Differences in Acquirer Motivations, Announcement Effects, Target Characteristics, and Financing in Private versus Public Acquisitions: The Case of REITs

by

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Abstract

This paper first identifies the characteristics of publicly-traded REITs associated with an increased probability of being the target of an announced merger or acquisition. Second, conditional on being a target, we examine whether certain target characteristics influence the probability of a bidder being a private versus a public firm. Third, we examine whether the wealth effects that accrue to the shareholders of target REITs in going private deals and public-to-public transactions vary with the characteristics of the target and acquirer firms. Finally, we investigate the extent to which going private transactions differ from "staying public" acquisitions in terms of the type of financing employed and the motivation of the two investor types. We find that REITs more likely to become acquisition targets are smaller, with no umbrella operating partnership, less liquidity, higher dividend yields and greater institutional ownership than non-targets. We also document that targets of private acquirers have lower leverage, interest coverage ratios, and profitability. Although acquisitions by private buyers are always done with cash, there has been a shift toward the use of cash in public-to-public deals. In addition, the factors related to abnormal returns differ in public-to-public and public-to-private deals.

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Introduction

There exists a large body of theoretical and empirical research on corporate mergers and acquisitions, most of which is focused on shareholder wealth effects. In particular, numerous event studies have documented evidence that mergers tend to create shareholder value, with most of the gains accruing to the shareholders of the target company. However, the empirical research on why mergers occur is much less developed and largely inconclusive.

Theory suggests mergers and acquisitions are driven by a variety of factors, including merger synergies, external shocks to industries, accounting or stock price underperformance, financial stress, attempts to create market power, the desire to minimize corporate income tax liabilities, and numerous agency and corporate governance factors. However, the literature also documents that mergers occur in waves and, within a wave, there is significant clustering by industry (for example, Mitchell and Mulherin, 1996, and Andrade, Mitchell, and Stafford, 2001). The prevalence of waves and industry clustering suggest mergers may result from unexpected shocks to the structure and regulation of particular industries. This predominate industry effect may explain why attempts to predict takeover targets using firm-level data from multiple industries has produced mixed results. To help isolate firm-level determinates of merger and acquisition bids, we focus our investigation on the Real Estate Investment Trust (REIT) industry.

In addition to determining the characteristics of publicly-traded REITs which render them more likely to become the target of a merger or acquisition, we also examine why some firms are targeted by existing public REITs and other public firms, whereas other targets are acquired by private equity firms. Recent years have witnessed an increased number of "going-private" transactions. For example, by 2005 Blackstone Group had acquired more than $20 billion in hotel assets and proceeded to purchase Equity Office Properties, a publicly-traded REIT, for more than $39 billion in 2007. These public-to-private

acquisitions appear to have been fuelled by relatively low interest rates, a "wall" of available mortgage capital, and rising commercial real estate values, at least through 2007. The recent emergence of going-private transactions provides a laboratory for investigating under what conditions investors profit from "arbitraging" between the public and private markets. For example, the anecdotal evidence suggests the stock price premiums offered by private acquirers for publicly-traded REITs exceed the price premiums in public-to-public deals. However, this has not yet been examined empirically.

Another question of interest is whether the motivation behind a REIT acquisition by a private firm differs from the acquisition motives of a public firm. Whereas a desired increase in market power and economies of scale and scope are often cited as motivations for REIT acquisitions by other REITs, anecdotal evidence suggests that private acquirers may be differentially motivated. For example, some suggest the primary driver of recent public-to-private transactions has been the relatively low multiples of REIT stock prices relative to the market value of the underlying properties (*Real Capital Analytics Report*, 2007). Another motivating factor for going private transactions is the ability of private owners, increasingly in the form of hedge funds, to employ significantly more financial leverage to the acquired properties, thereby creating value and increased returns for investors. Finally, since the passage of the Sarbanes-Oxley Act of 2002, much has been written about the desire of (especially smaller) REITs to avoid the extensive and time consuming reporting requirements now required of public companies.

The contributions of this paper are as follows. First, we identify the characteristics of publicly-traded REITs associated with an increased probability of being the target of an announced merger or acquisition. That is, we document what firm specific characteristics and other variables determine the firms in the REIT universe that receive a merger or acquisition bid in any year.[1] Although the literature on announcement effects for both bidders and targets is abundant, the characteristics of target firms and how they may be related to the probability of becoming a takeover target have not been examined in the real

[1] REIT universe is defined as all firms included in the NAREIT Index during 1993-2007.

estate literature.[2] Second, conditional on being a target, we examine whether private equity firms tend to acquire public REITs with characteristics similar to the REITs acquired by existing REITs or other public firms. More specifically, we examine whether certain target characteristics influence the probability of a bidder being a private versus a public firm. Third, we examine whether the wealth effects that accrue to the shareholders of target REITs differ in going-private deals relative to public-to-public transactions and whether these wealth effects vary with the characteristics of the target and acquirer firms. Finally, we investigate the extent to which going private transactions differ from "staying public" acquisitions in terms of the type of financing employed and the motivation of the two investor types. If private bidders differ in their motivations from public REIT acquirers, we expect to find that the takeover targets will also differ in their characteristics. For example, if private acquirers tend to focus on profit maximization they are likely to concentrate on undervalued and underperforming target REITs. Conversely, public REITs seeking to increase market power or diversification are likely to be more focused on acquiring larger REITs.

Our results can be summarized as follows. We find that REITs more likely to become acquisition targets are generally smaller and less liquid REITs with relatively high dividend yields and institutional ownership and no umbrella operating partnership. The factors influencing the probability of a public-to-public vs. a going private acquisition are notably different. More specifically, we find that targets of private acquirers have lower leverage, interest coverage ratios, and profitability. We further observe that abnormal returns around announcement dates to targets in public-to-private deals exceed those in public-to-public deals. In addition, the factors associated with abnormal returns differ in public-to-public and public-to-private transactions. This provides evidence of different motivations for private vs. public acquirers and supports our hypothesis that private acquirers tend to focus on profit maximization and hence are bidding on cash restricted, underlevered and underperforming target REITs. Conversely, public

[2] A notable exception is a recent study by Eichholtz and Kok (2008) which examines the characteristics of targets in 122 takeover acquisitions, of which 31 involved U.S. firms. The authors conclude that mergers involving real estate firms and assets are driven by diversification and operational synergy motivations, rather than replacement of the management of underperforming firms.

buyers seeking to increase market power are more focused on acquiring profitable and higher levered REITs with higher dividend yields. While acquisitions by private buyers are always done with cash, there has been a shift toward the use of cash in public-to-public deals. Moreover, cash deals are associated with positive wealth effects for target shareholders, while acquisitions of REITs by other REITs are negatively related to abnormal target returns. This supports the hypothesis that acquisitions by REITs may be used to minimize investor tax liabilities.

The remainder of the paper is organized as follows. In section 2, we provide some institutional background and discuss the relevant literature. Section 3 contains a description and analysis of the data, while section 4 presents our research methodology. Our empirical results are presented in section 5. We conclude with a review of our findings and suggestions for future research.

Institutional Background and Literature Overview

The Magnitude and Importance of REIT Mergers and Acquisitions

REITs were created by the REIT Act of 1960. The NAREIT universe at the beginning of 1992 contained 138 public REITs, including equity, mortgage, and hybrid REITs.[3] The total market capitalization of the REIT industry was just $13.0 billion. The modern REIT era began in November of 1991 with the Kimco Realty initial public offering (IPO). As displayed in the last column of Table 1, there were 103 REIT IPOs from 1992 to 1994. This compares to just nine announced merger and acquisition bids.[4] By the beginning of 1995, the NAREIT universe contained 226 REITs with a market capitalization of $42.3 billion. From 1995 through 2007, there were 121 REIT IPOs; the corresponding number of REIT mergers and acquisitions was 203. It is interesting to note that annual REIT IPO activity has been extremely volatile. In comparison, activity in the REIT M&A market has been considerably less volatile, notwithstanding the uptick in M&A activity in 2005-2007.

[3] NAREIT classifies a REIT as a hybrid if the REIT combines the investment strategies of both equity REITs and mortgage REITs.
[4] The sources of our IPO and merger and acquisition data are discussed in detail below.

Of the 212 announced merger and acquisition bids over the 1992-2007 period, 152 (or 72 percent) have been proposed public-to-public combinations, while the remaining 60 (28 percent) have been bids to privatize an existing public REIT. Eighty-five percent of the announced public-to-public bids have been completed. In comparison, 65 percent of announced going private transactions have been finalized. At the beginning of 2007, there were 183 REITs in the NAREIT universe with a total market capitalization of $438 billion. Clearly, mergers and acquisitions have played an important role in the development of the REIT industry in recent years.

Determinates of REIT Mergers and Acquisitions

The question of whether and when to sell a publicly-traded REIT should center on the desire of management to maximize long-term shareholder wealth. This implies management should seek to sell a REIT when it believes the firm's stock is undervalued by the market relative to its "true" value or relative to the value a merger partner would place on the assets of the firm. What causes a REIT's stock to be undervalued, thereby causing the firm's management to pursue or accept offers to merge or to be acquired?

Corporate mergers and acquisitions are driven by a variety of factors, including merger synergies and external shocks, such as deregulation and revisions to the federal income tax code (Andrade, Mitchell, and Stafford, 2001). For example, the passage of Sarbanes-Oxley in 2002 is widely thought to have increased the cost of being a publicly traded firm.[5] Moreover, it is frequently argued that a significant component of this increased cost of regulation does not vary with firm size, thereby placing a relatively larger burden on smaller listed firms.

Firms in financial distress are also more likely to be the subject of a proposed merger or acquisition (e.g., Wruck, 1990, and Clark and Ofek, 1994). Indeed, even underperformance relative to industry peers in stock market or operational performance has been shown to increase the probability a firm will finds itself a target. The agency theory of corporate control posits that lower than expected share prices reflect the potential gains associated with replacing existing management. In fact, agency theory

[5] See, for example, Haughney (2005).

predicts that the market for corporate control disciplines existing management and that merger and acquisition activity is motivated by the bidder's expectation that it can improve the target's performance by increasing managerial efficiency (Agrawal and Jaffe, 2003). However, the empirical evidence on the relation between relative underperformance and the probability of a firm receiving a merger or acquisition bid is mixed (Trahan, 1990, Shleifer and Vishny, 1988, Song and Walkling, 1993, and Palepu, 1986).

A related agency issue is the "free cash flow" of potential targets. According to Jensen (1986), managers of firms generating substantial amounts of positive ("free") cash flow are more likely to undertake negative NPV projects and/or to provide enhanced executive perquisites, thereby destroying shareholder wealth. The agency problem associated with free cash flow can be mitigated by binding the firm to interest payments on debt, to high dividend payout ratios, or to both. However, the empirical evidence regarding the importance of free cash flow in takeover bids is inconclusive. For example, Lehn and Poulsen (1989) find that firms going private have more free cash flow than firms that remain publicly traded. However, other evidence suggests that free cash flow has no impact on the decision to go private (Opler and Titman, 1993, Halpern, Kieschnick, and Rotenberg, 1999). The requirement that qualified REITs distribute 90 percent of taxable income in the form of dividends greatly reduces the magnitude of a REIT's free cash flow, thereby mitigating potential agency costs.[6]

Although qualified REITs can avoid entity level taxes entirely by distributing tax deductible dividends equal to 100 percent of taxable income, it is important to note that this does not no imply that income tax considerations are unimportant in REIT management's financing decisions. Fayez, Elayan, and Meyer (2001) argue that REIT management is motivated to undertake acquisitions that enhance share value and reduce taxable dividends to shareholders. This, in turn, suggests REITs with tax loss carry-forwards are attractive targets, all else equal, because their acquisition will lower the acquiring REIT's pre-tax income, thereby reducing required dividends and shareholder taxes. Fayez, Elayan, and Meyer

[6] Prior to the REIT Modernization Act of 2001, qualified REITs were required to distribute 95 percent of taxable income as dividends.

(2001) find evidence consistent with their hypothesis that stockholders in acquiring firms value the tax loss carry-forwards of potential targets.

A related stream of the existing literature examines the influence of corporate governance on mergers and acquisitions. In the finance literature, Morck, Schleifer, and Vishny (1988) and Weir and Lang (2003) find evidence that large insider holdings of a firm's common stock increase the probability the firm will become a target. In contrast, Song and Walkling (1993) report no difference in the insider holdings of targets and non-targets, while North (2001) finds a negative relation between the probability of becoming a target and the magnitude of insider/manager stock holdings. Another mechanism to increase the quality of corporate governance is the presence of independent directors on the firms' board. The existence of independent directors is hypothesized to increase the probability a firm will become a target and Weir and Lang (2003) find evidence consistent with this hypothesis. In addition, the presence of a large block of outside shareholders is expected to increase the probability of becoming a target and Weir and Lang (2003) find evidence consistent with this hypothesis. However, Ambrose and Megginson (1992) find no empirical relation between large shareholder blocks and takeover probabilities.

In the real estate literature Campbell (2002) argues that corporate governance issues are less important in REIT mergers and acquisitions because of the unique investment environment of REITs. As evidence, Campbell (2002) points to the almost complete lack of hostile takeovers among REITs documented by Allen and Sirmans (1987) and Campbell, Ghosh, and Sirmans (2001).

Public-to-Public Mergers and Acquisitions

What determines the probability a public REIT will be acquired by a public firm, conditional on the firm being the subject of a takeover bid? Despite the trend in recent years toward public-to-private acquisitions, a stock market listing continues to offer value to investors. For example, a public listing provides a measurable yardstick for comparing the performance of the company and its executives. In addition, public ownership has historically offered REITs a definitive advantage in raising both debt and equity capital.

The most common transaction structure for combining two conventional REITs is a direct statutory merger, in which the REITs combine by filing articles of merger with the appropriate state authority (Einhorn, Emmerich, and Panovka, 2007). Typically this leaves the acquiring firm as the surviving corporation; the target REIT ceases to exist as a separate legal entity and no minority stockholders are left in a subsidiary. Normally, the board of directors and the shareholders of both REITs must approve the merger. As compensation for their relinquished shares, stockholders of the target REIT typically receive shares of the acquiring REIT, cash, or a combination of stock and cash. Compared to an asset purchase, a direct merger may also eliminate many of the transaction costs associated with the direct acquisition of commercial properties; for example, document preparation costs, sales and real estate transfer taxes, and title insurance.

Since 1992, more than three-fourths of newly formed REITs have chosen the umbrella partnership REIT (UPREIT) structure. As an UPREIT, the REIT is a managing partner and typically majority owner in a single umbrella partnership which, in turn, owns all of the underlying properties. Property owners who contribute their ownership interests to the UPREIT's umbrella partnership generally chose to receive units in the umbrella partnership in return for their original partnership interests. The exchange of partnership units is considered a like-kind exchange under Section 1031 of the Federal Income Tax Code. Such an exchange therefore allows investors to contribute properties to the UPREIT without, in most cases, triggering a capital gain tax liability.

The merger of two UPREITs can also be accomplished through a direct merger of the two general partner UPREITs. However, the appropriate combination of the two operating partnerships must also be carefully considered. The simplest structure consists of a second contemporaneous merger between the two operating partnerships. Regardless of the transaction structure, acquirers must carefully consider the positions of operating partnership unit holders because these unit holders often have the ability to influence a transaction. Of critical importance to the OP unit holders is that the merger avoid or minimize the need for them to recognize positive taxable income; after all, tax deferral motives most likely induced them to take OP units instead of shares when first investing in the UPREIT. The potential conflicts of

interest that can arise between OP unit holders and shareholders due to different tax situations would seem to render the acquisitions of UPREITs more complicated and, therefore, less likely, all else equal.

Mergers of REITs with UPREITs share many of the same complications associated with UPREIT-UPREIT combinations because of the existence of an operating partnership. However, because UPREIT operating partnership agreements require that all the UPREIT's assets be held by its operating partnership, the non-UPREIT in the transaction is required to transfer its assets to the UPREIT OP, with the attendant costs and complications.[7]

Regardless of whether a REIT (UPREIT) target is merged with a REIT (UPREIT) or if the merger involves a "mismatch" (REIT-UPREIT) combination, a number of share ownership requirements must be maintained in order for the combined firm to retain its status as a tax qualified REIT. For example, the combined REIT must not be closely held and must be owned by at least 100 shareholders. These and other unique structural considerations in REIT mergers and acquisitions must be carefully considered by both parties to the transaction.

Public-to-Private Mergers and Acquisitions

Investors seeking to own the assets underlying most industrial corporations acquire indirect ownership of these assets through the purchase of the firm's equity. In sharp contrast, well capitalized commercial real estate investors or institutions have two options. They can acquire indirect ownership of a desired mix of properties by purchasing the shares of publicly-traded Real Estate Investment Trusts (REITs). Alternatively, they can directly own the properties through acquisitions in the private market. The existence of these "dueling" public and private asset markets for the control of the underlying physical real estate raises several interesting questions (Geltner et al., 2007). First, which of the two asset markets should investors use to acquire and hold the physical real estate? Second, under what circumstances can investors profitably trade between the two markets? That is, is it possible for investors to profit by taking a portfolio of privately owned properties public, either as a new REIT or as part of a

[7] See Einhorn, Emmerich, and Panovka (2007) for more details on the complications of combining a REIT with an UPREIT.

pre-existing publicly-traded REIT? Or, conversely, under which conditions can investors profit by privatizing publicly traded REITs, either in whole or in part. Finally, if public and private asset markets value the physical assets differently at different times, as the empirical evidence indicates, can we identify the determinants of these differential valuations?

What might a REIT consider a going-private through M&A? First, going private transactions mean the REIT will no longer be subject to public monitoring and therefore will not incur the bonding and monitoring costs associated with being publicly traded (Weir and Wright, 2006). Governance, disclosure, and oversight requirements were significantly enhanced after 2002 by the NYSE, the Nasdaq, and the Sarbanes-Oxley Act of 2002. Second, public-to-private transactions may be attractive to REIT management teams dissatisfied with their public market valuations. Third, public-to-private transactions may offer greater flexibility including the ability to focus on long-term earnings growth. This is in contrast to the pressures of public ownership, which often motivate management to focus to heavily on quarterly earnings per share growth and short-term stock price performance. Finally, REITs are restricted by the rating agencies and the analyst community in their use of debt.[8] Thus, going private generally allows significantly more leverage to be applied to the acquired assets.

Wealth Effects for Shareholders

The general finance literature consistently documents large positive abnormal returns for target firms when acquisitions are announced. For example, using a 100-day window, Huang and Walker (1987) report abnormal target returns of 22.6 percent for all manager negotiated mergers. Servaes (1991) finds that target returns vary depending on whether the deal is financed with stock or cash and documents average target wealth effects of 20.5 percent for stock transactions and 26.7 percent for all-cash acquisitions.

In the real estate literature, documented abnormal announcement returns for M&A targets are of much smaller magnitude. For example, McIntosh, Officer and Born (1989) analyze the impact of REIT

[8] For example, the average leverage ratio of firms in the NAREIT universe, defined as total debt dividied by total market capoitalization, was 41.9 percent in the fourth quarter of 2007 (www.nareit.com).

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acquisition announcements using a sample of 23 REITs from 1969-1986 and find average abnormal returns of 6.2 percent for targets in successful acquisitions, but only in a one-day window before the announcement. Elayan and Young (1994) also find abnormal target shareholder returns are positive and significant. However, "full control" acquisitions provide higher excess returns than do partial acquisitions. Campbell, Ghosh and Sirmans (2001) also find positive wealth effects for targets with an average abnormal return of 3 percent. Positive target announcement effects are also found by Sahin (2005).

One possible explanation for smaller abnormal returns to target shareholders in public-to-public REIT mergers is the required uniformity of REIT asset composition that largely eliminates the potential for vertical integration synergies through mergers (Campbell, 2002). Also, the diffusion of commercial real estate ownership across a large number of property owners prevalent in most commercial real estate markets severely limits the ability of even large REITs to obtain rental pricing power. In addition, the almost complete lack of hostile takeovers among REITs (Campbell, Ghosh, and Sirmans, 2001) suggests the lack of a market for corporate control.

Several studies find a positive relation between an acquirer's announcement returns and whether the target is private company. In an examination of REIT mergers from 1994-1998, Campbell, Ghosh and Sirmans (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 finding is reversed, and acquirer returns are significantly positive in the 2 percent range (Campbell, Ghosh and Sirmans 2001, 2005). This result is consistent with the literature on private-to-public mergers among industrial corporations (Chang 1998).

Fuller, Netter, and Stegemoller (2002) and Moeller, Schlingemann, and Stulz (2004) confirm the finding that acquirers experience significantly negative abnormal returns when purchasing public firms. However, acquirers experience positive abnormal returns, on average, when targets are private companies or subsidiaries. This finding is attributed to a liquidity discount associated with private firms that is being captured by the public bidder. In contrast to the above literature which examines abnormal returns to

public firms bidding on private companies, we compare the abnormal returns to public targets receiving bids from private firms to target returns in public-to-public transactions.

The existing literature also contains evidence that mergers financed with stock produce higher negative abnormal returns for acquirers than cash-financed acquisitions (e.g., Mitchell and Stafford, 2000), perhaps because the use of stock signals the acquiring firm's equity is overvalued. However, Chang (1998) and Fuller et al. (2002) find that the impact of stock-financed deals is less negative when the target is a privately held firm. They attribute this result to the creation of new block holders in the bidder when closely held private target companies are purchased with stock. In contrast, we examine the differential impact on target abnormal returns of stock versus cash financing by the acquiring firm.

Data

Announcements of REIT mergers and acquisitions for the U.S. were obtained from FactSet for the years 1992-2007. Our initial sample contained 433 announced mergers or acquisitions, of which 221 were partial acquisitions, including acquisitions of one or several properties from the REIT. Deletion of these 221 partial REIT acquisitions left a total of 212 REIT mergers and acquisitions. We next deleted 26 observations with competing bids, seven observations with missing return data, 16 observations with missing data in Compustat, and three observations which involved joint ventures or state-owned bidders. In the case of competing bids, we only include the first bid. For example, the acquisition of Equity Office Properties was associated with multiple bids, the first one in November 2006. In addition, while in many cases the first bid happens to be also the successful one, in nine cases the first bid was cancelled, but a subsequent bid was successful and the acquisition was completed. Our final sample does not include these competing bids, even when they are successful, since we are interested in the factors causing firms to become acquisition targets, rather than what factors influence the probability for competing bids.

Our screens, summarized in Table 2, produced a final usable sample of 161 transactions, 39 of which are public-to-private acquisitions; the remaining 122 are public-to-public deals. It is worth noting

that our sample size is considerably larger than those employed in earlier REIT studies, which allows us to avoid the small sample bias that has confronted most prior studies of REIT mergers and acquisitions.

We obtained additional accounting data for our sample firms from the COMPUSTAT database. All accounting variables were drawn from the year preceding the merger announcement.[9] Historical total return information for all REITs was obtained from CRSP. The corresponding accounting information and total return data were also collected on an annual basis for each firm in the NAREIT universe that did not receive a merger or acquisition bid.

Information on the number and announced size (in nominal dollars) of the public-to-private and public-to-public transactions in our 1994-2007 sample is provided in Table 3. The mean announced deal size of the going private transactions is $1.07 billion; the corresponding figure for the staying public transactions is $887 million. At $412 million, however, the median going-private deal size is much closer in size to the $381 million median for public-to-public transactions. The variation in transaction size is notable in both subsamples. For example, the announced value of Braveheart Holdings' going-private acquisition of Boykin Lodging in 2006 was a $195 million. In contrast, Blackstone's acquisition of Equity Office Properties (EOP) had a transaction value of $19.3 billion. This is the largest transaction ever observed in the real estate sector and it is significantly larger than the next largest merger ($13.6 billion). Also notable in Table 3 is the increase in REIT M&A activity in 2006, a year in which seven going-private deals and 18 staying public transactions were announced.

Table 4 contains summary statistics for key variables used in our empirical analysis. The first three columns contain means, medians, and standard deviations for our final regression sample of 39 public-to-private transactions. Columns four through six contain the corresponding statistics for our 122 public-to-public transactions. The final two columns contain differences in means and corresponding T-test for significance, where "*", "**", and "***" indicate statistical significance at the 10 percent, five percent, and one percent level, respectively.

[9] We also conduct tests using firm accounting characteristics one quarter before the announcement, rather than one year. Our results are essentially the same; however, due to variability in reported quarterly results, especially with profitability and leverage, our results using annual data were more robust.

To avoid the contaminating influence of large outliers, we winsorize announced deal sizes at one percent. The resulting mean and median deal sizes in our public-to-private sample are $903 and $365 million, respectively. The corresponding deal size statistics for our public-to-public sample are $896 million and $380 million. The difference in mean deal size between the two subsamples is not statistically significant.

The average earnings per share of targets of private firms are $0.08. At $0.74 per share, the corresponding mean for the targets of public companies is significantly greater. It is also interesting to note that the observed 15 percent initial offer price premium in public-to-private deals is not significantly different than the 13 percent premium observed in public-to-public acquisitions.

The means and medians of a number of additional financial ratios and multiples do not display significant variation across the two subsamples. For example, the mean ratios of total debt-to-total assets in our two subsamples equal 0.55 and 0.54, respectively. At 18.6, the mean interest coverage ratio in public-to-public transactions appears noticeably larger that the corresponding 6.1 mean interest coverage ratio in going private deals; however, this difference is not statistically significant.

The mean dividend yield of targets in going private transactions is greater than the corresponding yield in public-to-public deals, but this difference is not confirmed by the differences in medians. The mean Tobin's q of targets in public-to-public transactions is significantly greater than the Tobin's q of private targets at the 5 percent level of significance. This suggests the targets of public firms have higher growth prospects than the targets of private firms. In addition, a low Tobin's q suggests that the targets of private bidders may be undervalued.

Forty-five percent of the REIT targets in going private transactions were structured as UPREITs; the corresponding figure in public-to-public deals was an insignificantly different 38 percent. The percentage of institutional ownership was also very similar across the two subsamples.

Fifty-four percent of pubic-to-private REIT transactions were undertaken by bidders to achieve horizontal integration; the corresponding figure for public-to-public deals is a significantly higher 92 percent. This is intuitive, since almost 60 percent of public-to-pubic bids come from existing REITs. The

desire to achieve vertical integration is not important in either subsample. Forty-six percent of going private deals involve a mortgage REIT. However, a mortgage REIT was the target in just 7 percent of staying public transactions. This difference in the type of target REIT is significant at the one percent level. Seventy-three percent of announced going private transactions in our final regression sample were completed. The corresponding figure for staying public deals is 87 percent.

Table 4 documents significant differences in the method of financing used by bidders to acquire targets, which is consistent with prior merger studies. Ninety percent of public-to-private deals (90 percent) were executed with cash only, while 10 percent of such acquisitions involved a combination of stock and cash. Clearly, exchanging liquid public REIT shares for privately held shares or partnership units is generally not an attractive option to public REIT shareholders. In sharp contrast, approximately equal percentages of the public-to-public deals are financed by cash only, stock only, or a combination of stock and cash.

Because of the significant difference across our two samples in the type of acquisition financing employed, we also investigate how the source of that financing varies within and across our two subsamples. Fully 95 percent of the financing source for private acquirers of public REITs was cash. However, in public-to-public transactions just 34 percent of deals used cash as the principle source of financing. In 23 percent of public-to-public deals, the source of financing was both cash and vendor placing, while 42 percent involved vendor placing. The acquiring firm was a private REIT in just 15 percent of the going private transactions. In contrast, an existing public REIT was the acquirer in 57 percent of the public-to-public deals.

In summary, the univariate statistics in Table 4 suggest that motives with respect to horizontal and financial integration, the type of financing employed, and the source of the financing differ significantly across our two REIT M&A subsamples. However, there is limited univariate evidence in Table 4 to support the hypothesis that going-private transactions differ significantly from staying-public deals in accounting and return based measures of performance or in standard accounting ratio and multiples. The only notable differences are with respect to profitability as measured by earnings per share and Tobin's q.

Given the significant differences uncovered in Table 4 in the type of financing employed by bidders in going-private versus staying public transactions, we next examine how financing methods have varied annually over the 1994-2007 sample period. These disaggregated financing statistics are displayed in Table 5. Although proposed public-to-private mergers are almost exclusively cash deals, which is consistent with Campbell, Gosh and Sirmans (2001), there has been shift in the pattern of financing used by acquirers in public-to-public mergers. More specifically, from 1994 to 1997 the majority of public-to-public acquisitions were financed with stock only. However, after 1997 the use of cash only financing has increased. In fact, since 2003 the majority of staying public deals have been financed with cash only, with the percentage reaching 83 percent in 2007.

This dramatic shift to cash financing in public-to-public acquisitions can be explained by two factors. First, the last four years in the sample were characterized by easily accessible and inexpensive debt financing. In addition, REITs may have sought to avoid the negative signaling effect typically associated with stock financing and cash was widely available during this period due to increased REIT profitability. Moreover, because REIT management is motivated, at least in part, to ensure the firm does not pay entity-level income taxes (Li et al., 2001), REITs may attempt to reduce taxable income through leveraged acquisitions. This can be effectively achieved by the use of cash rather than stock in an acquisition. Finally, as noted by Wansley, Lane and Yang (1987), cash deals avoid dilution and can be completed more quickly. Changes over time in the use of cash versus stock in public-to-public acquisitions may provide insights into the motivation behind these deals.

Research Methodology

We employ two regression methodologies. In the first, we assume that whether a company becomes a target of a public or private acquirer is determined in two stages. In the first stage the firm becomes an acquisition target, while in the second stage certain firm characteristics make the target more attractive to either a public or private bidder. An alternative approach is to assume that both public and

private bidders identify merger and acquisition targets and then seek to acquire them. In this case, a multinomial logit model is appropriate.

In the implementation of both empirical approaches, we employ our sample of 161 mergers as the treatment group and the remaining universe of REITs as a control group. More specifically, the control group consists of all firms in the NAREIT index during 1993-2007 for which we can acquire return data from the CRSP/Ziman Real Estate Database and which also are included in Compustat. This represents originally 403 firms and 2,891 firm years. Target firms are excluded from the control sample three years prior to and after receiving a bid. We also exclude firms from the control group if required regression variables are missing. This yields a control sample of 322 firms and 1,848 firm years. The final sample including the treatment and comparison group includes 370 firms and 2,009 firm years.

Two-Stage Logit Estimation

We first employ a two-stage estimation approach that allows us to answer the following two questions. First, what are the characteristics of public REITs that are more likely to become acquisition targets? Second, conditional on becoming a target, what factors determines whether a firm is acquired by a private rather than a public buyer?

In the first stage, we estimate logistic models in which the dichotomous dependent variable is coded one if the REIT was the target of a merger or acquisition bid. We pool (stack) all firm year observations. However, to account for the potential lack of independence between same firm observations in different years, we use cluster analysis and adjust standard errors correspondingly. We first estimate a logit model to calculate the conditional probability that a REIT receives an acquisition bid, where the probability is given by:

$$p(x)=pr\ (Bid = 1 \mid x),$$

where x represents conditioning firm ex ante characteristics.

We employ several groups of the explanatory variables in the first stage logit estimation. In particular, we include total assets, profitability (EBIT/total assets), leverage (total debt-to-assets), liquidity (cash-to-total assets), and the firm's payout ratio (dividend yield). All control accounting

variables are based on the calendar year before the year I which the bid was received. We control for the accounting characteristics in calendar year *t*-1 of firms that became targets in year *t*, and compare them against the corresponding characteristics of the control group (the remainder of the REIT universe) in year *t*-1. In addition we also control for the property type focus of the target and whether the target firm is organized as an UPREIT. Our hypothesis is that UPREITs will be less attractive acquisitions targets because of their ore complex structure. We also control for the institutional ownership of the target. More institutional ownership may signal that informed investors believe the target firm's stock is either properly valued or undervalued (Shleifer and Vishny, 1986). In the real estate literature Wang, Erikson and Chan (1995) show that REITs with higher institutional ownership perform better. Increased levels of institutional ownership may also be associated with better monitoring and be perceived as a signal of a higher quality REIT. Thus, we hypothesize that REITs with higher levels of institutional ownership are more likely to become targets, especially by other public firms.

The estimated first-stage logistic model has the following functional form:

$$BID_{\text{it}} = \alpha_{it-1} + \Sigma \gamma_{kt-1} FIRM\_CH_{kt-1} + \varepsilon_{it-1}, \quad (1)$$

where:

BID_{it}	=	a dummy variable, equal to one if firm *i* received a merger/acquisitions bid in year *t*, zero otherwise;
α_{it-1}	=	a constant;
γ_{kt-1}	=	the sensitivity of *BID* to firm *i*'s characteristics;
$FIRM\_CH_{jt-1}$	=	firm *i*'s characteristics, such as book value of assets, total book leverage, etc. in calendar year *t*-1;
ε_{it-1}	=	an error term.

We include the predicted conditional probability (p-hat) from estimation of equation (1) in the second stage, where we employ standard logistic regression model to identify the characteristics of targeted REITs that explain why the bidding entity is a private firm versus an existing public company.

The predicted p-hat is used as an explanatory variable in the second stage to control for sample selectivity bias in our nested logit models. The estimated second-stage logit takes the following form:

$$PRIVATE_i = \alpha_i + \beta_j DSIZE_j + \Sigma \gamma_k TARGET\_CH_k + \delta_i PHAT_i + \varepsilon_i \quad (2)$$

where:

$PRIVATE_i$	=	a dummy variable, equal to one if the acquirer is a private firm, zero if the acquirer is a public entity;
α_i	=	a constant;
β_j	=	the sensitivity of *PRIVATE* to target *i*'s deal size;
$DSIZE_j$	=	target *i*'s deal size,
γ_k	=	the sensitivity *PRIVATE* to target *i*'s characteristics;
$TARGET\_CH_k$	=	target *i*'s characteristics, such as leverage (total debt-to-total assets) and profitability (EBIT/Total Assets);
$\delta_{i,}$	=	the sensitivity of *PRIVATE* to *PHAT*,
$PHAT_i$	=	predicted probability of being a target based on the first stage regression;
ε_i	=	an error term.

Multinomial Logit Estimation

As previously discussed, the two stage approach assumes a REIT first becomes a target and then shops for or entertains bids by public or private acquirers. An alternative framework is to assume that public and private bidders identify a company before it becomes an acquisition target and then bid to acquire it. In this framework, the outcomes or choice variables can be modeled with multinomial logistic regression, following the methodology presented in Shumway (2001). Therefore, although the target sample firms are included only once in the sample within three years before and after the bid, we include accounting data for all years (1993-2006) for the control firms. We use year fixed effects and adjust standard errors for lack of independence of same firm observations over the years.

The estimated multinomial logit model has the following form:

$$MPRIVATE_{it} = \alpha_{it-1} + \Sigma \gamma_{kt-1} FIRM\_CH_{kt-1} + \varepsilon_{it-1}, \quad (3)$$

where

$MPRIVATE_{it}$ = a dummy variable equal to: zero if the bidder is a public firm; 1 if the bidder is a

private firm; and 2 if the REIT received no acquisition bid in calendar year *t*;

α_{it-1} = a constant;

γ_{kt-1} = the sensitivity of *MPRIVATE* to firm *i*'s characteristics;

$FIRM\_CH_{jt-1}$ = firm *i*'s characteristics, such as book value of assets, total book leverage, etc. in calendar year *t*-1;

ε_{it-1} = an error term.

Announcement Effects

In the third stage of our analysis, we examine the extent to which the stock price announcement effects that accrue to the shareholders of target REITs differ in going private deals relative to staying public transactions and whether these wealth effects vary over our sample period. To examine differences in target returns, conditional on the private versus public character of the bidder, we employ standard event study methodology (see, for example, Mikkelson and Partch, 1988) and compute target abnormal returns around the acquisition announcement date. Finally, we investigate the degree to which public-to-private transactions differ from public-to-public acquisitions in terms of the financing and motivation of the two investor types.

To determine whether the factors driving target wealth effects in public-to-private transactions differ from those in public-to-public deals, we estimate the following regression model separately for the 48 private and 110 public acquisitions in our sample:

$$CAR_i = \alpha_i + \Sigma \beta_j deal\ characteristcs_j + \Sigma \gamma_k target\ characteristics_k + \varepsilon_i \quad (4)$$

where:

CAR_i = cumulative abnormal return for target *i* over a specified window;

α_i = a constant;

β_j = the sensitivity of CAR_i to target *i*'s deal characteristics;

deal characteristics = a vector of acquisition *i*'s deal characteristics, such as deal size, method of financing, etc.;

$\gamma_{k,}$ = the sensitivity of CAR_i to the characteristics of target *i*;

target characteristics = a vector of target *i*'s characteristics, such as leverage (total debt-to-total assets) and profitability (EBIT/Total Assets);

ε_i = an error term.

Empirical Results

Two-Stage Logistic Regression Results

Regression statistics of the estimated logistic models in the first stage to explain the probability of becoming a target of either a private or public bidder are displayed in Table 6. We report results for four models with estimated Z statistics displayed below the estimated regression coefficients.

As expected, the estimated coefficient on total assets is negative and significant in all four models, indicating that larger REITs are less likely to become merger or acquisition targets. The coefficient on EBIT divided by total assets is negative, but insignificant, suggesting no strong relationship between profitability and the probability of receiving a takeover bid. The ratio of total debt-to-total assets is also insignificant in all four specifications.

The estimated coefficient on dividend yield is positive and significant in Models 3 and 4; this supports the notion that higher dividend paying firms may be an attractive acquisition target to bidders. The estimated coefficient on cash as a percentage of total assets is negative and significant in all but Model 4. That is, more liquid REITs are less likely to become targets, all else equal. The estimated coefficient on the dummy variable indicating whether the target is organized as an UPREIT is consistently negative and statistically significant. This is consistent with our hypothesis that UPREITs are less attractive acquisition targets due to the complexity of their organizational structure and potential conflicts of interest between shareholders and unit holders in the operating partnership of the target.

In Models 3 and 4 of Table 6, we add controls for the property type focus of the target REITs. We find that health care and mortgage REITs are less likely to receive a bid, relative to the control group of apartment REITs. Finally, in Model 4 we control for the degree of institutional ownership and find that it

is significantly and positively associated with the acquisition probability, which supports our expectation. We predict the conditional probability of becoming an acquisition target (*PHAT*), based on Model 4.[10]

In the second stage of our two-stage logit analysis, we estimate the probability of becoming the target of a private bidder, conditional on being an acquisition target. These results are presented in Table 7. The dependent variable is coded one if the acquirer is a private firm; zero if the bidder is a public firm.

In Model 1, we include deal size (in $millions), the target's total leverage ratio, as well as its interest coverage ratio as our primary explanatory variables. The firm specific predicted acquisition probability (p-hat) is also included to control for potential sample selectivity bias. Finally, we include annual fixed effects; the omitted year is 1994.

The estimated coefficient on deal size in Model 1 is not statistically significant; that is, larger REITs are no more likely to be the target of a private bidder than a public bidder. Total leverage and the interest coverage ratio are negatively and significantly related to the probability of receiving a bid from a private firm. This is consistent with our prediction that REITs more likely to be acquired by private firms have lower leverage and lower profitability. The estimated coefficient on the REIT's acquisition probability from the first stage estimation is statistically insignificant. However, sensitivity analysis indicates that the inclusion of the variable strengthens the coefficients of the other explanatory variables. None of the year dummy variables (not reported here for brevity) are significant, with the exception of the coefficient for 2006, which captures the boom of public-to-private transactions during that year.

In Model 2, we add the target's dividend yield and EBIT/total assets as explanatory variables. We observe a positive and significant coefficient on dividend yield and a negative and significant coefficient on EBIT/total assets. Although we do not control for accounting depreciation due to large number of missing observations for that variable, these results suggest that profitability based on EBIT

[10] We also examine the impact of governance characteristics on the acquisition probability. We do not report our results here, since anti-takeover measures are only available for 71 of the 370 firms, while director data are available for 57 of the firms. We find that while G-Index is not significantly related to the acquisition probability, the existence of poison pill ATM is significantly negatively related to the probability of receiving a bid. Regarding internal governance, we find that CEO – Chairman duality is significantly and positively related to the probability of a firm becoming a takeover target. These findings are consistent with the corporate governance literature related to mergers (see, for example, Masulis, Wang and Xie, 2007)

may be diminished due to large depreciation deductions. Firms with diminished EBIT due to higher depreciation, but with high dividend yields, will be attractive to private bidders who want to minimize their tax liabilities while acquiring profitable targets. Inclusion of these two variables increases the pseudo R-squared modestly from 16 percent to 18 percent.

In Model 3, we add controls for Tobin's q, the existence of an UPREIT structure, and the level of institutional ownership. None of these additional controls are statistically significant, indicating that firm growth prospects, and UPREIT structure, and institutional ownership are not important determinants of whether a private firm bids for an acquisition target. Moreover, the estimated coefficients on the remainder of the explanatory variables are little changed by the addition of these variables.

Our results have important implications. First, we demonstrate that it is necessary to control for the factors impacting the probability of a firm becoming acquisition target. Second, the results support our hypotheses that in the case of acquisitions by private firms, targets are typically underperforming with low leverage. Thus, the benefits from a merger arise from increased leverage, restructuring that could boost profitability, or tax shelter benefits provided by increased tax depreciation.

Multinomial Logistic Regression Models

In this section we present the results from our multinomial logistic regressions. The dependent variable is MPRIVATE, a dummy variable set equal to: zero if the bidder is a public firm; 1 if the bidder is a private firm; and 2 if REIT received no acquisition bid. Apartments are the excluded property type. All accounting control variables are based on the calendar year prior to the year in which the bid was received. When year fixed effects are included, 1994 is the omitted year.

The multinomial logistic regression results are reported in Table 8. In Model 1, we control for the total assets of the target, EBIT/total assets, total debt-to-total assets, dividend yield, cash-to-total assets, and the degree of institutional ownership. We also include of dummy variable that is set equal to 1 if the target REIT is an UPREIT. In Model 2, we add controls for property type concentration; in Model 3 we add year fixed effects.

The estimated coefficient on total assets is negative, but significant only in the models determining the probability of acquisition by a public firm. Similarly, the estimated coefficients on UPREIT status and institutional ownership percentage have the predicted signs: negative for UPREIT structure and positive for institutional ownership, but are significant only for the targets of public firms. On the other hand, the estimated coefficient on dividend yield is significant (in two of the three models) only for the targets of private bidders.

Overall, the results of the multinomial regression models are similar to the results of the two stage model, although they do not provide as much insight as the two stage model. The main conclusion from the multinomial regression analysis is that smaller, non-UPREITs with greater institutional ownership are more likely to become takeover targets of public firms, while private bidders are attracted to REITs with relatively higher dividend yields.

Target Announcement Abnormal Returns by Acquirer Type

We next examine the target announcement abnormal returns and their determinants. Summary statistics for the abnormal returns earned by target firms in both public-to-private and public-to-public transactions are contained in Table 9. Mean and median abnormal returns for two, three, and five-day windows are positive and higher for the targets of private acquirers relative to the abnormal returns of targets acquired by public bidders. More specifically, mean CARs vary from 10.23 to 10.63 percent for targets in going private deals, while mean CARs for targets in staying public transactions range from 7.14 to 7.70 percent. However, these differences are not statistically significant over any of the windows in which the abnormal returns are measured.

It is important to note that the target abnormal announcement returns we observe are much higher than those recorded in previous REIT merger and acquisition studies. For example, McIntosh, Officer and Born (1989) find average CARs of 3 percent for targets in successful acquisitions and only in a one-day window before the announcement. Campbell, Ghosh and Sirmans (2001) also find target announcement effects of approximately 3 percent. Our study differs from these studies in several ways. First, the time period over which we examine target returns differs; more specifically, it includes announcements only in

the post-1992 ("modern") REIT era. Second, our sample period is substantially longer than the periods examined in other studies. Finally, our sample of REIT acquisitions is much larger than those used in earlier studies.

Factors Driving Target Wealth Effects

We report the results of the regressions for two and three-day abnormal announcement return windows [CAR (0,1), and CAR (-1,1), respectively] in Table 10 for both public and private deals. In the CAR(-1,1) models, the estimated coefficient on deal size is always positive and significant in the public-to-public regressions, but is insignificant in the public-to-private deals. This suggests that large acquisitions by public firms are viewed more favorably by investors than similar acquisitions by private firms.

The estimated coefficient on EBIT-to-total assets is generally negative and significant in bids by public firms, but insignificant in the going private merger announcements. The estimated coefficient on cash-to-total assets is negative and significant in the going private sub-sample, which supports our hypothesis that the acquisition of cash-restricted REITs provides a positive signal to the market about the higher investment value the bidder is placing on the target.

We control for mortgage REIT acquisitions and observe marginally significant positive effects associated with these types of acquisitions. We also control for acquisitions by public or private REITs (versus non-REITs) and observe that REIT acquisitions are associated with a negative announcement effect in public-to-public acquisitions. This provides some support for the anecdotal evidence that REITs may be overpaying to acquire another REIT, especially in the case of public-to-public acquisitions. We also control for the existence of an UPREIT structure and for the percentage of institutional ownership. We find that UPREIT targets are not associated with abnormal announcement returns. However, targets with greater institutional ownership experience marginally positive announcement returns in the public-to-private announcements. When cash only is used to finance public-to-public acquisitions, we observe positive and statistically significant effects on abnormal returns, which is consistent with the results found

in previous studies (Mitchell and Stafford, 2000, Campbell, Ghosh and Sirmans, 2001, 2005). It is important to note that our results are generally consistent across alternative announcement windows.

Conclusion

Using a sample of 39 mergers and acquisitions of U.S. Real Estate Investment Trusts (REITs) by private equity firms and 122 REIT acquisitions by existing REITs and other public firms, we investigate the extent to which target wealth effects and characteristics differ in buyouts by private versus public acquirers. We find that firms more likely to become acquisition targets relative to the rest of public REITs are smaller, more cash restricted, with greater institutional ownership and higher dividend yields. We also find that umbrella partnership REITs (UPREITs) are less lilely than non-UPREITs to become merger or acquisition targets. We also document important differences between the targets firms in public-to-private vs. public-to-public deals. More specifically, we find that the targets of private acquirers have lower leverage, lower interest coverage ratios, and lower profitability (EBIT/TA), but higher dividend yields, than the targets of public acquirers. Although acquisitions by private buyers are usually executed with cash, there has been a shift toward the use of cash in public-to-public deals. This supports the hypothesis that acquisitions by REITs may be used to minimize investor tax liabilities. Cash acquisitions are associated with positive wealth effects for target shareholders, while acquisitions by REITs are negatively related to target abnormal returns.

Consistent with previous merger studies we find positive abnormal announcement returns to target shareholders. However, the size of target abnormal returns is much larger than that observed in earlier REIT merger studies and closer to target announcement effects in industrial firms. We attribute this result to the fact that the period we investigate is post-1992, which is often referred as the era of modern REITs. We further observe that abnormal returns to targets in public-to-private deals exceed those in public-to-public deals, which is consistent with the literature. In addition, the factors driving wealth effects in public-to-public transactions differ from the determinants of abnormal returns in public-to-private deals.

Our analysis provides evidence on the differing motivations of private vs. public acquirers and supports our hypothesis that private acquirers tend to focus on profit maximization; thus, private acquirers are more likely to bid on underlevered and underperforming target REITs. Conversely, public buyers seeking to increase market power are focused on acquiring profitable and more highly levered REITs.

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Table 1: REIT Mergers and Acquisitions and IPO Activity: 1992-2007

Year	Number of REITs at Beginning of Year	Announced Public-to-Private M&As	Completed Public-to-Private M&As	Announced Public-to-Public M&As	Completed Public-to-Public M&As	Total Number of Announced M&As	Total Number of Completed M&As	IPOs
1992	138	0	0	1	1	1	1	8
1993	142	0	0	0	0	0	0	50
1994	189	1	1	7	5	8	6	45
1995	226	3	2	15	10	18	12	8
1996	219	4	0	11	9	15	9	8
1997	199	2	0	10	10	12	10	26
1998	211	2	2	17	15	19	17	17
1999	210	5	3	16	13	21	16	2
2000	203	6	5	6	5	12	10	0
2001	189	4	2	8	7	12	9	0
2002	182	5	4	8	5	13	9	3
2003	176	1	1	5	5	6	6	8
2004	171	2	2	8	6	10	8	29
2005	193	5	5	11	9	16	14	11
2006	197	12	7	20	19	32	26	5
2007	183	8	5	9	8	17	13	4
Total		60	39	152	127	212	166	224

Table 2: Creation of Regression Sample

Original sample - all domestic REIT M&As	433
Less partial acquisitions	221
Total REIT acquisitions announced	212
Less competing bids	26
Less firms with missing returns or in sufficient return observations	7
Less Firms with missing data in Compustat	16
Less JVs and State company owned bidders	3
Final Sample	161

Table 3: Distribution of M&A Bids by Announcement Year: 1994-2007

	Public-to-Private Bids					Public-to-Public Bids				
	Announced Deal Size in $Millions					Anounced Deal Size in $Millions				
Year	Obs	Mean	Median	Min	Max	Obs	Mean	Median	Min	Max
1994	1	110	110	110	110	6	42	17	7	143
1995	2	23	23	22	24	11	70	24	11	302
1996	1	122	122	122	122	8	364	314	23	1,430
1997	1	33	33	33	33	10	600	343	110	3,257
1998	1	543	543	543	543	16	436	381	5	1,291
1999	5	419	489	76	592	8	312	264	23	622
2000	4	246	184	22	593	6	937	902	208	2,463
2001	2	536	536	82	990	8	1,185	976	61	4,009
2002	4	87	84	23	157	7	557	520	216	1,031
2003						4	321	285	185	530
2004	2	478	478	252	705	7	1,814	729	159	7,000
2005	3	1,815	2,115	896	2,436	7	1,808	1,273	346	3,819
2006	7	3,657	750	195	19,332	18	1,167	407	215	3,929
2007	6	744	630	161	1,654	6	3,685	1,805	435	13,586
Total	39	1,072	412	22	19,332	122	887	381	5	13,586

Announcements of REIT mergers and acquisitions for the U.S. were obtained from FactSet for the years 1992-2007. Our initial sample contained 433 announced mergers. The steps taken to arrive at our final regression sample of 161 transactions are detailed in Table 2. In the case of competing bids, we only include the first bid.

Table 4: Regression Summary Statistics and Difference in Means Tests

	Public-to-Private Bids			Public-to-Public Bids			Diff. of	
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.	Means	T-test
Deal size in $millions	903.33	364.54	2140.69	896.48	379.73	1610.90	6.85	0.02
Target earnings per share	0.08	0.35	2.49	0.74	0.73	1.18	-0.65	-2.25**
Offer premium	0.15	0.13	0.31	0.13	0.13	0.24	0.02	0.52
Total debt/total assets	0.55	0.53	0.15	0.54	0.57	0.22	0.01	0.26
Cash/total assets	0.02	0.01	0.03	0.02	0.01	0.04	0.00	-0.13
EBIT/total assets	0.05	0.05	0.05	0.06	0.06	0.04	0.00	-0.61
Interest coverage ratio	6.07	4.54	7.49	18.62	4.98	58.22	-12.55	-1.37
Dividend yield	0.09	0.07	0.08	0.07	0.07	0.05	0.02	1.86*
Tobin's q	1.04	0.97	0.25	1.14	1.12	0.27	-0.10	-2.05**
UpREIT structure	0.45	0.00	0.50	0.38	0.00	0.49	0.07	0.71
Institutional ownership	0.51	0.55	0.29	0.49	0.50	0.31	0.02	0.33
Merger to achieve horiz. interg.	0.54	1.00	0.50	0.92	1.00	0.28	-0.38	-6.06***
Merger to achieve vertical interg.	0.00	0.00	0.00	0.01	0.00	0.09	-0.01	-0.58
Mortgage REIT merger (yes=1)	0.46	0.00	0.50	0.07	0.00	0.26	0.39	6.33***
Deal completed (yes=1)	0.73	1.00	0.45	0.87	1.00	0.34	-0.14	-2.03**
Cash only financing (yes=1)	0.90	1.00	0.30	0.33	0.00	0.47	0.57	7.12***
Stock only financing (yes=1)	0.00	0.00	0.00	0.33	0.00	0.47	-0.33	-4.41***
Cash & stock financing (yes=1)	0.10	0.00	0.30	0.33	0.00	0.47	-0.23	-2.88***
Financing source debt & VP (yes=1)	0.00	0.00	0.00	0.01	0.00	0.09	-0.01	-0.59
Financing source cash (yes=1)	0.95	1.00	0.22	0.34	0.00	0.48	0.61	7.82***
Finan. source cash & stock (yes=1)	0.03	0.00	0.16	0.00	0.00	0.00	0.03	1.71*
Finan. source cash & vendor (yes=1)	0.03	0.00	0.16	0.23	0.00	0.43	-0.21	-3.04***
Finan. source vendor placing (yes=1)	0.00	0.00	0.00	0.42	0.00	0.50	-0.42	-5.32***
Buyer is a REIT	0.15	0.00	0.36	0.57	1.00	0.50	-0.42	-5.03***

*, **, ** denotes statistical significance at the 10%, 5%, and 1% level, respectively. The pubic-to-private sample includes 39 transactions; the public-to-public sample contains 122 transactions. Announcements of REIT mergers and acquisitions for the U.S. were obtained from FactSet for the years 1992-2007. Our initial sample contained 433 announced mergers. The steps taken to arrive at our final regression sample of 161 transactions are detailed in Table 2. In the case of competing bids, we only include the first bid. We obtained accounting data for our sample firms from the COMPUSTAT database. All accounting variables were drawn from the year preceding the merger announcement. Historical total return information for all REITs was obtained from CRSP. The corresponding accounting information and total return data were also collected on an annual basis for each firm in the NAREIT universe that did not receive a merger or acquisition bid.

Table 5: Distribution of Acquirer Financing by Type and Year

	Private Acquirer			Public Acquirer		
	Cash only	Stock only	Both	Cash only	Stock only	Both
1994	0.00	0.00	1.00	0.00	0.67	0.33
1995	0.00	0.00	1.00	0.00	0.71	0.29
1996	1.00	0.00	0.00	0.13	0.63	0.25
1997	1.00	0.00	0.00	0.00	0.50	0.50
1998	1.00	0.00	0.00	0.00	0.33	0.58
1999	1.00	0.00	0.00	0.25	0.50	0.25
2000	0.75	0.00	0.25	0.33	0.33	0.33
2001	1.00	0.00	0.00	0.33	0.17	0.50
2002	0.75	0.00	0.25	0.29	0.43	0.29
2003	1.00	0.00	0.00	0.40	0.40	0.20
2004	1.00	0.00	0.00	0.50	0.00	0.50
2005	1.00	0.00	0.00	0.73	0.18	0.09
2006	1.00	0.00	0.00	0.55	0.15	0.30
2007	1.00	0.00	0.00	0.83	0.00	0.17

The sample of REITs purchased by a private acquirer includes 39 transactions; the sample of REITs purchased by a public acquirer contains 122 transactions. Announcements of REIT mergers and acquisitions for the U.S. were obtained from FactSet for the years 1992-2007. Our initial sample contained 433 announced mergers. The steps taken to arrive at our final regression sample of 161 transactions are detailed in Table 2. In the case of competing bids, we only include the first bid. We obtained accounting data for our sample firms from the COMPUSTAT database.

Table 6: Logistic Regression Model to Determine the Probability of Becoming a Target

	Model 1	Model 2	Model 3	Model 4
	Coef.	**Coef.**	**Coef.**	**Coef.**
Dependent Variable= Bid	***Z-stat***	***Z-stat***	***Z-stat***	***Z-stat***
Constant	-2.334 ***	-2.261 ***	-2.051 ***	-2.336 ***
	-4.58	-4.44	-3.54	-3.99
Total assets	-0.0001 **	-0.0001 **	-0.0001 *	-0.0001 **
	-2.21	-2.16	-1.88	-2.36
EBIT/Total assets	-2.922	-2.886	-2.586	-3.261
	-0.96	-0.98	-0.80	-1.00
Total debt/total assets	-0.123	-0.146	0.012	0.041
	-0.27	-0.32	0.02	0.08
Dividend Yield	1.444	1.354	1.872 *	2.439 **
	1.39	1.31	1.80	2.25
Cash/total assets	-3.201 *	-3.513 *	-3.219 *	-3.063
	-1.81	-1.91	-1.64	-1.56
UPREIT		-0.331 *	-0.489 **	-0.703 ***
		-1.78	-2.37	-3.14
Prop Type Unknown			-0.066	0.001
			-0.14	0.00
Diversified			-0.617	-0.446
			-1.46	-1.06
Health Care			-0.924 *	-0.975 *
			-1.69	-1.72
Ind/Office			-0.163	-0.225
			-0.51	-0.70
Lodging /Resorts			-0.618	-0.591
			-1.33	-1.27
Mortgage REIT			-0.829 *	-0.769 *
			-1.84	-1.71
Retail			-0.307	-0.263
			-1.04	-0.89
Self Storage			-0.165	0.020
			-0.35	0.04
Inst. Ownership				1.074 ***
				2.85
Year fixed effects	Yes	Yes	Yes	Yes
Number of observations	2,009	2,009	2,009	2,009
Clusters	370	370	370	370
Pseudo R-Squared	0.03	0.03	0.04	0.05

The dependent variable is *BID*, an indicator variable equal to one of the firm was a target of takeover, zero otherwise. All accounting control variables are based on the calendar year before the year in which the bid was received. *, **, ** denotes statistical significance at the 10%, 5%, and 1% level, respectively.

Table 7: Logistic Models Explaining Probability of Private Acquirer

	Model 1		Model 2		Model 3	
Dependent Var = Private	Coefficient	Z	Coefficient	Z	Coefficient	Z
Constant	2.646	1.58	3.536 **	1.82	3.750 *	1.7
Deal size in $millions	-0.0001	-0.55	-0.0001	-0.52	0.0000	-0.13
Total debt/total assets	-4.455 **	-2.56	-5.475 ***	-2.63	-5.276 **	-2.39
Interest coverage ratio	-0.097 ***	-3.32	-0.107 ***	-3.16	-0.112 ***	-2.99
Dividend yield			8.614 **	2.06	7.505 *	1.69
EBIT/total assets			-11.919 *	-1.67	-9.299	-1.06
Tobin's q					-0.134	-0.1
UPREIT (yes=1)					0.211	0.32
Percentage of Inst. Ownership					-1.390	-1.17
Predicted prob. of being a target	-1.386	-0.33	-4.356	-1.00	-0.352	-0.06
Year Fixed Effects	Yes		Yes		Yes	
Pseudo R-squared	0.16		0.18		0.19	

The dependent variable is *PRIVATE*, a dummy variable set equal to 1 if the acquisition is a buyout by a private firm, zero if the acquisition is a public-to-public transaction. The predicted probability of being a target is based on estimation of the first stage logit regressions reported in Table 6. *, **, ** denotes statistical significance at the 10%, 5%, and 1% level, respectively. Accounting data for our sample firms was obtained from the COMPUSTAT database. All accounting variables were drawn from the calendar year preceding year in which the merger was announced.

Table 8: Multinomial Models Explaining the Probability of Receiving a Bid by a Public firm, Receiving a Bid by a Private Firm and Not Receiving an Acquisition Bid

	Model 1		Model 2		Model 3	
	Public Bidder	**Private Bidder**	**Public Bidder**	**Private Bidder**	**Public Bidder**	**Private Bidder**
Dependent Var = MPRIVATE	**Coef.** ***Z-stat***	**Coef.** ***Z-stat***	**Coef.** ***Z-stat***	**Coef.** ***Z-stat***	**Coef.** ***Z-stat***	**Coef.** ***Z-stat***
Constant	-2.819 ***	-4.042 ***	-2.687 ***	-4.101 ***	-2.830 ***	-3.774 ***
	-6.48	-4.16	-5.18	-2.99	-4.41	-2.55
Total Assets	-0.0001 ***	-0.0001	-0.0001 **	-0.0001	-0.0001 **	-0.0001
	-2.63	-0.86	-2.49	-0.82	-2.29	-0.89
EBIT/Total Assets	-1.591	-7.374	-1.379	-5.303	-0.974	-6.502
	-0.48	-1.20	-0.38	-0.79	-0.26	-0.93
Total Debt/Total Assets	-0.019	-0.017	0.288	-0.137	0.483	-0.917
	-0.04	-0.02	0.54	-0.15	0.84	-0.84
Dividend Yield	0.541	3.419 *	1.299	3.206 **	1.752	2.992
	0.43	1.74	0.99	1.70	1.38	1.55
Cash/TA	-3.051	-3.818	-2.624	-3.791	-2.271	-4.303
	-1.35	-1.26	-1.04	-1.18	-0.96	-1.21
UPREIT (yes=1)	-0.647 ***	-0.405	-0.838 ***	-0.489	-0.802 ***	-0.530
	-2.64	-0.91	-3.16	-0.96	-3.02	-1.00
Inst. Ownership %	1.401 ***	1.366 *	1.480 ***	1.239	1.334 ***	0.879
	3.36	1.67	3.47	1.44	3.19	1.08
Prop Type Unknown			-0.163	0.373	-0.098	-0.013
			-0.30	0.38	-0.17	-0.01
Diversified			-0.508	0.238	-0.532	0.004
			-1.11	0.25	-1.16	0.00
Health Care			-1.119 *	-0.825	-1.087 *	-1.063
			-1.77	-0.59	-1.72	-0.73
Ind/Office			-0.300	0.395	-0.304	0.230
			-0.83	0.54	-0.84	0.30
Lodging /Resorts			-0.893	0.620	-0.874	0.366
			-1.34	0.75	-1.28	0.45
Mortgage REIT			-0.946 *	-0.060	-0.996 *	-0.318
			-1.73	-0.06	-1.73	-0.34
Retail			-0.255	0.014	-0.277	-0.098
			-0.82	0.02	-0.88	-0.12
Self Storage			0.236	.	0.286	.
			0.50	.	0.60	.
Year Fixed Effects	No		No		Yes	
Observations	1,995		1,995		1,995	
Pseudo R Squared	0.0268		0.0411		0.0708	
Number of Clusters	365		365		365	

Dependent Variable is *MPRIVATE*, a dummy variable equal to: zero if the bidder is a public firm; 1 if the bidder is a private firm; and 2 if the company received no acquisition bid. Apartments are the omitted property type.
Accounting data for our sample firms was obtained from the COMPUSTAT database. All accounting variables were drawn from the calendar year preceding year in which the merger was announced. The property type focus of each REIT was obtained from the CRSP/Ziman database.

Table 9: Target Announcement Abnormal Returns by Acquirer Type: 1994 – 2007

	Private			Public			Diff. of Means	T-test
	Mean	Median	St. Dev.	Mean	Median	St. Dev.		
CAR(0,1)	10.23%	7.93%	15.89%	7.14%	5.93%	9.96%	3.09%	1.46
CAR(-1,1)	10.38%	7.88%	15.10%	7.70%	6.86%	9.87%	2.68%	1.30
CAR(-2,2)	10.63%	9.01%	14.93%	7.67%	6.95%	10.28%	2.95%	1.41

Standard event study methodology is employed following Mikkelson and Partch (1988). The market proxy is the S&P 500 Index. CAR(0,1) is equal to the target company's cumulative abnormal returns in a two-day window (0,1); CAR(-1,1) is equal to the target company's cumulative abnormal returns over a three-day window (-1,1); and CAR(-2,2) is equal to the target company's cumulative abnormal returns over a five-day window (-2,2). Daily total return information for all REITs was obtained from CRSP.

Table 10: Regressions Analysis for Target Returns by Acquirer Type: 1994-2007

	Model 1				Model 2			
	Public		Private		Public		Private	
CAR(0,1)	*Coef*	*T-stat*	*Coef*	*T-stat*	*Coef*	*T-stat*	*Coef*	*T-stat*
Constant	0.064 *	*1.69*	0.075	*0.43*	0.091 *	*2.19*	0.217	*1.65*
Deal size in $millions	0.000	*1.30*	0.000	*-0.79*	0.000	*1.06*	0.000	*0.17*
EBIT/total assets	-0.510 **	*-2.36*	0.295	*0.99*	-0.399	*-1.57*	-0.503	*-0.71*
Cash/total assets	-0.049	*-0.20*	-1.697 ***	*-3.93*	-0.147	*-0.62*	-1.450 ***	*-2.82*
Total debt/total assets	0.059	*1.60*	0.281	*0.86*	0.009	*0.25*	-0.040	*-0.22*
Tobin's q	-0.002	*-0.05*	-0.098 *	*-1.75*	0.012	*0.37*	-0.060	*-1.08*
Buyer is a REIT					-0.044 **	*-2.14*	0.018	*0.41*
Mortgage REIT merger					0.061	*1.30*	0.375	*1.58*
Number of observations	122		39		122		39	
R-squared	0.06		0.19		0.15		0.60	

	Model 1				Model 2			
	Public		Private		Public		Private	
CAR(-1,1)	*Coef*	*T-stat*	*Coef*	*T-stat*	*Coef*	*T-stat*	*Coef*	*T-stat*
Constant	0.101 ***	*2.77*	0.090	*0.54*	0.124 ***	*3.06*	0.218	*1.66*
Deal size in $millions	0.000 **	*2.23*	0.000	*-0.94*	0.000 *	*1.95*	0.000	*-0.18*
EBIT/total assets	-0.461 **	*-2.08*	0.150	*0.57*	-0.374	*-1.49*	-0.574	*-0.86*
Cash/total assets	-0.044	*-0.15*	-1.685 ***	*-4.00*	-0.127	*-0.47*	-1.463 ***	*-2.85*
Total debt/total assets	0.042	*1.16*	0.263	*0.85*	-0.007	*-0.19*	-0.028	*-0.16*
Tobin's q	-0.026	*-0.85*	-0.092 *	*-1.71*	-0.011	*-0.36*	-0.058	*-1.04*
Buyer is a REIT					-0.038 *	*-1.83*	0.017	*0.42*
Mortgage REIT merger					0.069	*1.49*	0.340	*1.50*
Number of observations	122		39		122		39	
R-squared	0.10		0.21		0.15		0.57	

Table 10 Continued: Regressions Analysis for Target Returns by Acquirer Type: 1994-2007

	Model 3				Model 4			
	Public		Private		Public		Private	
CAR(0,1)	*Coef*	*T-stat*	*Coef*	*T-stat*	*Coef*	*T-stat*	*Coef*	*T-stat*
Constant	0.086 **	*2.04*	0.117	*0.73*	0.047	*1.21*	0.048	*0.33*
Deal size in $millions	0.000	*1.17*	0.000	*-1.46*	0.000	*0.79*	0.000	*-1.51*
EBIT/total assets	-0.456 *	*-1.76*	-0.931	*-1.17*	-0.382 *	*-1.84*	-1.191	*-1.32*
Cash/total assets	-0.050	*-0.20*	-0.934	*-1.49*	-0.170	*-0.59*	-0.877	*-1.30*
Total debt/total assets	-0.003	*-0.08*	-0.025	*-0.14*	0.000	*0.00*	-0.018	*-0.11*
Tobin's q	0.016	*0.53*	-0.040	*-0.62*	0.015	*0.45*	-0.078	*-1.43*
Buyer is a REIT	-0.041 **	*-2.02*	0.015	*0.36*	-0.006	*-0.25*	0.012	*0.28*
Mortgage REIT merger	0.078	*1.63*	0.411 *	*1.76*	0.076 *	*1.84*	0.394 *	*1.74*
UpREIT	0.029	*1.49*	0.056	*1.38*	0.015	*0.75*	0.037	*0.98*
Inst. Ownership	-0.013	*-0.36*	0.115	*1.58*	-0.014	*-0.40*	0.128 *	*1.72*
Financing source cash (yes=1)					0.079 ***	*3.38*	0.133 **	*2.26*
Number of observations	122		39		122		39	
R-squared	0.15		0.63		0.32		0.60	

	Model 3				Model 4			
	Public		Private		Public		Private	
CAR(-1,1)	*Coef*	*T-stat*	*Coef*	*T-stat*	*Coef*	*T-stat*	*Coef*	*T-stat*
Constant	0.118 ***	*2.90*	0.137	*0.85*	0.077 **	*2.02*	0.067	*0.48*
Deal size in $millions	0.000 **	*2.13*	0.000	*-1.50*	0.000 *	*1.68*	0.000	*-1.57*
EBIT/total assets	-0.450 *	*-1.73*	-0.924	*-1.21*	-0.373 *	*-1.70*	-1.190	*-1.36*
Cash/total assets	-0.022	*-0.08*	-1.040	*-1.65*	-0.147	*-0.45*	-0.982	*-1.45*
Total debt/total assets	-0.015	*-0.36*	-0.015	*-0.09*	-0.011	*-0.28*	-0.008	*-0.05*
Tobin's q	-0.004	*-0.15*	-0.044	*-0.65*	-0.006	*-0.20*	-0.083	*-1.56*
Buyer is a REIT	-0.034 *	*-1.67*	0.015	*0.37*	0.004	*0.18*	0.011	*0.29*
Mortgage REIT merger	0.085 *	*1.82*	0.367	*1.63*	0.083 **	*2.08*	0.350	*1.60*
UpREIT	0.031	*1.65*	0.044	*1.10*	0.016	*0.87*	0.024	*0.68*
Inst. Ownership	-0.026	*-0.74*	0.098	*1.41*	-0.027	*-0.80*	0.112	*1.57*
Financing source cash (yes=1)					0.083 ***	*3.85*	0.136 **	*2.34*
Number of observations	122		39		122		39	
R-squared	0.16		0.60		0.33		0.57	

Standard event study methodology is employed following Mikkelson and Partch (1988). The market proxy is the S&P 500 Index. CAR(0,1) is equal to the target company's cumulative abnormal returns in a two-day window (0,1); CAR(-1,1) is equal to the target company's cumulative abnormal returns over a three-day window (-1,1). Announcements of REIT mergers and acquisitions for the U.S. were obtained from FactSet for the years 1992-2007. Our initial sample contained 433 announced mergers. The steps taken to arrive at our final regression sample of 122 public-to-public transactions and 39 going private transactions are detailed in Table 2. Daily total return information for all REITs was obtained from CRSP. *, **, ** denotes statistical significance at the 10%, 5%, and 1% level, respectively. Accounting data for our sample firms was obtained from the COMPUSTAT database. All accounting variables were drawn from the calendar year preceding year in which the merger was announced.