Chairman of the Board of Directors of the Company
CEO_AGE	Age of the Chief Executive Officer of the Company
CEO_TENURE	Length of time the present CEO has served on this position
CEOOWN	Percentage of stock beneficial ownership by the CEO; (Beneficial ownership is determined based on the rules of the SEC).
DIRMNGOWN	Percentage of stock beneficial ownership by all directors and executives of the company
DIRMNGOWN2	*DIRMNGOWN* squared
BLOCKHLDR	Indicator variable equal to one if there are blockholders present (investors owning at least 5% of all stock), zero otherwise

Summary statistics of the variables are reported in Table 3. We note that the average REIT board has eight members, five of whom are outsiders; these numbers are smaller than the corresponding statistics reported for conventional firms where the average board is composed of eleven directors, and nine of which are outsiders (Ferry 1999). In about half of the firms, CEO is also Chairman of the board. Staggered board is present in 61% of the acquiring REITs; Masulis et al. (2007) report the same average percentage of staggered boards in their study. CEOs of bidder firms serve on average for 6 years, are 51 years old and own 5% of the firm's outstanding shares. We notice

Table 3 Summary statistics of variables used in the regression analysis

Variable	Mean	S. D.	Low value	High value
Abnormal Return				
CAR2	−0.04%	3.45%	−12.01%	14.46%
CAR3	0.00%	3.90%	−10.43%	16.54%
Acquirer and Deal Characteristics				
RSIZE	2726	3255	56	18794
TD_TA	0.56	0.16	0.00	1.03
NI_TA	0.01	0.01	-0.02	0.11
TSIZE	1258	2017	50	13300
SIZERAT	0.68	1.22	0.02	12.32
PRIV	0.47	0.50	0	1
ST	0.39	0.49	0	1
CA	0.18	0.39	0	1
ST_AND_CA	0.42	0.50	0	1
Board Characteristics				
BRDSIZE	8.47	2.32	4	14
STAGBOARD	0.61	0.49	0	1
CEOCBD	0.51	0.50	0	1
PCTOUTSIDER	0.60	0.16	0.00	1.00
PCTINSIDER	0.35	0.13	0.00	0.71
CEO Characteristics				
CEO_AGE	51.03	9.17	35	82
CEO_TENURE	6.06	4.58	0	26
CEOOWN	0.05	0.08	0.00	0.67
Ownership Characteristics				
DIRMNGOWN	0.13	0.14	0.01	0.80
DIRMNGOWN2	0.04	0.10	0.00	0.64
BLOCKHLDR	0.88	0.33	0.00	1.00

Summary description of data used to analyze 132 REIT mergers and acquisitions during 1997–2006. CAR2 and CAR3 are the cumulative abnormal returns for the acquirer's shareholders during two day (−1, 0) and three day (−1, 1) windows respectively, around the announcement date in percent, computed in accordance with standard event study methodology using the market model. The S&P 500 Index proxies for the market portfolio

The high value of 67% for CEO ownership is unusual, and at first look is in violation with the 5/50 REIT rule. This value is recorded for Equity One CEO's beneficial ownership and includes direct as well as indirect ownership through several companies (Gazit –Globe Ltd., Gazit Inc., M.G.N. Inc., Silver Maple Inc., Ficus Inc and First Capital Realty Inc.), of which the CEO, Mr. Chaim Katzman, was deemed a controlling shareholder as well as a certain number shares of common stock for which Mr. Katzman was custodian for his minor children

that the maximum percentage of CEO beneficial ownership observed (67%) is somewhat puzzling, since at first look it is in violation with the 5/50 REIT test (five or fewer individuals cannot own more than 50% of the REIT's stock). This high percentage is recorded for Equity One CEO's beneficial ownership and includes direct

as well as indirect ownership through several companies (Gazit –Globe Ltd., Gazit Inc., M.G.N. Inc., Silver Maple Inc., Ficus Inc and First Capital Realty Inc.), of which the CEO, Mr. Chaim Katzman, was deemed a controlling shareholder, as well as a certain number shares of common stock for which Mr. Katzman was custodian for his minor children. Finally, directors and managers own on average 13% and blockholders are present in 88%, of the acquirers.

Table 4 presents paired correlations of the variables and their significance levels. As predicted, the acquirer and target sizes (*RSIZE* and *TSIZE*) are negatively correlated with acquirer's announcement period cumulative abnormal returns (CARs). CARs are significantly positively correlated with private targets (*PRIV*), CEO ownership (*CEOOWN*) and CEO age (*CEO_AGE*) (for CAR2 and CAR3, the cumulative abnormal returns over 2-day and 3-day intervals, respectively). Announcement period returns are significantly negatively correlated with stock financed deals (*ST*) and board size (*BRDSIZE*). Bidder size (*RSIZE*) is positively correlated with size of the transaction (*TSIZE*), but negatively correlated with relative deal size (*SIZERAT*), demonstrating that larger REITs tend to acquire larger targets that are relatively small compared to the total assets of the bidder. Board size (*BRDSIZE*) is positively correlated with the acquirer size (*RSIZE*), which is consistent with the findings of Boone et al. (2007). We further observe that larger acquirers are less likely to be managed by a CEO that also serves as a Chairman of the board (*CEOCBD*). Furthermore, CEO duality is positively correlated to firm performance (*NI_TA*) (a result that is contrary to findings for conventional firms), CEO age (*CEO_AGE*), tenure (*CEO_TENURE*) and ownership (*CEOOWN*), and negatively correlated with board size (*BRDSIZE*) and presence of staggered board *(STAGBOARD*). CEO age (*CEO_AGE*) is significantly and positively correlated to the use of stock to finance mergers (*ST*) and negatively related to firm size (*RSIZE*). Based on the correlation statistics we conclude that longer CEO tenure is associated with acquisitions of relatively larger public targets by stock.

Under the premise that a staggered board exacerbates managerial entrenchment by protecting directors and management from removal by hostile acquirers, a positive relation between CEO tenure, CEO/Chairman duality (proxies of CEO power) and a classified board is predicted. The evidence that staggered and outsider dominated boards are significantly negatively associated with CEO tenure and CEO duality (i.e. powerful CEOs) contradicts this notion. Rather, our result is in conformity with the argument that by protecting vigilant, independent directors from the uncertainty and possible retaliation by a non-friendly CEO at annual elections, a staggered board allows directors to discipline management and take action to reduce managerial entrenchment resulting from long tenure and CEO/Chairman duality. A definitive conclusion in this regard cannot be reached from univariate analysis, however.

Results

Event Study

Table 5 presents announcement period cumulative abnormal returns (CAR) for the bidding firm for two day (−1, 0) and three day (−1, 1) intervals. Abnormal returns

for the entire portfolio of bidding firms are insignificantly different from zero. Based on this evidence, we can conclude that mergers do not generally increase the wealth of acquiring REIT shareholders. This aggregate result, however, masks the abnormal returns associated with subsamples based on unique characteristics of the target, or contract terms of the deal. When we parse the sample into mergers with private and public targets, we find that mergers with private firms are associated with a significantly positive announcement return for the bidding firm, while mergers with public firms induce significantly negative valuation effect for the bidder. This is consistent with the previous findings of Fuller et al. (2002), and Moeller et al. (2004) for conventional firms, and Campbell et al. (2001, 2005) for REITs. Finally, when the sample is broken down by the method of payment, we find that stock financed transactions are associated with significant and negative abnormal returns of −0.71 and −0.88% for the two and three–day windows, respectively. In contrast, cash-financed mergers are generally associated with positive, albeit insignificant, returns. This finding is consistent with previous research (Mitchell and Stafford 2000).

Regression Analysis: Tests of Hypotheses

To test our hypotheses, we estimate regression models with 2-day cumulative abnormal returns as the dependent variable. Explanatory variables include proxies for external governance, internal governance, and bidder and deal characteristics as control variables. Our hypothesis is that since REITs face virtually no takeover threat, we expect no significant relationship between external governance mechanisms and bidder abnormal returns. The only variable representing an anti-takeover provision we can include in our analyses (for lack of adequate data on other proxies) is the presence of a staggered board. While this limits the generality of our results and conclusions, staggered board has been found to be a strong deterrent to takeovers by several studies. We also posit that since external governance is weak, internal governance mechanisms are critical in monitoring which implies a significant relationship between internal monitoring devices (board characteristics, CEO entrenchment) and acquirer returns (Hypothesis 2).

Since managers of larger firms are prone to over-optimism and engage in empire building, acquisitions by larger firms may be value destroying; hence, we expect a negative correlation between announcement period bidder returns and bidder size. Moeller et al. (2004), however, find a positive relationship between acquirer's abnormal returns and relative deal size, which is reversed for large bidders. As such, the relationship between relative deal size and CAR is an empirical issue. We also control for bidder firm profitability and leverage. While leverage reduces firm's free cash flows and serves as an effective mechanism to limit managerial discretion in investment decisions, the impact of increased levels of debt is diminished in the case of REITs. This is due to the fact REIT managers are already restricted by the requirement to distribute at least 90% of the firm's profits as dividends. Consistent with this regulatory requirement, anecdotal evidence reveals that leverage ratio of real estate investment trusts is relatively high compared to conventional firms. Therefore, while we follow previous literature and control for acquirer's leverage, we do not expect a significant relationship between acquirer's debt level and its announcement period returns. The only exception to this general prediction is where

Table 4 Correlation statistics of variables used in the regression analysis

	CAR2	CAR3	RSIZE	TD_TA	NI_TA	TSIZE	SIZE RAT	PRIV	ST	CA	BRD SIZE	STAG BOARD	CEO = CBD	PCTOUT SIDER	CEO_AGE	CEO_ TENURE	CEO OWN	DIRMNG OWN
CAR2	1.00																	
CAR3	0.87*	1.00																
	0.00																	
RSIZE	−0.24*	−0.24*	1.00															
	0.01	*0.00*																
TD_TA	−0.10	−0.11	0.10	1.00														
	0.24	*0.22*	*0.26*															
NI_TA	0.07	0.13	−0.05	−0.15*	1.00													
	0.43	*0.15*	*0.55*	*0.08*														
TSIZE	−0.28*	−0.28*	0.52*	0.13	0.05	1.00												
	0.00	*0.00*	*0.00*	*0.15*	*0.54*													
SIZERAT	−0.05	−0.09	−0.15*	0.00	0.08	0.29*	1.00											
	0.56	*0.31*	*0.09*	*0.99*	*0.35*	*0.00*												
PRIV	0.29*	0.29*	−0.20*	0.04	0.01	−0.26*	−0.17*	1.00										
	0.00	*0.00*	*0.02*	*0.65*	*0.93*	*0.00*	*0.05*											
ST	−0.18*	−0.20*	−0.11	−0.14	−0.07	−0.10	0.13	−0.51*	1.00									
	0.04	*0.02*	*0.23*	*0.11*	*0.45*	*0.27*	*0.13*	*0.00*										
CA	0.05	0.01	0.27*	0.16*	0.01	0.02	−0.16*	0.11	−0.38*	1.00								
	0.56	*0.90*	*0.00*	*0.07*	*0.92*	*0.80*	*0.06*	*0.22*	*0.00*									

BRDSIZE	−0.18*	−0.18*	0.42*	0.02	−0.09	0.15	−0.15*	0.08	−0.04	0.05	1.00							
	0.05	*0.04*	*0.00*	*0.83*	*0.33*	*0.10*	*0.08*	*0.38*	*0.67*	*0.58*								
STAGBOARD	0.04	0.05	−0.07	−0.04	0.02	0.03	−0.02	−0.02	0.10	−0.11	0.06	1.00						
	0.64	*0.55*	*0.45*	*0.63*	*0.84*	*0.74*	*0.83*	*0.82*	*0.26*	*0.21*	*0.52*							
CEO = CBD	0.11	0.07	−0.19*	−0.02	0.19*	−0.12	0.10	−0.12	0.11	0.03	−0.27*	−0.22*	1.00					
	0.24	*0.40*	*0.03*	*0.87*	*0.03*	*0.17*	*0.27*	*0.19*	*0.22*	*0.75*	*0.00*	*0.01*						
PCTOUTSIDER	−0.05	−0.06	0.11	−0.02	−0.01	0.02	−0.20*	−0.13	0.02	0.17*	0.03	−0.06	0.09	1.00				
	0.57	*0.51*	*0.21*	*0.83*	*0.87*	*0.86*	*0.02*	*0.14*	*0.82*	*0.05*	*0.75*	*0.49*	*0.29*					
CEO_ AGE	0.14	0.15	−0.02	−0.04	−0.05	−0.21*	−0.02	−0.11	0.21*	0.03	0.05	−0.03	0.31*	−0.09	1.00			
	0.12	*0.10*	*0.82*	*0.62*	*0.58*	*0.02*	*0.84*	*0.22*	*0.02*	*0.76*	*0.57*	*0.78*	*0.00*	*0.32*					
CEO_ TENURE	−0.14	−0.13	0.04	0.07	0.04	−0.04	0.22*	−0.27*	0.28*	−0.05	0.00	−0.19*	0.34*	−0.16*	0.47*	1.00		
	0.12	*0.16*	*0.64*	*0.47*	*0.64*	*0.70*	*0.02*	*0.00*	*0.00*	*0.56*	*1.00*	*0.04*	*0.00*	*0.08*	*0.00*			
CEOOWN	0.15*	0.13	−0.13	0.05	0.10	−0.08	0.17*	−0.12	0.22*	−0.09	−0.13	0.08	0.25*	−0.14	0.15	0.22*	1.00	
	0.10	*0.16*	*0.14*	*0.55*	*0.27*	*0.36*	*0.06*	*0.19*	*0.01*	*0.30*	*0.15*	*0.35*	*0.00*	*0.12*	*0.10*	*0.02*		
DIRMNGOWN	0.04	−0.01	−0.16*	0.19*	−0.08	−0.10	0.09	−0.13	0.07	−0.09	0.00	0.06	0.03	−0.07	0.04	0.14	0.61*	1.00
	0.69	*0.90*	*0.06*	*0.03*	*0.38*	*0.27*	*0.34*	*0.15*	*0.45*	*0.32*	*0.98*	*0.47*	*0.74*	*0.45*	*0.70*	*0.12*	*0.00*	
DIRMNGOWN2	*−0.01*	−0.04	−0.15*	0.13	−0.03	−0.09	0.05	−0.17*	0.05	−0.10	−0.03	0.12	0.07	0.06	−0.02	0.11	0.55*	0.93*
	0.93	*0.65*	*0.09*	*0.14*	*0.71*	*0.30*	*0.61*	*0.06*	*0.61*	*0.28*	*0.72*	*0.20*	*0.44*	*0.50*	*0.84*	*0.25*	*0.00*	*0.00*
BLOCKHLDR	−0.07	−0.05	0.02	0.13	0.00	−0.01	0.03	−0.01	0.01	−0.01	−0.09	0.01	−0.02	−0.16*	0.03	0.06	0.17*	0.22*
	0.46	*0.61*	*0.87*	*0.16*	*0.98*	*0.95*	*0.77*	*0.93*	*0.94*	*0.91*	*0.29*	*0.91*	*0.86*	*0.08*	*0.76*	*0.53*	*0.06*	*0.01*

* Significantly different from zero at 10% level of confidence or less; P-values are reported in italics

Table 5 Two and three day announcement cumulative abnormal returns by target and deal structure in 132 REIT mergers and acquisitions 1997–2006

	Obs	AR (−1,0)	% Neg	Patell Z	Rank Z test	AR (−1,1)	% Neg	Patell Z	Rank Z test
Panel A: Acquirer Returns									
All	132	−0.04%	48.5	−0.759	−0.45	0.00%	50.0	−0.244	−0.264
Panel B : Acquirer Returns by Target									
Private	62	0.96%***	33.9	3.68	2.67	1.10%***	37.1	3.75	2.51
Public	70	−0.93%***	62.9	−4.50	−3.12	−0.95%***	61.4	−3.87	−2.67
Panel C : Acquirer Returns by Deal Structure									
Cash	24	0.21%	37.5	0.64	0.31	0.07%	41.7	0.30	0.56
Stock	52	−0.71%***	57.7	−3.02	−2.25	−0.88%***	69.2	−3.04	−2.25
Cash & Stock	56	0.47%	41.1	1.32	1.31	0.81%**	35.7	2.36	1.51

* Significantly different from zero at 10% level of confidence or better

** Significantly different from zero at 5% level of confidence or better

*** Significantly different from zero at 1% level of confidence or better

Abnormal Returns to REIT shareholders in 132 mergers and acquisitions announced 1997–2006. AR (−1,0) and AR (−1,1) are percent Cumulative Abnormal Returns to acquirer REIT shareholders two and three days around the first public announcement. Announcements must appear in the *Wall Street Journal*, the *Dow Jones Newswire*, or the *PR Newswire* prior to 4 PM on a trading day. For announcements made after 4 PM, the first trading day following the announcement is used. Standard event study methodology is employed following Mikkelson and Partch (1988). The market proxy is the S&P 500 Index

the source of cash in cash-financed deals is the issuance of new debt. In this case we expect to find negative relationship between leverage and acquirer's returns, controlling for relative deal size. If the target size is relatively large in a cash (new debt) financed deal, the resulting increase in the leverage of the acquiring REIT may pose a risk of default, which will be perceived negatively by the shareholders. Finally, following a series of extant studies, we hypothesize a positive relationship between announcement period bidder returns and private targets, and announcement period bidder returns and cash financed deals, and vice versa.

We use multiple regression analysis to test the relationship between bidder's abnormal returns and a set of potential explanatory variables. First, we estimate ordinary least square (OLS) models in which we focus on the impact of governance variables, controlling for acquirer and deal characteristics, without separating between private and public REIT targets. The regression results are reported in Table 6. The number of observations in each model is determined by the number of firms in the sample for which full information is available for the variables included. We estimate four models. The first model examines the relationship between bidder's abnormal announcement period returns and the characteristics of the acquirer's board of directors. In the second model, we include ownership variables; in the third model, the focus is on CEO characteristics, while the last model includes all variables. In all four models, we use *SIZERAT* to control for the relative size of the transaction; however, it is insignificant. *PRIV*, an indicator variable equal to one when the target is private, is included as a control variable in all four models. In all models it is significantly positive as expected.

Table 6 Regression analysis of acquirer returns in a two day window (−1,0) around the announcement of 132 REIT mergers and acquisitions 1997–2006

Variable CAR2	Model 1 Board characteristics	Model 2 Board and ownership	Model 3 CEO characteristics	Model 4 All governance characteristics
CONST	0.031	0.032	−0.039	−0.017
	1.48	*1.39*	*−1.28*	*−0.56*
SIZERAT	−0.001	−0.002	0.000	0.000
	−0.44	*−0.80*	*0.15*	*−0.23*
PRIV	0.018***	0.016***	0.019***	0.019***
	3.00	*2.79*	*3.26*	*3.10*
ST	−0.004	−0.007	−0.010	−0.007
	−0.56	*−0.96*	*−1.23*	*−0.96*
CA	0.003	0.002	−0.003	−0.002
	0.48	*0.33*	*−0.39*	*−0.34*
TD_TA	−0.024	−0.031	−0.022	−0.019
	−1.13	*−1.33*	*−0.84*	*−0.74*
NI_TA	0.095	0.173	0.140	0.205
	0.64	*1.31*	*0.91*	*1.41*
BRDSIZE	−0.003***	−0.004***		−0.003**
	−2.59	*−2.97*		*−2.25*
STAGBOARD	0.004	0.006		0.002
	0.75	*1.09*		*0.34*
PCTOUTSIDER	−0.004	0.007		0.005
	−0.29	*0.48*		*0.36*
DIRMNGOWN		0.153***		0.114*
		2.70		*1.77*
DIRMNGOWN2		−0.179**		−0.124
		−2.05		*−1.33*
BLOCKHLDR		−0.015		−0.013
		−1.24		*−1.27*
CEOCBD			0.004	0.003
			0.57	*0.35*
CEO_AGE			0.001*	0.001*
			1.88	*1.85*
CEO_TENURE			−0.002*	−0.001*
			−1.87	*−1.88*
CEOOWN			0.085**	
			2.48	
N	127	127	117	119
R-squared	.14	.18	.23	.25

*, **, *** Significantly different from zero at 10%, 5% and 1% level of confidence, respectively

Dependent variable is CAR2 - the Cumulative Abnormal Return for the acquirer's shareholders during a two day window (−1, 0), in percent. Regressions are Ordinary Least Squares with heteroskedastic adjustment following MacKinnon and White (1985)

T-statistics are in italics

Independent variables are defined as follows *CONST*–constant*; SIZERAT*—Target Size divided by REIT Size; *PRIV*— Indicator variable equal to one if the buyer is a privately held firm; *ST*—Indicator variable equal to one if the merger was financed by stock only; *CA*—Indicator variable equal to one if the merger was financed by cash only; *TD_TA*—Total debt divided by total assets of the acquiring REIT, at the end of the last fiscal quarter prior to the announcement; *NI_TA*—Net income divided by total assets of the acquiring REIT, at the end of the last fiscal quarter prior to the announcement; *BRDSIZE*—Variable describing the size of the Board of Directors; *STAGBOARD*—Dummy variable, indicating whether the board of directors is classified or not; *PCTOUTSIDER*—Percentage of outside directors to the board size. Outside directors are not employees of the firm and usually do not have any ties to the firm aside from their directorship. *DIRMNGOWN*—Percentage of stock ownership by all directors and executives of the company; *DIRMNGOWN2–DIRMNGOWN* squared*; BLOCKHLDR*—Dummy variable, indicating whether the firm has any block holders owning more than 5% of all stock; *CEOCBD*—Dummy variable, indicating whether the Chief Executive Officer is also Chairman of the Board of Directors of the company; *CEO_AGE*—Age of the Chief Executive Officer of the company; *CEO_TENURE*—Length of time the present CEO has served on this position; *CEOOWN*—Percentage of stock ownership by the CEO

We observe that board size (*BRDSIZE*) is the only board characteristic that is significantly (negatively) related to acquirer's wealth effect. This is consistent with the notion that larger boards are unwieldy and less effective in monitoring managers, leading to worse merger decisions. We find that the following three variables have insignificant coefficients and therefore are unrelated to bidder shareholder returns in REIT mergers: CEO duality (*CEOCBD*); the percentage of independent board members (*PCTOUTSIDER*); and, staggered board. In a number of previous studies, researchers have found CEO duality to be negatively related to firm value and performance. For example, Masulis et al. (2007) report that in a similar study with conventional firms, CEO/Chairman duality is marginally significant in two of the three models studied. A potential explanation for the adverse effect is that the CEO duality tends to make it easier for management to resist hostile takeover, thus reducing the value of the firm. As we have argued, this opportunity would not be as important in the case of REITs. Ownership restrictions and other institutional characteristics of REITs make it difficult for hostile acquirers to succeed (Campbell et al. 2001). Therefore, the finding that this variable is insignificant in the case of REITs supports our hypothesis, and is consistent with the extant evidence in the real estate literature. This finding corroborates the view that the negative influence of takeover resistant board characteristics often observed in the conventional corporate world does in fact emanate from an increased opportunity for the managers to resist hostile takeover attempts.

A staggered board (*STAGBOARD*) has no impact on acquiring REITs' abnormal returns. This result contradicts Masulis et al. (2007) who report that for unregulated firms, a staggered board has the highest (negative) influence among all governance variables. Specifically, acquiring firms with staggered boards suffer significantly higher valuation loss (0.52%) than those without staggered boards. Our results, in contrast, are closer to Rose (2009) who demonstrates that staggered boards have an adverse effect on value only for firms with significant outside ownership concentration which the author uses as a proxy for high probability of a hostile takeover attempt. For these firms, because directors that are aligned with management cannot be immediately removed through annual reelection, entrenched managers can use a staggered board to prevent a hostile bid from being accepted by shareholders. Because hostile takeovers are rare among REITs, our results support Rose's contention that for firms facing no hostile takeover threat, a staggered board is irrelevant. Indeed, it can be argued that for firms with low vulnerability to takeover threat, staggered boards can enhance monitoring by protecting dissident directors from removal by a non-conformist CEO who refuses to support reappointment at annual reelections. While our results are consistent with Rose, we do not directly test the notion that a staggered board can be value-enhancing.

In Models 2 and 4 we control for the level of director and management ownership and its squared value to account for the predicted U-shaped link between director and managerial ownership and acquirer announcement returns.[5] As hypothesized, we find that coefficients of *DIRMNGOWN* (*DIRMNGOWN2*) are positive (negative) and

[5] CEOOWN is not included as an independent variable in models 2 and 4 because CEO ownership is included in DIRMNGOWN, the percentage of stock beneficial ownership by all directors and executives of the company.

significant in both models. In Model 3 we examine the impact of CEO characteristics and equity compensation on the acquirer's announcement returns. We find that the level of CEO ownership, represented by *CEOOWN*, is significantly and positively related to shareholder returns in the merger. This result is contrary to Masulis et al. (2007) who find no relationship between CEO ownership and acquirer's announcement returns. The age of the CEO (*CEO_AGE*) is positive and significant at the 10% level, which is consistent with the notion that more experienced CEOs make better decisions than less experienced ones. The impact of the length of CEO tenure (*CEO_TENURE*) is significantly negative in Models 3 and 4. This is consistent with the view that CEOs with longer tenure are more entrenched and less subject to discipline, increasing the firm's agency problems.

Next, we investigate whether the impact of corporate governance variables is different between private vs. public targets. The multivariate regression results for the acquisitions of public and private targets are presented in Tables 7 and 8, respectively. We notice that relative deal size (*SIZERAT*) is negative and significant in two of the four models when the target is a public firm. This result is reversed in Table 8 for the private acquisitions sample, where *SIZERAT* is positive and significant in three of the four models. These findings are consistent with the previous literature. While Asquith et al. (1983) observe a positive relationship between relative deal size and acquirer abnormal announcement returns, Moeller et al. (2004) report that this result is reversed for large bidders. In our sample, acquisitions of public firms tend to be undertaken by larger acquirers, which is consistent with the differential results for the public and private targets.

We also note that leverage, presented by *TD_TA* is positive and insignificant in all public to public mergers, but negative and significant in all public-private acquisitions. This is consistent with our expectations. Specifically, the data reveal that acquisitions of private firms tend to be financed with cash, the source of which in the case of cash-strapped REITs is often the issue of new debt. Therefore, such deals may be associated with significant increase in leverage, which added to existent high level of debt may increase the risk of default of the bidder.

The relationship between governance variables and bidder announcement returns show some subtle, but important differences between public and private targets. The relationship between director and managerial ownership and acquirer returns is only significant for the private targets, while CEO characteristics are more important in the public-to-public mergers. Finally, the presence of blockholders, *BLOCKHLDR*, while generally negatively related to bidder announcement returns is significant in one of the models for the public-to-public subsample. Under the premise that outside blockholders function as effective monitors, mitigating monitoring costs for other owners, one would expect this variable to be positive. The negative effect of blockholder presence suggests that at least some REIT blockholders may exacerbate potential conflicts of interest. One possible source of such conflicts could be the strong liquidity preference of large blockholders such as financial institutions. Institutional investors value market depth because it allows them to buy or sell large positions without affecting stock price. Mergers are a convenient way to increase firm size, and improve market depth. Such an increase in market liquidity may not be important to small investors, creating different incentives for the two classes of owners.

Table 7 Regression analysis of acquirer returns in a two day window (−1,0) around the announcement of 70 REIT mergers and acquisitions with another public REIT 1997–2006

Variable CAR2	Model 1 Board characteristics	Model 2 Board and ownership	Model 3 CEO characteristics	Model 4 All governance characteristics
CONST	0.010	0.031	−0.092**	−0.064
	0.49	*1.00*	*−2.13*	*−1.48*
SIZERAT	−0.002**	−0.003***	−0.001	−0.001
	−2.01	*−2.55*	*−0.27*	*−0.34*
TD_TA	0.013	0.015	0.028	0.034
	0.56	*0.62*	*1.01*	*1.15*
NI_TA	0.066	0.205	−0.091	−0.055
	0.18	*0.57*	*−0.21*	*−0.12*
BRDSIZE	−0.004**	−0.004**		−0.004*
	−2.01	*−2.18*		*−1.91*
STAGBOARD	0.001	0.003		−0.004
	0.12	*0.30*		*−0.52*
PCTOUTSIDER	0.005	0.004		0.016
	0.33	*0.22*		*0.84*
DIRMNGOWN		0.094		0.017
		1.23		*0.16*
DIRMNGOWN2		−0.105		−0.008
		−1.01		*−0.05*
BLOCKHLDR		−0.027*		−0.011
		−1.67		*−0.85*
CEOCBD			0.007	−0.001
			0.64	*−0.09*
CEO_AGE			0.001*	0.002*
			1.74	*1.75*
CEO_TENURE			−0.002*	−0.002
			−1.66	*−1.57*
CEOOWN			0.066**	
			2.01	
N	69	69	65	67
R-squared	.06	.12	.15	.21

*, **, *** Significantly different from zero at 10%, 5% and 1% level of confidence, respectively

Dependent variable is CAR2–the Cumulative Abnormal Return for the acquirer's shareholders during a two day window (−1, 0), in percent. Regressions are Ordinary Least Squares with heteroskedastic adjustment following MacKinnon and White (1985)

T-statistics are in italics

Independent variables are defined as follows *CONST*—constant; *SIZERAT*—Target Size divided by REIT Size; *TD_TA*—Total debt divided by total assets of the acquiring REIT in millions of dollars, at the end of the last fiscal quarter prior to the announcement; *NI_TA*—Net income divided by total assets of the acquiring REIT in millions of dollars, at the end of the last fiscal quarter prior to the announcement; *BRDSIZE*—Variable describing the size of the Board of Directors; *STAGBOARD*—Dummy variable, indicating whether the board of directors is classified or not; *PCTOUTSIDER*—Percentage of outside directors to the board size. Outside directors are not employees of the firm and usually do not have any ties to the firm aside from their directorship. *DIRMNGOWN*—Percentage of stock ownership by all directors and executives of the company; *DIRMNGOWN2*–*DIRMNGOWN* squared; *BLOCKHLDR*—Dummy variable, indicating whether the firm has any block holders owning more than 5% of all stock; *CEOCBD*—Dummy variable, indicating whether the Chief Executive Officer is also Chairman of the Board of Directors of the company; *CEO_AGE*—Age of the Chief Executive Officer of the company; *CEO_TENURE*—Length of time the present CEO has served on this position; *CEOOWN*—Percentage of stock ownership by the CEO

Table 8 Regression analysis of acquirer returns in a two day window (−1,0) around the announcement of 62 REIT acquisitions of a private real estate firm 1997–2006

Variable CAR2	Model 1 Board characteristics	Model 2 Board and ownership	Model 3 CEO characteristics	Model 4 All governance characteristics
CONST	0.073**	0.039	0.024	0.040
	2.19	*1.12*	*0.87*	*1.25*
SIZERAT	0.014*	0.017***	0.010	0.015**
	1.68	*2.57*	*1.02*	*2.13*
TD_TA	−0.056**	−0.061***	−0.058**	−0.060***
	−2.15	*−2.80*	*−2.12*	*−2.68*
NI_TA	−0.052	0.045	0.058	0.052
	−0.26	*0.30*	*0.36*	*0.42*
BRDSIZE	−0.003*	−0.003**		−0.002
	−1.72	*−2.15*		*−1.09*
STAGBOARD	0.005	0.006		0.006
	0.52	*0.80*		*0.77*
PCTOUTSIDER	−0.031	−0.005		−0.020
	−1.21	*−0.16*		*−0.75*
DIRMNGOWN		0.437***		0.377***
		3.07		*2.70*
DIRMNGOWN2		−0.939***		−0.776**
		−2.58		*−2.21*
BLOCKHLDR		−0.008		−0.011
		−0.53		*−0.70*
CEOCBD			0.003	0.007
			0.36	*0.91*
CEO_AGE			0.000	0.000
			0.90	*0.56*
CEO_TENURE			−0.002	−0.002*
			−1.44	*−1.73*
CEOOWN			0.111	
			1.49	
N	58	58	52	52
R-squared	.24	.39	.30	.45

*, **, *** Significantly different from zero at 10%, 5% and 1% level of confidence, respectively

Dependent variable is CAR2–the Cumulative Abnormal Return for the acquirer's shareholders during a two day window (−1, 0), in percent. Regressions are Ordinary Least Squares with heteroskedastic adjustment following MacKinnon and White (1985)

T-statistics are in italics

Independent variables are defined as follows *CONST*—constant; *SIZERAT*—Target Size divided by REIT Size; *TD_TA*—Total debt divided by total assets of the acquiring REIT in millions of dollars, at the end of the last fiscal quarter prior to the announcement; *NI_TA*—Net income divided by total assets of the acquiring REIT in millions of dollars, at the end of the last fiscal quarter prior to the announcement; *BRDSIZE*—Variable describing the size of the Board of Directors; *STAGBOARD*—Dummy variable, indicating whether the board of directors is classified or not; *PCTOUTSIDER*—Percentage of outside directors to the board size. Outside directors are not employees of the firm and usually do not have any ties to the firm aside from their directorship. *DIRMNGOWN*—Percentage of stock ownership by all directors and executives of the company; *DIRMNGOWN2*–*DIRMNGOWN* squared; *BLOCKHLDR*—Dummy variable, indicating whether the firm has any block holders owning more than 5% of all stock; *CEOCBD*—Dummy variable, indicating whether the Chief Executive Officer is also Chairman of the Board of Directors of the company; *CEO_AGE*—Age of the Chief Executive Officer of the company; *CEO_TENURE*—Length of time the present CEO has served on this position; *CEOOWN*—Percentage of stock ownership by the CEO

Summary

Our objective is to examine the relationship between the announcement period abnormal returns of bidding firms and mechanisms for external and internal governance. We test the hypothesis that because the market for corporate control is virtually inactive in the REIT sector, managers would feel immune to takeover threats. If takeover barriers are redundant in this environment, abnormal returns of bidding firms would be unrelated to anti-takeover provisions. Further, because the takeover market is non-existent, internal monitoring devices may be critical, and managers of bidder REITs with stronger internal governance mechanisms would make better acquisitions.

Our analyses reveal three main results. First, larger boards impact bidder returns adversely, while CEO and director ownership have a favorable effect. This finding demonstrates the efficacy of internal governance mechanisms. Second, we find some differences between the importance of corporate governance mechanisms and bidder returns depending on whether the target is public vs. private firm. With private targets, ownership by directors and management has increased importance, as do relative leverage and profitability of the acquirer. In the case of public targets, CEO characteristics tend to be more important, and the relationship between relative deal size and bidder returns is reversed. To our knowledge, these findings constitute new contribution in the governance of REITs. Finally, the presence of staggered boards has no impact on acquirer returns. As previously argued, this result is contrary to the prevalent notion that a staggered board makes removal of directors difficult, and entrenched managers can use this mechanism effectively to block unfriendly takeover attempts. As such, a staggered board hurts shareholder interest by protecting and exasperating managerial entrenchment. We attribute the non-significance of staggered boards in acquirer returns to the absence of a market for hostile takeover attempts. We contend that in this environment, managers are already immune to forcible ouster by a hostile suitor, and consequently a staggered board is redundant. The premise that a staggered board can actually serve a monitoring role in these firms by protecting non-conformist directors from the wrath of entrenched managers who are anxious to remove them remains a topic for future research.

Robustness Tests

We conduct a variety of robustness checks to test whether our results are sensitive to alternative model specifications, such as using different windows around the merger announcements, including additional controls for property type, acquisition timing, and acquisition goal. Multivariate regression statistics for the originally specified models, but using cumulative abnormal returns over a three day (−1, 1) window as the dependent variable reveal essentially similar results, but with two additional findings.[6] In the subsample of private targets, we find a positive and significant relationship between profitability and bidder announcement returns. This is consistent with the notion that managers of better performing REITs make superior investment decisions, especially in the case of acquiring a private target. We also find that outsider

[6] These results are available from the authors on request.

dominated boards are associated with negative, rather than positive bidder announcement returns in the case of public-private deals. One possible explanation is that generally acquisitions of private firms are done by smaller REITs, which also tend to have smaller boards. Small outside dominated boards may lack the necessary expertise and insider knowledge to be able to make better informed decisions identifying targets. Finally, we include year and property type as fixed effects. The magnitude and significance levels of the coefficients remain unchanged in all models.

Conclusion

We examine 132 mergers and acquisitions by public U.S. Real Estate Investment Trusts (REITs) 1997–2006. We find that acquirer abnormal shareholder returns are significantly positive for mergers with private targets and significantly negative for public targets, a result that is consistent with findings for conventional firms. We examine the relationship between acquirer external and internal corporate governance mechanisms and abnormal returns. We argue that due to lack of active takeover market in the REIT sector, the importance of outside governance mechanisms is diminished and replaced by internal governance controls. We find that bidder returns are higher for REITs with smaller boards, with more experienced CEOs, but with shorter tenure. Acquirers' announcement returns are also significantly and positively related to greater ownership by the CEO and directors. We find no significant relationship between abnormal bidder returns and the presence of staggered board, outsider-dominated boards and CEO/Chairman duality. This supports the hypothesis that anti-takeover defense measures have reduced importance for REITs.

The main implication of these results is that anti-takeover provisions may be redundant in the governance of REITs. We attribute this result to the absence of disciplinary takeovers among REITs, which immunizes inefficient REIT managers from the risk of job loss following hostile threats. As such, our study is an important contribution to the emerging literature which suggests that anti-takeover devices are harmful to shareholder interest for firms that are vulnerable to a hostile takeover market. For firms that face no serious takeover threat, anti-takeover measures are redundant. This begs the question why as many as 61% of REITs in our sample have staggered boards. One potential explanation is that managers of these REITs want to signal to the market that in absence of a market for takeovers, a staggered board can enhance monitoring by protecting independent directors that are non-aligned with management. Active monitoring by these directors may reduce agency conflicts and increase shareholder wealth. A more comprehensive analysis of the impact of antitakeover provisions for firms in industries that are less prone to hostile takeovers (i.e. real estate, banking) is clearly an important area for future research.

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