Poison Pills and Their Effect on Shareholder Return

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Abstract
This is an event study that explores stock price reaction immediately following a poison pill announcement. I examine the cumulative abnormal returns of 22 companies within the following event windows: the event itself and the following day (0;+1), periods of three (-1; +1), five (-2; +2) and seven (-3; +3) days, and longer periods of pre-adoption (-15; -4) and post-adoption (+4; +15) which represent "neutral" times. I then compare these returns to the S&P 500 returns, CRSP value-weighted returns, and CRSP equally-weighted returns for the same time period.

Methodology
To construct my sample of 22 companies, I utilized Bloomberg to identify companies from the S&P 500, the NASDAQ, and the Russell 1000 that currently had a poison pill in place. Then supplemented my data with several companies from Hunt (2016) to complete my sample. Then to determine whether or not the event generated cumulative abnormal returns (CARs), I compared the returns of my companies to the returns of the S&P 500, CRSP value-weighted returns, and CRSP equally-weighted returns for the same time period. To calculate, I utilized the Eventus software via Wharton Research Data Services (WRDS). Eventus is an event study program that utilizes stock data found within the Center for Research in Security Prices (CRSP) databases. Using this data, I found statistically significant CARs for the equally-weighted and value-weighted market model, and the equally-weighted market adjusted model listed below. Ten short-term event windows were studied for statistical significance.

<table>
<thead>
<tr>
<th>Model</th>
<th>Index</th>
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<tbody>
<tr>
<td>Market Model</td>
<td>Equal Weighted</td>
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<tr>
<td>Market Model</td>
<td>Value Weighted</td>
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<tr>
<td>Market Adjusted</td>
<td>Equal Weighted</td>
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Results

<table>
<thead>
<tr>
<th>Event Window</th>
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<tbody>
<tr>
<td></td>
<td>[-15, -4]</td>
<td>[+4, +15]</td>
<td>[-3, +3]</td>
<td>[-2, +2]</td>
<td>[-1, +1]</td>
<td>[0, 0]</td>
<td>[0, +10]</td>
<td>[0, +30]</td>
</tr>
<tr>
<td>Mean CAR</td>
<td>-1.75%</td>
<td>4.77%</td>
<td>-1.69%</td>
<td>-1.95%</td>
<td>-1.84%</td>
<td>-0.78%</td>
<td>-0.49%</td>
<td>-1.54%</td>
</tr>
<tr>
<td>Std Csect 2</td>
<td>0.507%</td>
<td>1.548%</td>
<td>0.710%</td>
<td>1.835%</td>
<td>2.104%</td>
<td>1.364%</td>
<td>0.962%</td>
<td>0.384%</td>
</tr>
<tr>
<td>Generalized Sign 2</td>
<td>0.979%</td>
<td>1.020%</td>
<td>0.260%</td>
<td>0.239%</td>
<td>0.687%</td>
<td>1.190%</td>
<td>0.687%</td>
<td>1.540%</td>
</tr>
<tr>
<td>Signed Rank</td>
<td>-23.500%</td>
<td>44.500%</td>
<td>-31.500%</td>
<td>-70.500%</td>
<td>-27.500%</td>
<td>8.500%</td>
<td>-10.500%</td>
<td>41.500%</td>
</tr>
</tbody>
</table>

1. & P-values are in parentheses.

Conclusions
The purpose of this event study was to further progress the research on shareholders rights plans and their effects on stock price. Some of the results of this study are in line with prior research, notably Hitzelberger’s (2017) “What Effect do Poison Pills have on Shareholder Value?”. Similar to Hitzelberger, my study found positive mean cumulative abnormal return for the periods (0, +30) and (+4, +15) of roughly 7.10% and 4.72%.

Areas for Future Research
1. Delve deeper into the event window (-2, +2) since the findings differed from some prior literature.
2. Perhaps the findings were skewed due to the addition of the NOL poison pills from Hunt (2016). Dividing the sample into subsets based on the type of shareholder rights plans might lead to some fascinating results.
3. Examine wider event windows. The event window (0, +30) produced statistically significant returns of 6.32% and 7.89%. What would an even wider event window’s returns look like?

References

Areas for Future Research
- Areas for Future Research
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Acknowledgments
The author would like to thank Dr. Laura Cole who served as Thesis Advisor, and the Masters Investment Learning Center for the use of Bloomberg terminals to obtain proprietary data.

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