

The Wealth Effects of Real Estate Spin-Offs

Jay N. Ball*
Ronald C. Rutherford**
Ron J. Shaw**

Abstract. This study examines the wealth effects surrounding the separation of real estate operations via spin-off. Parent firms of spin-offs in this sample experienced a significant abnormal two-day return of 3.195% for days -1 and 0 of the announcement date in the *Wall Street Journal*. Tracking the performance of the spun off firms and the parent firms that survived for twenty-four months after the spin-off showed that neither the portfolio of subsidiaries nor the portfolio of parent firms earned returns significantly different from the market portfolio.

Introduction

Following the lead of researchers dealing with mergers and takeovers, researchers have documented significant stockholder wealth changes at the initial announcement, at pertinent intermediate announcements, and at the culmination of corporate spin-off transactions. Though most of the financial literature addressing corporate spin-offs was published in the first half of the 1980s, spin-offs continue as a popular form of divestiture and reorganization, with the business press reporting a recent increase in spin-off activity to a thirty-year high (1992).

This study looks specifically at spin-offs of real estate interests. Hite, Owers and Rogers (1984) addressed the spin-off of real estate-related subsidiaries to determine the wealth change implications associated with divestiture by spin-off and noted that the initial announcement of spin-offs in their sample was associated with positive abnormal returns. The work reported here has three major thrusts: first, to investigate the wealth effects of the announcement of a real estate spin-off during the period 1968-1990; second, to examine the after-spin-off performance of firms spinning off real estate; and third, to examine the performance of spun off firms (subsidiary firms) that are traded on organized exchanges.

The rest of this article is organized as follows. The second section discusses relevant literature on corporate restructuring and spin-offs. The third section explains the data and the sample. The fourth section introduces the methodology. The fifth section presents the results. The sixth section summarizes the results and presents conclusions.

*413 Haydon Hall, Northeastern University, Boston, Massachusetts 02115.

**Department of Finance and Real Estate, The University of Texas at Arlington, Arlington, Texas 76019-0449.

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Literature

Reorganizations

The wealth effects of corporate reorganizations, mergers, acquisitions, hostile/friendly takeovers, and tender offers have been well documented. Dodd (1980) noted significant positive returns for takeover targets and negative returns for bidder firms at the announcement of the takeover. Travlos (1987) studied the negative impact on bidder returns and showed that the bidding firm that made cash offers experienced normal returns while the bidding firms that offered stock exchanges suffered significantly negative abnormal returns. Travlos attributed this phenomenon to a "signaling" of the bidding firm's perceived value of their own stock. If management of the bidding firm considered their stock overvalued, they would offer a stock exchange for the takeover target; if undervalued, they would offer cash. Bradley, Desai and Kim (1983) concluded from their study of tender offers that the bidding firms were seeking to exploit "synergies" (increased value from transfer of control and reallocation of assets) from the acquisitions. Torabzadeh and Bertin (1987) noted decreased agency costs as a possible source of the significant abnormal returns to stockholders at the announcement of leveraged buy-outs. Holderness and Sheehan (1985) studied the activities of corporate "raiders," noted significant abnormal returns for target firms, and attributed a portion of the return increase to improved management.

Reorganization by Spin-Off

Spin-offs constitute a type of corporate reorganization where the ownership interest of one firm (the parent) in another firm (the subsidiary) is distributed to the parent's share holders. Following the spin-off, there are two separate publicly held companies.

Though spin-offs represent a divestiture or splitting up rather than a merger or acquisition, it is still a reorganization tool that firms sometime choose to use. The conclusions drawn from research on other forms of corporate reorganization should be useful to explain the observed effects of spin-offs.

Miles and Rosenfeld (1983) studied voluntary corporate spin-offs and noted significant positive abnormal returns at the announcement dates. They also reported larger abnormal returns for spin-offs where the divested unit had an equity market value 10% or more as large as the market value of the parent firm's common stock. Hite and Owers (1983) reported significant positive returns for parent firms upon the announcement of a spin-off. They, too, noted that larger spin-offs are associated with larger abnormal returns. In addition, Hite and Owers reported differences in abnormal returns based on the stated reason for the spin-off. Those firms that engaged in a spin-off to facilitate a merger or to obtain specialization in operations experienced significant positive abnormal returns over the event period while those that used the spin-off because of legal/regulatory difficulties had negative abnormal returns over the event period.

Hite and Owers suggested two sources of the positive returns: (1) expropriation of wealth from bondholders, or (2) agency (contracting) cost savings, as pioneered by Jensen and Meckling (1976). Hite and Owers found no evidence to indicate

expropriation from bondholders. They did find support for the agency cost savings hypothesis. Schipper and Smith's (1983) findings of significant positive abnormal returns associated with spin-off announcements is consistent with Hite and Owers (1983). Schipper and Smith postulate three possible reasons for the positive abnormal returns: (1) expropriation from bondholders, (2) tax and regulatory benefits, and (3) anticipation of increased managerial efficiency. Schipper and Smith found no evidence that a wealth transfer from bondholders occurred, limited evidence of tax and regulatory benefits, and concluded that an expected increase in managerial efficiency (agency savings) was the source of the positive abnormal returns.

Copeland, Lemgruber and Mayers (1987) extended the previous works by using a larger sample, looking not only at initial announcement dates but also at intermediate announcements and the wealth effects on the ex-date. Copeland, Lemgruber and Mayers confirmed significant positive abnormal returns for spin-off announcements and a positive relationship between the size of spin-off and the level of abnormal returns. They also noted significant positive abnormal returns for intermediate announcements, as more information was made available concerning the spin-off, and at the ex-dates. Copeland, Lemgruber and Mayers showed that the tax status (taxable or non-taxable spin-offs) did not affect the abnormal returns for the announcement dates nor for the ex-dates.

In a recent work, Cusatis, Miles and Woolridge (1992) studied the post-spin-off performance of spun off firms using a buy-and-hold strategy from the first date the spin-off was publicly traded and compared spin-off performance to performance of initial public offerings (IPO). An IPO or a spin-off creates a new public company. Over a short horizon (about the first six months), the spin-offs did not exhibit abnormal returns from a variety of market indices. However, over a two-year and a three-year holding period, the spin-offs outperformed the market 20% to 40%. These findings were in direct contrast to the literature for IPOs. Cusatis et al., attribute this positive performance to superior operating performance and to the increased incidence of the spin-offs becoming takeover targets.

Reorganization by Spin-Off of Real Estate

Hite, Owers and Rogers (1984) looked specifically at spin-offs of subsidiaries primarily involved in real estate activities. While Hite, Owers and Rogers reported results similar to other spin-off studies, i.e., positive abnormal returns associated with the spin-off announcement, they noted some unique aspects of the real estate spin-offs. Abnormal returns were greater if the real estate entity was spun off from a non-real estate firm. Brueggeman, Fisher and Porter (1990) suggested that the market values real estate operations more highly if owned and managed by a real estate parent. Hite, Owers and Rogers (1984) found that the average abnormal returns were larger for real estate spin-offs than for those reported in studies of spin-offs where the subsidiaries were not real estate operations. This lends credence to the popular proposition that real estate is a specialized asset and, as such, corporate real estate may be undervalued by either managers or the market or both. Ambrose (1990) provided evidence of this when he reported that the level of real estate ownership was significant in determining

Exhibit 1 Descriptive Statistics

	Real Estate (calculated from sample)			General Corporate from Cusatis, Miles & Woolridge (1992)		
	Parent Market Value	Spin-off Market Value	% Spin-off/ Parent	Parent Market Value	Spin-off Market Value	% Spin-off/ Parent
Count (n =)	39	30	30	146	146	146
Median ^a	158,002	43,110	.1768			
Mean ^a	1,179,953	303,261	.2384	321,526	106,148	.33
Standard Deviation ^a	2,048,305	596,142	.1830			

^aValues in thousands of dollars, market value is measured for the first trading day of the spin-off. Percent spin-off is defined as the market value of the spin-off divided by the pre-spin-off value of the parent firm.

Exhibit 2 Distribution of Thirty-Nine Real Estate Spin-Off Announcements, 1968-1990

Year	Real Estate Spin-Offs			General Corporate Spin-Offs ^a	Year	Real Estate Spin-Offs			General Corporate Spin-Offs
	Total	NYAM	OTC			Total	NYAM	OTC	
1968	1	1		1	1980	3	3		8
1969	1	1		2	1981	1	1		15
1970	1	1		2	1982	3	2	1	6
1971					1983	6	4	2	6
1972				2	1984	1	1		12
1973				2	1985	4	4		14
1974				3	1986				8
1975				5	1987	5	3	2	13
1976				5	1988	5	3	2	16
1977	1	1		8	1989	4	4		na
1978	1		1	4	1990	1	1		na
1979	1	1		12					

^aInformation on the distribution of the General Corporate spin-offs by year is from Cusatis, Miles and Woolridge (1992). NYAM is the New York or American Exchange and OTC is the NASDAQ exchange. Not available (na) in Cusatis et al., study; years 1989 and 1990.

the likelihood of a firm becoming a takeover target. The greater the real estate holdings, the greater the likelihood of a firm's becoming a takeover target.

Another relevant type of reorganization/redistribution of corporate assets, real estate sell-offs, produces returns to the parent/seller similar to the real estate spin-off. Glascock, Davidson and Sirmans (1991) reported positive abnormal returns, in their overall sample, for both the buyer and seller of corporate real estate assets at the announcement date of the sell-off.

This study extends the investigation of real estate spin-offs by: (1) extending the time period of the set of real estate spin-offs, (2) examining the post-spin-off performance of the parent firms, and (3) examining the post-spin-off performance of the subsidiary firms.

Data

Firms for this study were identified by a computer search of the Dow Jones and *Wall Street Journal (WSJ)* wire services for news of real estate spin-offs. The firms thus implicated in spin-off activity were confirmed to have produced a spin-off by use of Standard and Poor's Annual Dividend Record which reported dividends payable in stock of another company. The announcement date was then confirmed in the *Wall Street Journal* or the *Wall Street Journal Index*. Exhibit 1 provides summary statistics for the sample and Exhibit 2 indicates the distribution of spin-offs by year and by the exchange of the parent firm along with the temporal distribution of general corporate spin-offs as indicated by Cusatis, Miles and Woolridge (1992). Articles in the *WSJ* which referred to the restructuring of a firm often cited a spin-off as one of several possibilities. Our definition of an announcement date required that the firm state that a spin-off was planned and identify which types of assets would be included in the spin-off. Thirty-nine such firms were identified during the period 1968-1990 for which sufficient daily return data was available on the Center for Research in Security Prices (CRSP) files at the time of the spin-off announcement. Eight of the firms traded on the NASDAQ exchange, with the remaining thirty-one firms trading on the NYSE or AMEX. For our sample the spin-off is on average 23.84% of the value of the parent firm. This compares with an average of 33% for the sample of 146 firms from Cusatis, Miles and Woolridge (1992).

Methodology

The market model as described by Brown and Warner (1985) was used to detect and measure the presence of abnormal returns for the sample portfolio from ten days before through ten days after the event date. The announcement date in the *WSJ*, as described above, was designated the event date. For the market model:

$$AAR_t = \frac{1}{N} \sum_{j=1}^N R_{jt} - (\alpha_j + \beta_{mj} R_{mt}),$$

where

- AAR_t = average abnormal returns for day t ,
- R_{jt} = rate of return for firm j for day t ,
- R_{mt} = rate of return for the CRSP, NYSE or NASDAQ equally weighted index for day t , α & β = OLS estimators over the period -111 through -11.

Post spin-off performance of both the parent and the subsidiary firms was measured using the market-adjusted model as described by Brown and Warner (1985) for a period of twenty-four months following the date that the subsidiary first traded on the market with trading recorded on the CRSP tapes. Data for twenty-nine of the parent firms and twenty-five of the spin-offs was available for post spin-off analysis. A number of parent firms ceased to trade shortly after the spin-off and a number of spin-offs were not found to trade on the NYSE, the AMEX or the NASDAQ. The firms that did trade are representative of the overall sample in size and percentage of the parent firm that was spun off. For the market-adjusted model:

$$AAR_t = \frac{1}{N} \sum_{j=1}^N (R_{jt} - R_{mt}),$$

where

AAR_t = average abnormal returns for day t ,

R_{jt} = rate of return for firm j for day t ,

R_{mt} = rate of return for the CRSP, NYSE or NASDAQ equally weighted index for day t .

Results

Exhibit 3 shows the average abnormal returns using the market model for the thirty-nine parent firms from -10 through $+10$ days of the spin-off announcement. Note that the abnormal returns were positive and significant for days -1 and 0 . Twenty-four of the thirty-nine firms had positive returns on day -1 and thirty-one of the thirty-nine firms had positive returns on day 0 . The cumulative two-day abnormal return for days -1 and 0 for the portfolio was 3.195%.

Twenty-five of the subsidiary companies that were spun off had daily return data on the CRSP tapes. Exhibit 4 reports the subsequent twenty-four-month performance of a portfolio of twenty-five subsidiary firms that were spun off. The portfolio of spun off firms provided a return of $-.0423$ with a t -statistic of $-.3374$. The portfolio of subsidiaries did not exhibit returns over the twenty-four months that were significantly different from the market. At no time during the holding period were the cumulative returns significantly different from the market returns. The holding period was selected based on the findings of Cusatis, Miles and Woolridge (1992) that indicate the majority of the impact was incorporated by the end of the second year plus the fact that extending the analysis to three years would have seriously decreased the sample size. The results are in contrast to the findings of Cusatis, Miles and Woolridge (1992). Their results indicate, for the NASDAQ adjusted spin-offs, a significantly positive cumulative abnormal return of 33.7% ($t = 3.56$) over the first twenty-four months for their sample of 146 spin-offs.

We also calculate the cumulative abnormal returns for twenty-nine of the thirty-nine parent firms over the first twenty-four months from the first date on which daily returns for the spun off companies were listed on the CRSP files. Exhibit 4 reports the

Exhibit 3
Average Abnormal Returns and Cumulative Average
Abnormal Returns for Thirty-Nine Spin-Off Announcements, 1968-1990

DAY	AAR	T-AAR	CAAR	T-CAAR
-10	.00191	.46	.00191	.41
-9	.00069	.16	.00260	.67
-8	.00039	.09	.00299	.66
-7	-.00306	-.73	-.00007	-.03
-6	.00698	1.67	.00691	.42
-5	.00612	1.47	.01303	.95
-4	.00996	2.39*	.02299	1.90
-3	-.00157	-.38	.02142	1.91
-2	.00458	1.10	.02600	2.35*
-1	.01296	3.10*	.03896	3.36*
0	.01899	4.55*	.05795	5.20*
1	-.00649	-1.55	.05147	4.60*
2	-.00478	-1.14	.04669	4.27*
3	.00576	1.38	.05246	4.13*
4	-.00336	-.81	.04909	3.96*
5	-.00482	-1.15	.04428	3.57*
6	-.00382	-.91	.04046	3.15*
7	.00237	.57	.04283	3.08*
8	-.00321	-.77	.03962	2.87*
9	-.00027	-.06	.03935	2.64*
10	-.00170	-.41	.03765	2.45*

*significant at the 5% level

Exhibit 4
Abnormal Portfolio Return for Twenty-Four Months
Following a Spin-Off*

t(months)	Parent Firm	t-statistic	Spin-off Firm	t-statistic
	(n=29) CAAR		(n=25) CAAR	
6 months	-.0393	-.6933	-.0355	-.4852
12 months	-.0446	-.5812	-.0049	-.0530
24 months	-.1488	-1.3376	-.0423	-.3374

* twenty-four-month market-adjusted return for the portfolio assuming purchase of the portfolio on the first trading day that the spin-off firm traded as recorded on the CRSP files

performance of the twenty-nine parent firms. As with the subsidiary portfolio, the portfolio of parent companies yielded returns over the twenty-four month holding period that were not significantly different from the market returns. The market-adjusted returns for the parent portfolio were $-.1488$ with a t -statistic of -1.3376 . At no time in the holding period were the cumulative returns significantly different than the market returns.

These results indicate that firms spinning off real estate assets obtain a wealth increase at the announcement, but that neither the spin-off nor the parent firm show

significantly positive performance in the twenty-four months after the spin-off. The result is most likely the result of real estate's underperformance relative to the stock market during the time when the majority of the spin-offs occurred.

Cross-Sectional Results

To obtain additional insights into the price effects of real estate spin-off announcements, we run the following cross-sectional regression:

$$CAR_{[-1,0],i} = \beta_0 + \beta_1 \text{Beta} + \beta_2 \text{Tax} + \beta_3 \text{RESPARENT} + \beta_4 \text{RATIONALE} \\ + \beta_5 \text{SIZE} + \beta_6 \text{PERCENT SPIN} + \varepsilon_i,$$

where $CAR_{[-1,0],i}$ is the cumulative abnormal returns during days -1 and 0 ; $Beta$ is the Parent firm $Beta$ estimated from the pre-event estimation period and is a measure of risk of the firm; TAX is the pre- versus post-1986 tax change dummy variable for the spin-off announcement ($TAX=0$ before 1/1/87 and 1 thereafter); $RESPARENT$ is the dummy variable for the type of parent firm; if the parent firm is in the real estate industry, then $RESPARENT=1$, else $RESPARENT=0$ (16 firms were identified as being in the real estate industry); $RATIONALE$ is a dummy variable for the reason given where 1 = spinning off the real estate to avoid a takeover ($n=3$ cases) and 0 = spinning off the real estate for efficiency and management ($n=36$); $SIZE$ is a dummy variable where 1 = greater than 10% of the parent is spun off and 0 = 10% or less of the parent is spun off; $PERCENT SPIN$ is the market value of the spin-off as of the first trading day divided by the market value of the parent firm prior to the spin-off. The results of estimating the above cross-sectional equation, with the t -test in parenthesis, are:

$$CAR = -.06102 + .0157 \text{BETA} + .0361 \text{TAX} + .0274 \text{RESPARENT} + .0610 \text{RATIONALE} \\ (.074) \quad (.531) \quad (1.237) \quad (.855) \quad (1.127) \\ -.022 \text{SIZE} + .0161 \text{PERCENT SPIN} \quad DF = 23 \quad R^2 = 15.00\% \\ (-.067) \quad (.177)$$

The above results indicate that the cumulative abnormal returns for this sample during days -1 and 0 were not significantly impacted by the risk of the individual firm, the change in the tax law, the industry of the parent firm, the reason for spinning off, small versus large spin-off or the total percentage of the firm spun off.

Conclusions

The wealth effects and aftermarket performance of real estate-related corporate spin-offs were studied in this paper. Using a sample of thirty-nine spin-offs between the years of 1968 and 1990, it was noted that stockholders of firms announcing spin-offs received positive abnormal returns. The portfolio experienced a two-day return (days -1 and 0) of 3.195%. The positive returns are consistent with prior research.

Assuming a buy-and-hold investment strategy, the after-market performance of the parent and subsidiary firms was calculated for twenty-four months following the initial trading of the subsidiary. The returns were market adjusted to show returns over or under the market portfolio. Twenty-five subsidiary firms were studied and showed a statistically insignificant return of $-.0423\%$. Twenty-nine parent firms continued to trade for at least twenty-four months with a statistically insignificant return of -14.88% . Thus, buying and holding the spin-offs or parents for twenty-four months after the date the spin-off begins to trade would not have given an investor a return significantly different from holding the market portfolio.

It should be noted that Cusatis, Miles and Woolridge (1992) attribute a substantial portion of the abnormal positive post-spin-off returns in their study to greater takeover activity among both the spun off firms and the parent firms. The post-spin-off results reported here suffer from a sort of survival bias because only firms that provided trade information on the CRSP files for the full twenty-four months after the spin-off are included. This aspect of the post-spin-off returns is a topic for further study and should be addressed to accurately reflect the returns from a buy-and-hold strategy for all spin-offs for the twenty-four months after the spin-off.

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