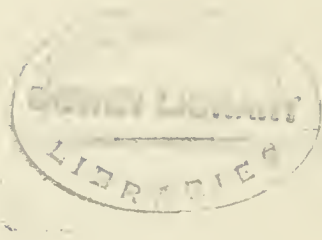

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Corporate Investments in Common Stock

by

Richard S. Ruback

and

Wayne H. Mikkelson

#1573-84 March 1984

MASSACHUSETTS
INSTITUTE OF TECHNOLOGY
50 MEMORIAL DRIVE
CAMBRIDGE, MASSACHUSETTS 02139

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Wayne H. Mikkelson
Graduate School of Business
University of Chicago

and

Richard S. Ruback
Sloan School of Management
Massachusetts Institute of Technology

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I. Introduction

This paper examines corporate acquisitions of another company's common stock that were reported to the SEC during the years 1978 through 1980. Common stock returns of both the acquiring and target firms are analyzed around the date of the earliest published report that an ownership position of 5% or more of the target firm's common stock has been or will be taken. In addition, common stock returns are examined around important events subsequent to the initial announcement date as well as around the final outcome of the investment. The stock returns at the initial announcement, the final outcome and the intervening events are summed to estimate the acquiring and target firm's returns from the investment activity.

A great deal of research and public attention has been devoted in recent years to corporate acquisitions of common stock that are attempts to acquire control of another firm.[1] We find, however, that purchases of common stock through tender offers and mergers represent a minority of corporate investments in common stock. The expected payoffs for a majority of corporate investments appears to be the direct returns from security ownership, dividends and price appreciation, rather than cash flows or other benefits from exercising control over the activities of another firm. This study, therefore, broadens the view of corporate purchases of common stock, and examines a range of investment strategies and outcomes.

One objective of this study is to determine whether and how the acquiring and target firms stock prices respond to different types of corporate investments in common stock. The sizes of the initial investments range from a block of shares that transfers voting control to a 5% ownership position.

Most of the investments examined in this study represent a minority ownership stake in the target firm and are not part of a publicly announced takeover attempt by the acquiring firm. However, all of the investments represent a potentially important change in the ownership structure of the target firm. We find that these investments benefit the stockholders of both the acquiring and target firms, but the benefits vary across different announced investment plans. For example, the benefits are lowest for stockholders of acquiring firms and greatest for the stockholders of target firms when the initial announcement is a takeover attempt.

A second objective is to examine the stock price response for acquiring and target firms to actions that follow the initial announcement of the investment and to compare the profitability of investments with different final outcomes. The possible final outcomes include: a successful takeover; an unsuccessful takeover; a successful takeover by another firm; a standstill or repurchase agreement; and the sale of shares in the market or to a third party. In other cases, there is no subsequent change in the acquiring firm's investment. Several of these outcomes, such as successful and unsuccessful takeovers and standstill and repurchase agreements have been examined individually in previous studies. This study widens the analysis of these events by treating them as the outcomes from an investment process which begins with the purchase of 5% or more of the common stock of the target.

The profitability of the various outcomes is measured by examining the share price behavior of the acquiring and target firm throughout the entire investment process, which includes the announcement of the initial investment, the outcome announcement, and any important intervening events. Our approach provides a more complete measure of the profitability of the outcomes than previous studies since they generally ignore events prior to the outcome

announcements. Also, examining the investment process from the initial investment through the outcome provides a consistent framework for comparing the profitability of various outcomes and investment strategies. For example, a striking finding of our study is that when the final outcome of an investment is a standstill or repurchase agreement with the target firm, the total return earned by target shareholders is positive, even though the price effect of the standstill or repurchase announcement is negative. This result, therefore, casts some doubt that on the view that investments that end in a standstill or re purchase agreement harm the target firm's securityholders.

A third objective is to investigate whether firms that frequently purchase shares of other companies are engaged in a profitable activity, and how the stockholders of the firms in which they invest fare relative to the stockholders of other target firms. The subset of frequent acquiring firms, defined to be firms that appear six or more times in our sample of investments, differs from other acquiring firms in that a greater proportion of their investments terminate with a standstill or repurchase agreement or in the sale of shares. Also, frequent purchasers of common stock rarely attempt to acquire control of the target firm.

Our evidence uncovers differences in the stock returns in both acquiring and target firms across different types of final outcomes. We find that when the final outcome is a successful takeover the total abnormal return is zero for acquiring firms and large and positive for target firms. A successful takeover is the least possible outcome for the acquiring firms and the most profitable outcome for the target firms. When the final outcome is a successful takeover attempt by a third party, the total return is positive for both the acquiror and the target. The most profitable outcome for the acquiring firms is either the sale of shares or a standstill or repurchase

agreement with the target firm. Target firms realize a small, but statistically significant, positive abnormal return for investments that conclude with standstill or repurchase agreements. Statistically insignificant average total period returns are earned by acquiring firms that successfully acquire the target firm, and by both acquiring and target firms for investments that end with unsuccessful takeover attempts.

Frequent acquiring frims earn a larger total average return than other acquiring firms. Most of the incremental return reflects a lower relative frequency of successful takeover attempts, the least profitable outcome, and a higher relative frequency of more profitable outcomes, such as a repurchase agreement or the sale of shares. The evidence also indicates that the target firm shareholders do not fare worse when the acquiring firm is a frequent purchaser of other companies' shares.

The next section describes the sample of corporate investments. Characteristics of the sample and our method of estimating abnormal stock returns are also presented. Section III presents average abnormal common stock returns of the acquiring and target firms around the initial announcement date, the final outcome date and important intervening dates. Returns are also examined for subsamples grouped by the type of investment plans disclosed at the initial announcement date and by the final outcome of the investment. Our conclusions are presented in Section IV.

II. Sample and Methodology

A. Schedule 13D Filings

The sample of corporate acquisitions of common stock in this study is drawn from filings of Schedule 13D required by the Williams Act, a set of amendments to the Securities and Exchange Act of 1934. According to the provisions of the Williams Act that became effective in July, 1968, an

individual, group of individuals, or a corporation is required to report to the SEC the accumulated acquisition of more than 10% of any class of a company's voting equity securities. Effective December, 1970 the Act was amended so that the ownership of more than 5% of a class of securities must be reported. The Act requires that a Schedule 13D must be filed within 10 days of the purchase of shares that increased holdings beyond the 5% level. In addition to the SEC, the Schedule 13D must be sent to the target company and any exchanges that list the target company's securities.

Information contained in a filing of Schedule 13D includes:

(1) the name and background of each acquiring individual or of any individuals who control an acquiring corporation;

(2) the number of shares beneficially owned plus the number of shares the reporting entity has the option or right to acquire;

(3) a statement describing the purpose of the transaction, including an indication of whether the acquiring party is seeking control of the target firm; and

(4) a description of the source and amount of funds or other consideration used in acquiring the securities.

The Act also requires the acquiring individual(s) or company to file an amended Schedule 13D, if there is any material change, such as the purchase or sale of shares, in the information reported in an earlier filing of Schedule 13D.

Since 1973 the SEC News Digest has reported filings of Schedule 13D. In addition, since 1977 the Insiders' Chronicle has reported information on selected filings of Schedule 13D. The initial sample was taken from issues of the SEC News Digest and the Insiders' Chronicle that report 13D filings for the years 1978 through 1980.

B. Final Sample of Schedule 13D Filings

The final sample consists of 479 Schedule 13D filings by corporations listed on either the New York or American Stock Exchange. For 298 of these filings, the target firm is listed on the New York or American Stock exchange. For each Schedule 13D filing, The Wall Street Journal Index was examined for the years 1977 through 1981 to identify any news reports relevant to the acquisition of the target firm's common stock. Potentially significant newspaper articles were read, and from these articles data were collected on the specific actions taken by the acquiring or target firm. The dates of selected Wall Street Journal articles represent the dates we designate as the initial announcement date, the final outcome date or a significant intervening event date.

The initial announcement date is usually the date of the earliest published report of the acquisition of 5% or more of another firm's shares. When the Wall Street Journal article is a report of the 13D filing, the announcement date can be as much as eleven days after the last purchase of shares. When the initial announcement is a takeover offer, typically the announcement occurs several weeks before the acquisition of a 5% position and the filing of Schedule 13D. For these observation, we use the first public annoucement of the takeover attempt as the initial announcement date. In the cases where no relevant report appears in the Wall Street Journal at the time of the filing of Schedule 13D or during the 12 months preceding the filing, the date of the filing is defined to be the initial announcement date.

The content of the initial Wall Street Journal report varies considerably among the sample of 13D filings. The published report typically reveals the actual filing of Schedule 13D. The article often discloses the acquiring firm's stated investment plans, and sometimes the target firm's response to

the investment. In a number of cases, the initial published report discloses a tender offer or merger offer.

The Schedule 13D filings are classified according to the nature of the information disclosed at the initial announcement date. This classification of filings is represented by the columns of Table 1. In 134 of 479 cases, the initial announcement reveals a tender offer or merger offer (column 2). For 39 filings, no takeover offer was announced at the initial announcement, but the filing or acquiring firm disclosed that an attempt to acquire control of the target firm is being considered (column 3). In most of these cases, the filing firm exceeded a 5% ownership position shortly before the initial announcement date. Another category of initial announcements represents 67 transactions that resulted from direct negotiation between the acquiring firm and the selling stockholder(s) (column 4). For some negotiated transactions, a takeover offer or the consideration of takeover plans was also disclosed at the initial announcement, so these filings are included in more than one classification of type of initial announcement. The final category includes 264 filings where either no published report was found, no information was disclosed about the filing firm's investment plans, or it was disclosed explicitly that the shares were acquired "only for investment purposes" (column 5).

Each Schedule 13D filing is also classified by the final outcome of the investment. Final outcomes are represented by the rows of Table 1. They include: stockholder approval of a takeover offer by the filing firm (row B); a completed takeover of the target by another firm (row C); termination of a takeover offer (row D), a standstill or repurchase agreement between the acquiring and target firms (row E); shares sold (row F); and no final outcome as of December 31, 1981 (row G). There are 153 successful takeovers by the firm filing Schedule 13D. Approximately 75%, or 110, of the successful

TABLE 1

Classification of the Sample of 13D Filings by the Type of Information Disclosed at the Earliest Report of the Plans to Acquire or of the Acquisition of Another Firm's Common Stock and by the Final Outcome

		Type of Initial Announcement			
	(1)	(2)	(3)	(4)	(5)
Final Outcome	Total Sample	Takeover Attempt	Considering Takeover	Negotiated Transaction	No Information (Investment)
A. Total Sample	479	134	39	67	264
B. Successful Takeover	153	111	20	27	14
C. Third Party Takeover	32	4	2	10	26
D. Unsuccessful Takeover	14	12	0	1	2
E. Standstill or Repurchase Agreement	39	0	2	3	34
F. Shares Sold	37	5	5	7	22
G. No Outcome	204	2	10	29	166

takeovers were first announced at the initial announcement date and prior to a filing of Schedule 13D, and 25%, or 43, of the successful takeovers began with a minority ownership position. A repurchase or standstill agreement is the final outcome for 8%, or 39, of the investments in common stock, and in no case did this outcome follow the disclosure of a takeover at the initial announcement date. For 37 of the 39 standstill or repurchase agreement outcomes, the possibility of a takeover attempt was not reported at the initial announcement date. "No outcome" represents 204 events, or 43% of the sample. These are mostly filings in which no information was divulged at the initial announcement date (column 5).

The size of the investment in the target firms shares varies across the different types of initial announcements and final outcomes. Table 2 presents the average percent of the target firms shares held and the average market value of the holdings as reported in the initial 13D filing. For classification of filings by type of initial announcement (Panel A), the largest average ownership position is 38.5%, or $65 million, for takeover attempts. The smallest average position is 12.0%, or $12.3 million when no information is disclosed at the initial announcement. The average amount held is substantial for the considering acquisition (23.4%, or $17.2 million) and negotiated transaction (29.4%, or $23.1 million) announcements. The clasification by final outcome reveals that the largest average ownership position reported in the initial 13D filing is 39.6%, or $62.1 million, for successful takeovers. The average initial positions are considerably smaller for other categories of final outcomes.

The sample of 479 events represents Schedule 13D filings by 279 firms. About 87% of the firms appear only once or twice in the final sample, but several firms invested frequently in other companies common stock between 1978 and 1980. To explore possible differences in investment strategy and stock

TABLE 2

Percent of Target Held and the Dollar Value of Investments by the Type of Initial Announcement and Type of Outcome (Panel B)

(standard deviation, sample size)[a/]

	PERCENT OF TARGET HELD	DOLLAR VALUE OF INVESTMENT (Millions)
PANEL A: INITIAL ANNOUNCEMENT		
Takeover[b/]	38.45% (29.48,126)	$64.98 (129.94,127)
Considering Acquisition	23.44 (22.75,39)	17.20 (24.10,39)
Negotiated Transactions	29.47 (20.63,57)	23.10 (31.45,57)
Investments	12.02 (14.64,240)	12.30 (33.24,240)
PANEL B: OUTCOMES		
Takeover[b/]	39.57% (29.16,147)	$62.14 (124.68,148)
Standstill or Repurchase	7.66 (3.41,38)	11.10 (18.72,38)
Shares Sold	11.95 (9.73,36)	9.81 (9.45,36)
Third Party Takeover	7.50 (4.35,28)	8.22 (8.55,28)
Unsuccessful Takeover	14.65 (13.18,11)	11.82 (20.24,11)
No Outcome	13.76 (15.26,177)	11.28 (24.34,177)
Average	21.38% (23.77,437)	$28.15 (78.16,438)

[a/]Sample sizes are less than the complete sample because 13D filings associated with the purchase of securities other than common stock are excluded.

[b/]For many of these events the number of shares reported in the 13D filing reflects the acquisition of a small position that is not part of a tender or merger offer, even though the initial announcement discloses a tender or merger offer.

price effects between frequent and other acquiring firms, a subsample is formed of the firms that appear six or more times in the sample as an acquiring firm.[2] This subsample represents 96 of the 479 Schedule 13D filings.

C. Methodology

The event study methodology pioneered by Fama, Fisher, Jensen, and Roll (1969) is used to measure the price effects of the initial purchase, intermediate, and outcome announcements. Since most stocks tend to move up or down with the market, the realized stock returns are adjusted for market-wide movements to isolate the component of the returns due to investment activity. This adjustment is accomplished using linear regression to estimate the following market model:[3]

$$R_{jt} = \alpha_j + \beta_j R_{mt} + \varepsilon_t \qquad (1)$$

The parameter β_j measures the sensitivity of the jth firm's return, (R_{jt}), to movements in the market index (R_{mt}). The term $\beta_j R_{mt}$ in equation (1) is the portion of the return to security j that is due to market-wide factors. The parameter α_j measures that part of the average return of the stock which is not due to market movements. Lastly, ε_t measures that part of the return to the firm which is not due to movements in the market or the firm's average return.

Two sets of coefficients are estimated for each firm to incorporate potential changes in risk. Coefficients before the filing, α^B and β^B, are estimated using 200 days of data beginning 260 days before the initial announcement. Similarly, coefficients after the outcome announcement are estimated over the period beginning 61 days after the outcome announcement

(if available) through 260 days after the outcome. In those cases in which 100 days of data are not available to estimate either the before or after coefficients, combined data from before the initial announcement and after the outcome announcement are used to estimate the coefficient. In all cases, data for the 60 days preceeding the initial announcement through 60 days following the outcome announcement are excluded from the estimation period.

Prediction errors are calculated for each firm for 60 days prior to the initial announcement through 60 days after the outcome announcement using the following equation:

$$PE_{jt} = \begin{cases} R_{jt} - (\hat{\alpha}^{B}_{j} + \hat{\beta}^{B}_{j} R_{mt}) & \text{for } t < \text{initial announcement} \\ R_{jt} - (\hat{\alpha}^{A}_{j} + \hat{\beta}^{A} R_{mt}) & \text{for } t > \text{initial announcement} \end{cases} \quad (2)$$

The prediction errors represent the deviation of the daily returns from their normal relation with the market and measure abnormal returns. In this study, we want to aggregate abnormal returns at the initial, intermediate, and outcome announcements to compute the profitability of various strategies. The prediction errors are not directly aggregated because each prediction error equals the abnormal (dollar) change in stock price divided by the stock price on the previous day. Therefore, the magnitude of the prediction error for a given abnormal (dollar) change in stock price depends on the level of stock price. To eliminate this effect, we adjust the prediction errors for changes in stock price so that adjusted prediction errors (PE'_{jt}) of the same magnitude correspond to equal abnormal stock price changes. The adjusted prediction errors equal the abnormal stock price change divided by the stock price on the day prior to the initial announcement. We construct a stock price index, P_{jt}, which equals a normalized stock price for day t-1:

$$P_{jt} = \frac{\prod_{\tau=-60}^{t-1} (1+R_{j\tau})}{\prod_{\tau=-60} (1+R_{j\tau})} \qquad (3)$$

The numerator of (3) is the compound return from day -60 (the first day we compute abnormal returns) through day t-1 and the denominator equals the compound return from day -60 through the day prior to the initial announcement. Therefore, the stock price index equals unity on the initial announcement day. The adjusted prediction errors are calculated by multiplying the prediction errors by this price index:

$$PE_{jt} = P_{jt}(PE_{jt}) \qquad (4)$$

These adjusted prediction errors are summed over event time to measure the abnormal return over an interval of trading days and are summed over a sequence of events to measure the total abnormal performance associated with the events.[4]

To test the statistical significance of the abnormal returns, we compute the following t-statistic:

$$t = \frac{\sum_{j=1}^{J} \left(\sum_{t=\tau_1}^{\tau_2} PE'_{jt} \Big/ \sqrt{\sum_{t=\tau_1}^{\tau_2} Var(PE'_{jt})} \right)}{\sqrt{J}} \qquad (5)$$

where τ_1 and τ_2 are the first and last days of the cumulative period; J is the number of observations and $Var(PE'_{jt})$ is the variance of the adjusted prediction errors for firm j on day t. The variance of the adjusted prediction errors equals the variance of the unadjusted prediction errors times the squared price index, where the variance of the unadjusted prediction errors is:

$$\text{var}(PE_{jt}) = S_j^2\left(1 + \frac{1}{N} + \frac{(R_{mt} - \bar{R}_{mt})^2}{(N-1)\text{Var}(R_m)}\right) \quad (6)$$

In (6), S_j^2 is the residual variance from the market model regression and N is the number of observations used to estimate the market model.[5] The t-statistic adjusts for heteroskedasticity in the prediction errors by standardizing the cumulative prediction error for each firm by its standard deviation. This standardization gives less weight to the prediction errors with more volatility, which are prediction errors that are measured less precisely.

III. Common Stock Returns

A. Returns of Acquiring and Target Firms Around the Initial Announcement Date

Daily predictions errors are computed for both the acquiring (or filing) firms and target firms for various holding periods prior to the date of the earliest report of a 13D filing or the action that precipitated a 13D filing. Table 3 presents average adjusted prediction errors for the acquiring firms and target firms.

The acquisition of another firm's common stock appears to increase the equity value of both the acquiring and target firms. However, the event period abnormal return for targets is substantially larger than the abnormal return for acquiring firms. The average announcement period adjusted prediction error, which includes the day before and day of announcement, is 0.56% for acquiring firms. This is statistically significant with a t-statistic of 4.40. The average announcement period adjusted prediction error for target firms is 5.40% with a t-statistic of 33.65. The positive returns are more pervasive among target firms: 70% of the event period

TABLE 3

Average Adjusted Prediction Errors for Acquiring and Target Firms Before and at the Earliest Report of Plans to Acquire or the Acquisition of the Target's Common Stock[a/]

(t-statistic, percent positive, sample size)

Holding Period[b/]	Acquiring Firms	Target Firms
Event Period AD-1 to AD	0.56% (4.40,53,479)	5.40% (33.65,70,298)
AD-60 to AD-41	-0.77% (-0.80,45,479)	1.41% (4.40,55,298)
AD-40 to AD-21	-1.77 (-3.08,42,479)	1.42 (4.42,55,298)
AD-20 to AD-11	-0.36 (-0.48,44,479)	1.18 (4.26,54,298)
AD-10 to AD-2	-0.27 (0.64,47,479)	4.49 (14.90,64,298)
AD-1	0.21 (2.86,50,473)	3.78 (33.56,69,271)
AD	0.34 (3.67,52,479)	1.96 (16.41,52,298)

a/ Predictions error are adjusted for changes in the price of the firms' common stock and equal the abnormal change in stock price divided by the stock price on day AD-1.

b/ AD is the initial announcement date, which is the date of a Wall Street Journal report or the date of a Schedule 13D filing with the SEC.

prediction errors are positive for target firms, whereas 53% of the prediction errors are positive for acquiring firms.

Table 3 also presents the abnormal returns for acquiring and target firms prior to the initial public announcements. For acquiring firms, there are statistically significant negative abnormal returns prior to the initial announcement in only the period AD-40 through AD-21. There are, however, statistically significant positive abnormal returns for targets in each holding period prior to the initial announcement. The largest prediction error of 4.49% occurs in the nine day period AD-10 through AD-2 which has a t-statistic of 14.90. These pre-announcement abnormal returns for target firms can be explained in two ways. First, they may reflect the leakage of information about the impending purchase. Since the 13D filing can occur up to ten days following the attainment of a five percent block, this leakage may occur if the acquiror's purchase of the target's common stock can be detected prior to the announcment. Second, corporate investments in common stock may follow a period of positive abnormal returns for the target firms. Since we cannot distinguish between these two alternative explanations, we focus on the two-day announcement period.

Table 4 reports the two-day average prediction errors for subsamples of 13D filings grouped by the type of information disclosed in the initial report. The abnormal returns for each subsample are discussed below.

Takeover Announcements: The smallest abnormal return for acquiring firms occurs in the subsample of 134 takeover announcements: the two-day announcement period abnormal return is -0.58% (t-statistic = -2.41) and 65% of these prediction errors are negative. The t-statistic for the difference between the average prediction errors of acquiring firms in the subsample of takeover announcements and those in the subsample of other initial

TABLE 4

Average Two-Day Common Stock Adjusted Prediction Errors Associated with the Initial Purchase Announcement for Acquiring and Target Firms for Five Initial Announcement Categories.[a/]

(t-statistic, percent positive, sample size)

Initial Announcement Category	Acquiring Firms	Target Firms
Takeover	-0.58% (-2.41,35,134)	14.90% (41.60,87,69)
Considering Acquisition	2.37 (4.06,69,39)	6.82 (10.68,78,23)
Negotiated Transactions	0.80 (2.38,52,67)	4.85 (11.13,60,35)
Investment by Frequent Acquirors[b/]	1.17 (3.40,58,85)	2.87 (9.04,76,71)
Investment by Infrequent Acquirors	0.66 (3.99,60,179)	1.01 (5.83,57,113)

a/ Predictions error are adjusted for changes in the price of the firms' common stock and equal the abnormal change in stock price divided by the stock price on day AD-1.

b/ Frequent acquirors are defined as acquiring firms that appear in our sample six or more times.

announcements is -3.70.[6] In contrast, the largest abnormal return for target firms occurs in the takeover announcement subsample: the average abnormal return is 14.90% with a t-statistic of 41.60, and 87% of these prediction errors are positive. Furthermore, the announcement period average abnormal return for these takeover targets is significantly larger than the average abnormal return for other target firms: the t-statistic for the difference between the average abnormal returns is 10.39. Thus, takeover announcements appear to be the most favorable type of announcement for target firms and the least favorable for acquiring firms.

Considering Acquisition: Acquiring firms that disclosed they are considering additional investments in the target firm's shares realize positive abnormal returns of 2.37% (t-statistic = 4.06) and 69% of these prediction errors are positive. The average abnormal return for target firms in this subsample is 6.82% with a t-statistic of 10.68. Thus, the abnormal returns for firms are higher, and the abnormal returns for target firms are lower, when the acquiring firm discloses it is considering an acquisition of control instead of announcing a takeover attempt of the target. One plausible interpretation is that takeovers are less profitable for acquiring firms than other potential outcomes, and firms that announce they are considering a takeover retain the option of pursuing other more profitable outcomes. Indeed, the announcement that a takeover of the target firm is being considered may increase the probability of more profitable outcomes, such as a repurchase by the target firm or a third party takeover of the target, by increasing the credibility of a takeover threat. Additionally, the larger abnormal returns for acquiring firms considering an acquisition of control may reflect that it is more profitable to purchase shares of the target firm prior to announcing a takeover.

Negotiated Transactions: We classify common stock purchases as negotiated transactions when the acquiring firm and seller(s) directly agree to the terms of the transaction. The seller may be either the target firm or a third party. The average announcement period prediction error for the 67 acquirors in this subsample is 0.80% with t-statistic of 2.38. The corresponding abnormal return for 26 target firms is 4.85% with a t-statistic of 11.13. This evidence indicates that such negotiated transactions increase the equity value of both acquiring and target firms.

Investments: When the initial report did not disclose a takeover announcement, that the acquiring firm is considering a takeover, or that the investment is a negotiated transaction, we classify the transaction in the investment category. The initial report associated with these purchases often explicitly discloses that the purchase is only for investment purposes. In other instances, no information about the investment plan is disclosed. In addition, this subsample includes several acquiring firms that frequently purchase blocks of common stock. We analyze separatley the returns for frequent purchasers, which we define as firms that appear in our sample six or more times, because the subsequent actions of these acquiring firms differ from other acquiring firms.

The average announcement period abnormal returns appear to differ between frequent and other investing firms. The average announcement period abnormal return for frequent acquirors is 1.17% with a t-statistic of 3.40 and the average announcement period abnormal return is 0.66% for other acquiring firms in the investment subsample. While the abnormal return for frequent acquirors is almost twice as large as the abnormal return for other acquiring firms, a t-statistic of 1.00 indicates that the difference between the abnormal returns

for these subsamples is not statistically significant. However, the difference between the average announcement period abnormal returns for targets of frequent and other investing firms is statistically significant. The average announcement period abnormal return for the targets of frequent acquirors is 2.87% with a t-statistic of 9.04. Targets of other acquiring firms in this subsample realize an average announcement period abnormal return of 1.01% with a t-statistic of 5.83. The t-statistic for the difference between the abnormal returns of the targets of frequent and other investing firms is 2.07. The difference between the abnormal returns for targets of frequent and other investing firms suggests the market distinquishes between these subsamples at the time of the initial disclose. In other words, the acquiring firm's identity appears to be important information. These data also suggest that on average the investment strategies of frequent bidders are more profitable than the strategies of other investing firms for both the acquiring and the target firms.

B. Returns of Acquiring and Target Firms at the Disclosure of Events That Occur Between the Initial Announcement Date and the Final Outcome Date

Table 5 presents two-day average adjusted prediction errors at the disclosure of selected events that occur between the initial announcement date and the final outcome date. These events include a tender or merger offer by the acquiring firm, a takeover offer by another firm, the acquisition of additional shares by the acquiring firm, and the opposition to the investment by the management of the target firm. The stock price reactions to the disclosure of these intervening events are potentially an important part of the total stock return for the acquiring and target firms.

TABLE 5

Average Two-Day Common Stock Adjusted Prediction Errors of Acquiring and Target Firms at the Announcement Date of Selected Events that Occurred Between the Initial Disclosure and the Final Outcome of the Investment Activity.[a/]

(t-statistic, percent positive, sample size)

Intermediate Events	Acquiring Firms	Target Firms
Acquiring Firm Announced a Takeover Offer	0.50% (-1.74,43,47)	12.64% (18.11,73,26)
Third Party Announced a Takeover Offer	1.82 (3.06,56,43)	14.01 (18.31,92,26)
Acquiring Firm Purchased More Shares	0.66 (0.67,43,93)	1.03 (4.69,55,78)
Target Firm Opposition	-0.18 (0.04,48,33)	-2.23 (-2.35,38,21)

a/ Prediction errors are adjusted for changes in the price of the firm's common stock and equal the abnormal change in stock price dividend by the stock price on day AD-1.

Acquiror Takeover Announcements: The 47 announcements of a merger or a tender offer that occur after the announcement of the 13D filing are associated with an average abnormal return of 0.50% (t-statistic = -1.74) for acquiring firms. The corresponding abnormal return for target firms is 12.64% with a t-statistic of 18.11. The average abnormal return for target firms is similar to the average return reported in Table 4 for the subsample in which a takeover announcement is the first indication that the acquiring firm plans to purchase shares of the target firm. For acquiring firms, however, the average abnormal return and t-statistic differ in sign, which makes it difficult to compare the abnormal returns for takeover announcements that precede the purchase of a 5% or larger position and for takeover announcements that follow such an investment.[7] We therefore postpone a formal comparison of the returns associated with these two strategies until section III.C., where total returns are reported.

Third Party Takeover Announcement: The average price response is positive for both the filing and target firms when a takeover offer by a third party is disclosed. The average return for the filing firms of 1.82% with a t-statistic of 3.06 reflects a combination of effects due to (1) a premium offered for the shares of the target firm that are held by the filing firm and (2) an increase in the likelihood that the filing firm will not successfully acquire control of the target firm. For target firms, the abnormal return of 14.01% (t-statistic = 18.31) is similar to the abnormal returns associated with takeover announcement by the filing firm.

Acquiror Purchase More Shares: The most common announcement occurring between the initial announcement and outcome announcement is that the acquiring firm purchased additional shares of the target firm. The average prediction for acquiring firms is 0.66% with a t-statistic of 0.67 and the average prediction for target firms is 1.03% with a t-statistic of 4.69.

Target Firm Opposition: There are 33 instances in which the management of the target firm objected to the investment. These announcements range from active opposition, such as filing legal action, to statements that the target management is not interested in being acquired. An announcement of opposition is associated with a significant negative average abnormal return for target firms of -2.23% with a t-statistic of -2.35. For this sample, announcement of opposition by the target management is associated with a decrease in share price. In contrast, no significant abnormal returns for acquiring firms are associated with these events.

C. Return of Acquiring and Target Firms Around the Disclosure of the Final Outcome Announcement and Total Investment Returns

A corporate investment in another firm's common stock is defined as having a final outcome, if by December 31, 1981 one of the following events occurred: (1) stockholders approved a takeover proposal; (2) a repurchase or standstill agreement was reached between the acquiring and target firms; (3) the acquiring firm sold all or part of its common stock holdings to a third party or in the market; (4) the filing firm's takeover attempt ended unsuccessfully; or (5) another firm's takeover attempt was successful.

Table 6 presents the two-day abnormal returns associated with the initial announcement, intermediate announcements, and outcome announcement grouped by the five outcome categories for acquiring (Panel A) and target (Panel B) firms. The outcome date is the date of The Wall Street Journal report of the last occurance of an event in one of the five outcome categories. The intermediate announcements include events that occur between the initial announcement and the final outcome that, in our judgement, are related to the 13D transaction and have potentially important consequences for the wealth of the stockholders of the acquiring and target firms. These events include the announcements examined in Section III.B (acquiring firm takeover announcements, third party takeover announcements, purchases of additional shares, and the disclosure of opposition to the investment by the target firm's management) as well as other relevant announcements.

Table 6 also contains our measure of the total abnormal return associated with the complete transaction, from the initial announcement through outcome. One possible estimate of the profitability of the investment is the abnormal return over the period that encompasses the initial disclosure of the investment activity through the outcome. An important difficulty with such a measure, however, is that the time interval from initial announcement through outcome is sufficiently long that the power of tests of significance is low. Consequently, we sum the two-day adjusted prediction errors for the initial announcement, intermediate announcements and the final outcome. The advantage of this method is that we exclude extraneous events and their effects on stock price. But this approach is subject to our discretion of what represents a relevant event, and therefore possibly misses important relevant changes in stock price.

TABLE 6

Two-day Average Adjusted Prediction Errors Associated with Initial Intermediate and Outcome Announcements Grouped by Type of Outcome for Bidding and Target Firms.

(t-statistic, percent positive, sample size)

Announcement	Successful Takeover	Standstill or Repurchase	Shares Sold	Third Party Takeover	Unsuccessful Takeovers
Panel A: Acquiring Firms					
Initial	0.08% (0.18,46,153)	1.54% (2.92,54,39)	1.59% (2.74,51,37)	0.57% (1.39,56,32)	-0.70% (-1.18,29,14)
Intermediate	-1.07 (-2.34,38,73)	3.66 (2.66,52,21)	5.32 (3.84,58,19)	2.76 (3.67,80,25)	9.82 (0.43,29,7)
Outcome	0.40 (1.08,53,152)	2.01 (3.41,68,38)	1.52 (1.66,50,36)	0.50 (1.47,58,31)	1.29 (2.28,64,14)
Total[a/]	-0.03% (-1.15,42,152)	5.62% (4.97,68,38)	5.97% (3.97,56,36)	3.27% (3.67,74,31)	5.50% (1.07,64,14)
Panel B: Target Firms					
Initial	12.78% (40.32,85,82)	4.36% (9.24,78,32)	4.30% (9.32,72,29)	3.58% (6.71,59,22)	4.45% (2.60,50,6)
Intermediate	7.52 (9.58,57,42)	-1.67 (-0.73,50,18)	1.16 (2.78,57,14)	17.04 (14.36,84,19)	11.51% (3.62,75,4)
Outcome	1.60 (2.77,66,59)	-1.73 (-4.22,44,32)	1.47 (-1.49,46,28)	1.40 (-3.63,38,21)	-10.88% (-7.21,50,6)
Total[a/]	18.12% (24.20,90,59)	1.68% (3.11,56,32)	6.25% (5.55,68,28)	19.48% (11.92,67,15)	1.24% (-0.71,50,6)

a/ The total abnormal return is the sum of the initial, intermediate and outcome announcements. Observations without initial or outcome announcement returns are excluded from these calculations.

Successful Takeovers: Both acquiring and target firms realize positive abnormal returns when the outcome of a successful takeover is announced. For acquiring firms the two-day outcome prediction error is 0.40% with a t-statistic of 1.08. Target firms realize a larger abnormal return of 1.60% with a t-statistic of 2.77. The significant abnormal returns for targets indicates that uncertainty is resolved on the outcome date.

The sum of the two-day announcement, intermediate, and outcome prediction errors is -0.03% for 152 acquiring firms that successfully acquired the target firm. The corresponding measure of abnormal returns for target firms is 18.12% with a t-statistic of 24.20. The insignificant average prediction error for acquiring firms is consistent with the findings of corporate takeover studies. That is, measured by the stock price performance of the bidding firms, the average net present value of acquisitions is zero. Also, the 18.12% abnormal return for target firms is generally consistent with other takeover studies.

A takeover offer is revealed in the initial announcement for 111 of the 152 successful takeovers in the sample. For these acquiring firms, the total abnormal return is -0.65% (t-statistic = -2.02). In contrast, the total abnormal returns for acquiring firms is 1.46% when a takeover is not revealed at the initial announcement. The t-statistic for the difference between the average total abnormal returns for these subsamples is 1.83. For target firms, the total abnormal returns are virtually identical for takeovers that begin with takeover announcements and those in which common stock purchases preceded the takeover announcement. The data suggest that acquiring a block of the target's common stock prior to a takeover announcement is a more profitable strategy for acquiring firms than announcing the takeover prior to purchasing 5% or more of the target shares. Since the total abnormal return for target firms do not differ between the different strategies, a plausible

source of the differential returns to the acquiring firms is price appreciation on the shares of the target firm purchased prior to the takeover offer.

Standstill or Repurchase Agreement: Acquiring firms realize significant abnormal returns of 2.01% (t-statistic = 3.41) when a standstill agreement is reached with the target firm or when the target repurchases the block of its stock held by the acquiror. Target firms incur significant losses of -1.73% in two-day outcome announcement period (t-statistic = -4.22). The data indicate that standstill and repurchase outcome announcements increase share price for the filing firm and decrease share price for target firms. These findings are similar to the results of Bradley and Wakeman (1983) and Dann and DeAngelo (1983) and consistent with their finding that such repurchases often occur at a substantial premium. However, since the stock prices of target and acquiring firms generally rise in response to news of a 13D filing, the two-day outcome abnormal returns are not a measure of the total effect of the common stock investment for either target or acquiring firms. The total abnormal returns for corporate purchasers of common stock that result in standstill or repurchase agreements is 5.62% with a t-statistic of 4.79. These data suggest that common stock purchases that conclude with a standstill or repurchase agreement generate positive total abnormal returns for the acquiring firms.

The total abnormal return for targets is 1.68% with a t-statistic of 3.11. The data indicate that stockholders of target firms benefit from investments that result in a standstill agreement or a repurchase. One interpretation of these results for target firms is that their stock prices rise at the time of the initial announcement in

anticipation of a favorable outcome, such as a takeover bid. The negative abnormal return at the announcement of the standstill or repurchase agreement is due to at least two factors: the repurchase premium and the reversal of the takeover expectations formed at the initial announcement date. Since the total abnormal return is positive and statistically significant, the data suggest that the rise in stock price associated with the increased takeover expectations at the time of the investment more than offset the effects of the repurchase or standstill outcome on the firm's stock price. Of course, the data in table 6 suggest the stockholders of the target firm prefer a successful takeover to a standstill or repurchase agreement, but the option of receiving a takeover bid may not have been available to these firms. Based on the data in Table 6, we conclude that investments that end in a standstill or repurchase agreement do not harm target stockholders, since they benefit from the investment as measured by the total abnormal returns.

Shares Sold: Acquiring firms that sell the target's common stock realize an abnormal return of 1.52% (t-statistic = 1.66) at the outcome date. The corresponding target firms also realize an insignificant abnormal return. The total abnormal return for acquiring firms that sell shares is 5.97% with a t-statistic of 3.97, which is comparable to the gains associated with investments that conclude with a standstill or repurchase agreement. The average total abnormal return for the corresponding targets is 6.25 (t-statistic = 5.55). Therefore, both acquiring and target firms realize positive total abnormal returns when the investment concludes with the sale of shares in the market or directly to a third party.

Third Party Takeover: Thirty-one investments transactions which end with a successful takeover of the target by another firm. The purchasing firms

realize an insignificant positive abnormal return of 0.50% in the two-day outcome period (t-statistic=1.47). The total abnormal return for acquiring firms is 3.27% with a t-statistic of 3.67. The positive abnormal returns are consistent with the view that a takeover is the least profitable outcome for acquiring firms. When the outcome is a third party takeover, the purchasing firm potentially gains by selling its block of the target firm's shares to the bidding firm - presumably at a premium. These outcomes are similar to standstills and repurchases and appear to be equally profitable for acquiring firms. For the target firms, however, these investments have a more favorable effect on shares price than those that end in a standstill or repurchase agreement. The two-day outcome return of 1.40% and the total abnormal return for the sample of targets acquired by a third party is 19.48% (t-statistic = 11.92) which is comparable to the return for targets in successful takeovers by the initial purchasing firm.

Unsuccessful Takeovers: The two-day outcome abnormal return of acquiring firms for the 14 investments that conclude with unsuccessful takeover attempts is 1.29 with a t-statistic of 2.28. This significant positive abnormal return suggests that the stockholders of the acquiring firm benefit from the failed takeover attempt. The total abnormal return for these acquiring firms is positive, but statistically insignificant. This result differs from the findings of Dodd (1980) and Asquith (1983), which report significant losses of about -5.5% for unsuccessful bidding firms. For the six target firms, there is a statistically significant negative abnormal reurn of -10.88% at the outcome announcement, which reflects the loss of the anticipated takeover premium. The total abnormal returns for targets is not significantly different from zero at the .10 level.

D. Comparison of Total Returns For Investment by Frequent and Infrequent Acquiring Firms

The sample includes 96 common stock purchases by firms that frequently acquire shares, and 45 of these observations had outcomes. There are 383 common stock purchases by other acquiring firms and 226 of these observations had outcomes. The last row of table 7 reports that the average total abnormal return across all outcomes for frequent acquiring firms is 6.76%, with a t-statistic of 5.51 and 69% of these returns are positive. The average total abnormal return for infrequent acquiring firms across all outcomes is 1.32%, which is not statistically significant. In contrast, the average total abnormal return for the targets of frequent acquirors is 7.50%, which is smaller than the total return of 12.67% for targets of other acquiring firms.

The difference between the total abnormal returns for frequent and other acquiring firms and their associated targets appears to result from different relative frequencies of particular outcomes instead of differences in the profitability of the outcomes. Only 5 investments, or 11% of investments, by frequent acquiring firms with outcomes end as successful takeovers, which is the least profitable outcomes for acquiring firms and the most profitable outcome for target firms. In contrast, 65% of investments with outcomes are successful takeovers for other acquiring firms. The smaller proportion of successful takeovers for frequent acquiring firms means that these firms have a higher proportion of investments that conclude with the more profitable outcomes, such as a standstill or repurchase, shares sold, or a third party takeover. For example, while frequent acquiring firms are involved in only 17% of the observations with outcomes, they are involved in one-half of the standstill and repurchase agreements in our sample. In other words, 42% of the investments with a final outcome for frequent acquiring firms conclude with a standstill or repurchase, whereas 8% of the outcomes for investments by other acquiring firms are in this category.

TABLE 7

TOTAL ABNORMAL RETURNS FOR FREQUENT AND INFREQUENT ACQUIRING FIRMS AND THE ASSOCIATED TARGET FIRMS BY OUTCOME [a]

(t-statistic, percent positive, sample size)

OUTCOME	INFREQUENT ACQUIRING FIRMS	FREQUENT ACQUIRING FIRMS	TARGETS OF INFREQUENT ACQUIRING FIRMS	TARGETS OF FREQUENT ACQUIRING FIRMS
Takeovers	-0.17% (-1.15,42,147)	3.99% (-0.09,40,5)	18.59% (24.54,91,58)	-8.98% (-1.07,0,1)
Standstill or Repurchase	7.44 (4.07,68,19)	3.80 (2.95,68,19)	0.27 (1.65,47,15)	2.93 (2.72,65,17)
Shares Sold	5.03 (1.94,48,25)	8.08 (4.25,73,11)	5.13 (3.77,67,18)	8.26 (4.22,70,10)
Third Party Takeover	2.64 (2.79,73,22)	4.83 (2.44,78,9)	17.61 (9.84,70,10)	23.22 (6.72,60,5)
Unsuccessful Takeovers	-0.21 (0.30,62,13)	79.72 (2.92,100,1)	-1.57 (-1.52,40,5)	15.27 (1.65,100,1)
All Outcomes	1.32% (1.84,49,226)	6.76% (5.51,69,45)	12.67% (23.02,76,106)	7.50% (6.89,65,34)

[a] Prediction errors are adjusted for changes in the price of the firms' common stock and equal the abnormal change in stock price dividend by the stock price on day AD-1.

[b] Frequent acquirers are defined as acquiring firms that appear in our sample six or more times.

Total abnormal returns in table 7 differ among frequent and other acquiring firms and the associated target firms. The total abnormal returns for targets of frequent acquiring firms exceed the total abnormal returns for targets of other acquiring firms in the standstill or repurchase, shares sold, and third party takeover categories. For acquiring firms, frequent investors experience a greater total abnormal returns than other acquirors for each investment outcome except the standstill and repurchase category. However, the differences between the total abnormal returns in each outcome classification are insignificant for the acquiring firm samples as well as the target firm samples. This indicates that for a particular final outcome the investments are equally profitable for frequent and other investing firms and for the targets of these two types of acquiring firms. Therefore, the differences between the average total returns of investments by frequent and other acquiring firms appear to reflect different investment strategies or final outcomes rather than differential returns between the two groups of acquiring firms for particular outcomes.

IV. Summary and Conclusion

This investigation of corporate investments in common stock that are reported in a filing of Schedule 13D reveals that an attempt to acquire control of another firm represents only a minority of corporate investments in common stock. Among the 479 investments in the sample, the initial disclosure of the investment did not convey any prospect of a takeover attempt in 345 cases, and only 42 of these resulted in a successful tender offer or merger. Thus, a large subset of corporate acquisitions of common stock appear not to be motivated by an attempt to acquire control of the target firm.

Viewed in this broader context, we find that the stock price performance of acquiring and target firms depends on whether a takeover of control is the explicit objective of the acquiring firm. Like the results of studies of mergers and takeovers, we find that takeovers appear to be zero net present value investments for acquiring firms. However, there is some evidence that acquiring firms profit from takeovers that are preceded by a 5% or greater investment in the target firm's shares. Also, the total abnormal stock returns associated with investments that end with standstills or repurchases, the sale of shares or third party takeovers are positive and statistically significant. The total abnormal returns for unsuccessful takeovers are insignificant.

The target firm's shareholders benefit the most from successful takeovers by either the filing firm or another bidding firm. The total abnormal returns for investments that terminate in the sale of shares and standstill or repurchase agreements are also positive and statistically significant for target firms. Unsuccessful takeovers are associated with insignificant total abnormal returns for target firms. Therefore, regardless of the final investment outcome, including a standstill or repurchase agreement, we find that the investments typically increase stockholder wealth for the target firm.

Firms that frequently acquire common stock experience on average a larger positive common stock return at the initial announcement date than do other corporate purchasers of common stock. This appears to reflect the low frequency of announcements of takeover offers by frequent acquiring firms at either the initial announcement date or subsequent to the filing of Schedule 13D. The frequent and other acquiring firms earn comparable total abnormal returns for each type of investment outcome. Thus, firms that frequently purchase shares appear to pursue profitable investment strategies with greater relative frequency than do other corporate purchasers of common stock.

NOTES

1. See Jensen and Ruback (1983) for a comprehensive summary of this evidence.

2. This subsample includes five corporations that are ostensibly controlled by Victor Posner and seven other firms.

3. Fama (1976) describes the market model in detail.

4. The dollar value change per share associated with a given daily unadjusted abnormal return is the stock price on the previous day (which we define as P_{jt}) times the abnormal return. To see that adjusted prediction errors of the same magnitude correspond to equal dollar value changes per share, assume that the abnormal dollar value of the change in stock price is equal on days 0 and t,

$$(PE_0)P_0 = (PE_t)P_t.$$

Dividing both sides of this equation by P_0 shows that our adjustment normalizes the prediction errors so that APE_t corresponds to the same dollar value per share change as PE_0

$$PE_0 = PE_t\ (P_\tau/P_0) = APE_t.$$

5. The formula for variance of PE_{jt} assumes that prediction errors are independent across firms. We calculate the variance of the cumulative prediction errors over event time as the sum of the individual variances. This is only an approximation since it ignores the covariances between prediction errors.

6. A t-statistic for the difference between subsample abnormal returns is calculated by estimating the regression equation.

$$APE_j = C_0 + C_1D_j + \varepsilon_j,$$

where PE_j is the prediction error for observation j and D is a binary variable which equals unity if observation j is in the subsample of interest (e.g., takeover announcements). The t-statistic of the coefficient C_1 is the test statistic for the difference in the average returns. The regression is estimated using weighted least squares where the weights equal the inverse of the standard deviation of the adjusted prediction errors.

7. The average abnormal return and the t-statistic can differ in sign because the former assigns uniform weights to each observation where as the latter assigns non-uniform weights (equal to the inverse of the standard deviation) to each observation. This is most likely to occur when the average anbormal returns are close to zero.

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