The Wealth Effects of Merger Activities: Further Evidence from Real Estate Investment Trusts

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***Abstract.* This paper examines the effect of merger announcements on target firm shareholder wealth. The sample is limited to Real Estate Investment Trust (REIT) targets. Previous corporate acquisition studies report strong pre-announcement and announcement day price appreciation for target firms. Significant positive abnormal returns are detected for the REIT targets at announcement but not during the pre-announcement period.**

Introduction

Merger and acquisition activities have been the extensive focus of recent literature in finance. A number of theories have been put forth to explain why value-maximizing firms might engage in merger or acquisition activities. These theories suggest that improving (target) managerial efficiency, undervalued (target) shares, (target) agency costs, enhancing one's market power, and tax considerations are possible motives for growing by acquisition rather than internal means.[1]

The effect of a merger/acquisition announcement on shareholder wealth appears contingent upon the party examined. Empirical evidence suggests that shareholders of the bidding firm experience no significant wealth effects in the pre-announcement period or upon announcement of an offer. However, shareholders of target firms appear to earn significant abnormal returns in the pre-announcement period and at announcement.[2]

The difference in wealth effects associated with merger/acquisition offers also has been examined. Current thinking has that the abnormal returns to target shareholders represent a sharing of potential post-acquisition gains by the acquiring firm. To the extent that the target firm captures (nearly) all of the benefits of the acquisition, this would explain the lack of significant, positive response in the acquiring firm's share price.

Due to the unique characteristics of real estate investment trusts (REITs) that differentiate them from other corporations, Allen and Sirmans [1] hypothesized that the wealth effects associated with merger/acquisition offers may be different from those observed for industrial and retail corporations. Unlike other corporate mergers, Allen and Sirmans (A&S) report that shareholders of REITs that announce acquisitions

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experience increases in wealth prior to the announcement. Due to the limited sample size, the authors were unable to make any generalizations about the effect of a merger announcement on REIT shareholder wealth.[3]

The purpose of this paper is to extend the A&S analysis and to examine the effect of merger/acquisition announcement on target REIT shareholder wealth. Availability of return data for Over-the-Counter (OTC) traded REITs, in addition to data for New York and American Stock Exchange-listed (NYSE and ASE, respectively) REITs, allows for the construction of a much larger sample than A&S. In addition to reporting the effect of the announcement on target REIT shareholder wealth, we test the hypothesis that the effect is contingent upon the completion of the merger and we test the hypothesis that the effect is contingent upon the identity of the bidder (REIT versus non-REIT).

The remainder of the paper is organized as follows: the second section details some of the institutional background of REITs that makes them somewhat unique organizations and reviews prior empirical studies that focus on REITs. The third section describes the sample and methodology employed in this study. Section four presents results. Section five summarizes.

REITs Background and REIT Research

Background

REIT came into existence after the passage of the Real Estate Investment Trust Act of 1960. The intent of the legislation was to encourage the formation of institutions that would allow small investors to collectively participate in large real estate investments. The Act eliminated the taxation of profits at the REIT level as long as a number of provisions are met.[4] In effect, REITs are closed-end mutual funds that invest primarily in real estate or real estate type-assets.

From 1961 to 1975 the REIT industry grew rapidly, from $3 billion in total assets to $21.3 billion.[5] Many of the early REITs were created and backed financially by large banks and bank holding companies. Despite extensive safeguards, mismanagement and the extensive use of short-term variable rate financing led to a number of bankruptcies and liquidations during the mid-1970s. The late 1970s and early 1980s was a period of consolidation, however by 1985, industry assets had recovered to almost $17 billion.

The National Association of Real Estate Investment Trusts (NAREIT) classifies REITs into three generally accepted categories; equity, mortgage, or hybrid. Equity REITs are formed to hold ownership interest in commercial, industrial, or residential property, and they represent 46% of the industry's assets. Mortgage REITs are formed to hold ownership in construction or permanent mortgage loans, and they represent 32% of the industry's assets. Hybrid, or combination REITs combine these two investment strategies and they represent 22% of the industry's assets.

Prior REIT Research

Employing a framework developed by Jensen and Meckling [13], Solt and Miller [17] examine the agency problems that could arise in the management of a REIT. Focusing on fee structure arrangements, the authors report that fees paid and financial performance are positively related. Further, they report that over time, fee structures have become more contingent upon performance, a development that suggests a diminishing of agency costs born by shareholders.

Howe and Shilling [12] examine stock price reactions to announcements of new security offerings by REITs. Consistent with a number of signaling models, the authors report a negative stock price reaction to new equity issue offerings. Because REITs do not normally pay taxes, borrowing does not produce a tax savings. Thus, the positive REIT stock price response to new debt issues announcements was interpreted by the authors as an investor response to a signal of future profitability.

Allen and Sirmans [1] are the first authors to examine mergers and acquisitions of REITs. They argue that a number of motives for mergers in the corporate arena do not apply to REITs. A&S hypothesize that the opportunity to replace inefficient target management and/or purchase operating losses (to offset the acquiring REIT's capital gains) are the primary motives for REIT-led acquisitions. However, upon examining abnormal returns to acquiring REIT shareholders, A&S find no strong support for the tax motivation.

Sample and Methodology

Sample

The purpose of the study is to examine the effect of merger or acquisition announcements on REIT targets. REITs are considered targets when they are identified as such in 13D filings made to the SEC by the bidder between July, 1962 and December, 1986.[6] Reporting of the filing in the *Wall Street Journal* is defined as the event date ($t=0$). Potential firms are subjected to the following screens before they are included in the sample:

- the firm must be listed on the CRSP Master File or the CRSP OTC Master File for the period beginning 100 trading days prior to the announcement and ending 30 days after the announcement, a total of 131 trading days;
- there must be an absence of large-scale confounding events occurring within five trading days of the announcement;
- the REIT must be a "qualified" trust at the time of the announcement.[7]

A total of twenty-seven merger or acquisition announcements targeting REITs meet these criteria. Four REITs were targeted for acquisition by different bidders, thus, the sample consists of twenty-three independent firms. A careful analysis of the offers suggests that nearly all could be classified as "friendly" and most offers proposed an exchange of the bidder's stock for the target REIT's stock.

An examination of the announcement dates did not reveal any systematic clumping of events by day-of-the-week or by month-of-the-year. As reported in Exhibit 1, there is no systematic pattern in the occurrence of the events by year of announcement.

Target firms were further classified on the basis of whether the merger was successfully completed or not. Consummation of the merger by the bidder within one calendar year of the initial proposal was classified as a "successful" merger. Failure to consummate the

Exhibit 1
Distribution of Announcement Dates for Twenty-seven Target REITs (1969–1986)

Year	NYSE/AMEX	NASDAQ	Total
1969	1	0	1
1970	0	0	0
1971	0	0	0
1972	0	0	0
1973	0	0	0
1974	1	0	1
1975	0	0	0
1976	1	0	1
1977	0	1	1
1978	1	2	3
1979	1	2	3
1980	2	1	3
1981	3	1	4
1982	2	1	3
1983	0	1	1
1984	3	1	4
1985	0	1	1
1986	1	0	1
Total	16	11	27

merger within a calendar year was classified as a "failed" attempt. Evidence of success or failure was obtained from a search of the *Wall Street Journal Index.* A total of seventeen mergers were classified as successful and ten mergers were classified as failed.

Bidding firms were examined to determine if they were REITs or non-REIT firms. Bidders that were considered qualified trusts at the time of the announcement were classified as REITs. Bidders that were not qualified REITs at the time of the announcement were classified as non-REITs. A total of nineteen bidders were classified as non-REITs and eight bidders were classified as REITs.

Methodology

To determine the effect of an unexpected takeover offer on target REIT shareholder wealth requires a disaggregation of realized returns into their expected and unexpected or abnormal components. The unexpected or abnormal component of realized returns measures the market's response to the merger announcement. We adopted the Market-Adjusted Return method discussed by Brown and Warner [5] to obtain unexpected returns. We did not employ the standard market model method found in most event studies because there is growing evidence that real estate assets are sensitive to interest rates and unexpected rates of inflation in addition to a market factor.[8]

The Market-Adjusted Return method defines a shareholder's expected return as the contemporaneous return on the market portfolio. Thus, unexpected returns (U_{it}) are equal to the realized return (R_{it}) less the market return (R_{it}) as in:

$$U_{it} = R_{it} - R_{mt}. \qquad (1)$$

Aggregation of unexpected returns in the sample by event day (t) should produce a convergence of the portfolio's measure to normality. This permits one to test the hypothesis that the portfolio's unexpected return is equal to zero with a t-test. Of interest is the significance of unexpected returns for the event days around and on the merger announcement.

To test the hypothesis that the pre-announcement period, and the event period, are characterized by abnormal returns, we adopt a modified version of the Comparison Period method developed by Masulis [16]. We achieve this by testing the hypothesis that the mean daily abnormal return in the comparison period, and in the event period, are equal to zero. Further, we test the hypothesis that the mean abnormal return in the pre-announcement period is different than the mean abnormal return in the event period, with a difference in means test. In this study, the comparison period consists of trading days -100 through -11, and the event period consists of trading days -1 and 0.

Results

Exhibit 2 presents mean market-adjusted unexpected returns and their cumulative total for various event dates beginning 100 trading days prior to the announcement and ending 30 trading days after the announcement for the twenty-seven target REITs. The pre-announcement period ($t = -100$ through -2) is dominated by positive, but statistically insignificant unexpected returns.[9] Although the cumulative total of the unexpected returns amounts to over 11% by event day -2, the daily average is not statistically different from zero.

On the trading day prior to the announcement of the merger offer in the *Wall Street Journal*, the target firms experienced a statistically significant 3.07% mean unexpected increase in shareholder wealth. The mean unexpected return on the day of the announcement was a positive 1.26%, although it was not statistically significant. This pattern suggests that most of the actual announcements might have been made during trading in the day prior to the publication of the event in the *Wall Street Journal*.

Mean unexpected returns in the post-announcement period ($t = 1$ through 30) are generally small and insignificant. The cumulative total in the thirty-day post-announcement period is slightly negative and not statistically significant. We interpret the pattern of unexpected returns in the three periods; pre-announcement, event and post-announcement, as consistent with the hypothesis that target REIT shareholders experience a positive wealth effect due to the merger announcement.

Exhibit 3 reports results obtained with the Comparison Period method. We find evidence that the abnormal response of target REITs in the event period is significantly larger than the pre-announcement period. The significantly larger event period returns indicate that the merger announcement led to an enhancement of target REIT shareholder wealth.

The ultimate success or failure of the merger proposal is uncertain at the time of the announcement, at best. However, an examination of market responses based on this ex-post classification criteria reveals that investors may have had some ability to predict this outcome. As demonstrated in Exhibit 4 event period responses for targets that were ultimately acquired were positive and significantly different from zero. Furthermore,

Exhibit 2
Excess Returns (ER) and Cumulative Excess Returns (CER) Relative to Announcement for Twenty-seven Target REITs (1969–1986)

Event Day	Mean Excess Return (ER) %	*t*-statistic	% Positive	Cumulative Excess Return (CER) %
−100	0.22	0.55	56.6	0.22
.	.	.	.	.
−50	−0.18	−0.22	46.6	2.15
.	.	.	.	.
−20	−0.55	−1.28	46.6	4.72
.	.	.	.	.
−10	1.21	3.05**	66.6	7.42
−9	0.60	1.70	50.0	8.02
−8	0.34	0.67	46.6	8.36
−7	−0.07	−0.12	43.3	8.29
−6	0.50	1.27	53.3	8.79
−5	0.37	0.64	50.0	9.16
−4	0.68	0.69	63.3	9.84
−3	0.76	1.60	56.6	10.60
−2	0.52	1.05	56.6	11.12
−1	3.07	3.57**	73.3	14.19
0	1.26	0.67	56.6	15.45
+1	0.38	0.86	53.3	15.83
+2	0.96	1.87	60.0	16.79
+3	−0.93	−1.86	43.3	15.86
+4	0.19	0.38	50.0	16.05
+5	−0.35	−0.92	46.6	15.70
+6	0.33	0.65	50.0	16.03
+7	0.62	3.29**	56.6	16.65
+8	0.13	0.39	53.3	16.78
+9	−0.48	−0.91	43.3	16.30
+10	0.22	0.68	50.0	16.52
.	.	.	.	.
+20	−0.55	1.72	40.0	16.32
.	.	.	.	.
+30	0.06	0.13	50.0	14.80

**Significant *t*-statistic at the 0.01 level.

Exhibit 3
Mean Announcement Period Return (−1,0) for Twenty-seven Target REITs (1969–1986)

	Mean Excess Return
Comparison Period (Days −100 to −10)	0.07%
(Standard Error)	(0.041)
Announcement Period (Days −1,0)	2.16%
(Standard Error)	(1.03)
t-statistic for Difference in Mean	5.81*

*Significant at the 0.001 level

Distribution of Announcement Period (−1,0) Mean Excess Returns for Twenty-seven Target REITs

Range of Mean Excess Returns (ER) %	%
< −10.00	0.0
> −10.00–< −5.00	3.3
> −5.00–< −2.00	6.7
> −2.00– < 0.00	20.0
> 0.00– < 2.00	16.7
> 2.00– < 5.00	23.3
> 5.00– < 10.00	20.0
> 10.00	10.0
Total	100.0%

there is a positive, albeit insignificant, upward drift in unexpected returns in the post-announcement period.

Examining market-adjusted returns to target REIT shareholders for ten failed merger proposals reveals a subtly different pattern (Exhibit 5). Although the mean unexpected return on the day before publication in the *Wall Street Journal* is positive and significant, it is followed by a negative unexpected return upon publication. Further, the post-announcement period is categorized by a downward shift in mean unexpected returns, opposite of the pattern observed for the successful merger group.

The Comparison Period results for the two subsamples also suggest a limited ability of the market to predict the ultimate success or failure of the merger proposal. As shown in Exhibit 6, the successful group experiences a significant abnormal return during the event period, the failure group response is insignificant. The two mean abnormal returns, though qualitatively different, do not prove to be statistically different. Failure to obtain statistical significance is largely due to the extreme variability in the failure

Exhibit 4
Excess Returns (ER) and Cumulative Excess Returns (CER) Relative to Announcement for Seventeen Target REITs Involved in *Successful* Merger Attempts (1969–1986)

Event Day	Mean Excess Return (ER) %	*t*-statistic	% Positive	Cumulative Excess Return (CER) %
−100	−0.54	−1.28	41.1	−0.54
.	.	.	.	.
−50	−0.70	1.10	47.0	−3.62
.	.	.	.	.
−20	−0.60	−0.52	41.1	0.16
.	.	.	.	.
−10	0.93	2.08*	52.9	2.74
−9	0.65	1.34	52.9	3.39
−8	−0.48	−0.98	47.0	2.91
−7	0.07	0.18	52.9	2.98
−6	−0.08	−0.26	47.0	2.90
−5	−0.38	−1.06	47.0	2.52
−4	−0.07	−0.21	52.9	2.45
−3	1.38	2.18*	64.7	3.83
−2	0.83	1.90	58.8	4.66
−1	3.34	2.68**	70.5	8.00
0	2.93	1.03	70.5	10.93
+1	0.61	1.02	52.9	11.54
+2	0.67	1.01	47.0	12.21
+3	−0.71	−1.48	35.2	11.50
+4	0.26	0.36	47.0	12.21
+5	−0.30	−0.59	47.0	11.46
+6	0.11	0.23	52.9	11.57
+7	0.46	1.79	52.9	12.03
+8	0.28	0.69	47.0	12.31
+9	−0.87	−1.35	35.2	11.44
+10	0.07	0.19	41.1	11.51
.	.	.	.	.
+20	−0.69	−1.47	47.0	12.79
.	.	.	.	.
+30	−0.09	−0.28	47.0	11.50

*Significant *t*-statistic at the 0.05 level.
**Significant *t*-statistic at the 0.01 level.

Exhibit 5
Excess Returns (ER) and Cumulative Returns (CER) Relative to Announcement for Ten Target REITs Involved in *Unsuccessful* Merger Attempts (1969–1986)

Event Day	Mean Excess Return (ER) %	*t*-statistic	% Positive	Cumulative Excess Return (CER) %
−100	1.53	2.35*	70.0	1.53
.	.	.	.	.
−50	0.70	1.10	50.0	13.56
.	.	.	.	.
−20	−0.47	−0.74	40.0	10.22
.	.	.	.	.
−10	1.70	2.21*	70.0	13.21
−9	0.52	1.02	60.0	13.73
−8	1.76	1.81	70.0	15.46
−7	−0.31	−0.21	50.0	15.15
−6	1.48	1.71	60.0	16.63
−5	1.66	1.18	70.0	18.29
−4	1.98	0.75	80.0	20.27
−3	−0.28	−0.47	40.0	19.99
−2	0.01	0.01	50.0	20.00
−1	2.62	2.55*	80.0	22.62
0	−1.58	−1.15	40.0	21.04
+1	−0.01	−0.01	40.0	21.03
+2	1.44	1.74	60.0	22.47
+3	−1.30	−1.18	40.0	21.17
+4	0.07	0.12	50.0	21.24
+5	−0.43	−0.75	50.0	20.81
+6	0.70	0.62	60.0	21.51
+7	0.91	3.34**	70.0	22.42
+8	−0.11	−0.17	40.0	22.31
+9	0.17	0.19	50.0	22.48
+10	0.46	0.88	50.0	22.94
.	.	.	.	.
+20	−0.31	−0.89	40.0	20.20
.	.	.	.	.
+30	0.32	0.28	50.0	18.37

*Significant *t*-statistic at the 0.05 level.
**Significant *t*-statistic at the 0.01 level.

Exhibit 6
Mean Announcement Period Return (−1,0) for Seventeen *Successfully* Merged Target REITs (1969–1986)

	Mean Excess Return
Comparison Period (Days −100 to −10)	0.03%
(Standard Error)	(0.051)
Announcement Period (Days −1,0)	3.13%
(Standard Error)	(1.52)
t-statistic for Difference in Mean	6.83*

*Significant at the 0.001 level.

Mean Announcement Period Returns (−1,0) for Ten *Unsuccessful* Merger Target REITs (1969–1986)

	Mean Excess Return
Comparison Period (Days −100 to −10)	0.14%
(Standard Error)	(0.071)
Announcement Period (Days −1,0)	0.51%
(Standard Error)	(0.961)
t-statistic for Difference in Mean	0.63

Successful Merger Announcement Period Mean Excess Return	Unsuccessful Merger Announcement Period Mean Excess Return
3.13%	0.51%
(1.52)	(0.961)
t-statistic for Difference in Mean Announcement Period Returns	1.22

group. The relatively high variance in responses in both groups is understandable due to the uncertainty of consummation of the merger.

Less tenuous is the analysis of the impact of the bidder's identity on the response of target REITs. Following the order developed above, Exhibit 7 presents unexpected returns for the targets whose bidder was a non-REIT. One observes a statistically significant wealth effect in the event period for this group, followed by a slight decline in unexpected returns in the post-announcement period.

Exhibit 8 presents results obtained for the subsample of target REITs whose bidders were also REITs. We observe a somewhat larger wealth increase for this group in the announcement period, followed by a continued upward drift in unexpected returns in

Exhibit 7
Excess Return (ER) and Cumulative Excess Returns (CER) Relative to Announcement for Nineteen Target REITs with *Non-REIT* Bidders (1969–1986)

Event Day	Mean Excess Return (ER) %	*t*-statistic	% Positive	Cumulative Excess Return (CER) %
−100	0.13	0.24	47.3	0.13
.	.	.	.	.
−50	0.83	2.06	57.8	5.27
.	.	.	.	.
−20	−0.88	−1.69	36.8	3.97
.	.	.	.	.
−10	1.06	2.57**	57.8	4.85
−9	0.39	1.16	47.3	5.24
−8	0.28	0.44	47.3	5.52
−7	0.71	1.38	52.6	6.23
−6	−0.01	−0.03	47.3	6.22
−5	0.09	0.13	47.3	6.31
−4	1.01	0.72	68.4	7.32
−3	0.97	1.89	68.4	8.29
−2	0.35	0.56	52.6	8.65
−1	3.00	2.84**	57.8	11.64
0	−0.38	−0.05	42.1	11.26
+1	0.04	0.13	36.8	11.22
+2	1.07	1.51	63.1	12.29
+3	−0.74	−1.38	42.1	11.55
+4	0.53	0.79	47.3	12.08
+5	−0.27	−0.81	36.8	11.81
+6	0.24	0.38	52.6	12.05
+7	0.89	4.39**	68.4	12.94
+8	0.41	0.88	52.6	13.35
+9	−0.04	−0.07	42.1	13.31
+10	0.03	0.01	47.3	13.34
.	.	.	.	.
+20	−0.34	−1.53	47.3	12.01
.	.	.	.	.
+30	0.26	0.43	57.8	11.55

**Significant *t*-statistic at the 0.01 level.

Exhibit 8
Excess Returns (ER) and Cumulative Excess Returns (CER) Relative to Announcement for Eight Target REITs with *REIT* Bidders (1969–1986)

Event Day	Mean Excess Return (ER) %	*t*-statistic	% Positive	Cumulative Excess Return (CER) %
−100	0.44	1.00	50.0	0.44
.	.	.	.	.
−50	−2.59	−1.04	37.5	−3.81
.	.	.	.	.
−20	0.23	0.31	50.0	−0.08
	.	.	.	.
−10	1.58	1.65	50.0	2.66
−9	1.11	1.22	37.5	3.77
−8	0.49	0.57	50.0	4.76
−7	−1.93	−1.30	37.5	2.33
−6	1.71	1.50	75.0	4.04
−5	1.03	1.11	62.5	5.07
−4	−0.09	−0.29	50.0	4.98
−3	0.27	0.25	37.5	5.25
−2	0.93	1.19	50.0	6.18
−1	3.24	2.08*	87.5	9.42
0	4.34	0.70	87.5	13.76
+1	1.18	0.96	75.0	14.94
+2	0.67	1.56	62.5	15.61
+3	−1.37	−1.20	25.0	14.24
+4	−0.61	0.96	25.0	13.63
+5	−0.54	−0.50	37.5	13.09
+6	0.55	0.60	50.0	13.64
+7	0.89	4.39**	67.5	14.53
+8	0.41	0.88	67.5	14.94
+9	−0.04	−0.07	50.0	14.90
10	0.01	0.01	50.0	14.91
.	.	.	.	.
20	−1.04	−1.08	37.5	16.22
.	.	.	.	.
+30	0.26	0.43	50.0	16.33

*Significant *t*-statistic at the 0.05 level.
**Significant *t*-statistic at the 0.01 level.

Exhibit 9

Mean Announcement Period Returns (−1,0) for Nineteen Target REITs with *Non-REIT Bidders* (1969–1986)

	Mean Excess Return
Comparison Period (Days −100 to −10)	0.08%
(Standard Error)	(0.04)
Announcement Period (Days −1,0)	1.48%
(Standard Error)	(0.70)
t-statistic for Difference in Mean	3.72*

*Significant at the 0.001 level

Mean Announcement Period Returns (−1,0) for Eight Target REITs with *REIT Bidders* (1969–1986)

	Mean Excess Return
Comparison Period (Days −100 to −10)	0.05%
(Standard Error)	(0.091)
Announcement Period (Days −1,0)	3.79%
(Standard Error)	(3.08)
t-statistic for Difference in Mean	4.53*

*Significant at the 0.001 level

Non-REIT Bidders Announcement Period Mean Excess Return	REIT Bidders Announcement Period Mean Excess Return
1.48%	3.79%
(0.70)	(3.08)
t-statistic for Difference in Mean Announcement Period Returns	1.023

the post-announcement period. While these groups have qualitatively different response patterns, the Comparison Period results presented in Exhibit 9 do not reveal any statistical differences between the two groups.

Summary

This paper examines the effect of merger offer announcements on target REIT shareholder wealth, filling a gap left by Allen and Sirmans due to lack of data. We were able to address this issue and increase the sample size primarily due to the availability of return data fór REITs that traded on the OTC at the time of the announcement. A total of twenty-three target REITs representing twenty-seven separate merger announcements composed our sample.

Consistent with other studies of merger targets, we find evidence of an abnormal drift in share price prior to the proposal announcement, although the drift is not statistically significant. Likewise, we find the event is associated with a positive and significant increase in target shareholder wealth. The pattern of post-announcement abnormal returns, although tantalizing at the subgroups level, does not reveal any statistically significant trend.

An examination of announcement effects conditional upon the ex-post success or failure of the proposal reveals no significant differences. However, there is some weak evidence that the market may be able to determine which mergers are likely to be successful and which are likely to fail. Likewise, an examination of announcement effects conditional upon the identity of the bidder does not reveal any statistically significant difference. Again, however, there is weak evidence that bids made by other REITs are greeted more positively by targets than are bids made by non-REITs. This may be due to slightly different terms offered the target, or it may reflect the desire of investors to retain a "pure" real estate play.

Notes

[1] See Copeland and Weston [7] for a discussion of these theories.

[2] See Dodd and Ruback [9], Kummer and Hoffmeister [15], Dodd [8], Asquith and Kim [3], and Jensen and Ruback [14].

[3] Allen and Sirmans do report an announcement day abnormal return of + 1.46% for three target REITs that is not significantly different from zero.

[4] The principal IRS provisions that eliminate income taxes at the firm level require the REIT to: (1) distribute at least 95% of net annual earnings to shareholders; (2) hold at least 75% of its assets in real estate, loans secured by real property or mortgages on real property, shares in other REITs, cash or government securities; (3) derive at least 75% of gross income from real estate; (4) have 100 or more shareholders, with more than half of the outstanding shares not owned by five or fewer individuals at any time during the last half of the taxable year; (5) hire independent real estate professionals to carry out specific management activities; and (6) not engage in speculative, short-term holding of real estate in order to sell it for quick profits.

[5] See Haight and Ford [11], p. 4.

[6] No firms meet this criteria and the subsequent screens between 1962 and 1969.

[7] See Internal Revenue Code: Section 856–858, or Haight and Ford [11], pp. 157–78.

[8] See Brueggeman, Chen and Thibodeau [6] and Titman and Warga [18].

[9] No explanation is offered for the statistically significant unexpected return on $t = -10$. An examination failed to reveal any systematic occurrence on that date for the sampled firms.

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