Definitions

Poison Pills

There are five major versions of poison pills: Preferred Stock Plans, Flip-over right plans, ownership flip-in plans, back-end plans and voting plans (Dowen, Johnson, & Jensen, 1994). The following chapters will elaborate on these five types in detail.

Preferred Stock Plans

Preferred Stock plans are the earliest variations of poison pills, often referred as “original plans”. The basic principle is to dilute the amount of shares available for a possible purchaser. The firm issues the convertible preferred stocks in the form of a dividend to the current shareholders. In case of a takeover attempt that exceeds a certain threshold of the company´s common stock, these preferred stock owners receive two special rights (Nuijs, 2011). Firstly, the preferred stockholder can redeem their shares at the highest price that they paid for the common stock at any time. It can be claimed that a tender offer will rationally not be accepted by the shareholders as they are guaranteed to receive the highest quote paid by the buyer. Secondly, if the merger takes place, the preferred stocks can be converted into voting securities. Therefore, the possible acquirer loses voting power which makes the transaction less interesting (Alija, Ochoche, & Zhou, 2010).

Flip-over right plans

Flip-over right plans are the most common configuration of poison pills. In form of a dividend, shareholders obtain the right to buy shares of the company which are priced highly above the market quote. This right will mostly not be exercised due to the fact that the shareholders can directly buy shares to favourable conditions at the market. The pill will be triggered in case an outstanding party exceeds a pre-defined share of ownership (for instance 20%). In essence, the shareholder rights now “flip-over” and allow shareholder to buy shares of the merged entity at a significant discount (Sunder, 2014). Under these circumstances, the offer will most likely be taken on the spot, as it is a profitable deal for the shareholders. It should not be forgotten that flip-over right plans do not entirely prevent takeovers. However, they do increase the costs for a hostile takeover significantly. As a result, the possible acquisition might not be profitable and interesting for the collector any more. Flip-over pills intend to transfer wealth from the shareholders of the acquiring company to the shareholders of the target company (Shah, 1996).

Ownership Flip-in plan

While the flip-over pill unleashes poison after the deal is complete and a merger definitely takes place, ownership flip-in plans trigger before a possible takeover occurs. Again, if the threshold of a certain level of ownership is exceeded, the existing shareholders get the right to buy additional shares at a discount. These rights increase the amount of shares of the target company in the market, so the takeover is going to be more expensive for the acquirer. It can also be claimed that the percentage of shareholding of the hostile acquirer is diluted by the fresh issue of shares (Sunder, 2014).

Back-end plans

Back-end rights plans contain redeemable right dividends for shareholders. The dividend gets triggered if the bidder exceeds a certain threshold. The rights allow the shareholders to exchange the shares for a back-end price with a value above the current market price (Nuijs, 2011). However, these rights are exclusively valid for current shareholders and not for the potential acquirer. Consequently, once the back-end plan is in place, the acquirers will most likely be discouraged to complete the acquisition. It is known that a bid below the back-end price will not be successful as the shareholders have the incentive to hold out for the higher back end price (Ryngaert, 1988).

Voting plans

Voting plans issue preferred stocks that offer superior voting rights to existing shareholders of a firm. If a hostile acquirer buys a certain threshold of common stocks, he still would not have control over his offer, as the preferred stock overweight the voting privileges in this matter. Voting plans construct an environment that is supposed to be less attractive to possible acquirers. As a result, they are defined as an effective takeover deterrent (Alija et al., 2010).

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Appendix

Table 1: Poison Pill Adoptions per Year

Poison Pill Adoptions per Year		
Year	Sample Size	Percentage of sample
1997	391	8.73%
1998	516	11.52%
1999	489	10.92%
2000	343	7.66%
2001	358	7.99%
2002	316	7.06%
2003	225	5.02%
2004	145	3.24%
2005	149	3.33%
2006	184	4.11%
2007	165	3.68%
2008	227	5.07%
2009	231	5.16%
2010	169	3.77%
2011	172	3.84%
2012	141	3.15%
2013	111	2.48%
2014	71	1.59%
2015	76	1.70%
Total	**4479**	**100%**

Table 2: Poison Pill Adoptions per Sub-period

Poison Pill Adoptions per Sub-period		
Sub-period	Sample Size	Percentage of sample
1997 - 1999	1396	31.17%
2000 - 2004	1387	30.97%
2005 - 2009	956	21.34%
2010 - 2015	740	16.52%
Total	**4479**	**100%**

Table 3: Usage of Poison Pill Adoption Dates

Usage of Poison Pill Adoption Dates	
Description	**Sample Size**
Total of Events analyzed	4479
Events dropped due to unavailability of CUSIP	232
Events dropped as Date outside the period of Data available	598
Too few estimation period days with data	17
Too many estimation period days with missing data	7
Total of Events dropped	**854**
Total of Events usable	**3625**

Table 4: Poison Pill Adoption trigger

Poison Pill Adoption trigger		
Trigger	**Sample Size**	**Percentage of sample**
Routine measure	3064	68.41%
Friendly deal	808	18.04%
Friendly stakeholder	161	3.59%
Initial public offering	93	2.08%
Unsolicited proposal	53	1.18%
Restructuring	50	1.12%
Stock split	36	0.80%
Shareholder proposal	25	0.56%
Sudden stake accumulation	24	0.54%
Hostile tender offer	22	0.49%
Significant shareholder	21	0.47%
Litigation	18	0.40%
Public offering	16	0.36%
Proxy fight	11	0.25%
Major stake sale	5	0.11%
Large legal settlement	4	0.09%
Rumors pending	4	0.09%
Contemplated sale	3	0.07%
Increased trading activity	3	0.07%
Merger talks suspended	1	0.02%
Neutral tender offer pending	1	0.02%
no reason stated	56	1.25%
Total	**4479**	**100%**

Table 5: Fama-French-Momentum Model Abnormal Returns, Equally Weighted Index

Fama-French-Momentum Model Abnormal Returns, Equally Weighted Index

Day	N	Mean Abnormal Return	Positive: Negative	Portfolio Time-Series (CDA) t	Rank Test Z
-15	3622	-0.07%	1737:1885	-1.116	-0.104
-14	3623	0.08%	1756:1867	1.261	0.596
-13	3623	0.03%	1748:1875	0.404	0.508
-12	3623	0.03%	1763:1860	0.489	0.370
-11	3623	0.11%	1725:1898	1.690*	0.011
-10	3623	0.23%	1790:1833>	3.479***	1.691*
-9	3623	0.16%	1788:1835>	2.511**	1.714*
-8	3623	-0.03%	1667:1956<	-0.396	-1.166
-7	3623	0.13%	1762:1861	2.055*	1.434$
-6	3623	0.09%	1745:1878	1.448$	0.150
-5	3623	0.10%	1736:1887	1.504$	0.195
-4	3623	0.06%	1728:1895	0.883	0.486
-3	3623	0.26%	1803:1820>>	3.975***	1.761*
-2	3623	0.35%	1847:1776>>>	5.341***	2.954**
-1	3623	0.37%	1828:1795>>>	5.621***	2.637**
0	3623	1.30%	1836:1787>>>	19.869***	4.591***
+1	3620	2.22%	1931:1689>>>	34.046***	7.788***
+2	3619	0.16%	1763:1856)	2.498**	0.951
+3	3617	0.03%	1667:1950<	0.532	-0.799
+4	3615	0.11%	1721:1894	1.706*	0.041
+5	3615	0.00%	1672:1943<	0.062	-1.064
+6	3613	0.08%	1739:1874	1.205	0.480
+7	3610	0.09%	1702:1908	1.308$	-0.245
+8	3609	0.12%	1758:1851	1.864*	0.620
+9	3609	0.03%	1659:1950<	0.407	-0.708
+10	3609	-0.02%	1719:1890	-0.230	0.131
+11	3608	0.29%	1802:1806>>	4.429***	2.443**
+12	3606	0.06%	1726:1880	0.845	0.084
+13	3606	0.03%	1664:1942<	0.410	-0.706
+14	3606	0.06%	1742:1864	0.928	1.078
+15	3605	0.03%	1743:1862	0.411	0.609

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

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Fama-French-Momentum Model Abnormal Returns, Equally Weighted Index

Days	N	Mean Cumulative Abnormal Return	Positive: Negative	Portfolio Time-Series (CDA) t	Rank Test Z
(-15,-4)	3623	0.93%	1888:1735>>>	4.103***	1.698*
(-3,+3)	3624	4.69%	2084:1540>>>	27.149***	7.515***
(-2,+2)	3623	4.40%	2079:1544>>>	30.117***	8.461***
(-1,+1)	3623	3.89%	2055:1568>>>	34.356***	8.669***
(0,+1)	3623	3.52%	2026:1597>>>	38.103***	8.753***
(+4,+15)	3615	0.87%	1802:1813>>	3.846***	0.797

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Table 6: 2010-2015 - Market Model Abnormal Returns, S&P 500

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
-15	568	-0.05%	277:291	-0.194	-0.295	0.023
-14	569	0.17%	296:273>	1.164	1.116	2.518**
-13	569	-0.04%	262:307	-1.044	-0.271	-0.830
-12	569	-0.05%	275:294	-0.074	-0.332	-0.301
-11	569	0.05%	256:313	0.169	0.310	-0.921
-10	569	-0.02%	266:303	0.535	-0.115	0.028
-9	569	0.42%	253:316(	1.829*	2.719**	0.057
-8	569	0.18%	282:287	1.813*	1.180	1.448$
-7	569	-0.15%	284:285	-1.760*	-0.935	0.960
-6	569	0.03%	257:312	0.663	0.165	-0.609
-5	569	0.16%	263:306	1.664*	1.035	-0.018
-4	569	0.18%	286:283)	1.747*	1.129	1.313$
-3	569	0.34%	300:269>>	1.901*	2.161*	1.590$
-2	569	0.28%	295:274>	3.510***	1.819*	1.552$
-1	569	-0.10%	259:310	1.302$	-0.622	-0.516
0	569	1.57%	299:270>>	13.940***	10.098***	2.754**
+1	567	2.03%	291:276>	15.982***	13.016***	3.363***
+2	567	0.10%	282:285	1.059	0.672	1.552$
+3	567	0.01%	280:287	-0.477	0.078	0.162
+4	566	-0.12%	271:295	-1.166	-0.755	-0.153
+5	566	0.12%	257:309	1.010	0.792	-0.203
+6	566	-0.06%	258:308	-1.049	-0.411	-0.976
+7	566	0.12%	263:303	-0.483	0.760	-0.449
+8	565	-0.01%	264:301	-0.347	-0.062	-0.284
+9	565	0.08%	272:293	0.960	0.490	1.012
+10	565	-0.16%	272:293	0.171	-1.000	0.217
+11	565	0.36%	285:280)	1.725*	2.341**	1.140
+12	565	-0.02%	275:290	-1.102	-0.104	0.158
+13	565	-0.14%	254:311	-1.445$	-0.889	-0.716
+14	565	0.10%	275:290	0.263	0.665	0.399
+15	565	-0.06%	273:292	-0.397	-0.392	0.067

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

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Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-15,-4)	569	0.89%	0.69%	291:278>	1.879*	1.648*	1.059
(-3,+3)	570	4.22%	3.98%	335:235>>>	14.093***	10.253***	3.952***
(-2,+2)	569	3.88%	3.82%	341:228>>>	16.011***	11.151***	3.893***
(-1,+1)	569	3.49%	3.33%	322:247>>>	18.019***	12.960***	3.234***
(0,+1)	569	3.59%	3.19%	331:238>>>	21.089***	16.312***	4.325***
(+4,+15)	566	0.22%	-0.20%	278:288	-0.550	0.414	0.061

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Table 7: Usage of Poison Pill Adoption Dates 2010 - 2015

Usage of Poison Pill Adoption Dates 2010 - 2015	
Description	**Sample Size**
Total of Events analyzed	740
Events dropped due to unavailability of CUSIP	71
Events dropped as Date outside the period of Data available	95
Too few estimation period days with data	4
Too many estimation period days with missing data	-
Total of Events dropped	**170**
Total of Events usable	**570**

Table 8: Usage of Poison Pill Adoption Dates 2005 - 2009

Usage of Poison Pill Adoption Dates 2005 - 2009	
Description	**Sample Size**
Total of Events analyzed	955
Events dropped due to unavailability of CUSIP	62
Events dropped as Date outside the period of Data available	128
Too few estimation period days with data	6
Too many estimation period days with missing data	4
Total of Events dropped	**200**
Total of Events usable	**755**

Table 9: 2005-2009 Market Model Abnormal Returns, S&P 500

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
-15	755	0.03%	374:381	-0.351	0.186	-0.043
-14	755	-0.06%	364:391	-0.712	-0.362	0.009
-13	755	0.21%	353:402	2.260*	1.295$	0.706
-12	755	0.06%	387:368>	1.301$	0.362	1.220
-11	755	0.01%	344:411(	-0.013	0.058	-1.414$
-10	755	0.41%	383:372)	3.697***	2.520**	2.117*
-9	755	0.13%	377:378	0.464	0.783	1.290$
-8	755	-0.07%	338:417<	-1.584$	-0.418	-0.859
-7	755	-0.02%	375:380	-0.914	-0.130	0.813
-6	755	-0.05%	363:392	0.651	-0.308	-0.208
-5	755	0.08%	362:393	-0.861	0.464	0.265
-4	755	-0.19%	360:395	-0.165	-1.181	-0.283
-3	755	0.01%	375:380	0.166	0.091	0.534
-2	755	-0.07%	362:393	1.272	-0.408	0.553
-1	755	0.65%	379:376	6.265***	3.992***	1.284
0	755	0.36%	359:396	3.556***	2.211*	0.139
+1	754	2.55%	396:358>>	21.866***	15.703***	4.715***
+2	754	0.05%	366:388	0.620	0.280	-0.004
+3	752	0.49%	379:373	2.844**	3.019**	1.418$
+4	751	0.45%	369:382	3.256***	2.773**	0.787
+5	751	0.27%	346:405	2.750**	1.676*	0.040
+6	751	-0.04%	371:380	-0.524	-0.253	0.251
+7	751	0.14%	342:409(	0.665	0.886	-0.717
+8	751	0.37%	371:380	1.991*	2.277*	0.565
+9	751	0.01%	356:395	0.473	0.070	-0.251
+10	751	-0.07%	350:401	-1.390$	-0.414	-1.032
+11	751	0.38%	348:403	3.120***	2.327**	0.831
+12	751	-0.03%	345:406	-0.683	-0.174	-1.062
+13	751	0.14%	364:387	1.006	0.847	0.105
+14	751	0.19%	360:391	1.587$	1.161	0.710
+15	751	0.02%	368:383	0.770	0.120	0.850

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

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Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-15,-4)	755	0.53%	0.35%	386:369>	1.084	0.944	1.043
(-3,+3)	755	4.03%	3.36%	428:327>>>	13.828***	9.394***	3.265***
(-2,+2)	755	3.53%	3.09%	418:337>>>	15.011***	9.730***	2.990**
(-1,+1)	755	3.55%	2.91%	425:330>>>	18.290***	12.635***	3.544***
(0,+1)	755	2.90%	2.34%	415:340>>>	17.965***	12.652***	3.432***
(+4,+15)	751	1.83%	1.22%	386:365>	3.747***	3.261***	0.311

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Table 10: 2000 - 2004 Market Model Abnormal Returns, S&P 500

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
-15	1104	-0.15%	523:581	-0.047	-0.988	0.486
-14	1104	0.00%	501:603(	-0.474	0.021	-1.276
-13	1104	0.01%	533:571	0.085	0.085	0.544
-12	1104	0.11%	530:574	0.507	0.702	0.211
-11	1104	0.05%	550:554)	0.755	0.335	0.998
-10	1104	0.35%	559:545>	1.701*	2.239*	0.948
-9	1104	0.19%	568:536>>	1.442$	1.227	2.017*
-8	1104	-0.18%	503:601(	-0.694	-1.157	-1.336$
-7	1104	0.41%	557:547>	1.906*	2.595**	1.456$
-6	1104	0.20%	538:566	0.797	1.251	0.553
-5	1104	0.12%	515:589	0.533	0.738	0.052
-4	1104	0.11%	537:567	0.532	0.726	-0.271
-3	1104	0.14%	524:580	1.196	0.890	0.313
-2	1104	0.54%	564:540>	4.145***	3.440***	2.229*
-1	1104	0.62%	561:543>	5.028***	3.933***	2.438**
0	1104	1.88%	564:540>	16.938***	12.016***	3.971***
+1	1104	2.58%	579:525>>>	20.969***	16.479***	4.148***
+2	1103	0.49%	535:568	3.203***	3.126***	1.645$
+3	1103	0.01%	513:590	0.128	0.038	-0.167
+4	1103	0.07%	528:575	-0.226	0.416	-0.231
+5	1103	-0.19%	515:588	-1.168	-1.214	-1.042
+6	1103	0.23%	554:549>	1.592$	1.480$	1.728*
+7	1102	0.13%	538:564	0.174	0.837	0.895
+8	1102	0.07%	562:540>	0.308	0.463	0.995
+9	1102	0.02%	505:597	0.187	0.109	-0.154
+10	1102	0.22%	560:542>	1.977*	1.395$	2.093*
+11	1101	0.35%	553:548>	2.481**	2.205*	1.297$
+12	1100	0.18%	521:579	0.318	1.154	0.682
+13	1100	-0.02%	518:582	-0.010	-0.156	-0.095
+14	1100	0.08%	548:552)	0.626	0.506	0.798
+15	1099	0.19%	557:542>	1.788*	1.243	1.497$

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

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Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-15,-4)	1104	1.22%	0.69%	575:529>>	2.046*	2.244*	1.265
(-3,+3)	1104	6.25%	5.10%	652:452>>>	19.500***	15.088***	5.510***
(-2,+2)	1104	6.11%	4.97%	668:436>>>	22.477***	17.437***	6.454***
(-1,+1)	1104	5.08%	4.24%	633:471>>>	24.781***	18.722***	6.095***
(0,+1)	1104	4.46%	3.75%	640:464>>>	26.789***	20.149***	5.741***
(+4,+15)	1103	1.32%	0.79%	574:529>>	2.352**	2.431**	2.443**

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Table 11: Usage of Poison Pill Adoption Dates 2000 - 2004

Usage of Poison Pill Adoption Dates 2000 - 2004	
Description	**Sample Size**
Total of Events analyzed	1387
Events dropped due to unavailability of CUSIP	49
Events dropped as Date outside the period of Data available	225
Too few estimation period days with data	6
Too many estimation period days with missing data	3
Total of Events dropped	**283**
Total of Events usable	**1104**

Table 12: Usage of Poison Pill Adoption Dates 1997 - 1999

Usage of Poison Pill Adoption Dates 1997 - 1999	
Description	**Sample Size**
Total of Events analyzed	1395
Events dropped due to unavailability of CUSIP	51
Events dropped as Date outside the period of Data available	149
Too few estimation period days with data	1
Too many estimation period days with missing data	1
Total of Events dropped	**202**
Total of Events usable	**1193**

Table 13: 1997 - 1999 Market Model Abnormal Returns, S&P 500

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
-15	1193	0.04%	568:625	-0.188	0.392	0.322
-14	1193	0.17%	581:612	1.026	1.579$	0.661
-13	1193	0.06%	582:611	1.313$	0.537	1.142
-12	1193	0.09%	587:606)	1.440$	0.824	0.759
-11	1193	0.36%	591:602)	2.989**	3.282***	1.578$
-10	1193	0.17%	573:620	1.689*	1.504$	0.938
-9	1193	0.07%	580:613	1.383$	0.678	0.422
-8	1193	0.12%	564:629	0.905	1.115	-0.748
-7	1193	0.12%	578:615	0.211	1.103	0.213
-6	1193	0.14%	550:643	0.649	1.311$	-0.489
-5	1193	0.12%	573:620	0.198	1.089	-0.090
-4	1193	0.14%	603:590>>	2.021*	1.286$	1.282
-3	1193	0.49%	599:594>	4.834***	4.417***	1.558$
-2	1193	0.53%	606:587>>	4.707***	4.750***	2.684**
-1	1193	0.24%	603:590>>	2.413**	2.180*	1.900*
0	1193	1.33%	611:582>>	14.038***	12.068***	3.553***
+1	1193	1.88%	646:547>>>	19.619***	17.019***	5.724***
+2	1193	0.05%	559:634	-0.063	0.427	0.117
+3	1193	0.02%	560:633	-0.072	0.156	-0.787
+4	1193	0.04%	553:640	-0.302	0.346	-0.818
+5	1193	0.12%	600:593>	0.970	1.063	0.973
+6	1191	0.13%	581:610	0.626	1.173	0.276
+7	1189	0.05%	565:624	1.668*	0.445	0.343
+8	1189	0.15%	589:600)	1.348$	1.383$	1.320$
+9	1189	0.10%	533:656(	-0.055	0.866	-1.167
+10	1189	-0.05%	562:627	-1.557$	-0.469	-0.237
+11	1189	0.17%	613:576>>	1.200	1.570$	2.023*
+12	1188	0.07%	575:613	0.141	0.637	0.975
+13	1188	0.14%	558:630	1.085	1.284$	-0.422
+14	1188	0.09%	592:596>	-0.652	0.782	1.071
+15	1188	0.01%	560:628	0.116	0.069	-0.743

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Eventus (R) Software from Cowan Research, L.C.

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-15,-4)	1193	1.62%	1.03%	624:569>>>	3.921***	4.243***	1.729*
(-3,+3)	1193	4.53%	3.47%	688:505>>>	17.189***	15.503***	5.575***
(-2,+2)	1193	4.03%	3.11%	679:514>>>	18.208***	16.299***	6.251***
(-1,+1)	1193	3.46%	2.75%	671:522>>>	20.829***	18.052***	6.453***
(0,+1)	1193	3.22%	2.57%	677:516>>>	23.803***	20.568***	6.560***
(+4,+15)	1193	1.01%	0.34%	612:581>>	1.331$	2.634**	1.038

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Table 14: Usage of Routine Poison Pill Adoptions

Usage of Routine Poison Pill Adoptions	
Description	**Sample Size**
Total of Events analyzed	3064
Events dropped due to unavailability of CUSIP	182
Events dropped as Date outside the period of Data available	309
Too few estimation period days with data	13
Too many estimation period days with missing data	5
Total of Events dropped	**509**
Total of Events usable	**2555**

Table 15: Usage of non-routine Poison Pill Adoptions

Usage of non-routine Poison Pill Adoptions	
Description	**Sample Size**
Total of Events analyzed	1359
Events dropped due to unavailability of CUSIP	45
Events dropped as Date outside the period of Data available	287
Too few estimation period days with data	4
Too many estimation period days with missing data	3
Total of Events dropped	**339**
Total of Events usable	**1020**

Table 16: Sample of firms acquired after pill adoption

Sample of firms acquired after pill adoption	
Description	**Sample Size**
Total of Events analyzed	2097
Events dropped due to unavailability of CUSIP	54
Events dropped as Date outside the period of Data available	272
Too few estimation period days with data	-
Too many estimation period days with missing data	3
Total of Events dropped	**329**
Total of Events usable	**1768**

Table 17: sample of firms not acquired after poison pill adoption

Sample of firms not acquired after posion pill adoption	
Description	**Sample Size**
Total of Events analyzed	2055
Events dropped due to unavailability of CUSIP	137
Events dropped as Date outside the period of Data available	265
Too few estimation period days with data	16
Too many estimation period days with missing data	4
Total of Events dropped	**422**
Total of Events usable	**1633**

Table 18: Acquired firms Market Model Abnormal Returns, S&P 500

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
-15	1767	0.08%	869:898)	0.776	0.853	1.352$
-14	1767	0.06%	838:929	0.305	0.571	-0.083
-13	1767	0.11%	876:891>	1.987*	1.125	1.878*
-12	1767	0.08%	851:916	0.714	0.845	0.043
-11	1767	0.23%	884:883>	3.909***	2.283*	1.823*
-10	1767	0.41%	884:883>	3.790***	4.164***	2.017*
-9	1767	0.08%	858:909	1.389$	0.770	0.626
-8	1767	0.05%	827:940	1.074	0.529	-0.213
-7	1767	0.27%	874:893>	0.998	2.672**	1.094
-6	1767	0.17%	833:934	0.966	1.732*	-0.081
-5	1767	0.10%	881:886>	0.423	0.962	0.960
-4	1767	0.16%	872:895)	2.063*	1.608$	0.731
-3	1767	0.31%	884:883>	3.670***	3.075**	1.596$
-2	1767	0.56%	889:878>>	6.594***	5.585***	2.331*
-1	1767	0.80%	900:867>>	9.098***	8.020***	2.729**
0	1767	2.27%	941:826>>>	29.667***	22.776***	5.603***
+1	1764	3.72%	985:779>>>	47.314***	37.333***	8.204***
+2	1763	0.33%	866:897)	3.264***	3.352***	1.456$
+3	1763	0.04%	829:934	-0.148	0.411	-0.803
+4	1762	0.16%	838:924	1.037	1.635$	0.175
+5	1762	-0.08%	852:910	0.344	-0.754	0.089
+6	1761	0.13%	847:914	0.241	1.335$	0.512
+7	1759	0.08%	840:919	0.708	0.757	0.529
+8	1759	0.24%	891:868>>	1.353$	2.397**	1.488$
+9	1759	0.13%	814:945	1.250	1.293$	-0.206
+10	1759	0.04%	827:932	-0.087	0.449	0.475
+11	1758	0.25%	875:883>	3.405***	2.471**	1.727*
+12	1756	0.30%	852:904	2.073*	2.980**	1.589$
+13	1756	-0.04%	810:946	-0.792	-0.420	-0.437
+14	1756	0.16%	880:876>	1.357$	1.573$	1.739*
+15	1755	0.13%	886:869>>	1.766*	1.289$	1.371$

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

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Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-15,-4)	1767	1.80%	1.29%	955:812>>>	5.309***	5.229***	2.929**
(-3,+3)	1768	8.01%	6.98%	1104:664>>>	37.592***	30.402***	7.981***
(-2,+2)	1767	7.67%	6.73%	1107:660>>>	42.890***	34.433***	9.089***
(-1,+1)	1767	6.78%	6.04%	1077:690>>>	49.677***	39.298***	9.548***
(0,+1)	1767	5.98%	5.40%	1079:688>>>	54.372***	42.459***	9.763***
(+4,+15)	1762	1.49%	0.89%	909:853>>>	3.672***	4.322***	2.613**

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Table 19: Not acquired firms Market Model Abnormal Returns, S&P 500

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
-15	1632	-0.03%	779:853	-0.784	-0.328	-0.514
-14	1633	0.02%	797:836	0.141	0.214	0.699
-13	1633	-0.01%	760:873	-0.169	-0.088	-0.954
-12	1633	0.08%	823:810>	1.788*	0.758	1.612$
-11	1633	0.10%	761:872	-0.465	0.969	-1.200
-10	1633	0.04%	786:847	0.793	0.351	0.086
-9	1633	0.29%	803:830	2.054*	2.874**	2.044*
-8	1633	-0.10%	755:878	-1.164	-0.954	-1.583$
-7	1633	-0.01%	815:818>	-0.930	-0.074	1.072
-6	1633	0.09%	773:860	1.336$	0.866	0.006
-5	1633	0.10%	732:901<	0.459	1.033	-1.080
-4	1633	0.01%	808:825)	1.072	0.052	0.562
-3	1633	0.16%	799:834	1.468$	1.539$	0.674
-2	1633	0.17%	825:808>>	3.194***	1.645*	2.290*
-1	1633	0.04%	808:825)	1.809*	0.386	1.085
0	1633	0.35%	776:857	4.035***	3.427***	0.268
+1	1633	0.57%	810:823)	5.762***	5.597***	2.406**
+2	1633	0.03%	776:857	0.103	0.322	0.541
+3	1631	0.16%	795:836	1.618$	1.598$	0.969
+4	1630	0.07%	786:844	0.057	0.695	-0.477
+5	1630	0.18%	759:871	1.632$	1.730*	-0.430
+6	1629	0.07%	814:815>	0.444	0.739	0.885
+7	1628	0.19%	769:859	1.356$	1.864*	-0.134
+8	1627	0.11%	801:826)	1.610$	1.130	0.960
+9	1627	-0.06%	758:869	-0.645	-0.558	-0.215
+10	1627	-0.04%	804:823)	-0.526	-0.440	0.257
+11	1627	0.29%	809:818>	1.873*	2.857**	1.161
+12	1627	-0.20%	750:877	-3.063**	-2.006*	-1.563$
+13	1627	0.14%	794:833	1.164	1.366$	0.178
+14	1627	0.16%	802:825)	0.583	1.625$	0.920
+15	1627	-0.05%	771:856	-0.499	-0.481	-0.554

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Eventus (R) Software from Cowan Research, L.C.

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-15,-4)	1633	0.57%	0.25%	810:823)	1.187	1.638$	0.217
(-3,+3)	1633	1.47%	1.11%	873:760>>>	6.786***	5.486***	3.112**
(-2,+2)	1633	1.15%	0.92%	871:762>>>	6.645***	5.088***	2.947**
(-1,+1)	1633	0.95%	0.71%	847:786>>>	6.681***	5.433***	2.170*
(0,+1)	1633	0.91%	0.61%	849:784>>>	6.900***	6.381***	1.890*
(+4,+15)	1630	0.86%	0.25%	836:794>>	1.140	2.457**	0.285

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Table 20: Sample of poison pill expiration

Sample of poison pill expiration	
Description	**Sample Size**
Total of Events analyzed	4475
Events dropped due to unavailability of CUSIP	230
Events dropped as Date outside the period of Data available	2892
Too few estimation period days with data	12
Too many estimation period days with missing data	5
Total of Events dropped	**3139**
Total of Events usable	**1336**

Table 21: Pill Adoption by Banks, Market Model Abnormal Returns, S&P 500

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
-15	72	-0.10%	39:33	-0.395	-0.312	1.073
-14	72	0.32%	37:35	0.799	0.941	0.601
-13	72	-0.62%	26:46<	-1.642$	-1.851*	-1.994*
-12	72	0.42%	34:38	0.377	1.259	-0.106
-11	72	-0.36%	29:43(	-0.826	-1.065	-1.286$
-10	72	0.78%	46:26>>	2.718**	2.314*	2.725**
-9	72	-0.04%	32:40	0.215	-0.107	-0.578
-8	72	0.27%	39:33	1.262	0.793	1.073
-7	72	0.13%	37:35	-0.543	0.387	0.601
-6	72	-0.29%	40:32)	-0.752	-0.865	1.309$
-5	72	-0.02%	30:42	-0.542	-0.060	-1.050
-4	72	0.14%	31:41	0.829	0.432	-0.814
-3	72	0.03%	39:33	1.043	0.104	1.073
-2	72	-0.05%	33:39	-0.250	-0.134	-0.342
-1	72	0.04%	36:36	0.698	0.132	0.365
0	72	0.14%	28:44(	1.117	0.416	-1.522$
+1	71	0.34%	34:37	0.722	1.018	0.007
+2	71	-0.46%	28:43(	-1.872*	-1.375$	-1.419$
+3	71	0.01%	32:39	0.886	0.017	-0.469
+4	71	0.53%	44:27>>	1.785*	1.593$	2.382**
+5	71	-0.55%	24:47<<	-1.858*	-1.644$	-2.369**
+6	71	0.60%	38:33	0.638	1.786*	0.957
+7	71	1.10%	38:33	1.401$	3.277***	0.957
+8	71	0.31%	38:33	0.338	0.935	0.957
+9	71	-0.41%	30:41	-1.318$	-1.219	-0.944
+10	71	-0.62%	31:40	-1.061	-1.852*	-0.706
+11	71	0.40%	34:37	1.644$	1.199	0.007
+12	71	-0.06%	24:47<<	-2.169*	-0.172	-2.369**
+13	71	-0.22%	35:36	-0.105	-0.644	0.244
+14	71	-0.04%	30:41	-0.986	-0.134	-0.944
+15	71	0.28%	39:32	0.937	0.845	1.194

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.

Table 22: Pill Adoption of Software firms, Market Model Abnormal Returns, S&P 500

Market Model Abnormal Returns, Standard & Poor's 500 Composite Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
-15	175	0.45%	84:91	0.864	1.108	0.149
-14	175	0.62%	85:90	1.581$	1.529$	0.300
-13	175	-0.42%	75:100	-0.881	-1.027	-1.214
-12	175	0.24%	82:93	0.545	0.581	-0.154
-11	175	-0.17%	80:95	-0.832	-0.411	-0.457
-10	175	0.55%	95:80>	1.837*	1.346$	1.814*
-9	175	-0.51%	91:84	-2.143*	-1.241	1.208
-8	175	-0.01%	80:95	0.324	-0.019	-0.457
-7	175	0.32%	87:88	-0.141	0.776	0.603
-6	175	-0.28%	87:88	-0.741	-0.689	0.603
-5	175	0.59%	93:82)	0.323	1.444$	1.511$
-4	175	-0.17%	84:91	-1.525$	-0.419	0.149
-3	175	0.51%	93:82)	1.419$	1.240	1.511$
-2	175	0.95%	97:78>	1.607$	2.330**	2.117*
-1	175	0.73%	92:83)	1.812*	1.784*	1.360$
0	175	2.73%	104:71>>>	6.449***	6.697***	3.176***
+1	175	4.13%	103:72>>	12.554***	10.148***	3.025**
+2	175	0.17%	83:92	1.091	0.415	-0.003
+3	175	0.09%	84:91	0.162	0.210	0.149
+4	174	0.42%	96:78>	1.634$	1.035	2.043*
+5	174	-0.33%	86:88	-0.343	-0.801	0.525
+6	174	0.62%	83:91	1.103	1.511$	0.069
+7	174	0.16%	76:98	0.291	0.386	-0.994
+8	174	0.91%	91:83)	2.360**	2.224*	1.284$
+9	174	0.85%	88:86	2.186*	2.077*	0.828
+10	174	0.73%	86:88	1.719*	1.782*	0.525
+11	174	0.44%	90:84	0.721	1.070	1.132
+12	174	0.03%	89:85	0.637	0.086	0.980
+13	174	0.55%	92:82)	1.875*	1.356$	1.436$
+14	174	0.35%	92:82)	0.178	0.862	1.436$
+15	174	0.03%	95:79>	0.239	0.064	1.891*

The symbols $,*,**, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of a generic one-tail generalized sign test.