THE MARKET REACTION TO STOCK SPLIT ANNOUNCEMENT

AND THE UNDERLYING EXPLANATIONS

by

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Abstract

This paper examines the market reaction to stock splits announcements during the period 2003 to 2013. We find a significantly positive Cumulative Average Abnormal Return (CAAR) on the announcement day as well as the following day. Both liquidity and signaling reasons contribute to this result.

Key words: Stock split; Announcement; CAAR; Liquidity; Signaling

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1. Introduction

The effects of stock split on stock price and return has been attracting financial scholars' attention for a long time. Much research has been made with regards to this topic. Stock splits often take place after an increase in stock prices and are usually followed by positive abnormal return upon announcement. Theoretically, stock split should not be associated with a positive market reaction since it is only a cosmetic change between price and share outstanding that should not increase the firm's value.

In this paper, we will discuss the positive market reaction to stock split and the possible contributing reasons to this phenomenon specifically for the period from 2003 to 2013. First of all, we show that the split announcement is followed by a positive abnormal return. We then present two possible hypotheses that can explain the positive reaction to the split. These hypotheses are liquidity hypothesis and signaling hypothesis. Cross-section regression will be applied to verify whether the empirical results are consistent with these hypotheses.

2. Literature review

Fama, Fisher, Jensen, and Roll (1969) and Johnson (1966) observed the existence of abnormal return (AR) around stock split declaration. For the Canadian market, Kryzanowski and Zhang (1991, 1993) also discovered a positive split declaration effect in the market for the 1978–1987 period. To analyze the underlying reason that attribute to the positive market

reaction, several hypotheses have been suggested. Though the liquidity and signaling hypothesis are commonly discussed in the context of stock splits, in this paper we review also other hypotheses including: the neglected firm, the trading range, the tick size, the self-selection, and the dividend hypotheses. All of these other hypotheses are somewhat related to either liquidity, signaling or both – so our empirical analysis focuses only on the two main hypothesis: liquidity and signaling.

2.1 Liquidity hypothesis

Liquidity measures the ability to turn assets into cash quickly. The main idea of the liquidity hypothesis is that following a split more investors are able to buy the stock, which in turn increases the trading volume and liquidity. Amihud and Mendelson (1986) predicted that there is a positive relationship between the value of equity and liquidity, which suggests that after a stock split, when liquidity increases, equity value increases. A decade later，Muscarella and Vetsuypens (1996) confirmed these predictions.

Conversely, Conroy, Harris, and Benet's (1990) findings were conflicted with the liquidity hypothesis by observing an increase in the percentage bid-ask spreads after a stock split. Similarly, the evidence from Copeland's study that examine liquidity measured by the bid-ask spread or volume and turnover metrics does not support the liquidity improvement hypothesis either (Copeland (1979)).

2.2 Signaling hypothesis

Brennan and Copeland (1988), McNichols and Dravid (1990), and Brennan and Hughes (1991), interpreted the positive stock market reaction to split announcements as a result of a signal of firm's favorable inside information to investors. The positive market reaction for stock splits suggests that splits convey positive information to investors about the future profitability of the firm. For example, the market reaction to two-for-one splits is 3.38%, which is higher for smaller firms where conceivably more opportunities for mispricing might exist.. In addition, the market reaction is higher for firms that split to

relatively low stock prices. Asquith et al. (1989) also came to similar conclusion about the signaling effect of stock split. This hypothesis makes sense since there are filing costs and transaction costs associated with stock split, thus firms tend not to announce a stock split when their stock prices tend to fall due to the associated high costs.

Arbel and Swanson (1993) tested 103 ‘‘pure’’ split announcements to investigate the different effect of stock split announcement for stocks with different level of information asymmetry during the 1984–1987 period. ‘One proxy for information asymmetry is the number of analysts making annual estimates of firm earnings’ (Arbel and Swanson 1993). They found that the market reaction to stock split is stronger for stocks with high information asymmetry than that with low information asymmetry.

2.3 The neglected-firm hypothesis

The neglected-firm hypothesis means that management use stock split to draw investors’ attention on the firm to gain more recognition. This hypothesis is hard to separate from the liquidity and signaling hypothesis because by definition if a firm is neglected then it is probably associated with low liquidity and high information asymmetry. Arbel and Swanson (1993) proposed this hypothesis predominantly by observing that management tend to declare stock split for the companies that are hardly known which are defined as companies that have a high level of information asymmetry.

2.4 Trading range hypothesis

Trading range hypothesis is based on the idea that it is good to keep the stock price within a trading range as that can expand its investor base, optimally balance the amount of retail and institutional clients, and result in a positive market reaction. This again, can be seen as an extension of the liquidity hypothesis, however, here the idea is that the benefits from increased liquidity is dependent on a particular attribute of a price range. “As the share price overflows this trading range, the trading cost, price stability, and the liquidity of the stock

change, so the marketability of the stock can be deteriorated" （Juan C. Reboredo, 2003）. Under this hypothesis, management will announce a stock split to bring the stock price back when it breaks beyond the trading range.

2.5 Optimal tick size hypothesis

'Tick size' means the minimum price movement of a trading instrument. For example, if the minimum price movement of a stock is 0.01; the stock has a tick value of one cent, that is to say, each tick is worth one cent for one stock.

Optimal tick size hypothesis emphasizes on the fact that relative tick size would increase as a result of stock price decrease following the stock split. This, similar to the trading range hypothesis, is an extension or a particular case of the liquidity hypothesis. Baker and Gallagher (1980), Baker and Powell (1993), Angel (1994) found that large relative tick size could improve the liquidity effect by several reasons. Firstly, larger tick size can embrace a higher minimum floor on the bid-ask spread and this can appeal more to investors Angel (1994). Secondly, transaction can be reduced with larger tick size Angel (1994). Furthermore, Anshuman and Kalay (1994) found that larger tick size can prompt dealers to aggregate their orders.

Angel (1997) introduced this idea of optimal tick size hypothesis by thinking that managers undertake stock split with the intention of bringing the relative tick size back to a preset optimal level. By having a wider tick size, bargaining and processing costs would be lower while more limit orders would be motivated and thus the trading volume would increase accordingly. However, a wider tick size increases the cost to investors inherent in a wider percentage spread simultaneously. Therefore, a cost trade-off exists here for the company to find the optional tick size relative to its stock price. Though this hypothesis was reasonable during the 90's, it is irrelvant in current situation since quotes are in decimal instead of quoted in 1/16 now.

2.6 Self-selection hypothesis

Ikenberry et al. (1996) came up with a self-selection hypothesis, which can be regarded as a combination of the signaling and trading range hypotheses. According to this hypothesis, management announces splits at an aim to bring the stock price back to a certain range. However, this split has to account for management's expectation on the firm's future positive performance, which the market learns through the split signal. Because of this signaling effect, managers choose a lower after event target price if they want to bring the stock prices back to the trading range previous set. These authors found that the post-split target prices, which were previously set, are negatively correlated with the market reaction to stock split, which is consistent with this hypothesis.

2.7 The dividend hypothesis

Copeland (1979) interpreted the split declaration as a signal of a future dividend increase. That is to say, the positive abnormal return is not due to the stock split but results of the dividend increases or decreases that followed or preceded this stock split. This hypothesis can be seen as an particular case of the signaling hypothesis. ''Higher dividends provide investors with signals of management's increased confidence in their companies' future levels of profitability and cash flows. Thus, it is not stock splits per se that cause higher stock prices, but rather management's emphatic statements of continued confidence in the company's future performance conveyed to the market in the form of larger than expected dividend increases'' (Copeland, 1979).

3. Data and methodology

The initial sample of our research came from the entire database of EVENTUS. We investigated the abnormal return surrounding the stock split announcement date for the period from 2003 to 2013 for a total number of 2591 splits. Then we partitioned this database into three periods, respectively. The pre crisis period from 2004 to 2006, the crisis period from 2007 to 2010 and the post crisis period from 2011 to 2013. Afterwards, we checked for the market efficiency in incorporating the announcement effect by analyzing the AAR for several days after the announcement date. The sample included 1216 stock splits for the pre crisis period, 825 splits for the crisis period and 550 splits for the post period. For each stock split, we input the PERMNO of split company and the split year into EVENTUS. Then the EVENTUS output the daily stock returns for 60 days surrounding the split declaration date (from t = -30 to t = +30) as well as some other information related to the stock split. (see Appendix table1)

Besides, we generated the associated data of stock price, trading volume, research and development expense (R & D expense), value of assets, i.sic2 (a dummy variable for industry), and i.year (a dummy variable for split year). The R & D expense is collected from Compustat database. Trading volume is collecting by taking average of the firm's trading volume one month prior of the split announcement date. I.sic2 takes the first two number of sic code and this represents the industry that a company is in. I.year is just the year that stock split happened.

We obtained the measure of illiquidity by multiplying price by trading volume then divide the result by 1000 to get it in $ and then ranked them from the highest to the lowest. We define the variable Illiquidity as a dummy variable that equals one if

volume is below the median in the sample, and zero otherwise. Similarly, we obtained the normalized R&D expense by dividing the R&D expense by total assets and generating a variable High information asymmetry if normalized R&D expense is above the median in the sample, and zero otherwise. The following table 1 is the basic statistics of previous data.

Table 1 Basic statistics of the inputs

Normalized R&D is the measured in percentage, and Liquidity is measured in million dollar.

Variables	Mean	Maximum	Minimum
Normalized R&D	0.00966	0.4761	0
Liquidity	827.60	19126.21	0.142011
Volume	129310	2475216	44

4. Empirical results

From EVENTUS output, we can observe the existence of positive mean abnormal return (AAR) on the stock split announcement day and the next day as well as the entire month ahead of the announcement date for all 2591 stock splits at 99.9% significance level. The reason for such high AAR ahead of stock split is that many firms split their stocks when there is an increase in their stock prices. Moreover, before the announcement, some insiders may know about the split announcement ahead of time, so there may be some inside trades which bring up the stock prices. It can be observed from the table 2 below that the AAR on the announcement day and the following day is highest, with a value of 1.93%.

Table 2: Average abnormal return around stock split announcement

Day	N	Mean	Precision	Positive:	Patell Z	Portfolio	Generalized

		Abnormal Return	**Weighted CAAR**	**Negative**		**Time-Series (CDA) t**	**Sign Z**
(-30,-1)	2591	1.13%	0.93%	1402:1189>>>	5.249***	3.821***	6.680***
(0,+1)	2591	1.93%	1.55%	1787:804>>>	33.792***	25.309***	21.825***
(+2,+30)	2591	-0.33%	0.18%	1290:1301>	1.057	-1.134	2.274

The symbols $, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a two-tail test. The symbols (,< or),> etc. correspond to $,* and show the direction and significance of the generalized sign test. The Patell Z test is an example of a standardized abnormal return approach, which estimates a separate standard error for each security-event and assumes cross-sectional independence. The generalized sign test adjusts for the fraction of positive abnormal returns in the estimation period instead of assuming 0.5.The CDA is the time-series standard deviation test. The standard error for this test is computed from the time series of portfolio mean abnormal returns during the estimation period.

To look into the significance of AAR for each day surrounding the stock split announcement date, we provide the abnormal return during t = -7 to t = 7 (the split announcement day is assumed to be t = 0). The result is shown in Table3. It can be seen that average abnormal return is significant for the total 2591 splits from t = 0 to t = 3 at the significance level of 99.9%.

Table 3: Abnormal return for each day

Eventus (R) Software from Cowan Research, L.C.						
Market Model, Equally Weighted Index						
Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
-7	2591	0.08%	1292:1299>	1.472	1.503	2.353*

-6	2591	0.02%	1241:1350	0.122	0.324	0.346
-5	2591	0.00%	1204:1387	0.807	-0.08	-1.109
-4	2591	0.13%	1236:1355	2.577**	2.354*	0.15
-3	2591	0.01%	1255:1336	0.929	0.122	0.897
-2	2591	0.01%	1248:1343	0.139	0.235	0.622
-1	2591	0.12%	1280:1311)	3.231**	2.184*	1.881$
0	2591	0.86%	1538:1053>>>	22.183***	15.944***	12.030***
1	2591	1.07%	1626:965>>>	25.605***	19.848***	15.492***
2	2591	0.32%	1365:1226>>>	8.359***	5.875***	5.224***
3	2591	0.23%	1342:1249>>>	4.832***	4.192***	4.320***
4	2591	0.15%	1309:1282>>	3.789***	2.771**	3.021**
5	2591	0.10%	1291:1300>	3.128**	1.837$	2.313*
6	2591	0.10%	1290:1301>	2.213*	1.878$	2.274*
7	2591	0.10%	1285:1306>	2.936**	1.940$	2.077*

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

Further, we tried to figure out if the 2008 crisis has any influence on the AAR occurred surrounding stock splits. Thus we divided the period from 2003 to 2013 into three sub-periods, the pre-crisis period from 2003 to 2006, the crisis period from 2007 to 2010 and the post crisis period from 2011 to 2013. Then we tabulated their AAR separately.

For the pre-crisis period, we have obtained 1216 stock split events during this period. We collected the mean abnormal return (AAR) of these firms surrounding the split announcement day from t = -30 to t = +30 (Appendix table1). Surprisingly, the abnormal return is significant not only for the announcement day and the next day, but

also for the following week. It can be seen that from t = 0 to t = 3, there are positive abnormal return at 99.9% significance level. In addition, abnormal returns appear significant and positive at least at 95% level from t = 4 to t = 7. For the crisis period, the AAR is calculated by averaging the 825 split's abnormal return on equally weighted basis. The abnormal return result shows positive AAR on both the announcement day and the day after (Appendix table2). We found that there was a total number of 550 stock split happened during the post split period. We applied these data to EVENTUS to achieve that the abnormal return is positive and significant on the split declaration day as well as the next day at a significance level of 99.9% (Appendix table 3). In what follows we use CAAR of t=0 till t=1, as that is justified both by theory (if the market is efficient in absorbing new information) and our empirical results.

5. Results from regression analysis

Table 4: Analysis of liquidity and signaling hypothesis

H is the dummy variable for High-tech companies. I is the dummy variable for illiquidity of the stock. CAAR01 is the Cumulative average abnormal return of announcement and the day after.

	(1)	(2)	(3)
VARIABLES	CAAR01	CAAR01	CAAR01
H	0.0109***	0.0118***	0.0112**
	(0.00319)	(0.00451)	(0.00565)
I	0.0125***	0.0134***	0.0183***
	(0.00319)	(0.00451)	(0.00513)
Interaction		-0.00186	-0.000954
		(0.00638)	(0.00696)

Constant	0.00942***	0.00893***	0.134***
	(0.00281)	(0.00327)	(0.0454)
Industry and year fixed effects			Yes
Observations	800	800	800
R-squared	0.031	0.031	0.131

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

To study the hypotheses that promote such positive market reaction, we employed STATA to do a cross-sectional regression model of cumulative abnormal return (CAAR) versus several variables in three scenarios. The result of the three regressions is exhibited in the above Table 4.

When we use only H and I as independent variable, we obtained the result that both coefficients of the two variables are positive at a significance level of 99%. High R&D expense firms are associated with 1.09% increased market reaction compared to low R&D firms; and low volume firms (low liquidity) are associated with 1.25% increased market reaction compared to high liquid stocks. This demonstrates that both liquidity and signaling hypotheses are equally important in magnitude.

We next run the regression of CAAR against I (illiquidity measure), H (information asymmetry measure) and the interaction of the two measures. It can be seen from the following result (specification (2)) that both the coefficients of I and H are positive and significant at 99% level as the previous regression. The coefficient of interaction is negative but insignificant, suggesting that there is minimal interaction between the two – and the two hypotheses are only partially overlapping. Meanwhile, the previous results concerning liquidly and information asymmetry are unchanged compared to

specification (1). This confirms that signaling and liquidity have a similar effect on the positive reaction to splits.

In the third specification, we regressed CAAR against H, I, i.sic2, i.year as well as the interaction of H & I. The regression result is similar to that of the previous two cases. It can be seen from the output table that the coefficient of H is positive and significant at 95%. Though the significance level is lower than that of the previous two scenarios, this tells us that the signaling hypothesis plays a role in explaining the abnormal return surrounding the stock split announcement date and the higher the level of information asymmetry the higher the abnormal return. In this case, liquidity hypothesis continue to be a significant reason in explaining the existence of abnormal return at a significance level of 99% just as before. In addition, the dummy variable of i.sic has negative coefficients and illustrates different level of significance in explaining the dependent variable CAAR. Conversely, the dummy variable of split year does not have significant coefficients in most cases.

6. Comparison of regression results

Table 5 below demonstrates the significance of each variable that potentially contribute to AAR surrounding the split announcement date for each of the three models we constructed.

Table 5: Comparison of regression results

Regression model / Factor	Model 1	Model 2	Model 3

Interaction	N/A	Negative & insignificant	Negative & insignificant
i.sic2	N/A	N/A	Negative & 90% significant
I,year	N/A	N/A	Mostly Negative & insignificant
H	**Positive & 99% significant**	**Positive & 99% significant**	**Positive & 95% significant**
I	**Positive & 99% significant**	**Positive & 99% significant**	**Positive & 99% significant**

It can be concluded from the regression analysis that liquidity and signaling hypothesis contribute to explaining the existence of AAR although the significance level may varies. Furthermore, the interaction of the liquidity measure and the information asymmetry measure does not have a significant role in explaining the change of CAAR.

7. Results from robust check

As a robustness check, we use the trading volume (in number of trades) as an approximate measure for illiquidity. We then created and illiquidity indicators that equals 1 if volume is below median, and one otherwise. For the information asymmetry proxy, we refer to master list of SIC codes to distinguish the high-tech companies from the low-tech ones. The first regression was run with H and I as the only independent variables. The second regression also includes their interaction. The last regression was achieved by regressing CAAR against H, I, interaction of H&I, i.year, and i.sic2. The regression results of this robust check are displayed in Table 5.

Table 6: Robustness check for regression

H is the dummy variable for High-tech companies. I is the dummy variable for illiquidity of the stock. CAAR01 is the Cumulative average abnormal return of announcement and the day after.

	(1)	(2)	(3)
VARIABLES	CAAR01	CAAR01	CAAR01
H	0.00641*	0.00306	0.0302***
	(0.00333)	(0.00450)	(0.0109)
I	0.0175***	0.0147***	0.0231***
	(0.00325)	(0.00412)	(0.00501)
Interaction		0.00739	0.00136
		(0.00669)	(0.00729)
Industry and year fixed effects			Yes
Constant	0.00986***	0.0115***	0.146***
	(0.00278)	(0.00315)	(0.0444)
Observations	800	800	800
R-squared	0.036	0.037	0.152

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The significance and value of coefficient are somewhat different in Table 6 compared to Table 5. According to this specification, Illiquidity is economically more significant than before (1.75% compared to 1.25%) but information asymmetry is less significant (0.64% compared to 1.09%). Obviously this could be because the proxy for information asymmetry has much changed. However, the conclusion that liquidity and

signaling hypotheses contribute to the abnormal return remain unchanged.

In the second specification, we can see that the liquidity hypothesis (I) helps explain the abnormal return at a significance level of 99% and there is a positive relationship between illiquidity and CAAR. Meanwhile, signaling hypothesis does not play a significant role here although the information asymmetry measure (H) has a positive coefficient.

In the last regression analysis, both H and I have a significant positive coefficient at a level of 99%. There is significant negative relationship between CAAR and i.sic2 at a significance level of 90%. But the relationship between CAAR nad i.year is not significant. Besides, the constant is positive at a significance level of 99%. We observed that the robust check results approximately coincide with what we have achieved from our previous regression analysis. This makes our empirical results much more creditworthy.

8. Conclusion

We analyze the abnormal return of a sample of 2591 stock split announcements that occurred during the period from 2003 to 2013. Our research finds the existence of statistically significant positive abnormal returns around stock split announcements days, especially for t=0 and t=1. These announcement effects are so significant that they cannot be neglected.

To analyze the underlying reason that contributes to such positive market reaction, we apply cross-sectional regressions. We find that both signaling and liquidity play a

role. Firstly, we find the measures of signaling and liquidity are associated with the market reaction. Then we run regression of CAAR against these two measures and find support for both the two hypotheses since both the measures have a significantly positive value. Afterwards, we add the interaction of H & I as the third independent variable and obtain that the results are unchanged. Afterwards, we add two dummy variables of i.sic2 and i.year to our regression model. Similar results turn out as both hypotheses are confirmed.

To prove our findings further, we did a robust check by applying some approximate measures for illiquidity and information asymmetry. We achieved similar results since the liquidity hypothesis is a key explanation of abnormal return at 99% significance level. But the signaling hypothesis doesn't seem to be so significant as that of our previous regression result. This could potentially be because that liquidity proxies are easier to measure, and that there is more controversy as to what measure asymmetry of information.

Appendices

Table 1

Eventus (R) Software from Cowan Research, L.C.
(2003-2006)
Market Model, Equally Weighted Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series(CDA) t	Generalized Sign Z
-30	1625	0.0006	803:822)	0.661	0.977	1.725$
-29	1625	0.0005	790:835	1.483	0.785	1.079
-28	1625	-0.0004	776:849	-0.449	-0.689	0.384
-27	1623	-0.0003	769:854	-0.571	-0.53	0.083
-26	1625	0.0002	786:839	0.138	0.293	0.881

-25	1625	0.0003	784:841	1.062	0.559	0.781
-24	1625	0.0005	774:851	0.528	0.766	0.284
-23	1625	0.0021	768:857	2.218*	3.289***	-0.014
-22	1625	-0.0002	772:853	0.992	-0.311	0.185
-21	1625	-0.0007	762:863	-0.916	-1.091	-0.312
-20	1625	0.0009	806:819)	2.278*	1.513	1.874$
-19	1625	0.0005	770:855	1.766$	0.77	0.086
-18	1625	0.0004	778:847	1.264	0.62	0.483
-17	1625	-0.0001	754:871	-0.427	-0.091	-0.709
-16	1624	-0.0001	747:877	-0.314	-0.094	-1.034
-15	1625	0.0012	822:803>>	2.165*	1.990*	2.669**
-14	1624	0.0007	779:845	1.316	1.063	0.556
-13	1624	0.0006	779:845	1.162	0.987	0.556
-12	1625	0.001	781:844	1.661$	1.6	0.632
-11	1625	0.0003	775:850	0.182	0.418	0.334
-10	1625	-0.0005	767:858	-0.301	-0.739	-0.064
-9	1625	-0.0001	777:848	0.355	-0.092	0.433
-8	1625	-0.0005	770:855	-0.806	-0.858	0.086
-7	1625	0.0004	801:824	0.433	0.59	1.626
-6	1625	0.0006	794:831	0.958	0.893	1.278
-5	1625	0	751:874	0.235	0.066	-0.859
-4	1625	0.0014	782:843	1.476	2.225*	0.682
-3	1625	0.0012	790:835	2.517*	1.874$	1.079
-2	1625	0.0003	775:850	0.82	0.548	0.334
-1	1625	0.0016	810:815>	3.166**	2.537*	2.073*
0	1625	0.0096	991:634>>>	19.739***	15.387***	11.067***
1	1625	0.0118	1051:574>>>	22.928***	18.913***	14.048***
2	1625	0.0044	873:752>>>	9.360***	7.002***	5.203***
3	1625	0.0023	859:766>>>	4.832***	3.726***	4.508***
4	1625	0.0014	839:786>>>	3.805***	2.275*	3.514***
5	1625	0.0023	830:795>>	4.871***	3.660***	3.067**
6	1625	0.0016	852:773>>>	3.663***	2.574*	4.160***
7	1625	0.0013	819:806>	3.046**	2.113*	2.520*
8	1625	0	818:807>	1.624	0.016	2.471*
9	1625	0.0002	805:820)	1.267	0.274	1.825$
10	1625	0	773:852	0.165	-0.001	0.235
11	1625	-0.0015	750:875	-1.787$	-2.444*	-0.908
12	1625	-0.0008	785:840	-1.348	-1.227	0.831
13	1625	-0.0002	783:842	0.227	-0.318	0.731
14	1625	0.0004	789:836	1.694$	0.705	1.03
15	1625	-0.0002	774:851	-0.057	-0.299	0.284
16	1625	-0.0011	755:870	-1.707$	-1.828$	-0.66
17	1625	-0.0003	757:868	-0.614	-0.482	-0.56
18	1625	-0.0008	766:859	-0.47	-1.277	-0.113

19	1625	-0.0003	771:854	-0.51	-0.461	0.135
20	1625	-0.0009	761:864	-1.613	-1.46	-0.362
21	1625	0.0009	790:835	0.295	1.416	1.079
22	1625	-0.0001	754:871	0.994	-0.201	-0.709
23	1625	-0.0018	730:895(	-3.116**	-2.859**	-1.902$
24	1625	0.0003	797:828	-0.234	0.456	1.427
25	1625	-0.0009	755:870	-0.895	-1.463	-0.66
26	1623	-0.0004	802:821)	-0.5	-0.588	1.724$
27	1625	-0.0003	765:860	0.506	-0.498	-0.163
28	1625	-0.0009	727:898<	-1.277	-1.447	-2.051*
29	1625	-0.001	752:873	-1.571	-1.569	-0.809
30	1625	-0.0012	736:889	-1.613	-1.953$	-1.604

Table 2

Eventus (R) Software from Cowan Research, L.C.
(2007-2010)
Market Model, Equally Weighted Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series(CDA) t	Generalized Sign Z
-30	595	0.0006	281:314	-0.832	0.523	-0.393
-29	595	0.001	277:318	0.019	0.897	-0.721
-28	595	0.0002	310:285>	0.438	0.173	1.987*
-27	595	-0.0005	280:315	-0.485	-0.406	-0.475
-26	595	0.0031	303:292	0.777	2.714**	1.413
-25	595	-0.0013	284:311	0.494	-1.165	-0.146
-24	595	0.0019	290:305	1.434	1.649$	0.346
-23	595	0.0014	290:305	0.768	1.249	0.346
-22	595	0.0004	275:320	-1.242	0.341	-0.885
-21	595	-0.0011	298:297	-0.499	-0.938	1.002
-20	595	0.0014	284:311	0.362	1.226	-0.146
-19	595	-0.0011	280:315	-0.784	-0.952	-0.475
-18	595	0.002	299:296	1.146	1.711$	1.084
-17	595	-0.0009	286:309	-0.46	-0.75	0.018
-16	595	0.0013	298:297	1.466	1.095	1.002
-15	595	-0.0002	279:316	-0.99	-0.131	-0.557
-14	595	-0.0004	283:312	-0.015	-0.323	-0.229
-13	595	0.0047	326:269>>>	5.116***	4.063***	3.300***
-12	595	-0.0011	296:299	0.729	-0.981	0.838
-11	595	0.0023	309:286)	1.412	2.045*	1.905$
-10	595	0.0011	302:293	1.251	0.983	1.331
-9	595	0	297:298	0.957	0.002	0.92
-8	595	-0.0001	298:297	0.833	-0.072	1.002

-7	595	0.003	325:270>>	2.490*	2.597**	3.218**
-6	595	-0.0008	279:316	-1.248	-0.668	-0.557
-5	595	-0.0001	288:307	1.850$	-0.124	0.182
-4	595	0.0028	298:297	3.013**	2.417*	1.002
-3	595	-0.0017	287:308	-1.45	-1.447	0.1
-2	595	0.0001	299:296	-0.53	0.075	1.084
-1	595	0.0014	303:292	1.656$	1.231	1.413
0	595	0.0082	335:260>>>	9.033***	7.171***	4.038***
1	595	0.0089	356:239>>>	9.329***	7.775***	5.762***
2	595	0.0019	302:293	1.281	1.648$	1.331
3	595	0.0019	300:295	0.738	1.656$	1.166
4	595	0.0015	285:310	0.769	1.35	-0.064
5	595	-0.0012	289:306	-0.52	-1.084	0.264
6	595	-0.0004	265:330(	-0.646	-0.388	-1.706$
7	595	-0.0004	284:311	0.095	-0.338	-0.146
8	595	0.001	301:294	2.193*	0.906	1.248
9	594	-0.0009	280:314	-0.565	-0.778	-0.436
10	595	0.0006	295:300	0.603	0.546	0.756
11	595	-0.0012	288:307	-1.346	-1.089	0.182
12	595	-0.0001	273:322	-0.342	-0.056	-1.049
13	595	0.0005	308:287)	1.32	0.469	1.823$
14	595	-0.0015	272:323	-1.525	-1.278	-1.131
15	595	0.0009	284:311	-0.124	0.785	-0.146
16	595	-0.003	248:347<<	-3.690***	-2.621**	-3.100**
17	595	-0.0009	289:306	0.011	-0.787	0.264
18	595	0.0001	295:300	-0.109	0.129	0.756
19	595	-0.0025	264:331(	-2.505*	-2.187*	-1.788$
20	595	-0.0023	279:316	-1.54	-1.995*	-0.557
21	595	-0.0008	290:305	-1.775$	-0.713	0.346
22	594	0.0007	303:291	2.032*	0.587	1.453
23	595	-0.0022	268:327	-2.176*	-1.886$	-1.459
24	595	-0.0029	272:323	-3.064**	-2.567*	-1.131
25	594	-0.0028	273:321	-2.768**	-2.486*	-1.011
26	595	0	260:335<	-0.225	-0.036	-2.116*
27	595	-0.0048	272:323	-3.832***	-4.157***	-1.131
28	595	-0.0002	272:323	-0.648	-0.141	-1.131
29	594	-0.0017	281:313	-1.408	-1.488	-0.354
30	595	-0.0003	286:309	-1.506	-0.297	0.018

Table 3

Eventus (R) Software from Cowan Research, L.C.
(2011-2013)

Market Model, Equally Weighted Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series(CDA) t	Generalized Sign Z
-30	371	-0.0004	177:194	-0.729	-0.258	-0.88
-29	371	0.001	179:192	0.554	0.69	-0.672
-28	371	0.0017	197:174	1.077	1.194	1.197
-27	371	0.0006	186:185	0.693	0.401	0.055
-26	371	0.0014	206:165>	2.269*	1.006	2.131*
-25	371	0.0001	174:197	0.229	0.095	-1.191
-24	371	0.0007	187:184	0.284	0.473	0.159
-23	371	0.0026	202:169)	0.818	1.828$	1.716$
-22	371	-0.0008	182:189	0.003	-0.569	-0.361
-21	371	0.0014	175:196	1.648$	0.99	-1.087
-20	371	0	180:191	0.278	-0.008	-0.568
-19	371	0.0023	196:175	2.288*	1.606	1.093
-18	371	0.0013	187:184	0.893	0.933	0.159
-17	371	0.0009	193:178	1.946$	0.632	0.782
-16	371	0.0007	189:182	0.383	0.514	0.366
-15	371	0.0012	190:181	1.193	0.823	0.47
-14	371	0.0003	173:198	0.994	0.222	-1.295
-13	371	0.0024	179:192	0.702	1.689$	-0.672
-12	371	0.0002	191:180	0.426	0.152	0.574
-11	371	0	185:186	0.375	-0.022	-0.049
-10	371	0.0008	190:181	0.965	0.569	0.47
-9	371	0.0001	191:180	0.505	0.086	0.574
-8	371	0.0011	201:170	0.419	0.747	1.612
-7	371	0.0001	190:181	0.685	0.104	0.47
-6	371	0.0015	183:188	0.771	1.051	-0.257
-5	371	0.0006	178:193	0.017	0.432	-0.776
-4	371	-0.0014	169:202(	0.126	-1.012	-1.710$
-3	371	-0.0009	190:181	-0.067	-0.649	0.47
-2	371	0.0002	186:185	0.642	0.126	0.055
-1	371	-0.0005	180:191	0.222	-0.342	-0.568
0	371	0.0051	216:155>>	5.871***	3.605***	3.170**
1	371	0.0096	221:150>>>	8.203***	6.738***	3.689***
2	371	0.0006	203:168)	1.639	0.418	1.820$
3	371	0.0032	189:182	2.286*	2.286*	0.366
4	371	0.0024	191:180	1.402	1.669$	0.574
5	371	0	188:183	-0.045	0.012	0.262
6	371	0.0013	180:191	-0.674	0.888	-0.568
7	371	0.0031	188:183	1.917$	2.171*	0.262
8	371	0.0088	175:196	8.901***	6.191***	-1.087
9	371	-0.004	177:194	-3.417***	-2.788**	-0.88
10	371	-0.0011	166:205<	-0.806	-0.789	-2.022*

11	371	0.0004	192:179	1.407	0.316	0.678
12	371	0.0012	190:181	1.035	0.855	0.47
13	371	-0.0007	188:183	-0.647	-0.487	0.262
14	371	-0.0007	177:194	-0.024	-0.497	-0.88
15	371	-0.0002	195:176	0.596	-0.159	0.989
16	371	0.0003	181:190	-0.394	0.232	-0.464
17	370	0.0029	197:173	2.115*	2.069*	1.251
18	370	0.0019	188:182	1.599	1.32	0.315
19	369	0.0012	176:193	-0.188	0.866	-0.882
20	369	-0.0016	158:211<<	-2.234*	-1.116	-2.756**
21	369	-0.0009	187:182	-0.412	-0.601	0.263
22	368	-0.0002	181:187	-0.844	-0.166	-0.31
23	368	0.0019	192:176	2.151*	1.344	0.837
24	368	0.0004	184:184	0.346	0.277	0.003
25	368	0.0004	185:183	0.32	0.295	0.107
26	368	-0.0019	173:195	-0.75	-1.369	-1.144
27	367	0.0007	180:187	0.354	0.474	-0.363
28	367	0.0013	183:184	1.596	0.928	-0.049
29	367	0.0009	187:180	0.598	0.615	0.368
30	367	0.0005	171:196	0.603	0.36	-1.302

Table 4: Measurement of Normalized R&D

The R&D-Prior is the R&D expense of previous year of announcement date. Normalized R&D is measured by R&D Prior divided by Assets.

Year	Ticker Symbol	R&D - Prior	Assets - Total	Normalized R&D
2003	LSTR	0.00	438.457	0.00000
2011	VGR	1.58	927.768	0.00171
2003	BVN	0.00	911.508	0.00000
2006	PAG	0.00	4469.802	0.00000
2005	CMTL	16.85	382.403	0.04406
2005	SFG	0.00	12450.7	0.00000
2010	RES	0.00	887.871	0.00000
2007	MIDD	4.58	413.647	0.01106
2006	RES	0.00	474.307	0.00000
2006	NICE	30.90	784.344	0.03939
2010	VLY	0.00	14143.83	0.00000
2004	SONC	0.00	518.633	0.00000
2004	WCN	0.00	1491.483	0.00000
2005	HUBG	0.00	444.418	0.00000
2004	WWW	0.00	639.571	0.00000
2013	WST	33.20	1671.6	0.01986

2005	CBL	0.00	6352.322	0.00000
2003	URBN	0.00	277.996	0.00000
2007	VGR	7.75	785.289	0.00987
2003	ORI	0.00	9712.3	0.00000
2012	PRA	0.00	4876.578	0.00000
2004	DCI	30.46	1001.609	0.03041
2005	UGI	0.00	4571.5	0.00000
2004	SID	8.00	6157	0.00130
2004	ZLC	0.00	1342.084	0.00000
2005	PZZA	0.00	350.562	0.00000
2003	FLIR	26.89	450.423	0.05970
2008	SQM	0.00	2567.215	0.00000
2010	OMI	0.00	1822.039	0.00000
2005	KNX	0.00	483.827	0.00000
2003	FRED	0.00	345.848	0.00000
2011	OKS	0.00	8946.676	0.00000
2003	THO	1.41	608.941	0.00231
2011	USTR	0.00	1994.882	0.00000
2004	HE	0.00	9375.122	0.00000
2005	RESP	29.48	878.446	0.03356
2005	TTC	0.00	916.737	0.00000
2006	HTLD	0.00	669.07	0.00000
2005	HOLX	16.66	279.839	0.05953
2005	HCC	0.00	7028.8	0.00000
2011	IIVI	11.81	647.202	0.01824
2005	ROP	38.70	2522.306	0.01534
2005	FBP	0.00	19917.65	0.00000
2004	LSTR	0.00	584.512	0.00000
2008	PDO	0.00	10.277	0.00000
2007	CSL	15.09	1988.794	0.00759
2012	TTC	57.00	935.199	0.06095
2006	MDU	0.00	4903.474	0.00000
2010	AOS	31.00	2112	0.01468
2005	RMD	26.17	774.146	0.03380
2004	CMC	0.00	1988.046	0.00000
2004	POOL	0.00	480.866	0.00000
2006	SONC	0.00	638.018	0.00000
2005	SM	0.00	1268.747	0.00000
2007	IEX	24.80	1989.594	0.01246
2003	CBK	0.00	166.357	0.00000
2004	SSP	0.00	3424.849	0.00000
2011	ENB	0.00	34343	0.00000
2008	GHM	3.58	70.711	0.05064
2004	MGPI	1.90	187.037	0.01016

2004	TRMB	67.64	653.978	0.10343
2004	IRM	0.00	4442.387	0.00000
2003	NYCB	0.00	23441.34	0.00000
2010	ODFL	0.00	1239.881	0.00000
2012	HAE	32.66	911.135	0.03584
2004	JOSB	0.00	186.511	0.00000
2004	SUG	0.00	4572.458	0.00000
2003	CELL	0.00	444.69	0.00000
2003	EASI	1.80	419.301	0.00429
2004	WGR	0.00	1837.398	0.00000
2005	ORI	0.00	11543.2	0.00000
2012	CPRT	0.00	1155.066	0.00000
2003	USNA	1.04	65.127	0.01589
2005	MCRS	27.21	547.228	0.04972
2005	ZQK	0.00	2158.601	0.00000
2004	INGR	0.00	2367	0.00000
2004	MGAM	0.00	217.407	0.00000
2007	PVA	0.00	2253.461	0.00000
2007	BWS	0.00	1099.057	0.00000
2009	CBSH	0.00	18120.19	0.00000
2010	SHOO	0.00	447.696	0.00000
2005	RYN	7.30	1839.064	0.00397
2009	FMER	0.00	10539.9	0.00000
2004	EV	0.00	743.566	0.00000
2012	ODFL	0.00	1712.514	0.00000
2013	ELS	0.00	3391.639	0.00000
2007	TRMB	105.77	1539.359	0.06871
2005	EGN	0.00	2618.226	0.00000
2004	BGG	26.40	1637.153	0.01613
2006	QSII	6.90	122.247	0.05647
2011	HMSY	0.00	861.951	0.00000
2004	HUG	0.00	1881.3	0.00000
2005	KIM	0.00	5534.636	0.00000
2008	TWI	1.70	654.782	0.00260
2007	ATU	9.70	1500.776	0.00646
2011	SKT	0.00	1621.815	0.00000
2003	TSCO	0.00	536.209	0.00000
2005	CELL	0.00	487.824	0.00000
2005	E	0.00	99295.17	0.00000
2010	CBSH	0.00	18502.34	0.00000
2003	HWAY	0.00	140.013	0.00000
2007	IDXX	53.62	702.179	0.07636
2005	BRO	0.00	1608.66	0.00000
2004	MTH	0.00	1265.394	0.00000

2005	ORLY	0.00	1713.899	0.00000
2004	JOSB	0.00	186.511	0.00000
2006	BHE	0.00	1406.12	0.00000
2005	SMG	34.40	2018.9	0.01704
2011	SHOO	0.00	639.786	0.00000
2006	OII	0.00	1242.022	0.00000
2003	SUG	0.00	4590.938	0.00000
2006	MFC	0.00	359106	0.00000
2012	BF.B	0.00	3477	0.00000
2005	FDS	0.00	347.529	0.00000
2005	SRZ	0.00	1328.276	0.00000
2012	TDS	0.00	8623.9	0.00000
2003	GGP	0.00	9582.897	0.00000
2008	MCRS	33.89	1003.006	0.03378
2006	RJF	0.00	11516.65	0.00000
2013	SHOO	0.00	880.241	0.00000
2007	HSC	2.85	3905.43	0.00073
2011	DDD	10.73	462.974	0.02317
2004	POT	0.00	5126.8	0.00000
2006	ASNA	0.00	846.86	0.00000
2005	ZNT	0.00	2717.456	0.00000
2005	HCBK	0.00	28075.35	0.00000
2011	CLH	0.00	2085.803	0.00000
2006	BAM	0.00	40708	0.00000
2004	CCJ	1.72	4052.104	0.00042
2013	AOS	51.70	2391.5	0.02162
2006	FUL	16.21	1478.471	0.01097
2004	PII	47.07	792.925	0.05936
2006	MD	0.00	1135.17	0.00000
2003	BHE	0.00	1038.038	0.00000
2009	INT	0.00	1741.228	0.00000
2004	KWK	0.00	888.334	0.00000
2005	MW	0.00	993.322	0.00000
2006	KEX	0.00	1271.119	0.00000
2006	CAJ	0.00	37999.29	0.00000
2007	JEC	0.00	3389.421	0.00000
2007	SEIC	139.10	1252.365	0.11107
2008	BF.B	0.00	3405	0.00000
2007	DIOD	8.32	706.365	0.01177
2006	EXP	0.00	888.916	0.00000
2004	SHFL	4.18	185.292	0.02258
2009	VLY	0.00	14284.15	0.00000
2005	HSIC	0.00	2583.12	0.00000
2006	MTW	26.00	2219.5	0.01171

2011	QSII	16.55	378.686	0.04369
2008	CBSH	0.00	17532.45	0.00000
2007	JACK	0.00	1382.822	0.00000
2005	TIE	2.90	907.264	0.00320
2012	RES	0.00	1367.163	0.00000
2005	EQT	0.00	3342.285	0.00000
2011	NDSN	23.84	1304.45	0.01827
2012	DCI	55.29	1730.082	0.03196
2006	TTI	1.30	1086.19	0.00120
2005	DNR	0.00	1505.069	0.00000
2010	HRL	25.40	4053.918	0.00627
2004	FLIR	30.67	619.445	0.04950
2007	FMC	98.90	2733.4	0.03618
2011	SF	0.00	4951.9	0.00000
2010	JOSB	0.00	556.364	0.00000
2012	ASNA	0.00	2807.1	0.00000
2011	CHD	53.70	3117.6	0.01722
2004	DVA	0.00	2511.959	0.00000
2006	JLG	24.60	1397.3	0.01761
2004	NYCB	0.00	24037.83	0.00000
2006	SCSS	2.22	228.961	0.00969
2003	HAR	109.90	1703.658	0.06451
2004	WGO	3.46	394.556	0.00878
2011	CBSH	0.00	20649.37	0.00000
2003	JBHT	0.00	1347.071	0.00000
2004	CRDN	2.11	316.354	0.00667
2004	TCB	0.00	12340.57	0.00000
2013	WTR	0.00	5051.817	0.00000
2005	LNG	0.00	1308.124	0.00000
2006	XRAY	47.00	2181.35	0.02155
2005	STZ	0.00	7804.172	0.00000
2005	KWK	0.00	1243.094	0.00000
2004	MDC	0.00	2790.044	0.00000
2003	DF	0.00	6992.536	0.00000
2005	TTWO	43.26	932.876	0.04637
2007	FLIR	60.58	1024.316	0.05915
2013	JAH	88.00	10096.1	0.00872
2003	ZBRA	29.21	701.611	0.04163
2005	FAST	0.00	890.035	0.00000
2004	LM	0.00	7262.981	0.00000
2004	CALM	0.00	301.559	0.00000
2006	PPDI	23.37	1481.565	0.01577
2004	CLF	1.60	1161.1	0.00138
2009	FMER	0.00	10539.9	0.00000

2007	KMT	26.10	2606.227	0.01001
2006	AAUKY	40.00	46483	0.00086
2006	EZPW	0.00	197.858	0.00000
2010	FHN	0.00	24698.95	0.00000
2006	JCOM	7.13	288.16	0.02476
2013	OGE	0.00	9134.7	0.00000
2009	FHN	0.00	26068.68	0.00000
2010	FHN	0.00	24698.95	0.00000
2007	PBCT	0.00	13554.8	0.00000
2006	BLGM	0.00	1328.911	0.00000
2006	MDR	3.30	3594.187	0.00092
2009	FHN	0.00	26068.68	0.00000
2005	SWN	0.00	1868.524	0.00000
2007	COG	0.00	2208.594	0.00000
2013	TRMB	256.46	3700.84	0.06930
2005	CHRW	0.00	1395.068	0.00000
2006	HFC	0.00	1237.869	0.00000
2011	OII	0.00	2400.544	0.00000
2005	PENN	0.00	4190.404	0.00000
2010	FHN	0.00	24698.95	0.00000
2003	RCII	0.00	1831.302	0.00000
2003	ECL	49.86	3228.918	0.01544
2004	HSY	24.50	3797.531	0.00645
2009	UHS	0.00	3964.463	0.00000
2008	BKE	0.00	450.657	0.00000
2011	RYN	0.00	2569.348	0.00000
2006	DRQ	20.87	594.935	0.03507
2011	TMK	0.00	17156.39	0.00000
2011	WEC	0.00	13862.1	0.00000
2005	JBHT	0.00	1548.874	0.00000
2004	PDCO	0.00	1588.957	0.00000
2008	FHN	0.00	31021.98	0.00000
2006	TRN	0.00	3425.6	0.00000
2005	PCP	5.00	3625	0.00138
2006	CMC	0.00	2898.868	0.00000
2006	UN	0.00	32692.93	0.00000
2003	JCOM	3.19	112.856	0.02824
2006	RS	0.00	3614.173	0.00000
2005	HRS	111.30	2457.4	0.04529
2005	MCO	0.00	1457.2	0.00000
2005	PPL	0.00	17926	0.00000
2013	SAN	0.00	1537238	0.00000
2004	URBN	0.00	359.595	0.00000
2005	SPF	0.00	4280.842	0.00000

2004	RYL	0.00	2424.97	0.00000
2004	FICO	67.57	1444.779	0.04677
2004	COCO	0.00	552.993	0.00000
2005	DGX	0.00	5306.115	0.00000
2005	HLX	0.00	1660.864	0.00000
2005	TSM	0.00	15838.71	0.00000
2009	FHN	0.00	26068.68	0.00000
2005	RRC	0.00	2018.985	0.00000
2005	NFX	0.00	5081	0.00000
2003	JCI	439.00	13127.3	0.03344
2004	HOV	0.00	3156.267	0.00000
2005	BOOM	0.00	55.311	0.00000
2005	PIXR	17.37	1488.74	0.01167
2010	TEF	0.00	172198.4	0.00000
2005	NBL	0.00	8878.033	0.00000
2004	CELG	122.70	1107.293	0.11081
2005	CHS	0.00	715.729	0.00000
2007	CRS	10.20	2025.7	0.00504
2012	FMC	105.20	4373.9	0.02405
2005	JWN	0.00	4605.39	0.00000
2013	FISV	0.00	9513	0.00000
2006	CCJ	2.41	5140.429	0.00047
2013	FLS	38.90	5036.733	0.00772
2011	FAST	0.00	1684.948	0.00000
2004	SYK	180.20	4083.8	0.04413
2004	CTSH	0.00	572.745	0.00000
2003	PX	69.00	8305	0.00831
2006	INTU	305.24	2770.027	0.11019
2013	TSCO	0.00	1903.391	0.00000
2003	PHM	0.00	8063.352	0.00000
2011	PII	84.94	1228.024	0.06917
2012	OKE	0.00	15855.28	0.00000
2003	CECO	0.00	1119.15	0.00000
2011	EMN	152.00	6184	0.02458
2006	MAR	0.00	8588	0.00000
2005	NEE	0.00	33004	0.00000
2010	TSCO	0.00	1463.474	0.00000
2006	STLD	0.00	2247.017	0.00000
2006	TROW	0.00	2765.3	0.00000
2006	HP	0.00	2134.712	0.00000
2010	DECK	8.11	808.994	0.01003
2003	SNPS	313.25	2307.353	0.13576
2004	NOC	429.00	33361	0.01286
2007	TAP	0.00	13451.57	0.00000

2007	STR	0.00	5944.2	0.00000
2004	SCHN	0.00	605.973	0.00000
2005	MUR	0.00	6368.511	0.00000
2009	FHN	0.00	26068.68	0.00000
2004	TSM	0.00	15735.79	0.00000
2006	EAT	0.00	2221.779	0.00000
2006	RAI	53.00	18178	0.00292
2006	TIE	3.20	1216.873	0.00263
2007	MTW	31.20	2868.7	0.01088
2003	TSM	0.00	11985.89	0.00000
2006	TIE	3.20	1216.873	0.00263
2003	ADTN	56.30	593.9	0.09479
2003	IGT	77.92	4185.231	0.01862
2005	MGM	0.00	20699.42	0.00000
2005	SPLS	0.00	7071.448	0.00000
2011	CERN	203.86	3000.358	0.06794
2004	EXC	0.00	42770	0.00000
2006	PGR	0.00	19482.1	0.00000
2006	L	0.00	76880.9	0.00000
2004	KBH	0.00	5835.956	0.00000
2006	CB	0.00	50277	0.00000
2013	CERN	219.64	4098.364	0.05359
2007	PH	166.17	8441.413	0.01969
2006	QLGC	82.79	937.707	0.08829
2004	NUE	0.00	6133.207	0.00000
2006	ITW	127.87	13880.44	0.00921
2004	DHR	207.00	8493.893	0.02437
2006	PCAR	117.80	16107.4	0.00731
2005	ITT	145.10	7063.4	0.02054
2006	TEX	46.80	4785.9	0.00978
2013	VFC	0.00	10315.44	0.00000
2005	CELG	160.85	1246.637	0.12903
2008	ERIC	0.00	36268.12	0.00000
2004	DVN	0.00	29736	0.00000
2005	BZH	0.00	3770.516	0.00000
2006	EMR	303.00	18672	0.01623
2007	TXT	351.00	19956	0.01759
2005	CAM	0.00	3098.562	0.00000
2006	GD	344.00	22376	0.01537
2004	STJ	241.08	3230.747	0.07462
2013	NBL	0.00	19642	0.00000
2005	EOG	0.00	7753.32	0.00000
2013	BEN	0.00	15390.3	0.00000
2003	CTSH	0.00	360.589	0.00000

2007	OMC	0.00	19271.7	0.00000
2005	MHFI	0.00	6395.808	0.00000
2005	ESRX	0.00	5493	0.00000
2003	LEN	0.00	6775.432	0.00000
2008	PEG	0.00	29049	0.00000
2013	COG	0.00	4981.08	0.00000
2011	HFC	0.00	10314.62	0.00000
2007	CMI	321.00	8195	0.03917
2006	CNX	2.17	5663.332	0.00038
2005	SBUX	8.30	3514.065	0.00236
2007	JCI	420.00	24105	0.01742
2005	PHM	0.00	13048.17	0.00000
2006	SCCO	0.00	6376.414	0.00000
2005	WFM	0.00	1889.296	0.00000
2005	ADBE	311.30	2440.315	0.12756
2006	M	0.00	33168	0.00000
2008	ATVI	397.00	14701	0.02700
2007	MDR	18.70	4411.486	0.00424
2007	CI	0.00	40065	0.00000
2005	SWN	0.00	1868.524	0.00000
2012	TJX	0.00	8281.605	0.00000
2007	D	0.00	39123	0.00000
2004	VLO	0.00	19391.6	0.00000
2007	NKE	0.00	10688.3	0.00000
2006	CSX	0.00	25129	0.00000
2008	SWN	0.00	4760.158	0.00000
2010	DHR	632.65	22217.13	0.02848
2007	PCAR	163.10	17228.2	0.00947
2005	CAT	928.00	47069	0.01972
2006	CX	0.00	29973.43	0.00000
2010	GIS	208.20	17678.9	0.01178
2005	UTX	1267.00	45925	0.02759
2007	ESRX	0.00	5256.4	0.00000
2010	RIO	193.00	112402	0.00172
2007	POT	0.00	9716.6	0.00000
2013	WFM	0.00	5538	0.00000
2008	HOLX	44.38	8134.632	0.00546
2004	SYMC	201.97	4456.498	0.04532
2010	ESRX	0.00	10557.8	0.00000
2013	DDD	23.20	1097.856	0.02113
2012	NKE	0.00	15465	0.00000
2008	CLF	0.00	4111.1	0.00000
2006	NVDA	348.22	1954.687	0.17815
2013	CL	259.00	13876	0.01867

2006	LOW	0.00	24639	0.00000
2005	TOL	0.00	6343.84	0.00000
2006	HES	0.00	22404	0.00000
2006	NUE	0.00	7884.989	0.00000
2004	GILD	670.36	2155.963	0.31093
2003	EA	380.56	2359.533	0.16129
2004	PG	1665.00	57048	0.02919
2007	DE	725.80	38575.7	0.01881
2006	BRCM	724.50	4876.766	0.14856
2011	CSX	0.00	29473	0.00000
2004	CVX	228.00	93208	0.00245
2003	BSX	428.00	5699	0.07510
2006	WFC	0.00	481996	0.00000
2007	GILD	2777.91	5834.716	0.47610
2007	TSO	0.00	8128	0.00000
2006	SLB	505.51	22832.14	0.02214
2007	MRO	0.00	42746	0.00000
2008	UNP	0.00	39722	0.00000
2011	POT	0.00	16257	0.00000
2004	SNDK	84.20	2320.18	0.03629
2006	PD	48.60	14632.3	0.00332
2005	COP	126.00	106999	0.00118
2006	HAL	220.00	16820	0.01308
2004	YHOO	217.81	9178.201	0.02373
2012	GILD	1229.15	21239.84	0.05787
2003	EBAY	104.64	5820.134	0.01798
2012	KO	0.00	86174	0.00000
2005	VLO	0.00	32728	0.00000
2011	LARK	0.00	598.24	0.00000
2005	GCBC	0.00	294.68	0.00000
2003	SVBF	0.00	431.074	0.00000
2003	NWFL	0.00	387.483	0.00000
2003	JFBC	0.00	352.204	0.00000
2009	KOSS	0.73	29.626	0.02451
2005	NICH	0.00	10.453	0.00000
2012	LARK	0.00	614.067	0.00000
2004	MSL	0.00	610.088	0.00000
2007	MSL	0.00	854.056	0.00000
2006	PLCC	0.00	38.464	0.00000
2005	ESP	0.15	29.696	0.00505
2003	RMCF	0.00	16.084	0.00000
2005	HARL	0.00	766.99	0.00000
2003	HFFC	0.00	800.483	0.00000
2005	NHTB	0.00	650.179	0.00000

2004	ONFC	0.00	422.609	0.00000
2006	FFKY	0.00	822.826	0.00000
2005	CASS	0.00	818.698	0.00000
2003	PXFG	0.32	36.411	0.00865
2004	UUU	0.29	11.387	0.02503
2013	LARK	0.00	828.755	0.00000
2006	TIBB	0.00	1319.093	0.00000
2011	HBNC	0.00	1547.162	0.00000
2003	FNBF	0.00	780.926	0.00000
2004	FNLC	0.00	634.238	0.00000
2006	ESBK	0.00	371.42	0.00000
2005	WBCO	0.00	725.976	0.00000
2005	PULB	0.00	789.861	0.00000
2004	UNTY	0.00	515.417	0.00000
2006	UNTY	0.00	694.106	0.00000
2004	PVFC	0.00	755.687	0.00000
2006	COOPQ	0.00	860.09	0.00000
2006	CCFH	0.00	425.886	0.00000
2004	LWAY	0.00	19.688	0.00000
2004	RMCF	0.00	17.967	0.00000
2006	NKSH	0.00	868.203	0.00000
2003	STBC	0.00	1441	0.00000
2006	EML	1.15	103.485	0.01111
2007	PMFG	0.02	68.671	0.00035
2003	ORBT	0.88	13.193	0.06685
2006	WBCO	0.00	794.545	0.00000
2006	ALOT	4.05	49.647	0.08152
2005	DORM	1.50	212.156	0.00707
2012	DGAS	0.00	182.895	0.00000
2004	METR	0.00	1277.367	0.00000
2012	IHC	0.00	1262.308	0.00000
2005	HRG	0.00	294.354	0.00000
2007	FLIC	0.00	1069.019	0.00000
2005	PHX	0.00	61.242	0.00000
2003	PULB	0.00	401.403	0.00000
2004	PHX	0.00	54.186	0.00000
2003	HBNC	0.00	757.071	0.00000
2011	RGCO	0.00	125.549	0.00000
2004	NSSC	4.52	56.672	0.07969
2003	WIBC	0.00	983.264	0.00000
2006	LWAY	0.00	32.999	0.00000
2006	INMD	0.00	75.522	0.00000
2005	METR	0.00	1641.121	0.00000
2006	MSL	0.00	805.022	0.00000

2003	MFLR	0.00	203.105	0.00000
2004	FSBK	0.00	721.231	0.00000
2003	SNBC	0.00	2599.487	0.00000
2003	ALTV	0.00	59.733	0.00000
2004	STBC	0.00	1437.291	0.00000
2003	WNNB	0.00	827.283	0.00000
2006	RVSB	0.00	763.847	0.00000
2006	EGBN	0.00	773.451	0.00000
2003	NOVB	0.00	677.693	0.00000
2003	VCBI	0.00	881.124	0.00000
2004	ESCA	2.95	135.099	0.02181
2004	NADX	0.00	81.831	0.00000
2004	GBTB	0.00	1274.136	0.00000
2003	BMTC	0.00	604.848	0.00000
2004	RBCAA	0.00	2498.922	0.00000
2003	ROYL	0.00	35.671	0.00000
2003	ROYL	0.00	35.671	0.00000
2003	ROYL	0.00	35.671	0.00000
2003	ROYL	0.00	35.671	0.00000
2003	ROYL	0.00	35.671	0.00000
2003	ROYL	0.00	35.671	0.00000
2006	ODC	2.43	139.547	0.01741
2004	FARM	0.00	317.871	0.00000
2004	MSFG	0.00	1549.379	0.00000
2006	FSBK	0.00	910.548	0.00000
2010	PATR	0.00	257.712	0.00000
2004	SJW	0.00	552.152	0.00000
2004	MSFG	0.00	1549.379	0.00000
2005	FOOT	0.00	798.706	0.00000
2004	IHC	0.00	968.493	0.00000
2004	FSRV	0.00	437.553	0.00000
2004	CCNE	0.00	725.217	0.00000
2004	OMTL	2.19	13.1	0.16695
2004	GSBC	0.00	1846.239	0.00000
2003	THFF	0.00	2223.057	0.00000
2006	UUU	0.28	20.359	0.01365
2012	IEP	172.00	24556	0.00700
2006	GIII	0.00	138.317	0.00000
2004	OSBC	0.00	2102.266	0.00000
2005	CIA	0.00	661.889	0.00000
2005	ABCB	0.00	1697.209	0.00000
2004	GRC	0.00	165.344	0.00000
2005	SBKCQ	0.00	1662.413	0.00000
2005	SGDE	0.00	93.89	0.00000

2004	SBSI	0.00	1619.643	0.00000
2009	ABCB	0.00	2423.97	0.00000
2005	ORBT	0.97	29.152	0.03317
2003	CSS	0.00	351.961	0.00000
2005	INMD	0.00	66.633	0.00000
2003	SBSI	0.00	1454.952	0.00000
2005	WEYS	0.00	175.498	0.00000
2007	VSEC	0.00	171.771	0.00000
2005	VCO	0.00	598.68	0.00000
2003	LABL	0.55	67.378	0.00822
2003	MSEX	0.00	263.192	0.00000
2004	FBNC	0.00	1638.913	0.00000
2004	SBIT	0.00	989.117	0.00000
2005	NSSC	4.25	59.907	0.07101
2006	TWIN	2.28	236.172	0.00965
2006	RBPAA	0.00	1356.311	0.00000
2005	TMP	0.00	2106.87	0.00000
2009	ABCB	0.00	2423.97	0.00000
2003	CCBG	0.00	1846.502	0.00000
2005	GHM	0.12	33.529	0.00352
2006	SBSI	0.00	1890.976	0.00000
2004	MCBC	0.00	1672.606	0.00000
2005	LBAI	0.00	2206.033	0.00000
2006	TESS	0.00	126.8	0.00000
2005	RBCAA	0.00	2735.556	0.00000
2012	SGA	0.00	197.33	0.00000
2006	SJW	0.00	705.864	0.00000
2004	BUSE	0.00	1964.441	0.00000
2010	ABCB	0.00	2972.168	0.00000
2003	CRRC	0.00	151.101	0.00000
2012	IEP	172.00	24556	0.00700
2004	SF	0.00	382.314	0.00000
2003	FFIN	0.00	2092.571	0.00000
2005	SNBC	0.00	3107.889	0.00000
2003	OKSB	0.00	1580.725	0.00000
2005	DSWL	0.00	136.976	0.00000
2005	VCBI	0.00	1518.425	0.00000
2003	WEYS	0.00	151.186	0.00000
2004	CTBI	0.00	2709.094	0.00000
2003	WSBA	0.00	1035.711	0.00000
2004	TCBK	0.00	1625.974	0.00000
2003	EVRT	0.00	706.163	0.00000
2011	DEST	0.00	198.772	0.00000
2011	IEP	156.00	25136	0.00621

2013	SHI	0.00	6051.97	0.00000
2006	MSFG	0.00	2429.773	0.00000
2003	WIBC	0.00	983.264	0.00000
2006	LKFN	0.00	1836.706	0.00000
2003	RBKV	0.00	867.293	0.00000
2012	SNFCA	0.00	597.217	0.00000
2012	HBNC	0.00	1847.677	0.00000
2005	FSNMQ	0.00	2157.571	0.00000
2006	MCBI	0.00	1268.434	0.00000
2006	HRZB	0.00	1116.728	0.00000
2003	MRTN	0.00	249.595	0.00000
2005	FFIN	0.00	2733.827	0.00000
2005	NICK	0.00	120.815	0.00000
2004	HCSG	0.00	166.964	0.00000
2006	EXPO	0.00	161.216	0.00000
2005	CRRC	0.00	196.965	0.00000
2013	KYO	0.00	24244.4	0.00000
2013	CSWC	0.00	667.672	0.00000
2003	HTHR	0.00	2674.003	0.00000
2013	CRVL	0.00	182.382	0.00000
2012	IEP	172.00	24556	0.00700
2003	HRBT	0.00	2494.912	0.00000
2006	MCBC	0.00	2074.816	0.00000
2006	MCBC	0.00	2074.816	0.00000
2006	MCBC	0.00	2074.816	0.00000
2006	MCBC	0.00	2074.816	0.00000
2003	DIOD	1.47	123.795	0.01189
2003	CVBF	0.00	3854.349	0.00000
2006	BANF	0.00	3418.574	0.00000
2010	TMP	0.00	3260.343	0.00000
2005	JJSF	0.37	305.924	0.00119
2012	HMST	0.00	2631.23	0.00000
2004	FELE	6.00	333.473	0.01799
2005	CRMT	0.00	143.668	0.00000
2004	IBOC	0.00	9917.951	0.00000
2004	RBA	0.00	442.409	0.00000
2007	TPL	0.00	32.657	0.00000
2003	OFG	0.00	3039.468	0.00000
2007	GRC	0.00	211.534	0.00000
2004	RAVN	1.30	79.508	0.01635
2005	FTBK	0.00	2637.005	0.00000
2004	VCBI	0.00	1139.353	0.00000
2012	VHI	20.00	3170.5	0.00631
2003	ONB	0.00	9353.896	0.00000

2005	STLY	0.00	190.488	0.00000
2005	YZC	0.00	2633.695	0.00000
2004	NPBC	0.00	4478.793	0.00000
2005	NPBC	0.00	4600.609	0.00000
2003	BOKF	0.00	13581.74	0.00000
2003	IBOC	0.00	6578.31	0.00000
2003	CELL	0.00	444.69	0.00000
2011	GRC	0.00	298.7	0.00000
2004	HBHC	0.00	4664.726	0.00000
2004	MOV	0.00	390.967	0.00000
2003	MBFI	0.00	4355.093	0.00000
2006	FRGBQ	0.00	2074.636	0.00000
2005	PAR	6.27	125.149	0.05010
2005	CVBF	0.00	5422.971	0.00000
2003	MRTN	0.00	249.595	0.00000
2007	LABL	1.93	107.081	0.01798
2004	WST	6.30	658.7	0.00956
2012	CMN	6.65	434.812	0.01529
2013	GRC	0.00	355.638	0.00000
2005	MRTN	0.00	349.733	0.00000
2005	RMCF	0.00	19.248	0.00000
2004	ENZ	8.31	110.334	0.07533
2003	UCAP	0.06	189.714	0.00031
2005	SJI	0.00	1436.146	0.00000
2005	ENB	0.00	17210.9	0.00000
2006	SRCE	0.00	3807.315	0.00000
2005	IBOC	0.00	10391.85	0.00000
2004	VLY	0.00	10763.39	0.00000
2004	UFCS	0.00	2570.387	0.00000
2006	CASS	0.00	858.471	0.00000
2004	PRK	0.00	5412.584	0.00000
2003	FNB	0.00	8308.31	0.00000
2010	TR	0.00	860.383	0.00000
2006	VCBI	0.00	1949.082	0.00000
2005	WWD	40.06	705.466	0.05678
2004	ONB	0.00	8898.304	0.00000
2013	MRTN	0.00	525.802	0.00000
2004	CBU	0.00	4393.831	0.00000
2007	TWIN	2.02	267.184	0.00758
2004	COLB	0.00	2177.55	0.00000
2012	DORM	8.60	406.309	0.02117
2004	SKT	0.00	936.378	0.00000
2012	SCVL	0.00	386.562	0.00000
2003	TRBS	0.00	4217.936	0.00000

2003	MTRX	0.00	202.939	0.00000
2004	PVA	0.00	783.335	0.00000
2006	NPBC	0.00	5452.288	0.00000
2004	TIE	2.80	665.549	0.00421
2004	ODFL	0.00	509.367	0.00000
2005	TR	0.00	813.696	0.00000
2008	PMFG	0.05	166.736	0.00032
2003	SCHN	0.00	487.894	0.00000
2008	NJR	0.00	2625.392	0.00000
2004	CVBF	0.00	4511.011	0.00000
2006	CTBK	0.00	1077.689	0.00000
2012	SCL	25.13	985.478	0.02550
2005	QSII	6.14	99.442	0.06173
2005	MOG.A	29.73	1303.327	0.02281
2005	ROL	0.00	439.637	0.00000
2004	ROCK	0.00	957.701	0.00000
2003	FBC	0.00	10570.19	0.00000
2003	SNN	0.00	2220.794	0.00000
2009	NEOG	3.64	142.176	0.02560
2004	OFG	0.00	3725.695	0.00000
2005	VIVO	4.36	110.569	0.03941
2012	CCU	0.00	2772.276	0.00000
2010	HEI	19.70	781.643	0.02520
2006	FCFS	0.00	233.842	0.00000
2004	PVTB	0.00	2535.817	0.00000
2008	EBIX	7.61	141.167	0.05390
2011	FFIN	0.00	4120.531	0.00000
2005	RES	0.00	311.785	0.00000
2004	CBSH	0.00	14250.37	0.00000
2006	CRVL	0.00	100.098	0.00000
2007	ROL	0.00	475.228	0.00000
2005	RES	0.00	311.785	0.00000
2009	VGR	3.99	735.542	0.00542
2004	SSD	4.06	545.137	0.00745
2005	ARLP	0.00	532.687	0.00000
2005	SLGN	0.00	1530.62	0.00000
2003	HIBB	0.00	129.58	0.00000
2004	WIBC	0.00	1265.641	0.00000
2005	CELL	0.00	487.824	0.00000
2004	ANSS	23.79	239.646	0.09928
2005	CHE	0.00	835.085	0.00000
2004	HFC	0.00	982.713	0.00000
2004	CACH	0.00	132.028	0.00000
2006	UMBF	0.00	8917.765	0.00000

2005	STSA	0.00	7558.928	0.00000
2003	ODFL	0.00	434.559	0.00000
2006	SBIB	0.00	4117.559	0.00000
2006	FTBK	0.00	3238.464	0.00000
2004	CATY	0.00	6098.005	0.00000
2006	CBSH	0.00	15230.35	0.00000
2004	GWR	0.00	677.251	0.00000
2004	SAFM	0.00	375.007	0.00000
2013	VGR	0.00	1260.159	0.00000
2010	HCSG	0.00	277.934	0.00000
2006	MINI	0.00	900.03	0.00000
2005	CBSH	0.00	13885.55	0.00000
2013	WBK	0.00	650766.5	0.00000
2005	ETP	0.00	4426.906	0.00000
2004	BRC	18.87	694.33	0.02718
2013	PZZA	0.00	464.291	0.00000
2006	CW	39.68	1592.156	0.02492
2007	CBSH	0.00	16204.83	0.00000
2006	SCSC	0.00	613.219	0.00000
2006	TNC	19.35	354.25	0.05463
2005	INT	0.00	1014.001	0.00000
2004	PNY	0.00	2335.877	0.00000
2011	MMSI	15.34	447.017	0.03431
2004	AIT	0.00	596.841	0.00000
2008	TR	0.00	812.092	0.00000
2007	NPBC	0.00	5824.421	0.00000
2005	CLC	7.95	675.272	0.01177
2013	NEOG	6.64	290.558	0.02284
2011	CWT	0.00	1854.587	0.00000
2012	MTX	19.33	1211.189	0.01596
2004	DCOM	0.00	3377.266	0.00000
2006	UIL	0.00	1631.493	0.00000
2006	SPAR	9.43	190.648	0.04947
2004	CNT	0.00	1598.491	0.00000
2007	VIVO	4.80	132.698	0.03616
2010	ROL	0.00	619.014	0.00000
2003	MMSI	4.01	107.301	0.03735
2004	PNM	0.00	3487.635	0.00000
2006	DAKT	10.50	199.231	0.05270
2008	IPAR	0.00	425.137	0.00000
2003	CBSH	0.00	14287.16	0.00000
2006	VLY	0.00	12395.03	0.00000
2005	MCRI	0.00	117.67	0.00000
2004	FCFS	0.00	160.939	0.00000

2004	TRBS	0.00	5839.347	0.00000
2004	IMGC	12.49	284.935	0.04383
2004	HIBB	0.00	168.562	0.00000
2005	GIL	0.00	597.516	0.00000
2005	FWRD	0.00	212.6	0.00000
2003	ZQK	0.00	707.97	0.00000
2013	FELE	9.90	1051.873	0.00941
2006	BWS	0.00	1027.293	0.00000
2005	ODFL	0.00	641.648	0.00000
2007	SIGI	0.00	5001.992	0.00000
2010	BRLI	0.00	244.131	0.00000
2004	O	0.00	1442.315	0.00000
2012	VGR	0.00	1086.731	0.00000
2006	RY	0.00	536780	0.00000
2004	HNP	0.00	8793.557	0.00000
2005	CHH	0.00	265.1	0.00000
2011	HEI	22.70	941.069	0.02412
2006	SHOO	0.00	251.392	0.00000
2011	SFUN	6.10	580.371	0.01051
2005	BPO	0.00	9513	0.00000
2005	VAL	75.88	2761.163	0.02748
2006	CGI	0.00	190.066	0.00000
2003	TEF	0.00	78196.13	0.00000
2006	GWR	0.00	1141.064	0.00000
2003	TTC	0.00	927.432	0.00000
2005	HITK	3.82	81.612	0.04681
2003	RYN	8.60	1838.68	0.00468
2004	HTLD	0.00	517.012	0.00000
2005	CRR	3.42	355.796	0.00961
2004	WRI	0.00	3470.318	0.00000
2003	MDU	0.00	3380.592	0.00000
2012	BTH	0.00	434.923	0.00000
2005	WTR	0.00	2626.725	0.00000
2004	UNFI	0.00	508.767	0.00000
2004	NATI	70.90	582.415	0.12173
2007	NVO	0.00	9350.586	0.00000
2006	RCI	0.00	14105	0.00000
2004	LCAV	0.00	129.577	0.00000
2005	TTI	1.50	726.85	0.00206
2006	AIT	0.00	730.671	0.00000
2005	CTHR	0.01	63.538	0.00022
2003	OXM	0.00	494.365	0.00000
2012	GRFS	0.00	7420.387	0.00000
2005	IIVI	4.97	252.678	0.01965

2011	GRFS	0.00	7534.353	0.00000
2005	ESE	12.20	428.72	0.02846
2003	ATU	3.10	361.653	0.00857
2004	CEC	0.00	612.017	0.00000
2006	HUBG	0.00	484.548	0.00000
2005	HIBB	0.00	202.105	0.00000
2008	SF	0.00	1558.145	0.00000
2003	MDC	0.00	1969.8	0.00000
2004	EWBC	0.00	6028.88	0.00000
2004	HCP	0.00	3102.634	0.00000
2004	MOG.A	30.50	1124.928	0.02711
2004	RJF	0.00	7621.846	0.00000
2005	SNHY	0.00	73.561	0.00000
2005	DIOD	3.42	289.515	0.01182
2006	GISX	0.00	884.657	0.00000
2006	IMO	68.00	16141	0.00421
2005	PBCT	0.00	10932.5	0.00000
2004	LUK	0.00	4800.403	0.00000
2005	TALX	5.29	246.919	0.02143
2005	CBI	4.14	1377.819	0.00301
2005	TEF	0.00	86652.38	0.00000
2004	CHD	26.90	1877.998	0.01432
2004	BPOP	0.00	44401.58	0.00000
2003	BF.B	0.00	2264	0.00000
2013	HEI	30.40	1533.015	0.01983
2004	MSCC	19.37	232.998	0.08313

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