



Does Dividend Announcement Generate Market Signal? Evidence from Pakistan

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ABSTRACT

This study is aimed at investigating the signaling effect of cash dividend announcements by employing the standard event methodology over the companies listed on Karachi Stock Exchange. The companies are randomly selected from different sectors that have announced cash dividends during calendar year 2010 and total 30 companies are included in the study. The standard event methodology is applied to explore the impact of cash dividend announcements upon stock returns and an event window of 15 days with dividend announcement date as the event day is constructed. The results show that the average abnormal returns (AARs), by and large, remained positive and statistically significant in post-event window days. The results of study tend to support dividend signaling hypothesis indicating that the dividend announcement may be used as a tool to generate positive signals in the market.

Keywords: Dividend Announcements, Event Window, Abnormal Returns and t-Test

JEL Classifications: F65, G2

1. INTRODUCTION

The formal discussion of stock market's reaction to dividend payments is started with the irrelevance theory presented by Miller and Modigliani (1961). They argued that the value of firm is not dependent upon its dividend policy subject to the condition that the investment policy of the company remains unchanged. Before this model, Lintner (1956) documented the relevance of dividend payment in earning performance of firms and he proposed that the firm should move towards the payment of dividend only if such increase seems to be permanent. It is also evident from literature that the dividend announcements may serve as information signals and on the basis of such information; the investors can be able to objectively differentiate the low quality and high quality firms. The dividend decision including its amount and timing of payment in any company is to be made by its directors and soon after the meeting of board; it is communicated to the shareholders through official window of stock exchange. On the basis of dividend announcements, many investors make their

perception about the future growth prospects of the company and resultantly the share prices tend to rise with increase in dividend announcements. It is widely believed that the market reacts to dividend announcements and increase in dividend convey positive information while decrease in dividend convey negative information to the market. This argument has been referred as the dividend signaling hypothesis or the information content of dividends hypothesis (Fama et al., 1969; Miller and Rock, 1985; Ambarish et al., 1987). The investors assume the risk of investing in common stock and they are always eager for such announcements that may provide some return to them. The compensation and payment of shareholders is in the form of dividends. Fama (1970) proposed the efficient market hypothesis and he defined three degrees of market efficiency namely weak form, semi-strong form and strong form. The security prices reflect all relevant, public information in a semi-strong form efficient market and the prices should be affected by a new set of information in such markets. Therefore, in a semi-strong form efficient market; the dividend announcement news should affect the stock prices/returns.

The objective of this study is to empirically investigate the behavior of share prices in reaction to the dividend announcements, for listed companies of Pakistan by employing the event study methodology and t-test methods. The event study is related to the impact of a firm-specific corporate event on the security prices. The selection of companies is made in a random fashion from different sectors with having trading of shares at Karachi Stock Exchange (KSE) and that have made announcements of cash dividends during calendar year 2010. The study takes the dividend announcement as the corporate event for the company and event window of 15 trading days in total including -7 (pre-event days) and $+7$ (post-event days) is constructed while taking $t = 0$ as the event date. The results show significant positive impact of dividend announcements on AARs. The t-test value becomes positive on the next day after the occurrence of event and becomes significant as well on 2nd day after the event of dividend announcement. The value remained positive as well as significant for all the days, after that mentioned above, around the event window following the dividend announcement. The results of study are thereby favoring the dividend signaling/information content of dividend hypothesis. The findings of this study are of practical relevance to the researchers, practitioners and investors who are interested to study the behavior of share price movements in relation to the dividend announcements or who are interested to invest in any stock. Particularly in Pakistan, the decision of small investors, by and large, is based upon the dividend patterns and considering this factor the managers, also uses this tactic to attract potential investors in the market. The results of this study will enable the companies to analyze the effect of their signaling efforts through dissemination of information as well as reaction patterns. Moreover, the study reveals for the investors to consider and incorporate the factor of signaling in their investment decisions.

The structure of this paper is as follows. The literature relevant to study is described in Section 2 whereas the Section 3 discusses methodological framework with description of variables and data. In Section 4 data analysis and results are discussed whereas Section 5 concludes the discussion with summary of findings.

2. LITERATURE REVIEW

The theory of dividend policy originated by Miller and Modigliani (1961) resulted in the start of a debate over the dividend payments by the firms and this has gained a considerable importance after the work of Fama et al. (1969), Spence (1973), Leland and Pyle (1977). Spence (1973) proposed the asymmetric information problem when a party generates a signal with some relevance for the other party and that make an adjustment in the purchasing behavior, usually by offering a higher price, after having an interpretation of that signal. Leland and Pyle (1977), on the other side, described the role of signals within the initial public offering process and showed that the companies having better future perspectives and success possibilities should generate clear signals while going public. It was theoretically argued and empirically proved by different researchers that the payment of large cash dividend by the firms can generate a signal in the market resulting an increase in its share prices and the investors can separate the high and low

quality firms on the basis of dividend announcements/payment (Miller and Rock, 1985).

It is widely believed that the dividend announcements convey information to the investors about the future growth prospects of the company and the share prices tend to rise with increase in dividend announcements. There is a great debate over this issue all over the world and particularly in last few years it got significant importance. The number of studies has already been conducted in this area with varying results, however, in majority of the studies, a direct relationship is found between the dividend announcements and stock prices that support the idea of signal generation by the dividend announcements. However, Baskin (1989) documented a significant negative relationship of dividend yield to stock price volatility in U.S. Lee (1995) observed that the stock market significantly respond to the dividend shocks irrespective of whether it is permanent or temporary in nature.

Allen and Rachim (1996) found no evidence of correlation among dividend yield and stock price volatility in Australian listed companies whereas Below and Johnson (1996) attempted to observe the reaction of share prices to dividend announcements w.r.t. the market phase and found the significant impact of market phase upon abnormal returns because of dividend announcements. They further argued that the announcements of increase or decrease in dividends are perceived differently depending upon the market phase. Brucato and Smith (1997) found the positive impact of dividend announcements resulting an increase in stock returns; however, the dividend payout ratio and firm's reputation matters in the generation of such signal. Similarly, Benartzi et al. (1997) observed that the stock market participants treat the change in dividend as having information content and the dividend increase announcement results in positive excess returns whereas the dividend decline announcement results in negative abnormal returns.

Acker (1999) found the interim announcement to be perceived more significantly in comparison to the final in case of dividend cut whereas for dividend increases, the results are documented in opposite to it. Nissim and Ziv (2001) documented a positive relationship between dividend changes and earning changes. They further argued that the change in dividend convey as new set of information about the future profitability of the firm. Uddin and Chowdhury (2005) concluded that the dividend announcement do not affect stock returns of the companies listed on Dhaka Stock Exchange and therefore no signal can be generated by the investors through dividend announcements. Amidu (2007) observed the relevance of dividend policy for firm's performance. He documented a positive association between return on assets, sales growth and dividend policy but a negative relationship was found between the return on assets, leverage and dividend-payout ratio. Mubarik (2008) found a weak negative association of dividend announcement to share prices in listed companies of Oil and Gas sector in Pakistan. Rashid and Rahman (2008) used the cross-sectional regression analysis to document a non-significant positive relationship between volatility in stock prices and dividend yield in Bangladesh. Ferris et al. (2009) concluded that the investors would place a high value to the stock of dividend-

paying firms and they may enforce the managers for dividends. Similarly, Bhatia (2010) found a significant positive impact of dividend payment on the determinants of share price; however, this impact cannot be generalized on sector of companies jointly.

Akbar and Baig (2010) found a statistically insignificant reaction of stock prices in relation to cash dividend announcements; however, both the average and cumulative average abnormal returns (CAAR) are found statistically significant in case of stock dividend announcements. Asamoah (2010) found no significant impact of dividend announcements on share price behavior in Ghana and concluded that the Ghana stock exchange is not semi-strong efficient while Nazir et al. (2010) observed a significant strong relationship between dividend policy and stock price volatility by selecting a sample of 73 firms listed on KSE. Ali and Chowdhury (2010) found no significant reaction of stock prices to dividend announcements in banking industry of Bangladesh and attributed the non-significance of announcement to the possible existence of insider trading in the market. Mehndiratta and Gupta (2010) documented that the investors can gain value in the period after dividend announcement and they referred it a possibility of information content in dividend announcements in National Stock exchange of India. Dasilas and Leventis (2011) documented a significant positive impact of dividend announcements on the stock prices and trading volume in Athens stock exchange with the unchanged dividend leaving the stock prices unchanged. Fuller and Goldstein (2011) reported the concerns of investors with firm's dividend policy. They found empirically the outperformance of stocks that are paying dividends in relation to the non-dividend paying stocks and this matter more in declining markets as compared to the advancing markets. Al-Yahyaee et al. (2011) supports the signaling effect of cash dividend announcements by documenting direct relationship between dividend announcements and stock prices with the firms having no change in dividend experience insignificant negative returns.

Campbell and Ohuocha (2011) found the varying effect of dividend announcements based upon trading frequently for the companies having their own announcement date instead of official window of the Nigerian Stock exchange. They observed the positive abnormal returns for more frequently traded stocks whereas negative abnormal returns for less frequently traded stocks in response to the dividend announcements. Bougatef (2011) found a positive association between cash dividend payment and stock returns of firms listed on Tunis stock exchange. Similarly, Hussainey et al. (2011) found a positive relationship between dividend yield and stock price volatility whereas a negative link between dividend payout ratio and stock price volatility. Mehmood and Sheikh (2011) also emphasized on significance of dividend announcement towards stock market variation and found that dividend announcements are positively value relevant and rejected dividend irrelevance hypothesis in KSE. Suwanna (2011) detected the effect of dividend within 40 days of announcement and found significant positive upward stock prices in the reaction at Thai stock exchange that also confirmed the dividend signaling theory impact on share prices. Moreover, Dharmathane (2013) explored the reaction of stock prices by 137 dividend announcements with a sample of 61 listed companies of Colombo stock exchange

and found positive reaction of stock prices against dividend announcements. However, Suparno (2013) further suggested that there is no difference in stock return abnormal average between before and after dividend announcement event.

In his study both null hypothesis (H0) were accepted and concluded that dividend announcement policy does not significantly affect to stock price and abnormal return before and after dividend announcement manufacturing companies in Indonesia Stock Exchange. Menike (2014) added his empirical work on dividend announcement in Colombo Stock Exchange and described that dividend announcement is the source of critical information and market respond it positively on the event day. One of more study conducted by Iqbal et al. (2014) on banking sector of Pakistan and found both positive and negative relationship between dividend and stock prices and he proved empirically that dividend has positive regression with earning per share and has negative regression with stock prices. In the current year Abbas (2015) also extended the empirical work on dividend announcement reaction in Damascus Securities Exchange and research results indicated that most average returns are statistically insignificant, whereas the CAAR are statistically significant for the whole event window. The stock reactions appear within post-event window gradually in response to the dividends announcement.

As evident from the survey of literature, the reaction of stock prices to dividend announcements got significance importance in both the academic and professional researches after the irrelevance theory of Miller and Modigliani (1961) and particularly in last few years a number of studies have been conducted with varying results. Some studies showed a positive reaction of stock prices to dividend announcements while others documented no or insignificant reaction. The study in this area is yet inconclusive. This study is an extension of the existing studies and is conducted in the context of Pakistan for most recent period and the sample is selected from different sectors in order to ensure a balanced representation.

3. METHODOLOGY

The companies listed on KSE (KSE-100 index) are selected randomly from different sectors that have made the cash dividend announcements during calendar year 2010 and posted it on the official window of KSE. The number of companies selected from each sector is also dependent upon the ratio of dividend announcing companies to the total companies. A sample of 30 announcements is selected for the study with companies from different sectors. The 4 companies are selected from each Oil and Gas, Chemicals, Pharma and Bio Tech and Food Producers Sector while 2 each from Personal Goods, Industrial Engineering, Non Life Insurance and General Industrial Sectors are selected. Likewise, one company from each Construction and Materials, Automobile and Parts, Banks, Tobacco, Electronic and Electrical Equipment and Forestry and Paper sectors is selected. The data of cash dividend announcement dates, daily stock market index and the daily stock prices of listed companies is gathered from the website of KSE and ZHV Securities.

To investigate the signaling effect of dividend announcements, the standard event study methodology is used. The event study is related to the impact of a company-specific event on its stock prices and has been used in many recent studies (Mehndiratta and Gupta, 2010; Akbar and Baig, 2010; Bhatia, 2010). The present study uses the dividend announcement as the corporate event for the company and an event window of 15 days is constructed to check the reaction of stock prices to dividend announcement. An event window of 15 days is constructed with -7 (pre-dividend announcement days) and $+7$ (post-dividend announcement days) while taking $t = 0$ as the event date. The event study is used to find out the impact of announcements on respective share prices. Furthermore, the t-test is used to check the impact of dividend announcements by examining the significance of AARs around the event window.

In the 1st step the return of both the company daily stock prices and the market index are calculated by using the following formulae:

$$R_{it} = \text{Ln} (P_t/P_{t-1}) \quad 1$$

$$R_{mt} = \text{Ln} (I_t/I_{t-1}) \quad 2$$

Where:

R_{it} is the return of company and R_{mt} represent the market return;

P_t and P_{t-1} are the stock prices of company whereas I_t and I_{t-1} represents the market index value for current and previous day;

The expected returns are calculated by using the market model as below:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad 3$$

Where α_i and β_i are intercept and slope respectively whereas the R_{mt} represents the market return and ε_{it} is the random error term. The simple regression is used for this purpose and company stock returns are regressed over the market returns. After this, the abnormal returns are calculated by applying the constant mean return model as follows:

$$AR_{it} = R_{it} - E(R_{it}) \quad 4$$

The AAR around the event window is calculated by dividing the sum of abnormal returns over the number of observations as below:

$$AAR_{it} = \sum AR_{it} / N \quad 5$$

The CAAR that provides an information about the behavior of average prices of companies during event window is calculated by using the formula:

$$CAAR = \sum AAR \quad 6$$

The parametric t-test is used to check the significance of abnormal returns of individual announcements and of AAR_{it} around the event window days as:

$$t = AR_{it} / S.E. \quad 7$$

and; $t = AAR / \sigma(AAR)$ or $t = AAR / \sqrt{\text{Sum}^2 \text{ of Steyx for Announcements} / \text{Number of Announcements}}$ (Benninga, 008).

Where $\sigma(AAR)$ is the standard error of AAR and is calculated as:

$$\sigma(AAR) = \sigma / \sqrt{n} \quad 8$$

4. DATA ANALYSIS AND RESULTS

The standard event methodology is applied to study the signaling effect of dividend announcements on stock returns of listed companies in Pakistan. The companies are selected randomly from different sectors that have made the cash dividend announcements during calendar year 2010. The 30 companies from different sectors are selected randomly and an event window of 15 days is constructed to analyze the reaction patterns of returns in both pre-event and post-event scenarios. The list of selected companies with the symbols is summarized in Table 1.

The daily closing stock prices of sample companies and market index are extracted from the official website of KSE and ZHV securities. The daily returns are calculated by using the logarithmic function. After calculating the returns, the expected return is calculated by using the market model and for this purpose the data of 240 days before the event window is used. The event window is comprised of 15 days in total with -7 and $+7$ as the pre- and post-event days respectively while 0 as the event day. The abnormal returns around the event window are calculated by subtracting the expected return from actual return. The abnormal returns of all the companies and AARs around the event window are summarized in Annexure 1.

The results show that the AARs have a mixed trend before the event date and remained negative in most of the days including event day. However, after the event of dividend announcement the AAR remains positive with increasing trend for all the days around the event window. The t-test is used to check the significance of abnormal returns around the event window. The t-test value again shows a mixed trend with either insignificant or negative significant values before the event of dividend announcement. However, the next day after dividend announcement it becomes positive and remained positive for all the days after the occurrence of dividend announcement event around the event window. Moreover, the AAR become significant on the 2nd day after dividend announcement event and remained significant for all the days around event window following the dividend announcement. The result of AAR, CAAR and t-test around the event window is summarized in Table 2.

It is evident from the above results that the AARs become positive a day after the dividend announcement whereas significant on 2nd day after the dividend announcements and then remained positive as well as significant for all the days around event window after the dividend announcement event. The AAR on the event day remains negative as well as statistically insignificant but becomes positive on the next day and then shows a gradual increasing and statistically significant trend for all the days in post-event window. This shows that the dividend announcements generated a signal

Table 1: Sample companies, symbols and dividend announcement dates

Serial number	Company	Symbol	Announcement date
1	Clariant Pakistan Ltd.	CPL	01/02/2010
2	Fauji Fertilizer Bin Qasim Ltd.	FFBL	26/01/2010
3	ICI Pakistan Ltd.	ICI	18/02/2010
4	Pakistan Gum and Chemicals Ltd.	PGCL	15/03/2010
5	National Refinery Ltd.	NRL	30/09/2010
6	Oil and Gas Development Company Ltd.	OGDC	12/08/2010
7	Pakistan Oilfields Ltd.	POL	01/10/2010
8	Pakistan State Oil Company Ltd.	PSO	06/08/2010
9	Abbott Laboratories (Pakistan) Ltd.	ABOT	28/01/2010
10	GlaxoSmithKline Pakistan Ltd.	GLAXO	04/03/2010
11	Sanofi Aventis Pakistan Ltd.	SAPL	12/02/2010
12	Searle Pakistan Ltd.	SEARL	29/09/2010
13	JDW Sugar Mills Ltd.	JDWS	08/01/2010
14	Mitchell's Fruit Farms Ltd.	MFFL	04/01/2010
15	Bata Pakistan Ltd.	BATA	18/02/2010
16	Al-Ghazi Tractors Ltd.	AGTL	16/02/2010
17	Pakistan Engineering Company Ltd.	PECO	29/09/2010
18	Packages Ltd.	PKGS	17/02/2010
19	Tri-Pack Films Ltd.	TRIPF	11/02/2010
20	Pakistan Tobacco Company Ltd.	PAKT	12/03/2010
21	Lucky Cement Ltd.	LUCK	10/08/2010
22	Exide Pakistan Ltd.	EXIDE	29/06/2010
23	Pakistan Cables Ltd.	PCAL	10/08/2010
24	Bank Alfalah Ltd.	BAFL	15/03/2010
25	Habib Insurance Company Ltd.	HICL	07/04/2010
26	IGI Insurance Ltd.	IGIL	17/02/2010
27	Security Papers Ltd.	SEPL	29/07/2010
28	Noon Pakistan Ltd.	NOPK	30/09/2010
29	Pangrio Sugar Mills Ltd.	PNGRS	09/12/2010
30	Shahtaj Textile Ltd.	STJT	28/09/2010

Table 2: Average abnormal returns, cumulative average abnormal returns and t-test values around the event window

Pre-event and event window days				Post-event window days			
Day	AAR	CAAR	t-test	Day	AAR	CAAR	t-test
-7	0.00807	0.00807	0.31933				
-6	-0.00016	0.00791	-0.0062	1	0.02837	-0.2827	1.12287
-5	0.01192	0.01984	0.47187	2	0.05721	-0.2255	2.26385
-4	-0.13195	-0.1121	-5.2216	3	0.08993	-0.1356	3.5587
-3	-0.09477	-0.2069	-3.7505	4	0.12759	-0.008	5.04927
-2	-0.05852	-0.2654	-2.3158	5	0.16104	0.15304	6.37314
-1	-0.03315	-0.2985	-1.3119	6	0.19243	0.34547	7.61516
0	-0.01255	-0.3111	-0.4966	7	0.22176	0.56723	8.77596

AAR: Average abnormal return, CAAR: Cumulative average abnormal return

in the market and investors can be able to earn abnormal returns through trading in stocks following the dividend announcement. However, the dissemination of information is not much rapid as it should be in an informationally efficient market.

5. CONCLUSION

The dividend irrelevance model of Miller and Modigliani (1961) in which they argued that the dividend policy is irrelevant in perfect capital markets while keeping the investment policy of company fixed and efficient market hypothesis by Fama (1970) in which he referred the stock price movements in response to different type of information as the efficiency of market; opened a room of research for both the academicians and professionals. The main focus of studies in this area is to examine the reaction pattern of stock market participants to different kind of news such as dividend announcements, mergers and acquisitions, right issues,

bonus issues, etc. The dividend announcement is considered as the important news for the company shareholders and is expected to have a change in their behavior towards company after such announcement. The reaction of shareholders may be positive, negative or unchanged depending upon the nature of news and circumstances. Generally, it is believed that the dividend increasing events are considered as the good news whereas the dividend decreasing events are considered as the bad news and is accordingly reflected in stock prices/returns.

There are number of studies in this area with varying results. The present study focused on the signaling effect of dividend announcements over a sample of 30 companies listed on KSE and are selected randomly from different sectors. The cash dividend announcements of sample companies during calendar year 2010 is used as an event and the reaction of market participants to this event is analyzed by applying the standard event methodology.

The event study methodology is related to the impact of different announcements on firm's value through analyzing the share price movement in response to each announcement. The dividend announcement date is considered as the event day and an event window of 15 days with -7 and $+7$ days is constructed while taking $t = 0$ as the event date.

The results of study show that the shareholders do respond significantly to the dividend announcements as evident from sample companies. The AARs and t-values for AARs around the event window are found negative for majority of cases in pre-event days; however, it remained positive and statistically significant for almost all the days after the dividend announcement date. The results of the study indicate that the dividend announcements do generate a market signal. The results are in support of signaling effect of dividend announcements favoring dividend signaling hypothesis/information content of dividends hypothesis and in-line with many previous studies (Fama et al., 1969; Miller and Rock, 1985; Brucato and Smith, 1997; Bhatia, 2010; Nazir et al., 2010; Mehndiratta and Gupta, 2010; Dasilas and Leventis, 2011). The study can be helpful for managers and investors to understand the behavior of stock market participants with regard to dividend announcement. This study can be extended in future by including more events such as stock dividends, stock splits, right issues, bonus issues, merger and acquisitions, etc. and increasing the sample size for more comprehensive results.

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Annexure 1: Abnormal returns around the event window

Companies	Days around the event window														
	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7
CPL	-0.00355	-0.00734	-0.00323	0.00189	0.00981	0.00839	0.02057	-0.04968	-0.01409	-0.00544	0.02676	0.02713	-0.00125	-0.01027	-0.02751
FFBL	0.01511	0.04040	-0.01892	-0.00126	0.00132	0.04853	0.02760	0.00454	-0.00919	0.00248	0.00402	0.01826	0.00579	-0.01539	-0.02424
ICI	-0.00118	-0.00731	0.00055	-0.00512	-0.00111	-0.00768	-0.00548	-0.01587	-0.01204	-0.01087	-0.00280	0.00652	-0.00134	-0.00847	-0.01601
PGCL	-0.00393	0.04813	-0.00495	-0.05874	0.05565	-0.04813	0.04378	-0.05331	-0.00243	-0.04854	-0.04126	-0.04097	0.01000	-0.00817	0.03595
NRL	-0.00239	0.00708	-0.00454	-0.01854	0.01367	-0.00322	0.03190	-0.01498	-0.00012	0.00113	0.02170	0.02446	-0.00882	0.01134	0.02242
OGDC	0.00133	-0.00382	0.00645	0.00846	0.00123	-0.01733	-0.00303	-0.01189	-0.00262	-0.00044	0.00650	0.00548	0.00412	-0.00179	-0.00319
POL	-0.00670	0.00328	0.00060	0.00295	-0.00168	0.00343	0.00157	-0.01182	0.01055	0.01043	0.00105	-0.00790	0.00673	-0.00205	0.01245
PSO	-0.00552	0.00035	0.03851	-0.00893	0.00076	0.00788	-0.00742	-0.02980	-0.01984	0.02064	-0.00316	0.01364	0.00141	0.01053	-0.00854
ABOT	-0.00054	-0.01369	0.04767	-0.02075	0.00858	-0.00910	-0.02146	-0.03857	-0.02491	0.00565	-0.00045	-0.00700	-0.01052	0.01147	-0.01467
GLAXO	0.00980	-0.03172	0.02549	-0.01268	-0.03572	-0.00452	-0.04118	-0.01659	0.00305	0.04191	0.03562	-0.00516	0.00553	-0.00416	0.00796
SAPL	0.04286	0.02990	0.04407	0.02499	0.01560	-0.00257	0.00048	0.02968	0.01898	-0.01976	-0.01368	0.00880	0.01824	-0.01125	-0.02117
SEARL	0.03398	-0.01723	0.00990	0.00671	-0.00222	-0.00920	0.01860	-0.02528	0.01192	-0.00121	0.00071	-0.00412	0.00704	0.00354	-0.00318
JDWS	0.00079	-0.01473	-0.00138	0.04603	0.03490	0.04197	-0.03189	-0.04334	-0.00974	-0.00914	-0.02090	-0.01010	-0.01176	0.00328	0.02858
MFFL	-0.00104	0.03671	0.00097	-0.09236	0.00051	0.03705	-0.04802	-0.00653	-0.01594	-0.05261	-0.04760	-0.00719	0.02373	-0.01715	0.04872
BATA	-0.01615	0.01896	-0.00281	-0.02880	0.02627	-0.00754	-0.02028	-0.01890	-0.06512	0.03414	-0.01187	0.00308	0.00038	-0.05113	-0.03125
AGTL	0.02594	-0.01224	-0.00778	0.00093	-0.01097	0.03130	0.00901	-0.05093	-0.03128	0.00256	-0.02782	0.01208	-0.00602	0.05121	-0.02306
PECO	-0.00159	-0.00066	0.00052	-0.00029	0.01545	0.04492	-0.05239	0.00407	0.01549	-0.00107	-0.00086	0.00254	-0.00088	-0.00209	-0.00297
PKGS	0.00410	-0.00434	0.00425	0.00221	0.00297	-0.01040	-0.01059	-0.01892	-0.00985	-0.01425	-0.02103	0.00016	-0.00072	-0.02201	-0.00883
TRIPF	0.00069	0.05088	0.01411	0.00599	-0.02248	-0.02749	0.04984	0.04323	0.03170	-0.03540	-0.01022	0.01304	-0.00446	0.05121	-0.02306
PAKT	0.02463	-0.01956	0.01220	0.00190	0.00668	-0.00120	0.02011	-0.01077	-0.02646	0.02867	0.02217	-0.01770	-0.02034	0.02975	-0.05249
LUCK	-0.01042	0.00046	-0.00361	0.01858	-0.00261	-0.00967	-0.01145	0.00159	-0.00442	0.02720	0.03116	0.00678	0.00212	-0.00591	0.01531
EXIDE	0.03126	0.01145	0.00969	-0.02397	-0.02779	0.00889	-0.02338	0.01191	0.00308	0.00636	-0.00912	0.00422	0.00444	-0.02467	-0.00387
PCAL	0.01408	-0.01297	-0.03111	0.01695	-0.01304	0.03177	0.01734	-0.05637	0.03354	-0.04534	0.00759	-0.05737	0.04344	-0.03100	0.02901
BAFL	0.01543	-0.01358	-0.01494	0.02163	0.00656	-0.00439	-0.05877	0.03774	-0.01734	-0.00562	-0.01240	0.00233	0.00682	-0.00117	0.00786
HICL	0.02020	-0.01176	0.00076	-0.01190	0.00952	0.03742	0.04174	-0.06387	0.03025	-0.00697	-0.00686	0.00752	-0.00087	0.01600	0.00613
IGHL	0.01494	0.04024	0.05116	-0.03267	-0.00127	-0.01067	-0.01492	-0.05816	-0.05392	-0.05325	-0.04651	-0.03894	-0.00338	0.03195	-0.00655
SEPL	0.04860	-0.00668	-0.02005	-0.00085	0.00167	0.02031	-0.01107	0.05619	0.03326	-0.02630	-0.00092	0.00417	-0.00872	0.00334	0.00851
NOPK	-0.03684	-0.04536	0.05146	0.04945	0.00229	0.03991	0.05050	0.00311	-0.09153	-0.00244	-0.04776	-0.04835	-0.05173	0.00141	-0.04973
PNGRS	-0.01529	-0.03409	0.09309	0.02713	-0.03607	0.00010	0.03091	-0.03800	0.05493	-0.03863	-0.04805	0.03858	-0.01969	0.00081	-0.05631
STJT	0.04348	-0.03547	0.05960	-0.00926	0.00359	-0.00290	-0.03025	0.05260	0.04368	-0.03055	0.00368	0.00135	0.00306	0.01168	-0.00802
AAR	0.00807	-0.00016	0.01192	-0.13195	-0.09477	-0.05852	-0.03315	-0.01255	0.02837	0.05721	0.08993	0.12759	0.16104	0.19243	0.22176