

DIVIDEND ANNOUNCEMENTS AND THE VALUATION EFFECTS OF CORPORATE DIVESTITURE

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Abstract

We examine the returns to 175 divestitures and 21 acquisitions associated with divestiture occurring between 1990 and 1994. Consistent with previous research, we find positive abnormal returns associated with divestiture on and before the announcement date. However, abnormal returns disappear, save for day -1, upon application of a contemporaneous dividend announcement filter. Acquiring firms experience significant positive abnormal returns on average the day prior to announcement. Moreover, acquiring firm wealth effects weaken considerably upon application of a contemporaneous dividend filter. Our research suggests that wealth effects associated with divestitures are sensitive to contemporaneous dividend announcement effects, and studies that fail to employ careful data filtering techniques may produce biased results.

INTRODUCTION

A substantial portion of the corporate control activity occurring during the 1980's may best be described as diversifying. More recently, corporate control activity has shifted toward attempts to increase focus on the firm's "core" lines of business. The recent trend toward increasing focus has created a renewed interest in the valuation effects of divestiture. Divestiture may take one of two forms, i.e., a "spin-off" or a "sell-off". In the first case, a firm may create a new entity from a portion of its assets, with the owners of the parent becoming the owners of the "spin-off". In the second case, a firm may "sell-off" a portion of its assets to another firm in a transaction akin to a merger.

Divestitures may occur voluntarily or involuntarily. Involuntary divestitures, whether in the form of a spin-off or a sell-off, are usually ordered by the government under Section 7 of the Clayton Act. Voluntary divestitures are presumably the outcome of wealth-maximizing behavior on the part of managers acting in shareholder interests. Several researchers have asserted that shareholder interests may dominate the divestiture decision. For example, Jain (1985) suggests several motives for divestiture. First, divestiture represents a way for firms to improve their liquidity as a hedge against unforeseen negative events. Second, a sell-off may achieve effects similar to a merger. Finally, divestiture may reduce agency costs resulting from monitoring and bonding activities required by managers in their oversight of a soon-to-be-sold operating division.

Given the above arguments, it is thus not surprising that the bulk of empirical research in the area documents a positive wealth effect arising from the first public announcement of a divestiture. While the results for acquiring firms in spin-off transactions are mixed, it is clear that acquiring firm shareholders are not adversely affected. We discuss these results in more detail in the next section.

Upon examination of the previous empirical research on divestitures, in several instances we could find no reference to the application of data filters to exclude from the analysis firms that had contemporaneous dividend and/or earnings announcements. As a result, our objective in this paper is twofold. First, we examine abnormal returns surrounding corporate divestitures and acquisitions from divestiture using a recent sample in order to update and support the findings of previous research. Second, we examine abnormal returns with and without a dividend exclusion filter applied to our sample in order to determine the sensitivity of our results to contemporaneous financial announcements. Our empirical results were affected by the application of a contemporaneous dividend announcement screen to our sample. We conclude that divestiture studies that fail to apply contemporaneous dividend announcement filters to the sample may produce biased results.

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In the next section, we review a sample of relevant extant literature. We follow the literature review with a description of the data and methodology employed in the paper. Results are summarized next. Following the results, we present our conclusions.

RELEVANT LITERATURE

Numerous researchers have examined the wealth effects of divestiture, and we summarize a subset of the literature in this section. First, Schipper and Smith (1983) examine 93 voluntary spin-off announcements over the period 1963–1981. They document significant positive abnormal returns that do not appear to come solely at bondholder expense. They conclude that some wealth gain may come from tax and regulatory advantages and/or improved managerial efficiency. Miles and Rosenfeld (1983) examine 55 voluntary spin-off announcements from 1962 - 1980. They also find significant positive wealth effects. Moreover, they find that spin-off announcements are preceded by a period of positive abnormal returns. Alexander, Benson, and Kampmeyer (1984) examine a sample of 53 sell-offs occurring between 1964 and 1973, along with a sub-sample of 39 sell-offs whose firms were not engaged in an organized program of sell-offs. Similar to research on spin-offs, Alexander et al find positive abnormal returns upon announcement. Unlike spin-offs however, they find that sell-offs tend to occur following a period of negative abnormal returns.

Rosenfeld (1984) follows by examining 35 spin-offs occurring during the period 1963-1981 and 62 sell-offs occurring over the period 1969-1981. He finds that spin-offs have a stronger positive wealth effect than sell-offs. Moreover, he finds that sellers and buyers share nearly equally in the benefits of a sell-off transaction, and he concludes that the synergies from a corporate sell-off are not restricted to the selling firm. Jain (1985) examines approximately 1060 sell-offs and approximately 300 acquisitions derived from sell-offs, all occurring over the period 1976 - 1978. Similar to Rosenfeld (1984), Jain finds positive wealth effects on both sides of the sell-off transaction. However, he finds that a larger wealth effect accrues to the seller than the acquirer, on average. Moreover, for the seller, the transaction is preceded by negative excess returns.

Zaima and Hearth (1985) examine sell-off transactions involving 79 divesting firms and 75 acquiring firms from 1975-1982. In contrast to the Alexander et al and Jain results summarized above, Zaima and Hearth find significant positive abnormal returns preceding and during the announcement date for divestors. Acquirers were found to neither gain nor lose wealth, in contrast to Rosenfeld and Jain results summarized above.

Finally, two studies are particularly noteworthy in their attempts to reconcile previous conflicting results for sell-off transactions by examining the circumstances surrounding the sell-off. First, Klein (1986) examined 215 sell-offs occurring over the period 1970 - 1979. She finds that if a transaction price is announced, the corresponding abnormal return is significantly positive, and if no price is announced, no abnormal return is detected. She also documents that larger sell-offs produce larger positive abnormal returns. She concludes that the timing of the price disclosure is important. Second, Sichernan and Pettway (1992) examine 278 sell-off matched pairs (seller and acquirer) during the period 1981 - 1987. Within their sample, 77 observations are associated with a credit downgrade suffered by the seller, and in 145 transactions the prices are announced. They find positive seller abnormal returns that are greater if no credit downgrade takes place and if prices are announced. They also find positive buyer abnormal returns when prices are announced and no abnormal returns when prices are not announced. Seller credit downgrade had no effect on buyer returns. Thus, both parties gain if the transaction price is announced.

DATA AND METHODOLOGY

Data

We searched the *Divestiture* section of the *Wall Street Journal Index* from 1990 through November 1994 for voluntary spin-offs and sell-offs that satisfy certain criteria. First, at least 50 percent or \$100 million of operating assets must be voluntarily sold or spun-off. Alternatively, the sale of operating assets must be regarded as a “large” sale by the divesting firm. Second, the firm’s common stock must be traded on the NYSE or AMEX. Third, the firm must be included in the CRSP daily master file. Fourth, there must be no overlapping time periods in which a firm is a divestor in one transaction and an acquirer in another. In addition, we exclude firms which simultaneously buy and sell. However, firms that simultaneously acquire and spin-off or spin-off and sell are included. Finally, we exclude cases in which the acquiring firm is a joint venture, group, or foreign company.

Our final sample consists of 175 divestitures (of which 16 are spin-offs) and 21 acquisitions. The divestitures are transacted by 156 different firms, and the acquisitions are transacted by 19 firms. As mentioned earlier, we also apply a dividend filter to our sample in order to illustrate the sensitivity of abnormal returns to a confounding event. Our dividend filter criterion deletes any event for which a dividend is announced plus or minus ten business days from the divestiture (or acquisition) announcement. Application of the dividend filter reduces our sample to 115 divestitures and 13 acquisitions.

Methodology

We employ the event-time methodology documented in Dodd and Warner (1983). This is a market-model adjustment method in which the abnormal return for security i at time t , AR_{it} , is defined as:

$$AR_{it} = R_{it} - (\hat{\alpha}_{it} + \hat{\beta}_{it}R_{mt})$$

where R_{it} is the return to security i on day t , R_{mt} is the return to the CRSP equally-weighted index on day t , and market model parameters are estimated for each security using ordinary least squares. Following Dodd and Warner (1983), we standardize and cumulate abnormal returns for a specified event period surrounding the announcement date. We then calculate significance test statistics from the standardized returns that are distributed approximately standard normal (see Dodd and Warner (1983) for details).

For each security (observation), we estimate market model parameters over the days -135 through -16 relative to the announcement date. We then calculate abnormal returns over the interval -15 through +15 relative to the announcement date (day 0). We then standardize the abnormal returns, cumulate them over the event period, and then we generate test statistics.

RESULTS

Divestiture Wealth Effects

Table 1 shows standardized abnormal and cumulative standardized abnormal returns, along with relevant test statistics, associated with the 175 divestiture announcements in our sample. We emphasize that this sample has not been screened for contemporaneous dividend (or other potentially relevant) announcements. Results are depicted in Figures 1 and 2. Our results suggest that divestiture announcements are associated with weak positive abnormal returns in the period preceding the announcement. Moreover, there appears to be a large positive abnormal return during the two days preceding announcement. Additionally, the cumulative standardized abnormal returns remain significantly positive throughout most of the post-announcement period. Our results are roughly consistent with those of Miles and Rosenfeld (1983) and Zaima and Hearth (1985) insofar as divestiture is associated with positive abnormal returns during the pre-announcement period and at the announcement date.

Table 2 shows abnormal returns and test statistics for the 126 divestiture announcements not accompanied by a contemporaneous dividend announcement. Results are also depicted in Figures 3 and 4. Our results change dramatically when the dividend filter is applied to the data. While the signs of the abnormal returns remain the same, statistical significance is lost, especially in the post-announcement period. This highly significant positive abnormal return on day -1 remains, as does a large negative abnormal return on day +1. Given that several previous divestiture studies appear not to screen for contemporaneous announcements, results of those studies may overstate the positive wealth effects associated with divestiture.

Acquiring Firm Wealth Effects

Table 3, along with Figures 5 and 6, document the wealth effects associated with the announcement of an acquisition resulting from an asset sell-off. Results show a negative cumulative abnormal return during the pre-announcement period, followed by a significant positive abnormal return at day -1. These results are followed by a generally uneventful post-announcement period, save for a significant negative abnormal return at day +7 relative to announcement.

Similar to the divestiture results, Table 4 and Figures 7 and 8 reveal a dramatic change in results when sample events are screened for contemporaneous dividend announcements. Significant negative cumulative abnormal returns are more pervasive in the pre-announcement period than in the unscreened sample. Moreover, the significance of the large positive abnormal return at day -1 falls dramatically, with the associated z-statistic falling from 3.36 to 1.97. Overall, our results are roughly comparable to those of Sicherman and Pettway (1992), who find positive abnormal returns for acquiring firms in some circumstances, but not others. These results contrast somewhat from Rosenfeld (1984) and Jain (1985) who find the acquirers gain nearly as much return from divestiture as sellers do.

CONCLUSION

We have examined the wealth effects associated with a sample of 175 divestitures and 21 acquisitions from divestiture occurring over the period from 1990 through 1994. Using an event study methodology, we find weak positive abnormal returns in the pre-announcement period in our sample of divestitures. These culminate in a large significant positive average abnormal return the day preceding announcement. Following a significant negative abnormal return on day +1, abnormal returns are generally significantly positive in the post-announcement period.

We also examined the wealth effects associated with a sample of 21 acquisitions resulting from sell-offs over the period from 1990 through 1994. Pre-announcement abnormal returns are generally negative, with significance evident among the cumulative average abnormal returns. At event day -1, a large significant abnormal return appears, followed generally by little if any abnormal return in the post-announcement period.

Our review of the extant literature revealed that some studies screen contemporaneous dividend and distribution activity out of their samples, while others appear not to do so. Given this observation, we subsequently applied a contemporaneous dividend announcement filter to our sample in order to evaluate the sensitivity of our results to dividend effects. Dividend filtering in our sample changed our results in a substantial way, reducing the statistical significance of our positive wealth effects and strengthening the negative wealth effects when encountered. Based upon our findings, we conclude that empirical studies of divestiture must employ careful screening strategies to the data in order to preserve the integrity of the results.

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TABLE 1
Divestitures Not Screened For Contemporaneous Dividend Announcement

This table presents average standardized abnormal returns, cumulative average standardized abnormal returns and significance test statistics for a sample of 175 divestitures over the period January 1990 through November 1994.

Event Date	Avg. Standardized Abnormal Return (ASAR)	Cumulative Avg. Std. Abnormal Return (CASAR)	Z-Statistic for CASAR	Z-Statistic for ASAR
-15	0.09389	0.09389	1.12	1.12
-14	-0.00777	0.08612	0.79	-0.10
-13	0.10838	0.19451	1.46	1.41
-12	0.01413	0.20864	1.36	0.18
-11	-0.10780	0.10084	0.59	-1.40
-10	0.02532	0.12616	0.67	0.33
-9	0.08651	0.21268	1.04	1.12
-8	0.06278	0.27545	1.27	0.82
-7	-0.00380	0.27166	1.18	-0.05
-6	0.02735	0.29901	1.23	0.36
-5	0.03906	0.33807	1.33	0.51
-4	-0.09135	0.24672	0.93	-1.19
-3	0.10012	0.34684	1.25	1.30
-2	0.13891	0.48575	1.69*	1.81*
-1	0.27872	0.76448	2.57**	3.62**
0	0.05290	0.81737	2.66**	0.69
1	-0.21401	0.60337	1.90*	-2.78**
2	0.13135	0.73472	2.25*	1.71*
3	-0.09949	0.63523	1.89*	-1.29
4	0.01987	0.65511	1.90*	0.26
5	-0.09195	0.56316	1.60	-1.20
6	0.17240	0.73556	2.04*	2.24*
7	-0.07718	0.65838	1.78*	-1.00
8	0.16599	0.82437	2.19*	2.16*
9	0.01986	0.84424	2.20*	0.26
10	-0.03058	0.81365	2.07*	-0.40
11	0.01455	0.82821	2.07*	0.19
12	-0.06797	0.76023	1.87*	-0.88
13	-0.06072	0.69952	1.69*	-0.79
14	-0.06700	0.63252	1.50	-0.87
15	-0.15267	0.47984	1.12	-1.98*

*Significant at the 5% level, two-tailed test.

**Significant at the 1% level, two-tailed test.

FIGURE 1
Divestitures Not Screened For Contemporaneous Dividend Announcement
Standardized Average Abnormal Returns

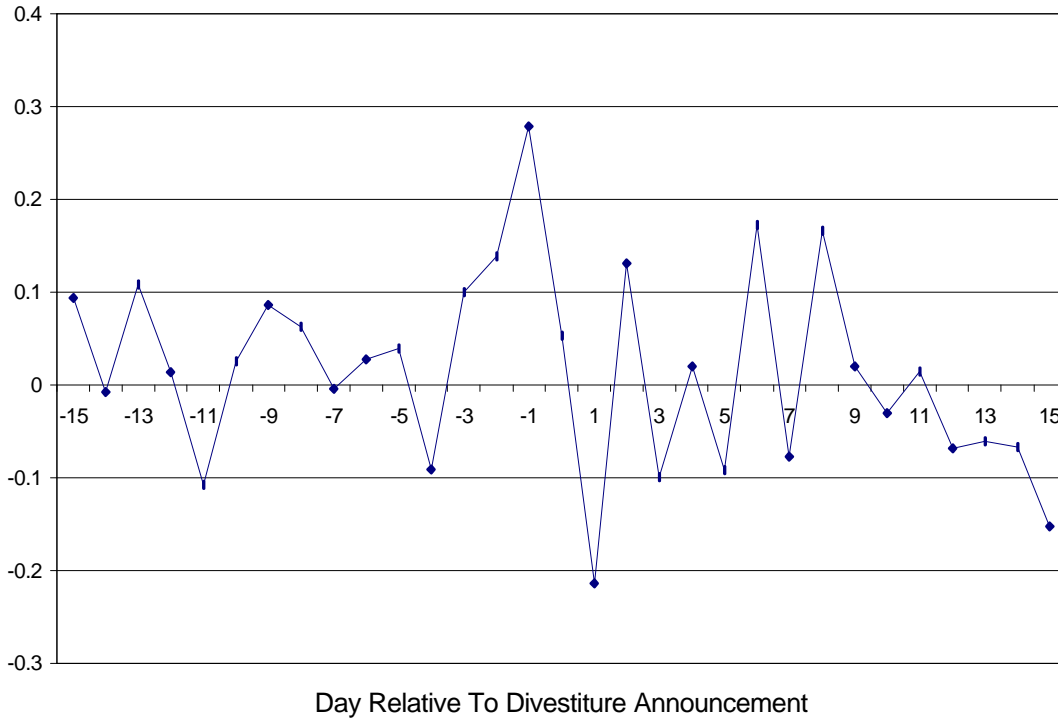


FIGURE 2
Divestitures Unscreened For Contemporaneous Dividend Announcement
Cumulative Standardized Average Abnormal Returns

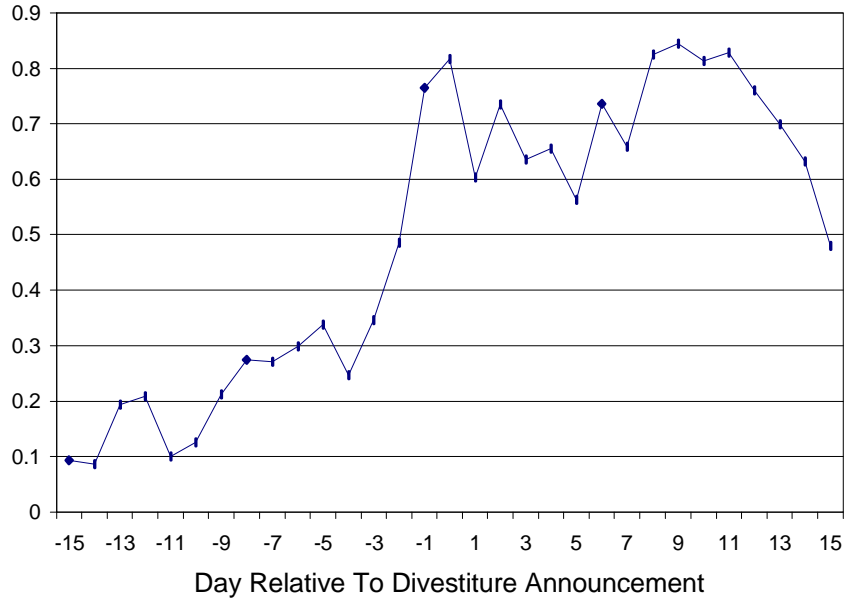


TABLE 2
Divestitures Screened For Contemporaneous Dividend Announcement

This table presents average standardized abnormal returns, cumulative average standardized abnormal returns and significance test statistics for a sub-sample of 126 divestitures that do not have dividend announcements over the event horizon.

Event Date	Avg. Standardized Abnormal Return (ASAR)	Cumulative Avg. Std. Abnormal Return (CASAR)	Z-Statistic for CASAR	Z-Statistic for ASAR
-15	0.03440	0.03440	0.38	0.38
-14	0.02007	0.05447	0.42	0.22
-13	0.10210	0.15657	0.99	1.12
-12	0.00006	0.15663	0.86	0.00
-11	-0.19827	-0.04164	-0.20	-2.17*
-10	0.06426	0.02262	0.10	0.70
-9	0.05840	0.08102	0.34	0.64
-8	-0.02247	0.05855	0.23	-0.25
-7	-0.05122	0.00733	0.03	-0.56
-6	0.03116	0.03850	0.13	0.34
-5	0.08914	0.12764	0.42	0.98
-4	-0.11148	0.01616	0.05	-1.22
-3	0.11739	0.13355	0.41	1.29
-2	-0.02748	0.10606	0.31	-0.30
-1	0.31535	0.42141	1.19	3.45**
0	0.05393	0.47534	1.30	0.59
1	-0.26968	0.20566	0.55	-2.95**
2	0.13809	0.34375	0.89	1.51
3	-0.11857	0.22518	0.57	-1.30
4	0.06434	0.28951	0.71	0.70
5	-0.01623	0.27328	0.65	-0.18
6	0.25030	0.52358	1.22	2.74**
7	-0.12360	0.39998	0.91	-1.35
8	0.08698	0.48696	1.09	0.95
9	-0.06330	0.42366	0.93	-0.69
10	-0.02826	0.39539	0.85	-0.31
11	-0.08805	0.30734	0.65	-0.96
12	-0.09199	0.21535	0.45	-1.01
13	-0.02040	0.19495	0.40	-0.22
14	-0.04290	0.15205	0.30	-0.47
15	-0.14127	0.01079	0.02	-1.55

*Significant at the 5% level, two-tailed test.

**Significant at the 1% level, two-tailed test.

FIGURE 3
Divestitures Screened For Contemporaneous Dividend Announcement
Standardized Average Abnormal Returns

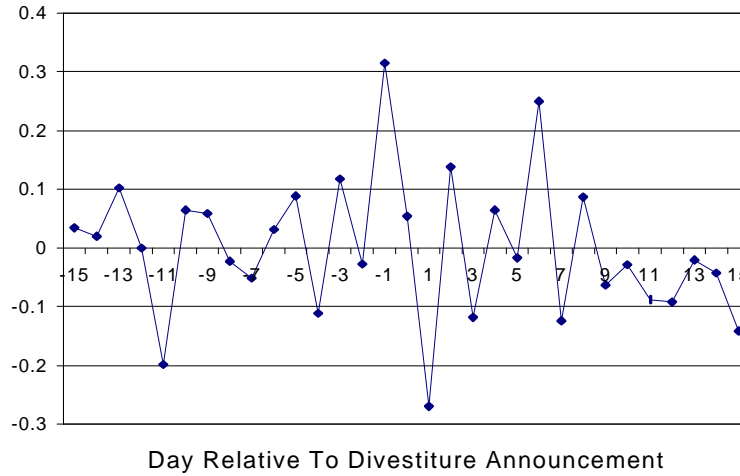


FIGURE 4
Divestitures Screened For Contemporaneous Dividend Announcement
Cumulative Standardized Average Abnormal Returns

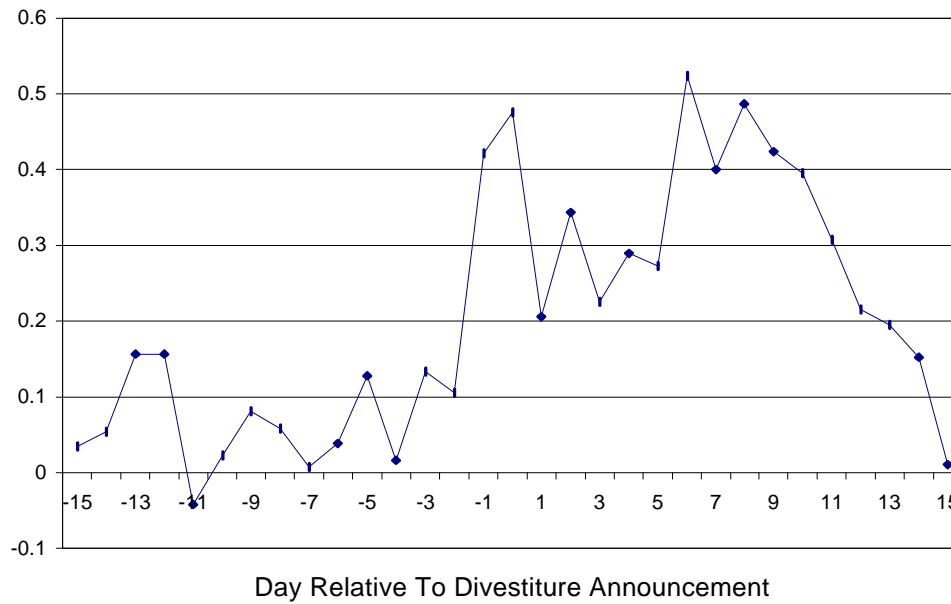


TABLE 3
Acquisitions Not Screened For Contemporaneous Dividend Announcement

This table presents average standardized abnormal returns, cumulative average standardized abnormal returns and significance test statistics for a sample of 21 acquisitions related to divestiture over the period January 1990 through November 1994.

Event Date	Avg. Standardized Abnormal Return (ASAR)	Cumulative Avg. Std. Abnormal Return (CASAR)	Z-Statistic for CASAR	Z-Statistic for ASAR
-15	-0.13867	-0.13867	-0.64	-0.64
-14	-0.46821	-0.60688	-1.97*	-2.15*
-13	0.38075	-0.22614	-0.60	1.74*
-12	-0.13594	-0.36207	-0.84	-0.62
-11	-0.01707	-0.37915	-0.78	-0.08
-10	-0.66752	-1.04666	-1.96*	-3.06**
-9	0.22284	-0.82383	-1.43	1.02
-8	0.19421	-0.62961	-1.02	0.89
-7	-0.29902	-0.92864	-1.42	-1.37
-6	-0.41110	-1.33966	-1.94*	-1.88*
-5	-0.29998	-1.63948	-2.27*	-1.37
-4	-0.03205	-1.67153	-2.21*	-0.15
-3	0.03008	-1.64145	-2.09*	0.14
-2	0.29175	-1.34971	-1.65	1.34
-1	0.74291	-0.61680	-0.73	3.36**
0	0.04197	-0.57483	-0.66	0.19
1	0.23769	-0.34713	-0.37	1.09
2	-0.16436	-0.50150	-0.54	-0.75
3	0.27213	-0.22932	-0.24	1.25
4	-0.30154	-0.53091	-0.54	-1.38
5	-0.18795	-0.71886	-0.72	-0.86
6	0.34029	-0.37857	-0.37	1.56
7	-0.65178	-1.03035	-0.98	-2.99**
8	0.01816	-1.01219	-0.95	0.08
9	-0.17994	-1.19213	-1.09	-0.82
10	0.05000	-1.14213	-1.03	0.23
11	-0.01833	-1.16046	-1.02	-0.08
12	0.07982	-1.08064	-0.94	0.37
13	-0.24456	-1.32520	-1.13	-1.12
14	0.32115	-1.00404	-0.84	1.47
15	0.29301	-0.71103	-0.59	1.34

*Significant at the 5% level, two-tailed test.

**Significant at the 1% level, two-tailed test.

FIGURE 5
Acquisitions Related to Divestiture Unscreened
For Contemporaneous Dividend Announcement

Standardized Average Abnormal Returns

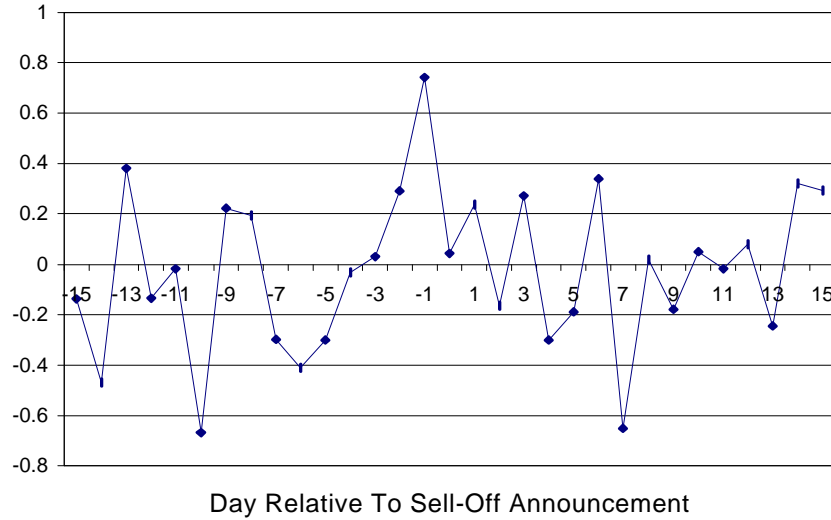


FIGURE 6
Acquisitions Related To Divestiture Unscreened
For Contemporaneous Dividend Announcement

Cumulative Standardized Average Abnormal Returns

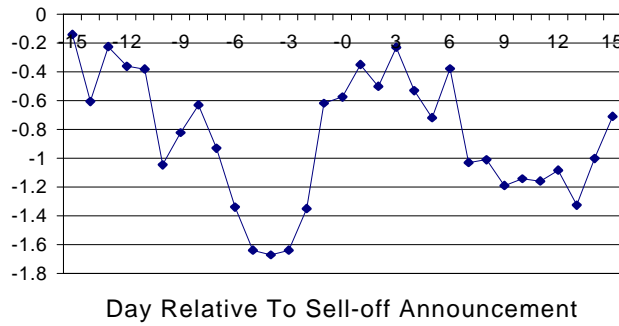


TABLE 4
Acquisitions Screened For Contemporaneous Dividend Announcement

This table presents average standardized abnormal returns, cumulative average standardized abnormal returns and significance test statistics for a sub-sample of 13 acquisitions that do not have dividend announcements over the event horizon.

Event Date	Avg. Standardized Abnormal Return (ASAR)	Cumulative Avg. Std. Abnormal Return (CASAR)	Z-Statistic for CASAR	Z-Statistic for ASAR
-15	-0.38001	-0.38001	-1.37	-1.37
-14	-0.38493	-0.76493	-1.95*	-1.39
-13	0.10373	-0.66120	-1.38	0.37
-12	-0.38093	-1.04214	-1.88*	-1.37
-11	-0.18696	-1.22910	-1.98*	-0.67
-10	-0.39752	-1.62662	-2.39*	-1.43
-9	0.37092	-1.25570	-1.71	1.34
-8	-0.01753	-1.27323	-1.62	-0.06
-7	-0.27050	-1.54373	-1.86*	-0.98
-6	-0.12781	-1.67154	-1.91*	-0.46
-5	-0.21862	-1.89017	-2.05*	-0.79
-4	-0.18538	-2.07555	-2.16*	-0.67
-3	-0.00678	-2.08233	-2.08*	-0.02
-2	0.21750	-1.86482	-1.80*	0.78
-1	0.54688	-1.31795	-1.23	1.97*
0	0.34104	-0.97691	-0.88	1.23
1	0.35978	-0.61713	-0.54	1.30
2	-0.14089	-0.75802	-0.64	-0.51
3	0.38422	-0.37380	-0.31	1.39
4	-0.16066	-0.53455	-0.43	-0.58
5	-0.42827	-0.96272	-0.76	-1.54
6	0.69352	-0.26920	-0.21	2.50*
7	-0.83124	-1.10044	-0.83	-3.00**
8	-0.32172	-1.42216	-1.05	-1.16
9	-0.23845	-1.66061	-1.20	-0.86
10	0.19982	-1.46079	-1.03	0.72
11	-0.19905	-1.65984	-1.15	-0.72
12	0.15180	-1.50804	-1.03	0.55
13	-0.27411	-1.78214	-1.19	-0.99
14	0.56533	-1.21681	-0.80	2.04*
15	0.64867	-0.56814	-0.37	2.34*

*Significant at the 5% level, two-tailed test.

**Significant at the 1% level, two-tailed test.

FIGURE 7
Acquisition Related To Divestiture Screened
For Contemporaneous Dividend Announcement

Standardized Average Abnormal Returns

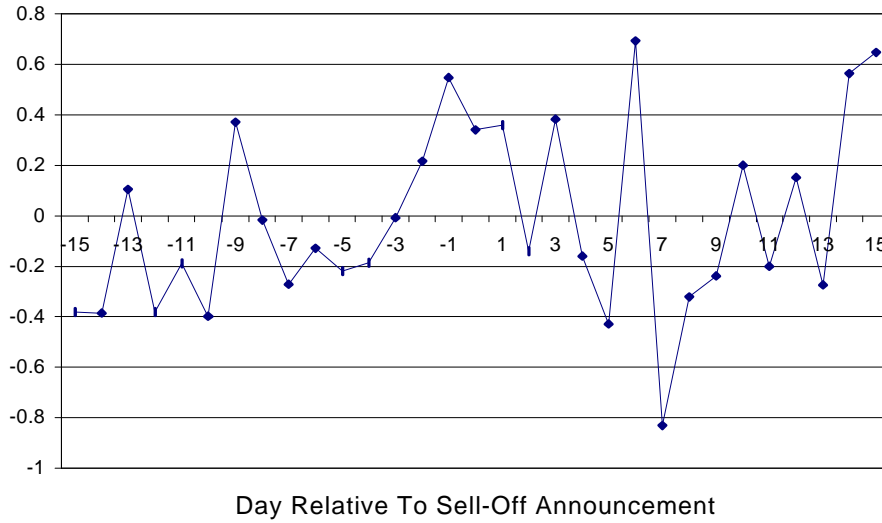


Figure 8
Acquisitions Related To Divestiture Screened
For Contemporaneous Dividend Announcement
Cumulative Standardized Average Abnormal Returns

