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A Note on Unsuccessful Tender Offers and Stockholder Returns

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ABSTRACT

Recent research shows that unsuccessful tender offers may affect target share returns for two years past the offer's announcement. This note examines target returns in the interim between the announcement and one year after the offer's withdrawal. Analyzing a recent sample of targets that did not get another bid in the year following a failed tender offer, this study reaches two conclusions. First, all of an offer's premium disappears by the time failure becomes public. Second, excess returns are zero in the post-failure year. An explanation that is based on the causes of the tender offers' failures is presented.

PREVIOUS RESEARCH HAS SHOWN that shareholders of firms acquired by tender offers realize significantly positive excess returns. (See Bradley [3], Bradley, Desai, and Kim [4], and Dodd and Ruback [6].) Early studies (such as Bradley [3] and Dodd and Ruback [6] indicated that failed offers raise share values permanently. Recently, Bradley, Desai, and Kim [4] challenged this view with a study of returns to firms that did not receive offers for a long time following a cancelled bid. They discovered that, though a withdrawn offer may favorably affect a target's share value for months after the offer, the initial price increase disappears within two years of the announcement. (Similar developments, such as those of Asquith [1], Dodd [5], Langetieg [8], and Mandelker [9], marked the research on mergers.)

This note extends the work of Bradley, Desai, and Kim (hereafter BDK) by analyzing returns to target shares in the time between the date of offer and one year after the offer's failure and public withdrawal. The tests focus on two key, but not fully explored, phases of a failed offer: the time from announcement to withdrawal and the first year after that event. The sample of failed offers is quite special because it contains only those whose targets received no other bid in the year after the offer's withdrawal. As BDK emphasize and as Asquith [1] shows in his study of mergers, only such rare cases provide the opportunity for a precise evaluation of returns to targets of failing acquisition efforts.

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I. Data

The data consist of stock returns of target firms in unsuccessful cash and stock tender offers between 1977 and 1983. An unsuccessful offer is one that the bidding firm withdrew before receiving all the shares it had sought. A listing of failed offers for independent firms with publicly traded shares was obtained from the Austin Data Bank and *The Wall Street Journal* (newspaper and index). The conditions for inclusion in the final sample were these: a) the offer was not a "clean-up" bid or one aimed at only partial ownership; b) the target firm remained independent for at least one year following the tender offer's withdrawal; c) the firm received no other bid (successful or not) within that year; and d) in the six months before the offer and in the twelve months after it failed, the target did not issue or retire many shares or sell or call a large amount of debt.

Very few offers meet these stringent conditions, in part because nearly eighty-three percent of all tender offers succeed.¹ Also, BDK's sample shows that seventy-eight percent of the targets of failed offers from 1970 to 1980 received successful bids later, and most of them came within twelve months. However, even firms without such bids may be unsuited to this analysis because of later bids that also failed or because of some significant change in capital structure.

The final sample contains twenty-one failed offers and targets. Table I summarizes its features, showing the sample to be balanced by year of offer, location of trading, and time from announcement to withdrawal. Though apparently small, the sample's size is usual for this area of research. BDK studied twenty-six companies and Dodd and Ruback [5] analyzed thirty-six firms, and both samples were less restricted and were drawn from much longer periods of time. Also, the sample has 15.5 percent of the 136 failed offers from 1977 to 1983, which is rather high given that many bids were simply revised offers in ongoing negotiations and that many failed offers are quickly followed by successful ones. Thus, the history of tender offers and the careful screening needed for this study would entail that the sample of useful cases be small.

The reasons why these tender offers failed are worthy of note. As Walkling [10] has shown, tender offers fail most often because of vigorous opposition by the target's management. The present sample confirms that view. In fifteen cases, target management opposed the acquisition through extensive legal efforts to get courts or regulatory agencies, at state or Federal levels, to restrain the bidder. When announcing the offer's termination, the bidding firm acknowledged that the prospect of a long legal battle led to the withdrawal. In four cases, a regulatory agency (such as the Federal Trade Commission) intervened against the acquisition. In two other cases, new market conditions or economic developments prompted the withdrawal. No failure occurred because of an actual or threatened financial restructuring of the target, which might well have permanently increased its share price. The reasons for failure explain why the bidders could not succeed by simply raising the offer price. (In some cases, the price rose during negotiations, but to no avail.)

It should be noted that seven sampled firms have OTC-traded shares, and their prices are not available in the usual computerized sources. For consistency,

¹ See Austin and Jackson [2].

Table I
Distribution of the Sample of Failed Tender Offers by Trading Location, Year of Offer, and Time between Announcement and Withdrawal

Panel A						
Year of Offer	Trading Locations of Sample Target Firms				Population of Tender Offers ^a	
	NYSE	AMEX	OTC	Totals	Total Offers	No. (%) Failed
1977	1	0	0	1	181	14 (8%)
1978	3	2	1	6	150	24 (16%)
1979	2	0	1	3	105	17 (16%)
1980	1	0	3	4	75	14 (19%)
1981	1	0	1	2	116	30 (26%)
1982	2	1	1	4	83	18 (22%)
1983	1	0	0	1	77	19 (25%)
Totals	11	3	7	21	787	136 (17%)
Panel B						
Time (in Weeks) between Announcement and Withdrawal for Sample Failed Tender Offers						
1-2 weeks: 0				13-24 weeks: 3		
3-4 weeks: 5				25-52 weeks: 2		
5-8 weeks: 9				53-76 weeks: 1		
9-12 weeks: 0				77+ weeks: 1		
Total = 21						

^a Sources are Austin Data Bank and Austin and Jackson [2].

the returns of all sampled firms are calculated with prices offered in Standard and Poor's *Daily Stock Price Record*. When bid and ask prices are quoted, the midpoint of the two is used. Another feature of the sample is that it is rather recent: all events occurred between 1977 and 1983, and over half took place after 1979. By contrast, BDK's sample comes from the 1966-1980 period, with most occurring before 1974.

The event dates of announcement and withdrawal are determined by reports in *The Wall Street Journal*. The announcement day occurs when the paper first reports a bid or a rumor of a bid. (Walkling [10] discusses press dates and SEC filing dates.) The withdrawal date is the day when the paper reports the offer officially withdrawn. In one case, two firms almost simultaneously bid for one target. This study treats these competing bids as one event: announcement day is that of the first offer, and withdrawal occurred when the last bidder cancelled its offer.

II. Methodology

The tests analyze excess returns of various intervals in the period from six months before the offer to twelve months after its termination. The time from announcement to withdrawal, as Table I shows, can differ sharply among firms.

Hence, some key intervals do not have uniform length and are not directly comparable across firms. The proper methodology for this situation (Asquith [1] and Fabozzi [7]) calculates a cumulative excess return for each firm in an interval. The sample's average and standard error permit tests of hypotheses about the interval's level of excess returns. It should be noted that Asquith and Fabozzi applied this method somewhat differently. Asquith's cumulative return is additive or the sum of daily returns, but Fabozzi employs a multiplicative measure that is the product of the daily returns. This paper adopts Fabozzi's method and specifies that cumulative return over an interval equals the price at the end of the interval plus dividend in the interval divided by the price at the start.

Excess return is the difference between a stock's actual return and its expected return. Expected return is estimated with the single index market model (SIMM):

$$R_{jt} = \alpha_j + \beta_j R_{Mt} + \varepsilon_{jt}, \quad (1)$$

where R_{jt} is the return on target j 's share in time t , R_{Mt} is the market return in t , ε_{jt} is firm j 's error term in t , α_j is the intercept, and β_j is the index of systematic risk.

To ensure the robustness of the tests, two values of beta are employed. The first is a SIMM estimate drawn from monthly editions of Merrill Lynch's *Security Risk Evaluation*, which uses sixty monthly rates of return and Standard and Poor's 500 Common Stock Index as the market portfolio. The time of estimation ends at the start of the period for which excess returns are computed, i.e., six months before the offer's first public mention. Because most securities had insignificant intercepts, the alphas are not used here. (Results using the alphas are, however, very similar to those given here.) The second value of beta is unity, which is the mean index of systematic risk. These two values bracket most reasonable estimates of beta and reveal how sensitive the results are to different estimates of beta.

Because the time from announcement to termination is not the same for every firm, any interval containing that period has a variable length. Further, the intervals themselves have differing lengths, ranging from a few weeks to more than a year. Thus, comparing the firms' returns within an interval or comparing average returns across intervals requires a particular time horizon as a common frame of reference. For convenience, the "week" serves that role below. All the tests will, therefore, examine the "weekly" value of cumulative excess returns.

The process for converting a return into weekly form is as follows. Suppose that interval I contains T weeks (where $T = 3, 3.2, 3.4, \dots, 4, \dots$) and that the price of stock j is P_0 at the start and P_1 at the end of the interval, including dividends. Suppose that similar values for the market index are M_0 and M_1 . In weekly form, returns to stock j and the market are

$$R_{jI} = (P_1/P_0)^{(1/T)} - 1 \quad (2a)$$

and

$$R_{MI} = (M_1/M_0)^{(1/T)} - 1. \quad (2b)$$

The weekly value of j 's cumulative excess return over I is

$$ER_{jI} = R_{jI} - \beta_j R_{MI}, \quad (3)$$

where beta may be the SIMM estimate or unity. No problem arises from calculating the intervals' excess returns with monthly betas since the intervals are at least three weeks in length and can run to over one hundred weeks.

The intervals chosen for analysis are twenty-two distinct but somewhat overlapping periods within the time from twenty-six weeks before an offer to fifty-two weeks after its withdrawal. Most intervals begin twenty-six, twelve, or eight weeks before the announcement (because BDK and Asquith suggest that these pre-offer dates occur before leakage of information is likely), and two other intervals start on the day of announcement and the day of withdrawal. Ending points are twelve, eight, and four weeks prior to announcement, in addition to the day of announcement, the day of withdrawal, and three weeks, twenty-six weeks, and fifty-two weeks after the offer's withdrawal. Table II presents these key points in a time line and reports the average cumulative excess returns for those points. Table III lists each interval separately.

Tests of weekly excess returns take this form. For each interval I and for excess return as measured by each beta, the sample average of the weekly value

Table II
Time Line of Study and Cumulative Excess Returns

Panel A: Time Line of Key Events and Periods around the Failed Tender Offers

Announcement Date			Day of Withdrawal		
26 weeks before	12 weeks before	8 weeks before	3 weeks after	26 weeks after	52 weeks after
Period before the Announcement			Period after the Withdrawal		

Panel B: Average Cumulative Excess Returns from Twenty-six Weeks before the Failed Tender Offer to Fifty-two Weeks after the Offer's Formal Withdrawal

Selected Points	Beta = SIMM ^a	
	Estimate	Beta = Unity
12 weeks B.A. ^b	0.84%	0.98%
8 weeks B.A.	0.36%	0.91%
4 weeks B.A.	0.44%	-1.09%
Day of Announcement	22.39%	23.66%
Withdrawal Date	-4.41%	-2.83%
3 weeks A.W. ^b	-3.03%	-1.75%
26 weeks A.W.	1.35%	3.41%
52 weeks A.W.	-12.90%	-0.91%

^a SIMM = the single index market model.

^b The symbols B.A. and A.W. mean "before announcement" and "after withdrawal." The period between day of announcement and withdrawal date is taken to be the sample average of fifteen weeks.

Table III

Tests of Average Cumulative Excess Returns, in Weekly Form, for Intervals between Twenty-six Weeks before and Fifty-two Weeks after the Failed Tender Offers^a

Interval		With SIMM Beta: Average Weekly ER, in % (<i>t</i>)	With Beta = 1: Average Weekly ER, in % (<i>t</i>)
A. From 26 Weeks before Announcement to:			
1.	12 Weeks B.A.	0.06 (0.21)	0.07 (0.23)
2.	8 Weeks B.A.	0.02 (0.11)	0.05 (0.15)
3.	4 Weeks B.A.	0.02 (0.09)	-0.05 (0.21)
4.	Announcement	0.78 (3.03) ^b	0.82 (3.27) ^b
5.	Withdrawal	-0.11 (-0.66)	-0.07 (-0.44)
6.	3 Weeks A.W.	-0.07 (-0.48)	-0.04 (-0.26)
7.	26 Weeks A.W.	0.02 (0.11)	0.05 (0.10)
8.	52 Weeks A.W.	-0.15 (-1.38)	-0.01 (-0.14)
B. From 12 Weeks before Announcement to:			
9.	4 Weeks B.A.	-0.07 (-0.01)	0.05 (0.08)
10.	Announcement	1.64 (3.31) ^b	1.73 (3.83) ^b
11.	Withdrawal	-0.26 (-0.97)	-0.19 (-0.73)
12.	3 Weeks A.W.	-0.17 (-0.77)	-0.12 (-0.51)
13.	26 Weeks A.W.	-0.01 (-0.05)	0.04 (0.25)
14.	52 Weeks A.W.	-0.19 (-1.47)	-0.03 (-0.34)
C. From 8 Weeks before Announcement to:			
15.	4 Weeks B.A.	0.08 (0.09)	0.13 (0.15)
16.	Announcement	2.53 (3.82) ^b	2.62 (4.11) ^b
17.	Withdrawal	-0.21 (-0.66)	-0.13 (-0.42)
18.	3 Weeks A.W.	-0.12 (-0.43)	-0.06 (-0.22)
19.	26 Weeks A.W.	0.02 (0.13)	0.07 (0.41)
20.	52 Weeks A.W.	-0.19 (-1.45)	-0.02 (-0.18)
D. From Announcement to:			
21.	Withdrawal	-3.28 (-3.38) ^b	-3.24 (-3.27) ^b
E. From Withdrawal to:			
22.	52 Weeks A.W.	-0.19 (-1.25)	-0.01 (-0.11)

^a SIMM = the single index market model. ER = excess return. The symbols B.A. and A.W. mean "before announcement" and "after withdrawal."

^b The hypothesis of a zero mean is rejected in favor of the alternative hypothesis that the mean is either less than or greater than zero at the five percent level of confidence.

of cumulative excess returns is

$$\overline{ER}_I = (1/N)(\sum_{j=1}^n ER_{jI}), \quad (4)$$

where N is the number of firms. The standard deviation of the sampling distribution of the average is

$$s_I = \{(1/N)(1/N - 1)[\sum_{j=1}^n (ER_{jI} - \overline{ER}_I)^2]\}^{0.5}. \quad (5)$$

Equations (4) and (5) produce a t -statistic for testing the null hypothesis that the sample's average excess return in an interval is zero. The t -statistic is suitable

because the excess returns of the firms come from varied calendar periods and are independent of one another.

III. Results

Table III presents the test results, which can be interpreted according to this example: interval 4 extends from twenty-six weeks before announcement to the day it occurs; the sample average of the weekly cumulative excess return, computed with the SIMM beta, is 0.78 of one percent and is significant at the five percent level of confidence (the t -value is 3.30); when excess return is computed with a beta of unity, the mean is 0.82 percent and it too is significant. Two general features of the table are notable. First, Panels A, B, and C have similar results, suggesting that they do not depend on an interval's initial point as long as it occurs before leakage of information becomes likely. Second, returns based on the estimated SIMM beta yield roughly the same results as returns using a beta of unity. Thus, the tests do not appear to be very sensitive to specific ways of estimating beta. Given the necessarily small sample, these signs of consistency and stability of results are welcome.

A. *The Time before Announcement*

The intervals that end at or before the announcement day are numbered 1–4, 9, 10, 15, and 16. Their results closely follow BDK's reports on failed tender offers and Asquith's conclusions about unsuccessful mergers. As intervals 1, 2, 3, 9, and 15 show, average excess returns are small until four weeks before the event. From then to the announcement day, excess returns rise sharply, with the average target's excess returns indicating high, positive, and significant levels in intervals 4, 10, and 16.

B. *From Announcement to Withdrawal*

Intervals 5, 11, 17, and 21 show the behavior of returns between announcement and withdrawal. The average weekly excess returns of the first three intervals, which extend from the starting points to the day of withdrawal, are not statistically different from zero. Interval 21, which covers the announcement-withdrawal period, has a large, negative, and significant average return. These numbers tell the same story: by the time the offer fails, virtually all the positive post-announcement returns (evident in intervals 4, 10, and 16) have vanished. Also, it should be noted, excess returns remain at zero in intervals 6, 12, and 18, which pertain to the three weeks after withdrawal.

The exact nature of this process is not an issue here. However, if Asquith's tests offer any guidance, the process would be this: the typical target's returns begin to decline shortly after the offer is announced, as the market starts to suspect that the acquisition is not probable; then, the formal withdrawal of the offer causes a final, large drop in the target's price and returns.

Clearly, these test results seem to conflict with the plausible view that the target's share value will retain some gain because the market anticipates a later bid. This view, moreover, received empirical support from BDK's finding that

future bids are probable and likely to succeed and that a failed offer may affect the target's price for two years.

The apparent conflict between the test results and BDK's data is easily resolved once the causes of the failures of these sampled tender offers are considered. As noted, most offers fail because of either vigorous and effective opposition by the target's management or intervention by regulatory agencies. Because of such strong barriers to a takeover, investors would not expect other bidders to step forward soon. Hence, when the offers are terminated, no offer-related gain remains and the target share values revert quickly to their pre-offer levels, *ceteris paribus*. The reasons for failure explain these results very well.

A technical issue also contributes to the divergence of these results from BDK's findings: the two studies use different sampling and statistical methods. The current sample contains no target that received another bid in the year after the failure; BDK did not impose that restriction. Clearly, later offers could have kept the target share values high for some time. Also, BDK computed excess returns to fixed dates following the announcement and did not integrate the timing of the offer's terminations. Since some tender offers can be in effect for months, BDK's results may reflect premiums of long-standing offers. It should be noted, too, that the current results closely resemble those of Asquith, whose methodology and ways of sampling failed merger efforts are similar to those used here.

C. The Year after Failure

All average excess returns of the period after withdrawal—intervals 6–8, 12–14, 18–20, and 22—are close to zero. This result strongly indicates that the public withdrawal permanently eliminates the offer's impact, since no trace of the offer's premium reappears at any time in the following year. Such a situation is quite plausible, given the reasons for the cancellations of the tender offers. Further, it is interesting to note that BDK's results from the "Not Taken Over" subsample and Asquith's discoveries for his targets suggest declining returns for late post-failure periods. Though some of the intervals' average values are negative, they have very low *t*-statistics and do not seem to follow the pattern of falling returns.

IV. Summary

This study analyzes the share returns for targets of failed tender offers that got no other bids in the post-failure year. The test results support two conclusions. First, the market reacts quickly to failure, as all of the offer-based price increase vanishes when the offer is cancelled. Second, the targets' returns over the post-failure year have no trace of the offer and at best post a small decline. An explanation for these patterns can be found in the main causes of the failures, which include governmental intervention and effective opposition by the targets' managements.

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