Shareholder Wealth Effects of Poison Pills in the Presence of Anti-Takeover Amendments

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Abstract

In the 1980's managers were innovative in implementing arsenals of devices to prevent possible takeovers of their firms. These anti-takeover devices were usually amendments to the corporate charter or poison pills. Prior studies have examined market reactions to either amendment devices or poison pills. This study provides an extension to those studies by examining market reactions to poison pills as the first anti-takeover devices compared with pill adoptions as an addition to an already existing arsenal of charter amendment devices. Results indicate that market reactions differ between these two types of events. Stockholder wealth effects differ also according to the type of charter amendment in place at the time of pill adoption.

Introduction

The aggressive takeover market during the eighties led to numerous innovative anti-takeover devices. Initially, the devices were largely anti-takeover amendments (ATAs) to corporate charters such as classified boards, fair-price amendments, and supermajority amendments. In the mid-1980's, poison pills became popular anti-takeover devices. Unlike ATAs that require shareholder approval, pills are generally adopted by boards of directors without being put to a shareholder vote.

Empirical tests of the shareholder wealth effects at the announcement of an ATA adoption reveal that the sign of the reaction and statistical significance depend on the type of ATA. Specifically, there is no statistically significant market reaction to an ATA adoption as long as the ATA is incapable of preventing a takeover. In contrast, if the ATA is capable of effectively preventing a successful takeover as in the case of supermajority amendments, there is a negative market reaction. These results are consistent with the management entrenchment hypothesis. That is, only a restrictive ATA device capable of blocking a takeover and entrenching inefficient and self-serving managers elicits a negative market reaction.

Based on the market reaction to ATA announcements, it is logical to expect that the market would react negatively to pill adoptions since they can effectively raise the cost of a takeover to a prohibitive level and are adopted solely by a vote of the Board of Directors. Empirical studies of the market reaction at a pill adoption, however, do not report a large negative reaction. As a matter of fact, the market reaction is generally found to be negative only in those instances where the firm was under threat of a takeover or when the pill is capable of preventing a takeover by any means.

In the present paper we study an alternative explanation for the absence of a strong nega-
tive market reaction to a pill adoption. Namely, that if the pill is adopted after the firm has ATAs in place, the market has largely impounded its assessment of the cost of management entrenchment into the stock price at the time of the initial ATA adoption. Moreover, these companies adopting pills with no prior ATA will have the most negative reaction. We find a statistically significant difference between those with any ATAs in place and those firms with no existing ATAs.

We then test for differences in market reaction attributable to different types of ATAs in place at the time of pill enactment. In a prior study, Ryngaert (1988) found no significant differences between market reactions to poison pill announcements for firms with or without prior adopted fair-price supermajority amendments. Here, we take Ryngaert's analysis one step further and examine the reaction to poison pill announcements between firms with fair-price amendments and those with supermajority amendments. We find that the market reaction to the pill announcements differs significantly between firms with a supermajority ATA or a fair-price ATA in place when the poison pill is adopted. Shareholders approve the fair-price ATA/poison pill combination but are indifferent to the supermajority/poison pill combinations. We also examine these findings on tests where we control for other variables that have been shown in prior research to bear a relationship to ATA or pill adoption.

Review of Relevant Literature

Market Reaction to ATAs and Pills

Until recently, prior studies of anti-takeover devices examine one type of device and the market reaction to the announcement of adoption of the device. The devices may be divided into two categories: (1) poison pills, which do not require shareholder approval and (2) ATAs which require shareholder ratification. Market reactions to adoption of anti-takeover devices are interpreted according to the management entrenchment or stockholder interest hypotheses. The management entrenchment hypothesis states that anti-takeover devices serve to protect incumbent management from the market for corporate control. The stockholder interest hypothesis suggests that these devices afford management increased power to obtain the best bid during a takeover attempt. Stockholders then benefit through increased return for shares tendered.

Reported findings on the market reaction to announcements of poison pill adoption are mixed. Jarrell and Poulsen (1986) and Ryngaert (1988) find a market reaction that is not statistically different from zero, while Malatesta and Walkling (1988) report a statistically significant negative market reaction of approximately -0.92 percent. Interestingly, all three studies report statistically significant market reactions for subsets of their sample that were actual or likely takeover targets. Furthermore, Ryngaert (1988) finds a significant negative reaction to the most restrictive type of pill. He concludes that this type of pill may support managerial entrenchment. Ryngaert call this class discriminatory pills or those which deter takeover by any means.

Studies of ATA adoptions reveal that market reactions differ according to the type of ATA. Negative market reactions occur in response to supermajority amendments (Jarrell and Poulsen, 1987), and the combination of eliminating cumulative voting and adopting classified boards (Bhagat and Brickley, 1984). Results are mixed for dual class recapitalizations [Partch, 1987, Jarrell and Poulsen, 1988, Cornett and Vetsuypens, 1989] and for antigreenmail provisions (Eckbo, 1990). Insignificant reactions occur for fair-price, classified board only, and authorized preferred stock amendments.

Results of ATA and poison pill studies may be confounded by the fact that firms often adopt a combination of anti-takeover devices, either as a group or in a time sequence. While several researchers acknowledge the existence of a package of ATA adoptions [Linn and McConnell (1983), DeAngelo and Rice (1983) and Jarrell and Poulsen (1987)], only a few test the simultaneous or sequential adopt of anti-takeover devices. Results vary among different ATA combinations. Bhagat and Brickley (1984) study the eliminations
of cumulative voting coupled with a classified board amendment and find significantly negative market reactions. They state also that some firms in their sample simultaneously adopt other anti-takeover devices, in addition to this combination. McWilliams (1990) finds no significant difference in market reactions between enacting ATAs with and without prior ATAs in place. Bhagat and Jeffers (1991) find a non-significant market return for a fair-price/antigreenmail combination.

Ryngaert (1988) examines (1) poison pills and prior existing classified board amendments and (2) poison pills with prior fair-price/supermajority amendments. He finds no significant differences in market reactions to pill announcements between firms with prior classified board amendments and those without such amendments. Testing for differences between returns for firms adopting poison pills with and without prior fair-price/supermajority amendments, the means are of opposite signs but not statistically significant. One reason Ryngaert may not have found significant results is that the fair-price and supermajority amendments have been shown to elicit different market reactions. Specifically, the supermajority amendment without a fair-price clause is viewed negatively by the market while the fair-price amendment receives a non-significant though mildly positive reaction (DeAngelo & Rice, 1983).

This study is similar to the Ryngaert (1988) study but differs because we test the fair-price/poison pill and the supermajority/poison pill combinations separately. Theoretically, the fair-price ATA differs from the supermajority ATA through the principal/agent relationship. While both types of ATA afford management increased power to thwart a takeover attempt, only the fair-price ATA affords shareholders something in return for this granted power, i.e., an up-front guarantee of a "fair price" for their stock if a takeover is accomplished.

The preceding discussion suggests that shareholder wealth effects at the announcement of poison pill adoption may be affected by the presence or absence of any previously adopted anti-takeover amendments and by the type of any such amendments. If the first anti-takeover device to be adopted is a poison pill, the market reaction to this device should be greater than if the pill is only an additional device in the firm's anti-takeover arsenal. The managerial entrenchment hypothesis would predict a negative market reaction for the first time poison pill adopter. The hypothesis predicts a neutral or negative reaction for the super-majority/poison pill combination. The shareholder interest hypothesis would predict the opposite, a positive market reaction for the first time poison pill and a neutral or positive reaction to the fair-price/poison pill combination.

Furthermore, factors in addition to the existence and type of ATA in place before the pill adoption may determine the market reaction to the pill announcement. The factors considered here are the threat of takeover, the presence of a redeemability clause, and ownership by institutions or by insiders (managers and directors).

Insider and Institutional Ownership

Agrawal and Mandelker (1990) suggest that the stockholder wealth effects of anti-takeover device adoptions may vary according to the ownership characteristics of the firm. Agrawal and Mandelker's results reveal a positive relationship between the proportion of institutional holdings and the market reaction at the ATA adoption. Jarrell and Poulson (1987) as well as Brickley, Lease, and Smith (1988) find a negative market reaction to anti-takeover amendments where there is a small institutional ownership and large insider ownership.

The relationship between the market reaction to poison pill adoptions and the ownership characteristics of the adopting firms is not clear. Malatesta and Walkling (1988) report that firms adopting poison pills have lower insider ownership (managers and directors) than other firms in respective industries but they do not examine the relationship between the market reaction and insider ownership. Ryngaert (1988) finds that insider ownership is not a determinant of the market reaction to poison pill adoption announcements.
The relationship between the market reaction to ATA adoptions and ownership characteristics has been tested for the supermajority, fair-price, and dual capitalization amendments. Jarrell and Poulsen (1987) report insignificant results for regressions of CARs on insider ownership and institutional ownership for either supermajority or fair-price amendments. Their logit regression analysis reveals that higher institutional ownership is related to a higher probability that a firm will adopt a fair-price amendment instead of a supermajority amendment. Higher insider ownership indicates a lower probability of adoption of a fair-price amendment instead of a supermajority one although results are not statistically significant. Cornett and Vetsuy &ens (1989) and Jarrell and Poulsen (1988) report different results for regressions of stockholder reactions on insider ownership characteristics for dual capitalization ATAs. Cornett and Vetsuy &ens report no significant relationship between CARs and insiders ownership. Jarrell and Poulsen find a significantly negative relationship.

**Redeemability Clause**

A recent study by Johnson, Mun, and Abbott (1991) finds a significant negative relationship between poison pill announcement CARs and the presence of a redemption clause in the poison pill. A redemption clause affords the issuing firm the option to buy back the poison pill rights, either before or after the event triggering the poison pill. While redemption clauses are sometimes advocated as means of protecting shareholders by empowering management to essentially neutralize the pill in the event an attractive offer is made for the firm's stock, the negative relationship reported by Johnson et al. suggests that shareholders do not perceive such a pill feature to be in their best interests. The rationale for this finding is that redemption clauses are used by management as a way of neutralizing a tender offer that is conditional on inclusion of the rights in the poison pill.

**Takeover Targets**

Market reactions to poison pill announcements may differ according to whether the firm is a takeover target. Management actions to adopt a poison pill may signal investors that their firm is a takeover target and the pill is being adopted to prevent a takeover. The market may view this action positively or negatively depending on prior assessment of the firm as a takeover target. Since excess returns accrue to stockholders of takeover targets, the market reaction to the poison pill may be positive if the high likelihood of a takeover was not impounded in the price of the firm's stock price prior to the pill adoption. Market reactions should be negative if the market had appropriately assessed the likelihood of a takeover and now management is acting to prevent the takeover. Malatesta and Walkling (1988), Jarrell and Poulsen (1986) and Ryngaert (1988) find statistically significant market reactions for pill adoptions by firms that are actual or likely takeover targets. Furthermore, Malatesta and Walkling (1988) report that firms adopting poison pills are more likely to be takeover targets than randomly selected firms. Eckbo (1990) finds a significantly positive relationship between the market reaction to anti-greenmail announcements and a runup variable representing the market's prior assessment of the firms as a takeover target.

**Data and Methodology**

A search for announcements of poison pills from the Dow Jones News Wire yields 290 announcements from November 1983 through December 1987. The sample includes only those firms for which the announcement is the Board of Directors intent to adopt a poison pill. Information on corporate charter amendments is obtained from the Investors Responsibility Research Center *Corporate Takeover Defenses*. To be included in the final sample, the firm must be listed on the NYSE or ASE, have non-missing excess returns on the CRSP Excess Returns File over the two day period from day one before and through the event date announcement, and be included in the IRRC data base. Considering missing or unavailable data, the final sample consists of 191 firms. Of these 191 firms, 160 had some form of prior adopted ATA at the time of the poison pill announcement. Thirty-one firms adopt a poison pill as the first anti-takeover device.
Results of prior studies suggest that the sample be divided into three groups. One group adopts the poison pill with no prior ATA. After this division, only two groups of firms having ATAs are mutually exclusive. This distinction is the basis for forming groups two and three. The second group consists of firms that adopt a poison pill and have a prior fair-price amendment. Group three has a prior supermajority amendment when adopting the poison pill. The distinction between groups two and three is based on prior market reactions to these groups: positive or neutral to the fair-price ATA and negative to the supermajority ATA. After this division, there remains a set of firms that don't seem to belong in any group because of no prior studies of the ATAs possessed by these firms. The fourth group is omitted from the analysis.

**Excess Returns Estimation**

A two-day cumulative abnormal return is used to measure the shareholder wealth effect at the announcement of the poison pill. Abnormal returns are obtained directly from the CRSP Excess Return File which uses the Scholes and Williams method (1977) of adjusting for nonsynchronous trading. Using these daily abnormal returns, we calculate a two-day cumulative abnormal return, car (-1,0), for each firm for the day preceding the first announcement of the pill (t=-1) through the next day (t=0) which is the event date. The market reaction for a portfolio of firms is then measured as the cross-sectional average of the car (-1,0) for the firms in the portfolio. The market reaction for the portfolio is denoted CAR (-1,0). T-tests using the cross sectional standard deviation for the respective car (-1,0) are used to test for statistical significance of CAR (-1,0).

**Hypotheses**

We hypothesize that CARs for poison pill announcements will differ from firms with no prior adopted ATAs (poison pill only firms) and firms with some prior ATA. It is expected that CARs will be lower for firms with no prior adopted ATAs than for firms that already have some device in place. Also CARs may differ between the poison pill only firms and the groups of firms with either a supermajority or fair-price ATA in place. We test the CARs for (1) all poison pill announcements, (2) differences in CARs for firms adopting poison pills only and firms adopting a poison pill with any other prior ATA, (3) between poison pill only and firms with different types of ATA, and (4) between the ATA types.

Further, it is hypothesized that the CARs will be a function of a RUNUP variable, of ownership characteristics, and whether the poison pill contains a redeemability clause. To test these relationships, the following regression equation is estimated:

\[ \text{CAR}(-1,0) = b_0 + b_1 \text{CODX} + b_2 \text{RUNUP} + b_3 \text{INST} + b_4 \text{INSN} + b_5 \text{RDM} \]

Where:

- CODX = 1 if firm has any prior ATA when poison pill is adopted, otherwise = 0.
- RUNUP = cumulative abnormal return for 150 days preceding the event date.
- INST = percent of institutional holdings.
- INSN = percent of insider holdings.
- RDM = 1 if the poison pill has a redeemability clause, otherwise=0.

The RUNUP variable represents the likelihood of a takeover occurring, i.e., the control premium. The results of Jarrell and Poulsen (1986), Malatesta and Walkling (1988), and Ryngaert (1988) suggest that shareholder wealth is adversely affected at the time of a pill adoption if the firms is likely to be a takeover target. The likelihood of a takeover occurring is measured using a runup variable similar to the used by Ryngaert (1988) and Eckbo (1990). Specifically, the runup variable is measured using the firm's cumulative abnormal residual over the period extending from 152 days through 2 days (t=-152 through t=-2) before the pill announcement.

Prior studies lend some support to the view that managerial ownership is negatively related to the market reaction at the adoption of anti-takeover amendments. The negative market reac-
tion is often interpreted as signifying managerial entrenching behavior. Tests of the effect of institutional monitoring on the shareholder wealth effects at the announcements of pills yield mixed results. Agrawal and Mandelker (1990), however, report a positive reaction between institutional holdings and the market reaction to ATA announcements.

In the present study the percentages of insider and institutional ownership are computed using total number of shares outstanding held as the basis for the calculations. Insider ownership includes shares held by both managers and directors. The data for the total number of shares held by insiders and by institutions is obtained from Spectrum IV on the last date of publication prior to the pill announcement. The total number of shares outstanding at the time of the pill announcement is taken from the CRSP Daily Master File.

**Empirical Results**

*Wealth Effects With/Without Prior ATA*

Table 1 presents the results of stockholder wealth effects for poison pill announcements. The mean CAR is not significantly different from zero for the full sample. The sample is then subdivided into two groups: (1) firms that adopt a poison pill and have no prior ATA and (2) those adopted a poison pill with one or more ATA in place. Table 1 shows that the average CAR for the poison pill only firms is negative though not significantly different from zero, while the mean CAR for firms with one or more prior ATAs is positive, but not significant. The t-test for difference between mean CARs for the two groups, however, is significant at the .10 level. This suggests that stockholder wealth effects for firms adopting poison pills as their first anti-takeover devices are lower than if pills are added to already existing ATAs. It would seem that the poison pill announcement is bad news if it is the first anti-takeover device adopted, but is not news if the poison pill is simple added to already existing ATAs.

Table 2 present results for regression of CARs on the classification, runup, ownership characteristics, and existence of a redeemability clause in the poison pill. Stockholder wealth effects vary between the two groups as indicated by the significant binary variable CODX. Wealth effects depend also on the runup variable and on the presence of a redeemability clause. The positive coefficient of the RUNUP variable indicates that investors view management's actions to adopt a poison pill when threat of takeover is present as in their best interest. Results therefore support the stockholder interest hypothesis in the presence of a takeover threat.

Investors view the presence of a redeemability clause in the poison pill negatively. It seems that investors do not support management in adopting a poison pill containing a redeemability clause. This clause provides management a super power to force a prospective bidder to negotiate directly with management while neutralizing any possible shareholder benefits from having a poison

<p>| Table 1 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th><strong>Cumulative Abnormal Returns (CARs) for Poison Pill Announcements</strong></th>
<th><strong>Mean CAR</strong></th>
<th><strong>Std. Dev.</strong></th>
<th><strong>t</strong></th>
<th><strong>p-value</strong></th>
<th><strong>Percent Positive</strong></th>
<th><strong>Percent Negative</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Sample</td>
<td>0.0021</td>
<td>0.0360</td>
<td>0.80</td>
<td>0.42</td>
<td>49.7</td>
<td>50.3</td>
</tr>
<tr>
<td>No Existing ATAs at Pill Adoption</td>
<td>-0.0094</td>
<td>0.0427</td>
<td>-1.23</td>
<td>0.23</td>
<td>35.5</td>
<td>*64.5</td>
</tr>
<tr>
<td>One or More Existing ATAs at Pill Adoption</td>
<td>0.0043</td>
<td>0.0342</td>
<td>1.60</td>
<td>0.11</td>
<td>51.9</td>
<td>48.1</td>
</tr>
</tbody>
</table>

A t-test for difference between sub-samples with and without existing ATAs yielded a [t] of 1.96 with a p-value of 0.10.

*significantly different from 50 percent to p < .10
Table 2
OLS Estimated Coefficients for Determinants of CAR (-1,0)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Estimated Coefficient</th>
<th>t</th>
<th>PR &gt; [t]</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>0.0060</td>
<td>-0.50</td>
<td>.6180</td>
</tr>
<tr>
<td>CODX</td>
<td>0.0141</td>
<td>2.01</td>
<td>.0462</td>
</tr>
<tr>
<td>RUNUP</td>
<td>0.1347</td>
<td>1.80</td>
<td>.0738</td>
</tr>
<tr>
<td>INSD</td>
<td>-0.0276</td>
<td>-1.28</td>
<td>.2039</td>
</tr>
<tr>
<td>INST</td>
<td>-0.0199</td>
<td>-1.03</td>
<td>.3062</td>
</tr>
<tr>
<td>RDM</td>
<td>-0.0086</td>
<td>-1.64</td>
<td>.1040</td>
</tr>
</tbody>
</table>

R-SQUARE = .0643
F-STATISTIC = 2.48
PR > F = .0337

CAR (-1,0) = \(b_0 + b_1 \text{CODX} + b_2 \text{RUNUP} + b_3 \text{INST} + b_4 \text{INSD} + b_5 \text{RDM}\)

CODX = 1 if firm has any prior ATA when poison pill is adopted, otherwise = 0
RUNUP = cumulative abnormal return for 150 days preceding the event date
INSD = percent of insider holdings
INST = percent of institutional holdings
RDM = 1 if the poison pill has a redeemability clause, otherwise = 0

pill in a takeover. The regression models were also estimated for each of the sub-samples. The estimates are presented in Table 3.

The regressions for the separate groups reveal that there is a positive relationship between the RUNUP variable and the market reaction only for the firms adopting a poison pill with a prior ATA in place. Investors may view the addition of the poison pill as a sign that a takeover is eminent.

Wealth Effects for Three Groups

Shareholder wealth effects may differ according to the type of ATA in place when the poison pill is adopted. Market reaction will depend on prior market assessment at the ATA plus the assessment at the time of the poison pill announcement.

Table 4 reveals that the market reaction at a poison pill announcement differs according to the type of prior ATA. CAR mean for Group 2, or firms with prior fair-price ATAs, is positive and significantly different from zero, while the mean CAR for Group 3, the supermajority firm, is not statistically significant. The mean CARs for poison pill only firms and fair-price firms are significantly different. Means do not differ significantly for comparison between poison pill only firms and supermajority firms. Results support the shareholder interest hypothesis. A firm with a fair-price ATA, a device that has been shown to elicit a neutral reaction by investors, is now seen as promot-
Table 4
Cumulative abnormal Returns (CARs) for Three Groups

Group = 1 for Poison Pill without Prior ATA,
Group = 2 for Poison Pill with Prior Fair-Price ATA,
Group = 3 for Poison Pill with Prior Supermajority ATA

<table>
<thead>
<tr>
<th></th>
<th>Mean CAR</th>
<th>Std. Dev.</th>
<th>t</th>
<th>p-value</th>
<th>Percent Positive</th>
<th>Percent Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups 1, 2, and 3</td>
<td>0.0019</td>
<td>.0378</td>
<td>0.6078</td>
<td>.5443</td>
<td>47.5</td>
<td>52.5</td>
</tr>
<tr>
<td>Group 1 Poison Pill Only</td>
<td>-0.0094</td>
<td>.0427</td>
<td>-1.2261</td>
<td>.2297</td>
<td>35.5</td>
<td>*64.5</td>
</tr>
<tr>
<td>Group 2 Fair Price ATA</td>
<td>0.0077</td>
<td>.0373</td>
<td>1.7668</td>
<td>.0815</td>
<td>54.8</td>
<td>45.2</td>
</tr>
<tr>
<td>Group 3 Supermajority ATA</td>
<td>0.0001</td>
<td>.0326</td>
<td>0.0080</td>
<td>.9936</td>
<td>43.2</td>
<td>56.8</td>
</tr>
</tbody>
</table>

t-test for difference between Groups 1 and 2 - t = 2.05; p-value = .0430
t-test for difference between Groups 1 and 3 - t = -1.0335; p-value = .3052
t-test for difference between Groups 2 and 3 - t = 1.0610; p-value = .2911
*significantly different from 50 percent at p < .10

CARs among the three groups revealed only one significant difference, namely, between CARs for the poison pill only firms and the fair-price ATA firms.

Results of the regression of CARS on RUNUP, ownership characteristics, and redeemability clause are presented in Table 5. Results for this subset are similar to those for the entire sample. Stockholder wealth effects are related to GRP2, the fair-price ATA firms, to the RUNUP variable, and the presence of the redeemability clause.

Regression results for the individual groups, group1, group2, and group3, are presented in Panels, A, B, and C, respectively, of Table 6. The RUNUP and INST variables are significant for the fair-price ATA group. The positive coefficient of the RUNUP variable indicates investors approve of management's actions to adopt a poison pill in addition to the fair-price ATA when a threat of takeover exists. The negative coefficient of the INST variable indicates that firms with larger institutional holdings do not approve the poison pill for the fair-price firms. T-tests for difference in

Table 5
OLS Estimated Coefficients for Determinants of CAR (-1,0)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Coefficient</th>
<th>t</th>
<th>PR &gt; t</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>0.0117</td>
<td>0.86</td>
<td>.3926</td>
</tr>
<tr>
<td>GRP2</td>
<td>0.0120</td>
<td>1.69</td>
<td>.0941</td>
</tr>
<tr>
<td>GRP3</td>
<td>0.0021</td>
<td>0.27</td>
<td>.7874</td>
</tr>
<tr>
<td>RUNUP</td>
<td>0.1835</td>
<td>2.01</td>
<td>.0468</td>
</tr>
<tr>
<td>INSD</td>
<td>-0.0239</td>
<td>-0.94</td>
<td>.3503</td>
</tr>
<tr>
<td>INST</td>
<td>-0.0230</td>
<td>-0.96</td>
<td>.3389</td>
</tr>
<tr>
<td>RDM</td>
<td>-0.0106</td>
<td>-1.67</td>
<td>.0973</td>
</tr>
</tbody>
</table>

R-SQUARE = .0752
F-STATISTIC = 1.80
PR > F = .1030

RUNUP = cumulative abnormal return for 150 days preceding the event date
INSD = percent of insider holdings
INST = percent of institutional holdings
RDM = 1 if the poison pill has a redeemability clause, otherwise = 0
Table 6
OLS Estimated Coefficients for Determinants of CAR (-1,0) by Group

Panel A: Group 1 = Poison Pill Only

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Coefficient</th>
<th>t</th>
<th>PR &gt; t</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>0.0070</td>
<td>0.24</td>
<td>.8155</td>
</tr>
<tr>
<td>RUNUP</td>
<td>0.0586</td>
<td>0.23</td>
<td>.8163</td>
</tr>
<tr>
<td>INSD</td>
<td>-0.0809</td>
<td>-1.31</td>
<td>.2024</td>
</tr>
<tr>
<td>INST</td>
<td>-0.0021</td>
<td>-0.03</td>
<td>.9658</td>
</tr>
<tr>
<td>RDM</td>
<td>-0.0164</td>
<td>-0.97</td>
<td>.3427</td>
</tr>
</tbody>
</table>

R² = .0949; F-Statistic = 0.68; PR > F = .6110

Panel B: Group 2 = Fair-Price ATA

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Coefficient</th>
<th>t</th>
<th>PR &gt; t</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>0.0456</td>
<td>2.35</td>
<td>.0220</td>
</tr>
<tr>
<td>RUNUP</td>
<td>0.4620</td>
<td>2.58</td>
<td>.0119</td>
</tr>
<tr>
<td>INSD</td>
<td>-0.0099</td>
<td>-0.23</td>
<td>.8155</td>
</tr>
<tr>
<td>INST</td>
<td>-0.0716</td>
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<td>.0557</td>
</tr>
<tr>
<td>RDM</td>
<td>-0.0065</td>
<td>-0.76</td>
<td>.4524</td>
</tr>
</tbody>
</table>

R² = .1339; F-Statistic = 2.63; PR > F = .0418

Panel C: Group 3 = Supermajority ATA

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Coefficient</th>
<th>t</th>
<th>PR &gt; t</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>0.0042</td>
<td>0.18</td>
<td>.8577</td>
</tr>
<tr>
<td>RUNUP</td>
<td>0.1162</td>
<td>1.03</td>
<td>.3132</td>
</tr>
<tr>
<td>INSD</td>
<td>-0.0152</td>
<td>-0.43</td>
<td>.6724</td>
</tr>
<tr>
<td>INST</td>
<td>-0.0025</td>
<td>-0.05</td>
<td>.9567</td>
</tr>
<tr>
<td>RDM</td>
<td>-0.0053</td>
<td>-0.46</td>
<td>.6476</td>
</tr>
</tbody>
</table>

R² = .0511; F-Statistic = 0.42; PR > F = .7947

RUNUP = cumulative abnormal return for 150 days preceding the event date
INST = percent of insider holdings
INSD = percent of institutional holdings
RDM = 1 if the poison pill has a redeemability clause, otherwise = 0

Summary

This study provides evidence of different stockholder wealth effects when firms adopt a poison pill as the first anti-takeover device or add the device to an already existing package of devices. The hypothesized differences in CARs for these two sample subsets are supported. Investors appear to view negatively the adoption of a poison pill as the first device. Specifically the market reaction to a poison pill adoption following the adoption of a fair-price amendment is significantly positive. These is no significant reaction when a poison pill adoption occurs in the presence of supermajority amendment.

Differences in management ownership characteristics are not significant except for the fair-price ATA plus a poison pill case. However, a negative market reaction by institutional investors is found for this combination. The presence of a redeemability clause attached to the poison pill elicits a negative reaction by investors. It seems that adopting a poison pill may be approved if the firm is under a threat of takeover unless the redeemability clause is also present.

Suggestions for Future Research

Possible future research directions include the examination of (1) whether different combinations of devices serve to prevent unwanted takeovers, (2) management's incentives for supporting particular combinations of device enactment, or (3) shareholder actions to rescind certain prior enacted devices. Results of this study and the taxonomy of device combination suggested here may lend some guidance for examination of these research topics. It would appear that not all combinations of devices are viewed the same by investors and should be treated separately when testing hypotheses about anti-takeover devices.

References


