

# Successful Antitakeover Defenses, Top Management Turnover and Stock Prices

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Previous studies have not addressed the question of whether successful targets of hostile bids adopt specific defenses, or whether a relation exists between the type of defense and subsequent management turnover. This study finds that sale or buyback of stock is the most common—and probably the most successful—form of defense employed by targets to defeat hostile bidders, and that stock buyback leads to management retrenchment in the post-defeat period. The management turnover announcement has no impact on the target stock price and appears to convey no new information to the market.

There is unambiguous evidence that target stockholders reap substantial gains in successful tender bids. For example, Jensen and Ruback (1983) estimated that target firms, on average, experience a 29.09% gain in successful tender bids. The gains to target stockholders are still larger if the initial offers are defeated but the targets are subsequently acquired. For example, Easterbrook and Jarrell (1984) reported that defeat of a tender offer causes the target stock price to appreciate by another 9%, reflecting the market's expectation of a more wealth-enhancing tender offer in the future. When expected takeovers fail to materialize, targets lose all the price gains.<sup>1</sup>

Why do target managers defeat bids to stay independent when such actions harm their stockholders? It is conceivable that target managers display resistance to bids in order to elicit higher bids from the current or different bidders. In doing so, they may sometimes miscalculate the probability of subsequent bids and cause the defeat of current bids. Evidence suggests, however, that target managers defeat tender offers for self-serving reasons. For example, Walkling and Long (1984) found that target managers who resist tender offers are overpaid and in danger of being replaced.

The present study addresses the following three questions related to defeated tender bids.

(1) What are the successful antitakeover defenses employed by target managers to remain inde-

pendent? While earlier studies have investigated the antitakeover defenses employed by managers in takeover bids (Dann and DeAngelo, 1988), no study has examined the question of whether targets that successfully defend against hostile bidders adopt specific defenses. This study contrasts the defenses employed by acquired and unacquired targets.

(2) How effective is the board of directors in disciplining managers *ex post*? Further, if some defenses are indeed more detrimental to the stockholders' interests than others, is there a relation between the type of defense employed and a subsequent top management turnover? Although earlier studies have investigated the incidence of top management turnover following certain wealth-reducing defenses, their results may suffer from a bias. Jarrell (1985) examined management turnover in targets that successfully employed litigation to remain independent, and Klein and Rosenfeld (1988) and Ang and Tucker (1988) studied managerial retrenchment following greenmail. Since managers typically adopt more than one defense to repel a bidder, it is not possible to ascribe a management turnover to a specific defense without including other defenses in multivariate analyses. The present study examines the above question by overcoming this weakness in extant research.

(3) Finally, what is the impact of management

retrenchment on the stock prices of target firms? The study attempts to determine if the turnover announcement is perceived by the market to be enhancing the probability of future bids.

## ANTITAKEOVER DEFENSES AND THE BOARD AS A MONITORING MECHANISM

### Antitakeover Defenses

Antitakeover defenses may be broadly classified into five classes:

- (1) Defenses that alter the size and distribution of common stock outstanding; e.g. buyback of shares, targeted or otherwise, financed by internal funds or new loans, or sale or placement of new shares (including convertible securities and poison pills) in blocks or dispersed form.
- (2) Defenses that alter the asset structure of the firm; e.g. spinoff, sale, and/or purchase of assets.
- (3) Defenses that create structural barriers in the way of successful takeovers; e.g. antitakeover provisions (staggered board or super-majority provisions).
- (4) Defenses that involve a hefty cash payout as a special dividend, which may be part of a recapitalization plan.
- (5) Legal defenses based on antitrust or legal technicality.<sup>2</sup>

### The Board of Directors as an Internal Control Mechanism.

A firm's managers are subject to both internal (board of directors) and external (threat of takeover) control mechanisms (Fama, 1980; Fama and Jensen, 1983). Several recent papers have examined the effectiveness of this internal control mechanism in disciplining managers following instances of managerial failure to maximize stockholder wealth. For example, Warner *et al.* (1988) found a negative relation between a firm's share price performance and the probability of a management change. Weisbach (1988) found that outsider-dominated boards are more likely to fire top managers following poor stock returns and corporate earnings than insider-dominated boards. Klein and Rosenfeld (1988) and Ang and Tucker (1988) reported that managers who pay greenmail are more likely to be expelled from corporate ranks.<sup>3</sup>

It is apparent that in some cases the target board is unable to prevent managers from successfully thwarting takeover bids. The question then arises whether the board is successful *ex post* in retrenching managers responsible for the stockholder wealth loss. Thus, one objective of this paper is to further explore the effectiveness of the board as an internal control mechanism by examining the incidence of top management turnover following failed tender bids.

Further, all the defenses employed by targets may not be equally detrimental to the stockholders' interests. On the contrary, some may preserve (or even enhance) the takeover premium by bringing about the outcome sought by the hostile bidder. Therefore, it may be argued that, in general, there may exist a direct relation between wealth-reducing defenses and management turnover, *ceteris paribus*. Antitakeover defenses may be ranked in order of their impact on stockholder wealth from the most beneficial to the most damaging in the following ways;

- (1) Defenses that benefit stockholders: Jensen's (1986) free cash flow theory holds that managers prefer to cling to free cash flows, even investing them in negative net present value projects instead of distributing them to stockholders. Some targets may be cash-flow rich, not inviting bidders' attention. Large cash payouts not only reduce the threat of takeovers but also alleviate the agency costs of free cash flows. Handa and Radhakrishnan (1991) and Gupta and Rosenthal (1991) found that cash payouts by the target firm have a positive impact on the target stock price. Thus, cash payouts by managers may be inversely related to management turnover.
- (2) Defenses that may be beneficial to stockholders: If managers have in fact the propensity to invest free cash flows in negative net present value projects, their firms may become attractive takeover targets. Bidders could liquidate negative net present value projects, thereby recapturing a part of the lost value. Alternatively, target managers may sell such assets to repel the bidders, thereby mimicking the outcome sought by the latter. Prior research has recorded a positive effect of asset sales on the firm's stock price (Hite *et al.* 1987). Target managers may also sell profitable projects in order to reduce their attractiveness to the bidders, even though such

sales might harm target stockholders. Further, any purchase of assets to thwart a takeover attempt is also not likely to be in the stockholders' interests. Overall, it is difficult to predict the sign of the relationship between the asset restructuring defense and management turnover.

- (3) **Neutral defenses:** Evidence provided by Jarrell (1985) shows that litigation does not adversely affect stockholder wealth, as this defense is employed by targets to generate higher offers for the firm. Thus, no relation between litigation and management turnover is expected.
- (4) **Defenses that reduce stockholder wealth:** Targeted buybacks and poison pills cause a wealth loss for target stockholders (Dann and DeAngelo, 1983; Malatesta and Walkling, 1988, respectively), probably reflecting the reduced probability of takeovers due to the restrictive nature of these defenses. Therefore a positive relation may exist between these defenses and management turnover.

While the sale of new stock as a defense does not have any significant impact on target stockholder wealth (Dann and DeAngelo, 1988), stock buybacks significantly reduce stockholder wealth (Denis, 1990). The latter cause cash disgorgement from management and reduce the agency costs of free cash flows. The negative market response to stock buyback announcements suggests that the market perceives stock buyback as an effective defense whose cost (loss of takeover premium) exceeds its benefit (reduction in agency costs).

While no management turnover may be expected following the sale of new common stock, it is difficult to predict the relation between stock buyback and management turnover. This is because stock buybacks also increase management's proportional ownership of the firm and may contribute to their entrenchment.

### Management Turnover and the Stock Prices

Finally, the study tests the stock price reaction to the announcement of top management turnover following failed tender bids. The market response to this turnover following failed tender bids may be positive, negative or neutral. If the market perceives a top management turnover as leading to a possible takeover, the market response may be positive. If, however, the aggressive antitakeover measures

have substantially altered the target, thereby reducing its attractiveness to potential bidders, then the market response may be neutral (assuming that the market penalizes the stock as the probability of takeover declines through time). Lastly, a top management turnover may be viewed as an admission of failure by the corporation to maximize stockholder wealth via either new takeover proposals or alternative measures. In such a case, the stock market may respond negatively to the news.

## DATA AND METHODOLOGY

### Sample Selection and Data Sources

A sample of unsuccessful tender offers made between 1984 and 1987 involving the New York Stock Exchange or the American Stock Exchange firms was obtained from Dialogue Information Services. Some firms were targets of more than one tender offer. Of the 90 target firms involved in the tender bids, 50 were eventually acquired within one year of the first tender offer. The 40 firms not acquired in the one-year period constitute the initial sample for analysis for this study.<sup>4</sup> Later, firms that were acquired in the second and third year were also omitted to test the robustness of results. Compustat and CRSP tapes were accessed for the accounting and stock price data, respectively. *The Wall Street Journal Index* was used to gather information on management turnover.

### Variables

The following variables were employed in logit regressions to test the relationship between the type of defense and the probability of management turnover.

**TURNOVER:** As in the previous studies, a top management change is defined as one involving a change in the position of chief executive officer (CEO), president or chairman of the board in the two-year period following the first bid. To test the effectiveness of the board as a control mechanism, an ideal sample of management turnovers should contain only forced departures from corporate ranks. Firms may not disclose in press releases the true reasons behind management turnovers (Weisbach, 1988). An effort was made to test the sensitivity of results by excluding management changes that appeared to be voluntary. A management turnover was classified as voluntary when *The Wall*

*Street Journal*; (1) reported the turnover merely as 'retirement' with no mention of the recent takeover attempt or antitakeover defenses employed by the firm; and (2) either did not mention the retiree's age or stated the age as 65 or more.<sup>5</sup>

**RESTRUCTURE:** The ratio of the market value (as estimated from information in *The Wall Street Journal*) of assets bought or sold to the market value of equity (**RESTRUCTURE** would have a positive value for asset purchase and a negative value for asset sales).

**STOCK:** The percentage change in common stock outstanding due to sale or buyback (**STOCK** would be positive for sale of new stock and negative for stock buyback).

**GREENMAIL:** The estimated profits earned by the bidder divided by the pre-bid target market value of equity. (This represents the cost borne by target stockholders due to greenmail. It is in addition to the loss of takeover premium, which results when target firms remain independent.)

**POISON:** This variable was assigned a value of one if the target adopted a poison pill and a value of zero otherwise.

**LITIGATE:** This variable was assigned a value of one if the target litigated and a value of zero otherwise.

**PAYOUT:** Cash payout (special dividends or other cash payments in recapitalization) per share divided by the target's stock price in the preceding quarter.

Information on the above variables was gathered from *The Wall Street Journal* covering the time span from the announcement of the bid until the withdrawal or resolution of the bid.

The following two variables were employed as control variables. Extant evidence supports the existence of a negative relation between stock returns and management turnover, and a positive relation between firm size and management turnover (Warner *et al.*, 1988).

**RETURN:** Returns on the target stock estimated over one calendar year ending two quarters preceding the takeover bid.

**SIZE:** Market value of target equity (in millions of dollars).

## Event-study Methodology

Standard event-study methodology was employed to estimate the stock price reaction to the manage-

ment turnover. The market model was employed to generate the benchmark returns: where

$$R_{jt} = A_j + B_j R_{mt} + E_{jt} \quad (1)$$

$R_{jt}$  = return on the  $j$ th stock on day  $t$ ,

$R_{mt}$  = return on the CRSP equally-weighted portfolio on day  $t$ ,

$A_j, B_j$  = estimated ordinary-least-squares parameters for security  $j$ , and

$E_{jt}$  = the residual term for security  $j$  on day  $t$ .

Parameters of  $A_j$  and  $B_j$  were estimated for each security  $j$  by regressing the pre-event time series of daily stock returns,  $R_{jt}$  (where  $t = -270$  to  $t = -21$ ) on the daily returns on the CRSP portfolio. The event day ( $t = 0$ ) was defined as the day the news on management turnover was published in *The Wall Street Journal*. The estimated equation for each security was then employed to generate the benchmark returns for the event day  $t$  (Where  $t = -20$  to  $t = +20$ ). The abnormal returns ( $AR_{jt}$ ) were estimated as:

$$AR_{jt} = R_{jt} - (\hat{A}_j + \hat{B}_j R_{mt}) \quad (2)$$

The daily abnormal returns for each security were cumulated over the interval of 40 days  $[-20, +20]$  to obtain the cumulative abnormal returns for each stock  $j$  ( $CAR_j$ );

$$CAR_j = \sum_{t=-20}^{t=+20} AR_{jt} \quad (3)$$

The  $t$ -statistic was calculated as follows

$$t\text{-statistic} = [N/(T2 - T1 + 1)]^{1/2} \frac{\sum_{T1}^{T2} SAR_j}{T1} \quad (4)$$

where

$$SAR_{jt} = 1/N \sum_{j=1}^N AR_{jt} / [\text{Var}(AR_{jt})]^{1/2}$$

$\text{Var}(AR_{jt}) = S_j^2 [1 + 1/D + \{(R_{mt} - \bar{R}_{mj})^2 / \text{Var}(R_{mt})\}]$

where

$S_j^2$  = residual variance for stock  $j$  from the market model regression,

$D = 250$ , the number of days used to estimate the market model parameters,

$T2, T1$  = the interval over which the abnormal returns are cumulated, and

$\bar{R}_{mj}$  = the average market return for the 250-day estimation interval.

## EMPIRICAL RESULTS

### Antitakeover Defenses Adopted by Targets

Various antitakeover defenses adopted by the acquired targets (firms that were acquired within one year of the first bids) and the independent targets (firms that remained independent for at least one year) are displayed in Table 1. The two groups appear to be strikingly different from each other in respect of defenses. The most common defense employed by the acquired targets is litigation, whereas the most common strategy adopted by the

**Table 1. Antitakeover Defenses Adopted by Independent and Acquired Targets**

Defense	Frequencies	
	Independent targets (n = 43)	Acquired targets (n = 50)
Litigation	15	12
Antitakeover	6	4
Provisions		
Poison pills	13	4
Share sale/Buyback	17	2
Greenmail	8	0
Restructuring	9	0
(purchase/sale/spin-off)		
Cash payout	7	0

$\chi^2 = 18.41$  ( $p < 0.01$ ) that the two groups come from the same population.

independent targets involved sale or buyback of shares (37.7%), followed by litigation (37.5%), poison pills (32.5%), asset restructuring (22.5%) and greenmail (20%). Combining 14 instances of buyback with eight of greenmail makes stock repurchase the most dominant form of defense. Further, none of the acquired targets adopted greenmail, asset restructuring or cash payout antitakeover defenses. The chi-square statistic of 18.41 indicates that the hypothesis that the independent and acquired firms come from the same population can be rejected at the 0.01 confidence level.

Further, the independent targets simultaneously employed multiple defenses. Twenty-six of the independent firms adopted two or more of the listed defenses to ensure defeat of the bids. In contrast, only four of the 50 acquired targets adopted two or more defenses. Forty-one out of the 50 acquired targets received at least two or more bids in the one-year period following the first bid. In contrast, only seven of the 40 firms that successfully defended the bids received two or more bids in the same period. It appears that while the managers of acquired targets adopted fewer and milder defenses to generate more lucrative bids for their firms, the managers of independent targets resorted to multiple and severer defenses to defeat the bids.

Table 2 provides numerical information on the defenses employed by the independent targets. The defenses alter the financial and asset structures of the target firms substantially and demonstrate the

**Table 2. Descriptive Statistics of Antitakeover Defenses**

Variable	No. of cases	Mean	Standard deviation	Minimum	Maximum
<i>RESTRUCTURE</i> <sup>a</sup>	9	0.71	0.66	0.09	2.38
<i>PURCHASE</i>	2	0.58	0.06	0.53	0.62
<i>SALE</i>	7	0.75	0.75	0.09	2.38
<i>STOCK</i> <sup>b</sup>	17	0.29	0.14	0.11	0.55
<i>SALE</i>	3	0.22	0.22	0.11	0.40
<i>BUYBACK</i>	14	0.31	0.14	0.11	0.55
<i>GREENMAIL</i> <sup>c</sup>	8	0.04	0.03	0.00	0.10
<i>LITIGATE</i> <sup>d</sup>	15	–	–	1	1
<i>POISON</i> <sup>e</sup>	13	–	–	1	1
<i>PAYOUT</i> <sup>f</sup>	7	0.69	0.62	0.02	1.42

<sup>a</sup> *RESTRUCTURE*: value of assets bought/sold divided by the market value of equity.

<sup>b</sup> *STOCK*: percentage change in common stock due to buyback/sale.

<sup>c</sup> *GREENMAIL*: the estimated profits of the bidder divided by the market value of target equity.

<sup>d</sup> *LITIGATE*: = 1, if the target litigated and 0 otherwise.

<sup>e</sup> *POISON*: = 1, if the target adopted a poison pill and 0 otherwise.

<sup>f</sup> *PAYOUT*: cash payment per share divided by the pre-bid target stock price.

serious intent of the target managers to defeat the bidders. Of the nine firms involved in asset restructuring, seven sold their assets and two bought assets to reduce their attractiveness to the bidders. The mean value of the assets involved in restructuring was 71% of the market value of target equity. Further, 14 firms bought back their shares following the bids, while three sold new stock. Such tactics involved a 29% mean change in the common stock outstanding. Firms adopting the payout defense made an average cash payment that was 69% of the pre-bid target stock price. Finally, the mean profits earned by the hostile bidder were 4% of the target's market value of equity.

impose an *ex post* settlement on the managers by firing them.

The hypothesis that the adoption of certain value-reducing defensive measures is likely to lead to top management turnover was tested using logit models:

$$\begin{aligned} \text{Probability (Turnover)} &= f(\mathbf{XB}) \\ &= \exp(\mathbf{XB}) / (1 + \exp(\mathbf{XB})) \quad (5) \end{aligned}$$

In this equation  $\mathbf{X}$  is a vector of independent variables affecting management turnover and  $\mathbf{B}$  is a parameter vector. Independent variables in the model include *RESTRUCTURE*, *STOCK*, *GREENMAIL*, *POISON*, *LITIGATE*, *PAYOUT*, *RETURN* and *SIZE*.<sup>7</sup>

Four logit models were tested. Column 1 of Table 3 displays the results for the first model involving a sample of 40 targets that remained independent for one year following the first bid. This model is estimated by disregarding the stated reason for management turnover. It appears that no defense except *STOCK* significantly explains management turnover. Management turnover is inversely related to *STOCK*, i.e. the greater the percentage decline in the common stock outstanding due to buyback, the higher the probability of a subsequent management change (significant at the 0.04 level).<sup>8</sup> The sign of *RESTRUCTURE* is positive but significant at only the 0.15 level. It appears that the greater the relative decline in assets, the lower the probability of management turnover, which suggests that asset sales may not be as harmful to stockholders as asset purchases in fighting hostile bidders.

*RESTRUCTURE* becomes less significant with the introduction of control variables (column 2). *GREENMAIL* and *PAYOUT* have the predicted signs but not *POISON*, although none are statistically significant.

Two control variables, namely *RETURN* and *SIZE*, were introduced in the second model (column 2). The coefficient of *RETURN* is significant ( $p = 0.07$ ), which is consistent with the earlier findings that poor stock returns increase the probability of management turnover.<sup>9</sup> *STOCK* is still significant, although at a reduced level ( $p = 0.09$ ). It appears that management turnover subsequent to unsuccessful bids is partly explained by poor stock performance of these targets. This finding appears to be sensitive to the definitions of management turnover and unsuccessful bids (columns 3 and 4, respectively).

### Management Turnover Following Failed Tender Bids

The management turnover news releases contained different reasons for the turnovers, such as 'retired', 'ousted', 'eased out', 'retired early', 'resigned', and 'resigned to pursue personal interests'. Ignoring the stated reasons for turnover yielded 31 incidents of top management turnover involving the 40 independent targets in the two-year period following the first bids. In contrast, there were 19 incidents of turnover in the two-year period preceding the first bids for the sample. The post-bid management turnover is significantly different from the pre-bid period ( $\chi^2 = 2.88$ ;  $p < 0.1$ ). Of the 31 cases, only two could be classified as voluntary retirements according to the criteria listed earlier. Comparing the post-bid involuntary turnover frequency of 29 with the pre-bid rate of 12 yields a chi-square of 7.0 ( $p < 0.01$ ).

Further, many of the target firms were characterized by multiple turnovers in the two-year post-bid period and this could bias the result. For example, a few firms may have accounted for all the turnovers, thus leading to a misleading inference. To deal with this, the number of firms involved in involuntary management turnover in the post-bid period was compared with the number in the pre-bid period. Twenty of the 40 independent targets were involved in involuntary top management turnover in the post-bid period versus ten in the pre-bid period, yielding a chi-square value of 3.3 ( $p < 0.1$ ).<sup>6</sup>

The above findings confirm the positive role of the board as an internal control mechanism. Although the board fails *ex ante* to prevent self-serving managers from thwarting bids, it appears to

Column 3 of Table 3 displays the results of the third model, which was estimated after classifying the two turnovers as voluntary retirements (and assigning the dependent variable a value of zero). *STOCK* is the only significant variable in this model at the conventional confidence levels. Finally, since Bradley *et al.* (1983) found that targets lose their takeover-related premium in two years, the three firms that were acquired in the second year were dropped from the sample and the model was tested again (column 4, Table 3). The overall findings remain unchanged: the stock buyback defense—which was earlier found to be one of the most common defenses against hostile bidders—increases the probability of top management turnover in the post-bid period.<sup>10</sup>

The above findings are contrary to those reported by Ang and Tucker (1988) and Klein and Rosenfeld (1988), who reported a positive relation between the greenmail defense and management turnover. One possible explanation of the different results may be that the above studies did not

include the impact of restructuring and share buyback programs, which many targets simultaneously launch with greenmail agreements to defend themselves in hostile bids.

### Shareholder Wealth Effects of Management Turnover

Table 4 contains the cumulative abnormal returns associated with first management turnover announcement in the two-year period for the 22 target firms for different event windows. The two-day  $[-1, 0]$  cumulative abnormal returns are  $-1.5\%$  and statistically insignificant. Thus, it does not appear that the management turnover announcement has a significant impact on the stock price. All event windows, however, show negative abnormal returns. In the 40-day  $[-20, +20]$  interval around the announcement, the stockholders of independent targets earned a negative 8.66% return ( $p < 0.05$ ). It appears that the stockholders of successful targets may be losing their takeover premium gradually

**Table 3. Logit Regressions of Top Management Turnover on Type of Defense**

The dependent variable has a value of 1 if there is a change in the position of CEO, chairman or president in the two-year period following the failed tender bid, and 0 if there is no change. Chi-square probabilities are given in parentheses.

Variable	Coefficients			
	(1) n=40	(2) n=39*	(3) n=39	(4) n=36
<i>INTERCEPT</i>	0.057 (0.67)	-0.622 (0.39)	-0.350 (0.54)	-0.453 (0.48)
<i>RESTRUCTURE</i>	1.798 (0.15)	1.294 (0.37)	1.487 (0.26)	1.669 (0.19)
<i>STOCK</i>	-5.660 (0.04)	-5.302 (0.09)	-6.301 (0.04)	-8.033 (0.03)
<i>GREENMAIL</i>	29.114 (0.30)	40.172 (0.22)	17.509 (0.47)	15.324 (0.52)
<i>POISON</i>	-0.147 (0.85)	0.561 (0.53)	0.535 (0.51)	1.075 (0.25)
<i>LITIGATE</i>	-0.361 (0.51)	0.092 (0.91)	-0.101 (0.90)	-0.410 (0.63)
<i>PAYOUT</i>	-1.002 (0.36)	-0.723 (0.53)	-0.588 (0.59)	-0.777 (0.50)
<i>RETURN</i>	-	-3.162 (0.07)	-1.956 (0.20)	-1.586 (0.32)
<i>SIZE</i>	-	0.000 (0.18)	-	-
Model chi-square	9.138 (0.17)	14.608 (0.06)	9.911 (0.19)	11.999 (0.10)

\* The stock data were unavailable for one target firm.

**Table 4. Cumulative Abnormal Returns Around Management Turnover Announcement ( $n = 22$ )**

Interval	Cumulative abnormal returns (CARs) (%)	t-statistic
[-20, 0]	-4.96	-1.59
[-1, 20]	-1.50	-1.21
[+1, 20]	-3.70	-1.30
[-20, +20]	-8.66	-2.04*

\*Significant at the 0.05 confidence level.

over time, as the probability of new bids for the firms declines with time.

## SUMMARY AND CONCLUSIONS

The present study attempts to answer the question of whether targets that successfully defend themselves in hostile takeovers adopt specific defenses. This study also addresses the question of whether a specific defense is more likely to cause management retrenchment in the post-bid two-year period. Earlier studies have not studied the defenses of successful targets as a group; nor have they examined the relation between the type of defense and management turnover in a multivariate setting.

Analyzing a sample of 40 firms that remained independent for a year, the study finds that successful targets adopt multiple defenses, with 65% adopting two or more defenses. The study further finds that three severe defenses, namely targeted share buyback, asset restructuring and cash payouts, are exclusively employed by independent targets and never by acquired targets. Further, to ensure success against the bidder, target defenses are designed to substantially alter the financial and asset structures of the target.

There is evidence of significant top management turnover in the independent targets in the two-year period following the bids, confirming the role of the board as an internal control mechanism. Further, the results suggest that stock buyback increases the probability of management turnover. The study, however, finds no relation between the greenmail defense and subsequent management turnover, as found by Ang and Tucker (1988) and Klein and Rosenfeld (1988). Due to the small sample size the above results should be interpreted cautiously.

Lastly, the target stockholders earn insignificantly negative abnormal returns on the turnover

announcement date, but significantly negative returns in the 40-day period around the management turnover announcement. It appears that successful targets lose their takeover premium gradually, as the probability of new bids diminishes with time.

## NOTES

1. There is no agreement among financial economists as to the time span following the bids over which targets lose the price gains. While Easterbrook and Jarrel (1984) found this period to be 100 trading days, Bradley, *et al.* (1983) estimated it to be about two years.
2. See Ruback (1988a) for a discussion of various defenses.
3. For a review of top management turnover literature, see Furtado and Karan (1990).
4. The sample size is small but comparable to that of 33 employed by Ruback (1988b) in an NBER study of failed tender offers. The sample employed by this study is small due to two reasons: the Dialogue database provides information on takeover bids from 1984; and this study alternately defines a successful target as one that remains independent for one, two, or three years following the first bid.
5. Warner *et al.* (1988) found the median age of retirees to be 65.
6. Comment (1985) found the normal annual rate of CEO turnover to be 13% and Klein and Rosenfeld (1988) reported the top management turnover rate of 20.1%. The above studies use different definitions of turnover. In the absence of a benchmark number for the normal turnover rate, the comparison of the post- and pre-bid turnover rates seems appropriate.
7. Several studies have found that all antitakeover provisions do not harm stockholders, only the more restrictive ones do (e.g. super majority with board out). See Agrawal and Mandelker (1990) and Jarrell and Poulsen (1987). The small number of firms adopting antitakeover measures prevented us from separating the more restrictive provisions from the rest for any meaningful testing purposes. Therefore this defense was not included in the model.
8. Since stock sale has not been reported to be as harmful to stockholders as stock buyback, the three cases of stock sale were omitted, with the resulting coefficients being not materially different from those reported.
9. The logit models were also tested using the market (CRSP equally weighted) adjusted annual stock returns to the target firms. The findings were unchanged.
10. Ruback (1988b) studied the wealth loss to target stockholders in unsuccessful bids over a three-year period. Dropping the four firms that were acquired in the third calendar year from the sample did not change the findings. The results are not reported here.



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