Share Price Reaction to Dividend Announcements and the Interaction with Earnings Announcements in the Malaysian Stock Market

Peng-Poi Yip*, Mansor Isa, George W. Kester
and Siew-Peng Lee

Abstract

This study examines the market reactions to dividend announcements and the interaction with earnings announcements in the Malaysian stock market. Data was obtained for a sample of one thousand and eighty eight (1088) dividend announcements from firms whose shares were traded on the Malaysian stock exchange from 2004 to 2008. Abnormal returns were calculated using the market model. The results are partially consistent with the dividend information signalling hypothesis. There are positive abnormal returns related to dividend increase and dividend unchanged announcements, but insignificant for dividend decrease announcements. Combining dividend announcements with earnings announcements that take place well before dividend announcements, we find that both earnings and dividends exert their influence independently on share prices.

Keywords: Dividend Announcements, Dividend Signalling, Information Content of Dividend, Interaction of Dividend with Earnings Announcements, Malaysian Stock Maket

JEL Classification: G14, G3, G35

*Corresponding author. Peng-Poi Yip was a graduate student at the Faculty of Business and Accountancy, University of Malaya, Kuala Lumpur, Malaysia, e-mail: pengpoiyip@gmail.com.

Mansor Isa was formerly a Professor in the Faculty of Business and Accountancy, University of Malaya and is currently a Research Advisor to the Capital Market Authority in Riyadh, Saudi Arabia, e-mail: mansor.isa@cma.org.sa.

George W. Kester is the Martel Professor of Finance at the Department of Business Administration, Washington and Lee University, Lexington, Virginia, USA, e-mail: kesterg@wlu.edu.

Siew-Peng Lee is a Senior Lecturer at the Faculty of Accountancy and Management, University of Tunku Abdul Rahman, Kuala Lumpur, Malaysia, e-mail: leesp@utar.edu.my.

1. Introduction

The focal point of financial management is the goal of maximising the shareholders' value which is operationalised by the net present value criterion of accepting or rejecting proposed investments. According to this criterion, investment opportunities promising returns in excess of their required rates of return should be accepted. From this follows the residual dividend policy: dividends should be paid from earnings that remain after financing the equity portion of all positive net present value investments. However, because of variations in earnings and investment opportunities from year to year, strict adherence to the residual policy may result in an erratic pattern of dividends, increasing in some years and decreasing in others. Although a residual policy may seem to be consistent with shareholder value maximisation, investors may not see it in the same light. Much of the debate regarding dividends focuses on the effects that changes in dividends have on share value.

Unfortunately, it has been long recognised that theoretical arguments are unable to identify optimum dividend policies for firms. Researchers then look at the market and firms practices in order to understand the effects of dividends on share prices. Many studies have been conducted in the United States (U.S.) on market reaction to dividend and earnings announcements. Similar studies have been also carried out in other markets that have different settings in terms of tax regulations, market size and investor sophistication. This study contributes to the existing literature by providing evidence on share price reaction to dividend and earnings announcements in the Malaysian stock market. The next section discusses the relevant literature. Section 3 describes our data and methodology and this is followed by a discussion of our results in Section 4. Section 5 presents our conclusions.

2. Literature review

Notwithstanding the debate among academicians, practitioners behave as though dividend policy does matter. In an often-cited classic study based upon interviews with corporate executives in the U.S. in the mid-1950's, Lintner (1956) reported that although many firms do have long run payout ratios based upon earnings, year-to-year dividends respond slowly to earnings. Temporary increases or decreases in earnings have little effect on dividends in the short-run. He found that firms are reluctant to increase dividends to levels that cannot be sustained. This is due to the fear of later having to reduce dividends.

Lintner's behavioral model and variations of it have been empirically tested over the years by a number of researchers. For example, it has been applied to financial market data in the U.S. by Fama and Babiak (1968) and Roy and Cheung (1985); in Canada by Chateau (1979); in the United Kingdom (UK) by Ryan (1974); in Australia by Shevlin (1982); and in Singapore by Ariff and Johnson (1989). The results of these studies are generally consistent with Lintner's hypothesised partial adjustment towards a target payout ratio.

Lintner's findings have also been supported by surveys of business financial policymakers. For example, in surveys of chief financial officers of firms in the U.S., Baker, Farrelly, and Edelman (1985), and Pinegar and Wilbricht (1989) found that management continues to place importance on maintaining dividend continuity. Managers believe that firms should avoid making changes in dividends that might soon be reversed and should strive for uninterrupted records of dividend payments.

There is also survey evidence that Lintner's model is consistent with perceptions and practices in the Asia-Pacific region. In surveys of the chief executive officers of firms listed on the Stock Exchange of Singapore and the Stock Exchange of Hong Kong, Kester, Chang, and Tsui (1994) reported that executives in Singapore and Hong Kong believe that firms should have target payout ratios, strive for uninterrupted dividends payments, and avoid changes in dividends that may later have to be reversed. Similar results were obtained from surveys of firms from Indonesia and the Philippines by Kester, Chang, Echanis, and Soedigno (1996); in Australia by Partington (1989); and Baxt, Kester, and Skully (1995); and in Malaysia by Isa (1992) and Kester and Isa (1994). These studies reported that there is a general inclination of corporate managers to maintain a stable dividend policy.

One explanation usually offered to justify stable dividend policies is the signalling effect or the information content of dividends, which focuses on examining market reaction to dividend announcements. According to the signalling hypothesis, changes in dividends are seen as containing information to investors regarding future earnings or cash flows. Due to information asymmetries between managers and investors, investors need to look beyond public information to make better estimates of a firm's future earnings. Certain corporate announcements, such as dividend announcements, are considered important signals imparted by management regarding their beliefs on the future of the firm. Managers appear to be reluctant to increase dividends unless they are confident that the new level of dividends is sustainable in the foreseeable future. Therefore,

announcements of dividend increases are viewed positively and conversely reductions in dividends are viewed negatively by the market.

Bhattacharya (1979) developed a tax-based signalling model to explain why taxes are an important factor in determining dividend signalling effects. He suggested that dividends are informative because of the higher taxes on dividends relative to capital gains. In fact, it is too costly for poor-performance firms to mimic this signal as they will need to raise additional funds to cover the dividend payment. However, La Porta, Lopez-De-Silanes, Shleifer, and Vishny (2000), who studied dividend policies across thirty three (33) countries with different tax regimes and levels of investor protection, found no conclusive evidence on the effect of taxes on dividend policies and they were unable to assess the relevance of taxation on dividend signalling. In addition, Al-Yahyaee, Pham, and Walter (2010) examined stock price reactions to dividend announcements in a no-tax environment and found results that were clearly consistent with the dividend signalling hypothesis. Although the authors cautioned that further tests would be required to be done, their initial results lent further support to non-tax based signalling model.

Empirical evidence of the signalling effect in the U.S. has been reported by Aharony and Swary (1980), Kane, Lee, and Marcus (1984), and Asquith and Mullins (1986); in the UK by Lonie, Abeyratna, Power, and Sinclair (1996); in Ireland by McCluskey, Burton, Power, and Sinclair (2006); in Norway by Capstaff, Klaeboe, and Marshall (2004); in Pakistan by Urooj and Zafar (2008); in Australia by Brown, Finn, and Hancock (1977), and How, Teo, and Izan (1992); and in Singapore by Pang, Leong, and Low (1986), and Ariff and Finn (1986). In general, the results of these studies have been consistent with the signalling effect. They have also reported that dividends are normally announced together with earnings, therefore resulting in the need to analyse the interaction effect between the two (2) announcements. Generally, the researchers found that dividend announcements have a significant impact on share prices for samples in which earnings and dividend changes are of the same sign. But when earnings and dividend changes are of the opposite signs, the impact on share prices is insignificant. For example, Kane et al. (1984) examined the effect of earnings and dividend announcements on stock price changes and found that there was a significant interaction effect in that the abnormal return corresponding to any earning or dividend announcement would depend upon the value of the other announcement. McCluskey et al. (2006) found similar interaction evidence in the Irish stock market.

In Malaysia, Isa and Subramaniam (1992) used weekly data to examine the effects of dividend and earnings announcements on share prices on the Malaysian stock exchange over the period 1978 to 1984 and found that signalling effects for both dividends and earnings existed in the Malaysian stock market. The market reacted positively to increases in dividends and negatively to decreases in dividends during the announcement week. Similarly, the market reacted positively to increases in earnings and negatively to decreases in earnings. Because dividend and earnings announcements in their sample occurred simultaneously, they also cross-classified their sample into four (4) subgroups (dividend increase and earnings increase, dividend decrease and earnings decrease, dividend increase and earnings decrease, and dividend decrease and earnings increase) to determine if the dividend effect subsumed the earnings effect or vice versa. The market reacted positively to simultaneous increases in dividends and earnings and negatively to simultaneous decreases in dividends and earnings. In the cases of opposite changes in dividends and earnings, none of the abnormal returns during the announcement week were statistically significant. The authors concluded that neither dividends nor earnings subsumed the other and that both exerted their effects on share prices independently.

Isa and Subramaniam (1992)'s study has become dated as it was conducted in the years 1978 to 1984, well before the Asian financial crisis. The Malaysian stock market since then has undergone various structural and regulatory reforms. It is generally believed that the market is now more efficient with greater transparency and liquidity. In terms of dividends, it seems that company managers' perceptions have also changed over the years. In a relatively recent survey, Isa (2008) noted that managers' perceptions of the role of dividends as a signalling device has increased and that more managers also now believe that dividend is an important factor influencing share prices.

Another Malaysian study, Abdullah, Abdulrashid, and Ibrahim (2002), examined stock price reactions to annual dividend announcements over the years 1996 to 1999. They examined dividend increases and decreases of at least 10 per cent from the preceding year's dividend and found that the market reacted positively to all types of dividend announcements, regardless of whether dividends increased, decreased or remained unchanged. In a more recent study, Hussin, Ahmad, and Teoh (2010) provided evidence of semi-strong form efficiency in the Malaysian market, where stock prices adjusted in an efficient manner to dividend and earnings announcements. Their evidence suggests that both dividend and

earnings play significant roles as a signalling device for future prospects of firms. While Abdullah et al. (2002) did not consider the interaction effect between dividend and earnings announcements, Hussin et al. (2010)'s study was confined to only one year data, that of 2006.

The goal of this study is to revisit and update the signalling effect of dividends in the Malaysian stock market and to provide new evidence regarding market efficiency in the aftermath of the 1997 crisis. Unlike the sample studied by Isa and Subramaniam (1992) in which dividend and earnings announcements occurred simultaneously, earnings announcements in the sample examined in this study occurred separately from the dividend announcements and prior to the event window period used. Therefore, the signalling effects of dividend announcements are examined as independent events. In addition, daily rather than weekly returns data is used.

3. Data and methodology

3. 1 Data

A sample of dividend announcements from all firms that were continuously listed on the Main Board of the Malaysian stock market (Bursa Malaysia) for the period of January 2004 - December 2008 was collected. Only announcements of final cash dividends were included; interim cash dividend, special dividend and stock dividend announcements were not included. We also excluded financially distressed firms (classified by the Bursa Malaysia as Practice Note 4 and Practice Note 17 firms) and real estate investment trusts. We excluded firms that had other major announcements during the period of fifteen (15) days before to fifteen (15) days after the dividend announcement day. These other announcements included announcements of earnings, rights issues, share splits, bonus issues, special dividends and capital changes. To be consistent with the previous studies, we also examined the interaction effect between earnings changes and dividend changes. However, in our study, earnings were already known well before dividends were announced.

Data on dividend and earnings changes and the announcement dates was collected from the Star Online and iCapital websites. Daily closing prices for each security were obtained from Yahoo.com. Kuala Lumpur Composite Index, dividends per share and earnings per share data was obtained from the Bloomberg database.

3. 2 Methodology

To classify the sample announcements as dividend increases (DI), dividend decreases (DD), and dividend unchanged (DU), the naive "no change" model used by Aharony and Swary (1980), Isa and Subramaniam (1992), and Urooj and Zafar (2008) was used:

$$E(D_{i,t}) = D_{i,t\text{-}1}$$

where $E(D_{i,t})$ is the expected annual dividend for year t; and $D_{i,t\text{-}1}$ is the amount of dividend paid in year t-1. Dividend increases, unchanged or decreases were accordingly defined as the difference in dividends between two (2) consecutive years. This naive model is based upon the assumption that managers are reluctant to change dividends in either direction unless they believe that the long-term prospects of the firm will be significantly changed. Abnormal returns were calculated for each share as follows:

$$AR_{i,t} = R_{i,t} - E(R_{i,t})$$

where $AR_{i,t}$ is the abnormal return on stock i on day t; $R_{i,t}$ is the percentage price change of stock i on day t; and $E(R_{i,t})$ is the expected return on stock i on day t. Using the market model, the expected return was calculated as follows:

$$E(R_{i,t}) = \hat{\alpha}_i + \hat{\beta}_i R_{m,t}$$

where $R_{m,t}$ is the return on the market portfolio on day t; and $\hat{\alpha}$ and $\hat{\beta}$ are the ordinary least-squares (OLS) market model parameters, estimated using the daily returns during the sixty (60) days prior to the 31-day event window. The Kuala Lumpur Composite Index was used as a proxy for market returns. The daily abnormal returns were averaged across the sample as follows:

$$AR_t = \left(\frac{1}{N}\right)\sum_{i=1}^{n} AR_{i,t}$$

where AR_t is the average abnormal return for day t. The cumulative abnormal returns, CAR for the event window and sub-windows that begins on day d and end on day D, were calculated as follows:

$$CAR = \sum_{t=d}^{D} AR_t$$

To determine the statistical significance of the abnormal returns, AR_t and the cumulative abnormal returns, *CAR*, t-statistics were used. The t-statistics for AR_t were calculated as follows:

$$t(AR) = \frac{\overline{AR_t}}{\sigma(AR_t)/\sqrt{N}}$$

where $\overline{AR_t}$ and $\sigma(AR_t)$ are the cross-sectional average and standard deviation, respectively, of the abnormal returns of stock on day *t*. The t-statistics for *CAR* were calculated as follows:

$$t(CAR_w) = \frac{\overline{CAR_w}}{\sigma(CAR_w)/\sqrt{N}}$$

where $\overline{CAR_w}$ and $\sigma(CAR_w)$ are the cross-sectional average and standard deviation, respectively, of the *CAR* for a particular window, *w*.

Data analysis was carried out in two (2) phases. The first phase examined price reaction to dividend announcements regardless of market's knowledge about firm's earnings. In this part the total sample was analysed based on whether the announcement was for increased, unchanged or decreased dividends from the previous year. The second phase analysed the interaction between earnings and dividend announcements.

4. Results

4. 1 Market reaction to dividend announcements: Total sample

Table 1(a) presents the stock price reactions to the dividend announcements for the total sample of one thousand and eighty eight (1,088) announcements examined in this study. Our interest in analysing the total sample is to find out if the market reacts to dividend announcements regardless of whether the amount of dividend announced is greater than, less than, or remaining the same as the previous year's dividend, and if so, whether it is a positive or a negative reaction. Subsequently, we will analyse market reaction to the various types of dividend changes.

Table 1(a) shows daily abnormal returns (AR), the corresponding t-statistics and the cumulative abnormal returns (CAR) for the thirty one (31) days around the dividend announcement day, day zero (0). If a dividend is viewed favourably by the market, we expect to see positive market reaction on day zero (0). But our results show that the abnormal

Table 1(a): Abnormal returns analysis to dividend announcement (N=1088)

Day	AR (%)	t-statistic	CAR (%)
-15	-0.102	-1.088	-0.102
-14	-0.103	-1.216	-0.205
-13	-0.087	-0.988	-0.292
-12	-0.064	-0.676	-0.356
-11	-0.099	-1.127	-0.455
-10	-0.078	-0.937	-0.533
-9	-0.072	-0.820	-0.605
-8	-0.303***	-3.215	-0.908
-7	-0.108	-1.157	-1.016
-6	0.040	0.444	-0.976
-5	-0.175*	-1.950	-1.151
-4	-0.084	-0.954	-1.235
-3	-0.052	-0.581	-1.287
-2	-0.160*	-1.876	-1.447
-1	-0.134	-1.284	-1.581
0	**-0.015**	**-0.165**	**-1.596**
1	0.442***	4.796	-1.154
2	0.213***	2.667	-0.941
3	0.033	0.384	-0.908
4	0.142*	1.673	-0.766
5	0.225**	2.480	-0.541
6	0.242***	2.652	-0.299
7	0.106	1.282	-0.193
8	-0.019	-0.244	-0.212
9	0.064	0.861	-0.148
10	0.063	0.755	-0.086
11	0.044	0.494	-0.042
12	0.124	1.420	0.082
13	-0.165*	-1.891	-0.083
14	0.113	1.379	0.030
15	0.132	1.596	0.163

Note: *, **, *** indicate significance at the level of 10%, 5%, and 1% respectively.

Table 1(b): Cumulative abnormal returns (CAR) analysis to dividend announcement (N=1088)

Sub-window	CAR (%)	t-statistic
Day -15 to -3	-1.287***	-4.557
Day -2 to 2	0.346**	2.482
Day 3 to 15	1.104***	4.012
Day -15 to 15	0.163	0.354

Note: *, **, *** indicate significance at the level of 10%, 5%, and 1% respectively.

return for day zero (0) is insignificant. However, there are significantly positive returns on two (2) consecutive days after the announcement, that is, on days +1 and +2. We may still consider these as market reactions to dividend announcements, but they are delayed reactions which seem to be inconsistent with market efficiency.

We also note that most of the daily abnormal returns in the pre-announcement days are predominantly negative from the beginning of the event window until the announcement day, that is, from day -15 to day zero (0), with day -8 showing the largest single day drop of 0.303 per cent (significant at 1 per cent level). This behaviour of the AR result in the downtrend movement of the CAR shown in the last column. After the announcement, the daily AR become predominantly positive, and accordingly the CAR display an upward trend. The behaviour of the CAR is further summarised in Table 1(b) over various sub-windows in the overall event window along with their significant tests. We find that all the CAR are significant for all the three (3) sub-windows; negative in the pre-announcement period (days -15 to +3), and positive during the announcement period (days -2 to +2) and post-announcement period (days +3 to +15).

4.2 Market reaction to dividend announcements: Dividend increases, decreases and unchanged

Table 2(a) shows the results of AR analysis for the three (3) types of dividend announcements. On day zero (0), the day of the announcement, we find that none of the AR is statistically significant. However, the reaction takes place on days +1 and +2 for dividend increase group and just on day +1 for dividend unchanged group. This is similar to our results for the entire

Table 2(a): Abnormal returns analysis to announcement of dividend increase, decrease and unchanged

Day	Dividend Increase (N=581)			Dividend Unchanged (N=264)			Dividend Decrease (N=243)		
	AR (%)	t-statistic	CAR (%)	AR (%)	t-statistic	CAR (%)	AR	t-statistic	CAR
-15	-0.105	-0.935	-0.105	-0.160	-0.661	-0.160	-0.033	-0.173	-0.033
-14	0.017	0.157	-0.088	-0.272	-1.492	-0.432	-0.206	-1.073	-0.238
-13	0.034	0.280	-0.054	-0.257	-1.340	-0.688	-0.193	-1.118	-0.431
-12	-0.041	-0.350	-0.095	-0.197	-0.931	-0.885	0.025	0.112	-0.406
-11	-0.188	-1.639	-0.282	-0.002	-0.013	-0.887	0.006	0.032	-0.400
-10	-0.062	-0.618	-0.344	0.009	0.044	-0.878	-0.213	-1.148	-0.613
-9	0.020	0.175	-0.323	-0.373**	-2.249	-1.251	0.036	0.173	-0.577
-8	-0.344***	-2.856	-0.667	-0.342*	-1.885	-1.593	-0.160	-0.679	-0.737
-7	0.024	0.198	-0.644	-0.219	-1.309	-1.812	-0.304	-1.242	-1.041
-6	0.011	0.088	-0.632	0.214	1.347	-1.598	-0.082	-0.428	-1.123
-5	-0.249**	-2.238	-0.881	-0.181	-0.940	-1.779	0.009	0.041	-1.114
-4	-0.079	-0.791	-0.960	-0.031	-0.148	-1.810	-0.153	-0.713	-1.267
-3	-0.040	-0.361	-1.001	0.199	0.957	-1.611	-0.354*	-1.753	-1.622
-2	-0.122	-1.165	-1.123	-0.255	-1.533	-1.866	-0.147	-0.656	-1.769
-1	-0.197	-1.448	-1.320	-0.078	-0.407	-1.944	-0.045	-0.169	-1.814
0	0.054	0.525	-1.265	-0.025	-0.129	-1.968	-0.169	-0.743	-1.982
1	0.662***	5.168	-0.604	0.490***	2.965	-1.478	-0.136	-0.656	-2.118
2	0.374***	3.512	-0.229	0.151	0.925	-1.327	-0.107	-0.614	-2.225
3	0.018	0.150	-0.211	0.139	0.801	-1.188	-0.045	-0.250	-2.270
4	0.324***	2.764	0.113	-0.043	-0.242	-1.230	-0.094	-0.558	-2.364
5	0.263**	2.085	0.375	0.196	1.161	-1.034	0.166	0.824	-2.198
6	0.417***	3.277	0.792	0.112	0.684	-0.922	-0.034	-0.165	-2.232
7	0.234**	2.088	1.025	-0.104	-0.583	-1.026	0.029	0.171	-2.203
8	-0.116	-1.120	0.909	0.109	0.606	-0.917	0.073	0.467	-2.130
9	0.154*	1.725	1.064	0.026	0.139	-0.891	-0.109	-0.688	-2.238
10	-0.011	-0.110	1.053	0.128	0.705	-0.763	0.167	0.782	-2.071
11	0.196	1.578	1.249	-0.188	-0.990	-0.951	-0.068	-0.421	-2.139
12	0.215*	1.811	1.464	-0.071	-0.345	-1.022	0.119	0.765	-2.020
13	-0.183	-1.603	1.280	-0.214	-1.070	-1.236	-0.071	-0.396	-2.091
14	0.170	1.579	1.450	0.318	1.581	-0.917	-0.245*	-1.701	-2.336
15	0.180*	1.841	1.631	0.138	0.663	-0.779	0.012	0.067	-2.324

Note: *, **, *** indicate significance at the level of 10%, 5%, and 1% respectively.

Table 2(b): Analysis of cumulative abnormal returns (CAR) for announcements of dividend increase, decrease and unchanged

Sub-window	Dividend Increase (N=581)		Dividend Unchanged (N=264)		Dividend Decrease (N=243)	
	CAR	t-statistic	CAR	t-statistic	CAR	t-statistic
Day -15 to -3	-1.001***	-2.724	-1.611***	-3.106	-1.622**	-2.264
Day -2 to 2	0.771***	3.257	0.285***	2.969	-0.604	-1.417
Day 3 to 15	1.860***	4.767	0.548	1.044	-0.098	-0.176
Day -15 to 15	1.631***	2.736	-0.779	-0.835	-2.324**	-2.193

Note: *, **, *** indicate significance at the level of 10%, 5%, and 1% respectively.

sample as discussed above. For the dividend decrease sample, none of the AR near the announcement day is significant. If decreases in dividends were considered to signal management pessimism regarding the future, the market should react negatively. Our results show a negative but insignificant AR. As far as the announcement days are concerned, we may conclude from the evidence that the signalling effect is only partially present. It is present for the dividend increase group, but not for the dividend decrease group.

Table 2(b) presents a detailed analysis of the CAR and their related statistical significance. For the dividend increase sample, all the CAR are significant. We find that the behaviour of the CAR for the dividend increase group is very similar to the behaviour of the total sample discussed earlier. There is a downward trend in the pre-announcement period up to the announcement day and an upward trend thereafter. The CAR for both dividend unchanged and dividend decrease samples behave in a similar fashion, displaying a downward trend during the pre-announcement period, but becoming insignificant in the post-announcement period.

4.3 Interaction effect of earnings information and dividend announcement

As with most studies of dividend announcements, we also examined the interaction effect between earnings announcements and dividend announcements. One unique feature of our sample was that earnings were announced separately, at least fifteen (15) days ahead of the dividend announcements. In order to determine how the market reacts to announcements of dividend changes, given changes in earnings that have been previously announced, we subdivided our sample based on earnings

changes and dividend changes. Earnings changes were classified into two (2) groups: earnings increase (EI) and earnings decrease (ED). As shown in Table 3, this resulted in six (6) sub-samples cross-classified on the basis of earnings and dividend changes. Table 3 shows that the majority of dividend changes are dividend increases (53.4 per cent) and likewise the majority of earnings changes are earnings increases (52.9 per cent).

Table 3: Sample distribution by earnings and dividend changes

	Dividend Increase	Dividend Unchanged	Dividend Decrease	Total
Earnings Increase	379	108	89	576(52.9%)
Earnings Decrease	121	80	117	318(29.2%)
No earnings information	81	76	37	194(17.8%)
Total	581(53.4%)	264(24.3%)	243(22.3%)	1088

We first examine the case of earnings increases. An increase in earnings itself is good news regardless of the firm's dividend decision that follows. The results of our analysis for earnings increase are presented in Table 4(a). For the earnings increase and dividend increase (EIDI) sample, we should expect positive market reaction to the dividend announcements which is indeed the result. The announcement period (day -2 to day +2) abnormal return is positive (1.004 per cent) and significant at 1 per cent level. For dividend unchanged (EIDU) and dividend decreases (EIDD) groups, the announcement period AR are insignificant. Earnings increase, followed by a dividend decrease should result in a negative market reaction. Our results show that the AR are insignificant although the sign is negative. Dividend decreases do not seem to carry the negative signal to the market as predicted by the signalling hypothesis. But somewhat unique in our results is the market behaviour prior to the announcements. It is negative for all groups (although significant only for the EIDI group), which means that the returns are trending downwards prior to the dividend announcement. After the announcement, the EIDI group shows a clear uptrend with significantly positive abnormal return of 1.898 per cent, while the other two (2) groups move more or less horizontally.

Table 4(b) presents our returns analysis for the case of earnings decrease group. Earnings declines should already have conveyed bad news to the market. The Table shows that the announcement period CAR (days

Table 4(a): Abnormal returns analysis for the interaction effect of earnings changes and dividend announcements on share prices: The case for earnings increase

Sub-window	EI and DI (N=379)		EI and DU (N=108)		EI and DD (N=89)	
	CAR (%)	t-statistic	CAR (%)	t-statistic	CAR (%)	t-statistic
Day -15 to -3	-0.811***	-3.106	-0.749	-0.770	-1.425	-1.178
Day -2 to 2	1.004***	3.659	0.243	0.418	-0.159	-0.267
Day 3 to 15	1.898***	4.005	-0.251	-0.288	0.464	0.405
Day -15 to 15	2.091	1.044	-0.758	-0.439	-1.120	-0.535

Note: *, **, *** indicate significance at the level of 10%, 5%, and 1% respectively.

Table 4(b): Abnormal returns analysis for the interaction effect of earnings changes and dividend announcements on share prices: The case for earnings decrease

Sub-window	ED and DI (N=121)		ED and DU (N=80)		ED and DD (N=121)	
	CAR (%)	t-statistic	CAR (%)	t-statistic	CAR (%)	t-statistic
Day -15 to -3	-2.310**	-2.333	-1.085	-1.068	-2.194**	-1.975
Day -2 to 2	0.236	1.508	-0.191	-0.278	-1.326*	-1.892
Day 3 to 15	3.429***	3.368	-0.187	-0.233	0.231	0.383
Day -15 to 15	1.264	0.867	-1.462	0.938	-3.289**	-2.235

Note: *, **, *** indicate significance at the level of 10%, 5%, and 1% respectively.

-2 to +2) for the EDDI group is insignificant. It seems that the market cannot be fooled by losing firms that announced dividend increases. The announcement impact for the EDDU group is also insignificant, but that of the EDDD group is negative and significant as expected. Also, to be noted is the general trend of the CAR in the pre- and post-announcement days which is quite similar to the earnings increase sample as discussed above. The difference is in the extent the CAR drop prior to the announcement. The earnings decrease groups seem to experience greater price drops (-2.310 per cent for EDDI and -2.194 per cent for EDDD as compared to -0.811 per cent for EIDI and -1.425 per cent for EIDD).

The individual behaviours of the CAR for all the sub-samples are clearly shown in Figures 1(a) for earnings increase firms and in Figure 1(b) for earnings decrease firms. These figures reinforce our observation on the existence of both earnings and dividends effects. A few observations can be made. Firstly, note that all of the CAR in the earnings increase sample (Figure 1(a)) are higher than their respective counterparts in the earnings decrease sample (Figure 1 (b)). Secondly, note the tendency for all of the CAR in both figures to decline in the pre-announcement period, while in the post-announcement period, only the dividend increases sub-samples show a clear upward trend. Thirdly, as expected, the largest gainer is the earnings increases and dividend increases (EIDI) group while the greatest loser is the earnings decreases and dividend decreases (EDDD) group.

4.4. Discussion of the results

Our results on day zero (0) and the few days surrounding it tend to indicate there is a delayed reaction from the market to dividend announcements, possibly due to delay that announcements become a public information. Given the relatively large sample size and the systematic manner in which the delayed market reaction appears in our results, we believe that there is a time lapse between day zero (0) and the day the information is communicated to the market. Due to this uncertainty, it would be safer to use the CAR for days -2 to +2 as the basis to form conclusions on the signalling hypothesis. Accordingly, our first result based on the total sample indicates that the Malaysian stock market reacts to dividend announcements. Secondly, and this is more pertinent to the signalling hypothesis, our results on dividend changes show that market reaction is positive for both the dividend increases and dividend unchanged groups. These results are consistent with the signalling hypothesis in the sense that they convey positive information to the market. But it appears that the market is reluctant to penalise the dividend decreases group, otherwise our results would have been much stronger in support of the signalling hypothesis.

Many studies find that earnings and dividend announcements are interrelated; hence it is necessary to study the interaction effect between them and their impact on market prices. In our sample, earnings were announced prior to dividend announcements. It may well be possible that announced earnings changes influence market reactions to dividend announcements, especially when the earnings and dividend changes are in the opposite direction. Our results show that the announcement's impact on dividend for the earnings increase sample is greater than the earnings

Figure 1: Behaviour of CAR in response to dividend announcements given earnings increase (Figure 1(a)) and earnings decrease (Figure 1(b))

Figure 1(a)

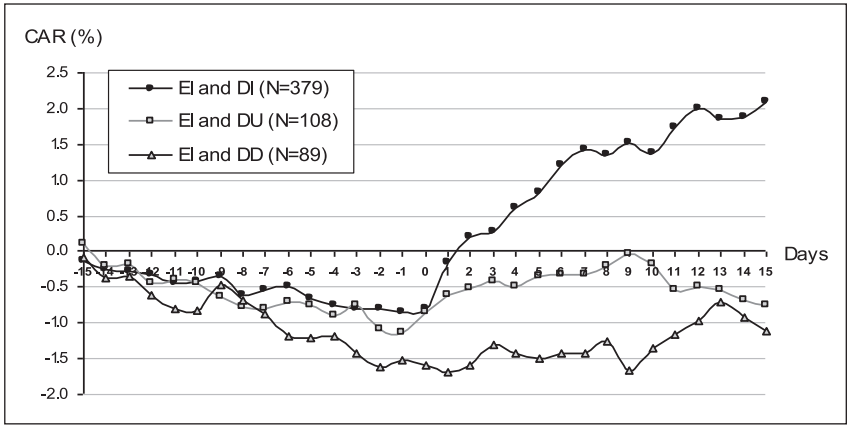
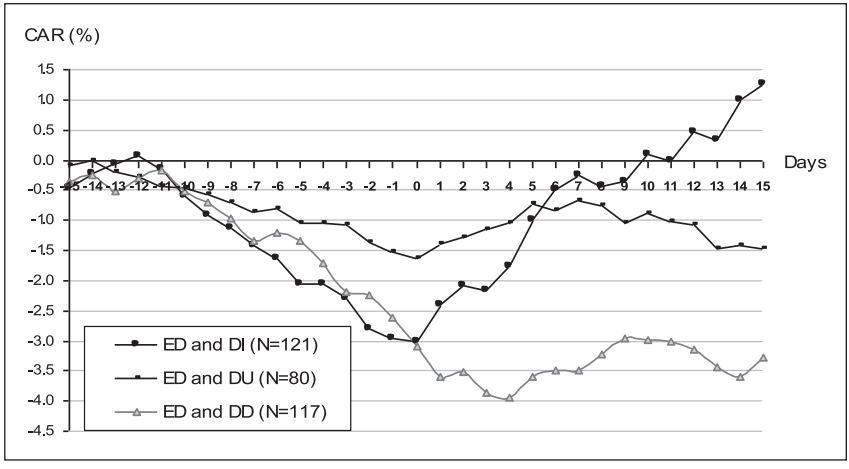


Figure 1(b)



decrease sample. Within the respective earnings increase and decrease samples, the dividend increases groups perform better than the respective dividend decreases groups: CAR(EIDI) > CAR(EIDD) and CAR(EDDI) > CAR(EDDD). Also, for all types of dividend changes, the earnings increase

group performs better than the earnings decrease group: CAR(EIDI) > CAR(EDDI), CAR(EIDU) > CAR(EDDU) and CAR(EIDD) > CAR(EDDD). We find that stock prices are influenced initially by the direction in earnings changes and then by the direction of dividend changes. Therefore, dividend announcements contain information beyond those already conveyed by earnings announcements. Based on our results, we conclude that both earnings and dividends exert their influence independently on market prices. Our results are similar to those reported by Aharony and Swary (1980) for dividend announcements in the U.S.; How et al. (1992) in Australia; and Lonie et al. (1996) in the UK.

There are two (2) unique features in our results that are relevant to market efficiency. Firstly, as previously noted, there is the delayed market reaction effect on the earnings announcement. Secondly, the behaviour of the CAR of the total sample is that of a wide V-shape. This behaviour is somewhat similar to the dividend increases (DI) sub-sample. If the market is seen as anticipating an impending dividend increase, and therefore impounding such belief in the share prices prior to the announcement, the price should be trending upwards. But our results show just the opposite. Additionally, if there is a full adjustment to the share prices as implied by the efficient market hypothesis, there should not be any significant changes after the announcement. But our results indicate significant positive abnormal returns in the post-announcement period. This result could be sample specific and there may be other forces not accounted for in our study that influence the behaviour of the abnormal returns.

As pointed out earlier, our results are consistent with the signalling hypothesis. Since firms are reluctant to raise dividends to levels that cannot be sustained by future earnings, an increase in dividend sends a signal to investors that the management is optimistic about future earnings and cash flows. A reduction in dividend has the opposite effect. This signalling effect (or information content) of dividends needs to be carefully considered by management when considering changes in dividend policy.

5. Conclusion

This study examines market reactions to dividend announcements in the Malaysian stock market over the period 2004 - 2008. A total of one thousand and eighty eight (1088) dividend announcements are examined, using event-study analysis on daily data with market model adjustments to obtain abnormal returns. A unique feature of our data, which is different from most of the other studies, is that earnings and dividends were not

announced together, but rather the contemporaneous earnings were announced at least fifteen (15) days before the dividend announcement. However, recognising that earnings may influence the market reaction to dividend announcements, the interaction effects between them are also analysed.

In general, our results are consistent with the signalling hypothesis. We find that the overall impact of dividend announcements is positive (taking the cumulative abnormal returns over the days -2 to +2). When divided by the type of dividend changes, we find that the dividend increase and dividend unchanged groups show positive abnormal returns while the dividend decrease group shows negative but insignificant abnormal returns. When analysed based on changes in earnings and dividends, we find that the sub-sample of earnings increase and dividend increase shows significant positive abnormal returns while the earnings decrease and dividend decrease sub-sample shows significant negative abnormal returns. The other sub-samples, notably those with opposite signs of earnings and dividend changes show insignificant abnormal returns.

Our results lead us to question the efficiency of the Malaysian stock market. Firstly, there is an apparent delayed market reaction to dividend announcements; and secondly, there are continuous downward and upward pre- and post-announcement trends of the CAR, particularly for the dividend increase sub-samples. These findings obviously have implications for both investors who invest in the Malaysian stock market and researchers who use models of return and risk, such as the Capital Asset Pricing Model (CAPM), that are based upon stringent assumptions regarding market efficiency.

References

Abdullah, N. H., Abdulrashid, R., & Ibrahim, Y. (2002). The effect of dividend announcements on stock returns for companies listed on the main board of the Kuala Lumpur Stock Exchange. *Malaysian Management Journal*, *6*(1&2), 81-98.

Aharony, J., & Swary, I. (1980). Quarterly dividend and earnings announcements and stockholders' return: An empirical analysis. *Journal of Finance*, *35*(1), 1-12.

Al-Yahyaee, K. H., Pham, T. M., & Walter, T. S. (2010). The information content of cash dividend announcements in a unique environment. *Journal of Banking and Finance*. (Forthcoming).

Ariff, M., & Finn, F. J. (1986). Announcement effects and market efficiency in a thin market: An empirical application to the Singapore equity market. *Asia Pacific Journal of Management, 6*(April), 243-267.

Ariff, M., & Johnson, L. (1989). Dividend policy in Singapore. *Proceedings of the Academy of International Business Meeting, Singapore.*

Asquith, P., & Mullins, D. W. (1986). Signaling with dividends, stock repurchases, and equity issues. *Financial Management*, *3*(15), 27-44.

Baker, H. K., Farrelly, G. E., & Edelman, R. B. (1985). A survey of management views on dividend policy. *Financial Management, 14*(Autumn), 78-84.

Baxt, M. L., Kester, G. W., & Skully, M. T. (1995). *A survey of management views on dividend policy*. Paper presented at the Seventh Annual Pacific-Basin Finance Conference, Manila, Philippines.

Bhattacharya, S. (1979). Imperfection information, dividend policy and 'the bird in hand' fallacy. *Bell Journal of Economics, 10*(1), 259-270.

Brown, P., Finn, F. J., & Hancock, P. (1977). Dividend changes, earnings reports and share prices: Australian findings. *Australian Journal of Management*, *2*(October), 127-147.

Capstaff, J., Klaeboe A., & Marshall, A. P. (2004). Share price reaction to dividend announcements: Empirical evidence on the signaling model from the Oslo stock exchange. *Multinational Finance Journal, 8*(1), 115-139.

Chateau, J-P.D. (1979). Dividend policy revisited: Within- and out-of-sample tests. *Journal of Business Finance and Accounting, 7*(3), 355-372.

Fama, E. F., & Babiak, H. (1968). Dividend policy: An empirical analysis. *Journal of the American Statistical Association, 63*(December), 1132-1161.

How, J. C. Y., Teo, C. S., & Izan, H. Y. (1992). The interaction effect of earnings and dividend announcements on share price: Australian evidence. *Managerial Finance, 18*, 22-33.

Hussin, B. M., Ahmad A. D., & Teoh, C. Y. (2010). Semi-strong form efficiency: Market reaction to dividend and earnings announcements in Malaysian Stock Exchange. *The IUP Journal of Applied Finance, 16*, 36-60.

Isa, M. (1992). Dividend policies and practices of listed Malaysian companies. *Securities Industry Review, 19*(April), 53-64.

Isa, M. (2008). Corporate finance practices in Malaysia: A survey analysis. *Capital Market Review, 16*(2), 53-73.

Isa, M., & Subramaniam, V. (1992). The effects of dividend and earnings announcements on stock prices in the Malaysian Stock Market. *Malaysian Journal of Economic Studies, 49*(June), 35-49.

Kane, A., Lee, Y. K., & Marcus, A. (1984). Earnings and dividend announcements: Is there a corroboration effect? *Journal of Finance, 39*(4), 1091-1099.

Kester, G. W., Chang, R. P., & Tsui, K. C. (1994). Executive views on corporate financial policy in the pacific-basin: Hong Kong and Singapore. *Financial Practice and Education, 4*(Spring/Summer), 117-127.

Kester, G. W., Chang, R. P., Echanis, E. S., & Soedigno, S. (1995-96). Dividends and capital structure policy in Indonesia and the Philippines: The views of executives of listed firms. *Philippine Management Review, 6*(1), 25-44.

Kester, G. W., & Isa, M. (1994). Capital structure policy in Malaysia: A comparative analysis. *Capital Markets Review, 2*(2), 1-16.

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (2000). Agency problems and dividend policies around the world. *Journal of Finance, 55*(1), 1-33.

Lintner, J. (1956). Distribution of income of corporations among dividends, retained earnings, and taxes. *American Economic Review, 47*(May), 97-113.

Lonie, A. A., Abeyratna, G., Power, D.M., & Sinclair, C. D. (1996). The stock market reaction to dividend announcements: A UK study of complex market signals. *Journal of Economic Studies, 23*(1), 32-52.

McCluskey, T., Burton, B. M., Power, D. M., & Sinclair, C. D. (2006). Evidence on the Irish stock market's reaction to dividend announcements. *Applied Financial Economics, 16*, 617-628.

Pang, Y. H., Leong, K. S., & Low, S. S. (1986). The effect of profit and dividend announcements on daily share prices in the Singapore stock exchange. *Singapore Accountant*, *2*(1), 24-28.

Partington, G. H. (1989). Variables influencing dividend policy in Australia: Survey results. *Journal of Business Finance and Accounting*, *16*(2), 165-182.

Pinegar, J. M., & Wilbricht, L. (1989). What managers think about capital structure theory: A survey. *Financial Management, 15*(Winter), 82-91.

Roy, S. P., & Cheung, J. K. (1985). Target payout and the association between dividends and share prices. *Accounting and Finance, 25*(2), 57-76.

Ryan, T. M. (1974). Dividend policy and market valuation in British industry. *Journal of Business Finance and Accounting, 1*(3), 57-76.

Shevlin, T. (1982). Australian corporate dividend policy: Empirical evidence. *Accounting and Finance, 22*(2), 1-22.

Urooj, S. F., & Zafar, N. (2008). Share price reaction to dividend announcements. *The Business Review, Cambridge*, *10*(1), 322-329.