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Dividend Announcements and Stock Market Reaction

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Abstract

This paper examines the effect of dividend Announcements on stock market reaction in Kuala Lumpur Stock Exchange. Using an event study approach, the evidence shows that dividend increase announcements are greeted positively by investors, while there are some evidences suggesting investors react negatively prior to dividend decrease announcements. The observations are then separated into the magnitude of dividend change and income change. This paper also separates the observations into government linked companies (GLCs) and non-GLCs.

Key Words: Dividend announcement; market reaction; KLSE

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1. Introduction

This paper examines the stock market reactions to announcements of dividend increases and decreases in Kuala Lumpur Stock Exchange. Prior researches in the developed market find that dividend changes and stock market reaction have a positive correlation. Dividend increase is considered as good news while dividend decreases as bad news. Two of the most discussed theories of dividend behavior are information signaling hypothesis and agency theory. The information-signaling hypothesis argues that since there is an information asymmetry between the management and shareholders, the only way for the management to signal future prospects is by changing the dividend payout. According to the agency problem perspective, when the management increases dividends, it reduces the possibility of the management misusing the firm's free cash flow. Empirical evidence strongly supports this argument and thus, confirms the theory.

The evidence in this study indicates that the stock market welcomes announcements of a dividend increase. The buy and hold abnormal return in 3 days surrounding the announcements is about 0.54 % and the return is even higher at 1.49% in 20 days period following the announcements. The positive reaction is similar after controlling the magnitude of the dividend changes. When the observations are further split into income-increase group and income-decrease group, the positive buy and hold abnormal return remain significant. On the dividend decrease announcements, the immediate buy and hold abnormal return shows the expected sign but not statistically significant. There are some evidences that suggest investors react negatively prior to the announcements. For observations that reduced the dividend level significantly than the previous year level, investors react negatively prior to the announcements.

The observations are then separated into the government-linked companies

(GLCs) and non-GLCs. The GLCs are chosen because it is an investment arm of the Malaysian government and their shares are actively traded in the stock market and the GLCs are also the favorite stock of foreign investors. Because GLCs have high growth potential and are monopolistic, studying them might give some insight into how the stock market reacts to dividend announcements.

2. Literature review

Dividend as the main method of distributing cash to shareholders has received considerable prior attention in the finance literature. Lintner (1956) suggests that firms prefer to smooth their dividend and reluctant to change their payout policy. The management is reluctant to cut dividend because it might send negative signal to investor and reluctant to increase payout for fear that it might not sustainable in the future. Following this, many empirical studies have been performed and concentrated on how the stock market reacts to the announcements. Almost all of the studies agree that dividend payout and stock market reaction move in the same direction¹. That means stock market react positively on dividend increase announcement and negatively on dividend decrease announcement. Two of the most widely discussed hypotheses on the stock market behavior on dividend announcement are the information signaling hypothesis and the free cash flow hypothesis.

Dividend signaling hypothesis developed by Bhattacharya (1979), Miller and Rock (1985) and John and Williams (1985) suggest that firms change their dividend payout to signal future performance. Since the management knows more about its firm than outsiders do, the only way for management to relay the information to the market is by changing their dividend payout pattern. Many empirical studies confirm the theory.

For example, Aharony and Swary (1980) find that the market still reacts positively to the announcements even after controlling the contemporaneous earnings announcements. Asquith and Mullins (1986) investigated the first dividend announcement in the corporate history or dividend initiation after 10-year interval and find that the stock market reacts stronger to this type of extreme dividend announcements. Healy and Palepu (1988) find similar evidence on the firms that initiate and omit their dividend. The magnitude of negative stock market reaction is more severe on dividend omission firms. Employing more samples size, Michaely et al. (1995) and Robin (1998) reach to the similar conclusions. Docking and Koch (2005) find that stock market reaction to dividend announcement is sensitive to the direction or volatility of the stock market.

Agency theory provides an alternative explanation of the market reaction to dividend announcements. Easterbrook (1984) and Jensen (1986) suggest that dividend act as discipline tool to the management. The distribution of free cash flow to shareholders reduces the agency conflict by making it less likely that the management will invest in an unprofitable business. According to this line of reasoning, the stock market reacts positively to announcements of a dividend increase. Alternatively, stock market reacts negatively to firms that reduce their dividend payout on the chance that the management might invest in an unprofitable business.

Both hypotheses imply that the stock market should react in the same direction as dividends payment. If the market is efficient, then the subsequent operating performance should improve. However, the evidence on the subsequent performance is mixed². These contradictory results suggest that the evidence so far on the post operating performance of dividend paying firms is inconclusive.

The evidence presented so far on stock market reactions and two hypotheses

described above were developed with reference to the U.S. market. A similar line of study was conducted on the European market. Lonie et al. (1996), McCluskey et al. (2006) and Travlos et al. (2001) look into the stock market reaction in the U.K., Irish and Cyprus market. They find similar evidence that stock markets react in the same direction as dividend changes and attribute the positive relationship to the information signaling hypothesis. In Japan, Fukuda (2000) finds that stock markets react positively to dividend increase and dividend initiation announcements. However the magnitude of the reaction is smaller than the studies of the developed market and the post operating performance of the firms contradicts the predictions of the theory. In contrast, Kato et al. (2002) find that the free cash flow hypothesis might explain the positive stock market reaction in Japan. Their results show that dividend increasing firms have the characteristics of the free cash flow hypothesis, such as higher earnings and lower debt ratio. The evidence from the free cash flow hypothesis, however, is opposite to what the theory predicts. They conclude that the reason for this is the close relationship between shareholders and management.

The dividend signaling hypothesis and the free cash flow hypothesis might be applicable to the developed market such as in the U.S. markets or Japanese market because of diverse relationship between investors and management. In other words, the corporate governance structures in the U.S. market allow management more freedom to run the business. For this reason, the stock market may be the best way to signal management's intentions about the future performance of their firms.

However, other markets have a different corporate governance structure. For example, there is a close relationship between shareholders and management prior to the real estate bubble in Japan³ and in other markets. This close relationship mitigates the agency problem and there should be other explanations for the positive stock market

reaction, which are not captured by the traditional information-signaling hypothesis and agency theory explanations. However, after the financial market and real estate bubbles, the Japanese government has introduced new regulations and amended the rules to make corporate governance more market-based and investor-oriented. For example, the gradual decline in cross-shareholding and the increase in participation by foreign investors have exacerbated the agency problem in recent years⁴. In the more recent study, Harada and Nguyen (2005) conclude that dividend-signaling hypothesis can explain well the situation in the Japanese market if the data used in the study is not aggregated across different economic situation.

In Malaysia, there is still a very close relationship between block shareholders and management. In fact, the Chief Executive Officer and the Chairman of the firms are normally the nominees of the block shareholders. GLCs exist because of the active privatization program and the high growth economic policy of the Malaysian government. GLCs' special characteristics allow them to control the strategic business that is monopolistic and that has the potential for higher investment growth.

3. Data and methodology

The initial observations in this study are all the firms that announced dividend increases or decreases from 2001 to 2005. All the firms were listed for at least two years. Firms that announce special dividend in the announcement year are excluded. This requirement is to ensure that all firms in the sample had the dividend and daily stock price data. Then the utilities, financial, closed end funds or REITS were excluded from the sample. The stock price data and the dividend data are available from Datastream, Thompson Financial Service. A firm is defined as having increased (or decreased) its dividend in a given year

if there was an annual dividend increase (or decrease) relative to the prior year.

The data on the government-linked companies are obtained from the Khazanah Nasional Malaysia, the investment holding firm of the Malaysian government. The final observations consist of 853 dividend increase announcements and 376 dividend decrease announcements⁵.

The announcement dates of the firms are obtained from the KLSE database. Day 0 is defined as the day on which the firm announces its final dividend and the same announcement appears in the KLSE website. To control for other events, the announcements are not contaminated with other firm specific information such as share repurchase and bonus issue at least five days surrounding the announcement day.

A standard event study method is used to analyze the stock market reactions on the dividend increase and dividend decrease announcements. The following market model is used to calculate the abnormal return: $R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_i$ where R_{it} and R_{mt} are, respectively, the return to stock i and the return on Kuala Lumpur Composite Index on day t . α_i and β_i are ordinary least square (OLS) estimates. The estimation period is from day -140 to day -21 relative to the announcement date. The mean buy and hold abnormal return is employed to measure the market reactions to the dividend announcements in different event windows.

4. Results

Table 1 shows the buy and hold abnormal return for the 40-days period surrounding dividend increase announcements for the observations of dividend increase firms in KLSE. The immediate event windows of 3-days surrounding the announcements for the entire sample shows the buy and hold abnormal return is positive 0.54% and statistically

significant. On the longer event windows 20 days after the announcements, the buy and hold abnormal return is 1.49% and significant. The evidence indicates that investors treat dividend announcements as good news and react positively to the news.

The buy and hold abnormal return on the event windows of the entire observations is then divided into 4 groups according to the magnitude of the dividend change. The buy and hold abnormal returns on the immediate event windows of 3-day surrounding the announcements across the groups are all positive. However, only the buy and hold abnormal return in Group 2 is statistically significant. While the evidence on the longer event windows are all positive and significant with the highest buy and hold abnormal return of 1.66% in Group 3.

Table 1: The buy and hold abnormal returns (%) for dividend increase firms in different event windows

Event windows	Entire observations	Groups ranked by the magnitude of dividend increase			
		1 (Low)	2	3	4 (High)
(-20,-1)	0.10	-0.74	0.65	0.59	-0.10
(-1,1)	0.54**	0.49	0.94*	0.37	0.35
(1,20)	1.49***	1.38***	1.55***	1.66***	1.37**
N	853				
<u>Income-increase group</u>					
(-20,-1)	-0.22	-1.57**	0.12	1.15**	-0.60
(-1,1)	0.57*	0.73	0.66	0.56	0.33
(1,20)	1.48***	1.78***	1.41**	1.50***	1.23*
N	471				
<u>Income-decrease group</u>					
(-20,-1)	0.50	0.53	0.62	0.14	0.73
(-1,1)	0.49	0.42	0.90	0.35	0.31
(1,20)	1.50***	0.78	2.01**	1.69**	1.52***
N	382				

*** Significant at 1% level

** Significant at 5% level

* Significant at 10% level

The observations are then separated into income increase-group and income-decrease group. For the income-increase group, the evidence is similar with the results of the whole dividend increase observations. The difference is that the buy and hold abnormal return prior to the announcements is negative and significant in Group 1. One may interpret the results as investors have the expectations that those firms may not increase the dividend substantially and overreact by selling the stock prior to the announcements. However, the post announcements buy and hold abnormal return in this group is 1.78% and it is the highest among the dividend change magnitude groups. For the income-decrease group, the buy and hold abnormal return is positive and significant in the post dividend announcements windows except in Group 1 which has the lowest magnitude of dividend change. The evidences on the stock market reactions across the various magnitude of dividend increase and between income-increase and income-decrease groups indicate that the stock market treat dividend increase announcements as good news and responded positively to the announcements.

Comparatively, the buy and hold abnormal return earned surrounding the event windows is not much different when compared to the evidence found in the developed markets. The abnormal returns earned on the dividend increase announcement in the other markets are about 1.34 % in U.S. (Grullon et al. 2002), 1.42 % in U.K. (Lonie et al. 1996) and about 0.85% in Japan (Fukuda 2000). These results indicate that the stock market reacts positively to announcements of dividend increases in KLSE, similar to other market evidence.

Table 2 presents the buy and hold abnormal return in different event windows for dividend decrease observations. The result shows that the sign on the magnitude of dividend decrease announcements across all groups in the immediate event windows

surrounding the announcements are negative as predicted. However, the result is not statistically significant. There is not enough data to reject the hypothesis that the buy and hold abnormal return is not equal to 0 in 3-day period surrounding the announcements. In Group 3 on the entire observations on dividend decrease announcements, the buy and hold abnormal return is positive 1.21% and significant. Further investigation to find the source of the positive reaction prior to the dividend decrease announcements reveal that positive buy and hold prior to the announcements belong to the income increase group.

The buy and hold abnormal return for the income-increase group is 1.52%, while the income-decrease group is 0.33%. However, the data is not sufficient to reject the hypothesis that the buy and hold abnormal return in the immediate event window is not equal to 0. The evidence on the income-increase group also reveals that the post announcements buy and hold abnormal return subsequent to the announcement is positive 0.89% and significant. One possible explanation for this scenario is that investor put more emphasize on the income increase than the negative aspect of dividend decrease announcements. There is a possibility that investors treat the income-increase group announce dividend decrease due to the reason that they may want to conserve cash for some future projects.

Table 2: The buy and hold abnormal returns (%) for dividend decrease firms in different event windows

Event windows	Entire observations	Groups ranked by the magnitude of dividend decrease change			
		1 (Low)	2	3	4 (High)
(-20,-1)	0.13	0.63	0.25	1.21*	-1.56**
(-1,1)	-0.34	-0.22	-0.14	-0.25	-0.74
(1,20)	0.44	-0.34	0.57	0.86	0.69
N	376				
<u>Income-increase group</u>					
(-20,-1)	0.29	0.58	-0.23	1.52	-0.70
(-1,1)	-0.51	0.01	-0.60	-0.31	-1.13
(1,20)	0.89*	0.48	0.76	0.93	1.38
N	169				
<u>Income-decrease group</u>					
(-20,-1)	0.01	0.23	0.75	0.33	-1.31
(-1,1)	-0.19	0.23	-0.22	-0.03	-0.77
(1,20)	0.08	-1.11	0.59	0.74	0.12
N	207				

** Significant at 5% level

* Significant at 10% level

For observations in Group 4 for the entire dividend decrease observations, the prior announcements buy and hold abnormal return is -1.56% and significant. This evidence suggests that investors have the ability to identify those firms that may reduce their dividend level significantly. This would not be surprised as listed firms in Malaysia are required to submit quarterly financial reports and these reports are available on KLSE website. The evidence suggests that investors anticipate which firms that may reduce the dividend level significantly and negatively react prior to the announcements. When the dividend decrease is announced, there is no element of surprise as the level of dividend reduction is anticipated earlier.

To investigate further, the sample is separated into GLCs and non-GLCs subsamples. As mentioned earlier, GLCs are only involved in a strategic business and are

inherently monopolistic. Furthermore, the GLCs are high-growth companies. The stock market reaction to dividend change announcements may indicate whether market treats the announcements differently than the non-GLCs.

Table 3 presents the buy and hold abnormal return of the GLCs firm in the different event windows surrounding the dividend increase announcements and in the different magnitude of dividend change group. The immediate event windows have a positive sign but not significant. For the entire period, the buy and hold abnormal return is positive 1.37%. When the dividend increase is controlled with the magnitude of the dividend changes, the buy and hold abnormal return become not significant in all event windows and in all dividend magnitudes changes groups. For the income-increase group, the buy and hold abnormal return is positive and statistically significant in the post announcement period in Group 3. While for the income-decrease group, the prior announcement buy and hold abnormal return is positive and significant. The highest dividend increase change yield the positive buy and hold abnormal return in the post announcements period, as shown in Group 4.

Table 3: The buy and hold abnormal returns (%) for dividend increase government-linked companies (GLCs) in different event windows

Event windows	Entire observations	Groups ranked by the magnitude of dividend increase change for GLC			
		1 (Low)	2	3	4 (High)
(-20,-1)	0.43	-0.10	-1.40	1.10	2.10
(-1,1)	0.96	1.29	0.48	0.82	1.25
(1,20)	1.37**	2.01	-0.48	2.20	1.74
N	100				
Income-increase group					
(-20,-1)	-0.97	-2.15	-2.64	-0.15	1.05
(-1,1)	1.05	1.65	0.93	1.21	0.42
(1,20)	1.31	2.43	-0.73	3.86*	-0.31
N	56				
Income-decrease group					
(-20,-1)	2.21*	2.24	0.55	2.98	3.07
(-1,1)	0.84	1.00	-0.21	-0.15	2.72
(1,20)	1.43	0.70	0.72	0.10	4.21*
N	44				

**Significant at 5% level

* Significant at 10% level

Table 4 shows the buy and hold abnormal return for the dividend decrease GLCs. For the entire observations, the buy and hold abnormal return prior to the announcements and in the highest magnitude of dividend decrease is -5.62% and significant. The evidence suggests that the stock market seem to anticipate the severity of dividend decrease level prior to the announcements for the GLCs. The evidence in the two largest dividend decrease magnitude that belongs to the income-decrease group further support this results. This evidence shows some support that the market treats severe dividend decrease announcements negatively. They negatively react ahead before the dividend decrease news is released. However, the post announcement buy and hold abnormal return in the income-increase group is 3.62% and significant. This evidence may suggest that investors do not punish the firms that decrease their dividend due to the reason that these firms may want to conserve cash for future projects.

Table 4: The buy and hold abnormal returns (%) for dividend decrease government-linked companies (GLCs) in different event windows

Event windows	Entire observations	Groups ranked by the magnitude of dividend decrease change for GLC			
		1 (Low)	2	3	4 (High)
(-20,-1)	-0.91	2.57	3.61	-3.74	-5.62**
(-1,1)	-0.13	-0.16	-0.44	0.11	-0.03
(1,20)	1.45	2.16	0.87	-0.29	2.91
N	41				
<u>Income increase group</u>					
(-20,-1)	0.66	1.93	2.12	0.64	-2.06
(-1,1)	-0.01	-0.87	-0.67	-0.14	1.65
(1,20)	3.62**	4.99	3.46	1.78	4.24
N	20				
<u>Income decrease group</u>					
(-20,-1)	-2.41	3.21	5.11	-8.12**	-8.58**
(-1,1)	-0.24	0.55	-0.21	0.35	-1.43
(1,20)	-0.61	-0.66	-1.72	-2.35	1.81
N	21				

**Significant at 5% level

Table 5 shows that for the non-GLCs, the buy and hold abnormal return is positive and significant in the immediate announcements windows and in the longer period subsequent to the announcements. In the magnitude of dividend changes groups, the buy and hold abnormal returns are significant in all the 20-day post announcement period. The evidence here supports the notion that stock market treat dividend increase announcements as good news and positively reacts the announcements. Group 1 of the income-increase group which has the lowest magnitude of dividend increase, the buy and hold abnormal return is negative and significant prior to the announcements. The evidence suggests that investors may not favor the lower magnitude of dividend increase initially. However, the buy and hold abnormal return continue to increase in the post announcement period. The overall conclusion from this dividend increase non-GLCs

group is that the post announcement return is positive and significant in most of the groups.

Table 5: The buy and hold abnormal returns (%) for dividend increase non-GLCs in different event windows

Event windows	Entire observations	Groups ranked by the magnitude of dividend increase change for non-GLC			
		1 (Low)	2	3	4 (High)
(-20,-1)	0.06	-0.83	1.11	0.33	-0.38
(-1,1)	0.48*	0.44	0.93	0.34	0.20
(1,20)	1.51***	1.27***	1.84***	1.64***	1.27**
N	753				
Income increase group					
(-20,-1)	-0.12	-1.57**	0.60	1.27*	-0.80
(-1,1)	0.51	0.54	0.75	0.51	0.23
(1,20)	1.50***	1.68**	1.79**	1.11	1.44*
N	415				
Income decrease group					
(-20,-1)	0.28	0.02	0.93	-0.18	0.37
(-1,1)	0.45	0.30	1.08	0.27	0.13
(1,20)	1.51***	0.77	2.20***	1.77**	1.30
N	338				

*** Significant at 1% level

** Significant at 5% level

* Significant at 10% level

Table 6: The buy and hold abnormal returns (%) for dividend decrease non-GLCs in different event windows

Event windows	Entire observations	Groups ranked by the magnitude of dividend decrease			
		1 (Low)	2	3	4 (High)
(-20,-1)	0.26	0.48	-0.06	1.54*	-0.95
(-1,1)	-0.36	-0.24	-0.11	-0.29	-0.82
(1,20)	0.32	-0.63	0.64	0.83	0.45
N	335				
Income increase group					
(-20,-1)	0.24	0.40	-0.60	1.69	-0.52
(-1,1)	-0.58	0.13	-0.65	-0.34	-1.43
(1,20)	0.52	-0.13	0.34	0.67	1.19
N	149				
Income decrease group					
(-20,-1)	0.28	-0.31	0.56	1.66	-0.74
(-1,1)	-0.19	0.18	-0.26	-0.11	-0.55
(1,20)	0.16	-1.42	1.34	0.86	-0.13
N	186				

*Significant at 10% level

Table 6 shows that for the entire observations, the buy and hold abnormal return is positive and significant prior to the dividend decrease announcements in Group 3. The evidence suggests that investors seem to ignore the potential dividend decrease announcements initially, when the announcement is made, they react negatively. However, the buy and hold abnormal return in the immediate event windows is not significant, although it has the expected sign.

5. Conclusions

The results in this paper indicate that, consistent with studies in the other markets, the dividend increase announcement is greeted positively by the stock market. The evidence suggests that the positive reaction is across different magnitude of the dividend increase change and across income change groups. There is also evidence that investors do not favor the small magnitude of dividend increase. However, the post announcement return shows that investors treat dividend increase announcements as good news and positively react to the announcements.

For the dividend decrease announcements, the immediate buy and hold abnormal returns have the negative sign but not statistically significant. The data is not sufficient to support the hypothesis that the buy and hold abnormal return for the dividend decrease is not equal to 0. However, there are some evidences that indicate that investors react negatively prior to the announcements, as indicated by the evidence of the highest magnitude of dividend decrease change in the entire observation of dividend decrease group and in the GLCs group.

One possible reason for lack of response to dividend decrease announcements in the immediate event windows is that investors in Malaysia anticipate earlier on firms that

may decrease their dividend significantly. The share price is negative prior to the announcements and this evidence indicates that investors react negatively before the dividend decreased is announced.

Notes:

¹ Pettit (1972) is among the earlier paper that finds stock market treats dividend increase announcements positively and negatively on dividend decrease announcement.

² For example, Grullon et al. (2005), Grullon and Michaely (2002), Benartzi et al. (1997), and DeAngelo et al.(1996) find the subsequent operating performance negatively related to the announcements, while Zhou and Ruland (2006), Arnott and Asness (2003), Nissim and Ziv (2001), Jagannathan et al. (2000) and Healy and Palepu (1988) conclude the signals are credible.

³ See Dewenter and Warther (1998), Lonie et al. (1996), McCluskey et al. (2006) and Travlos et al. (2001) that explain the relationship between shareholders-investors in their respective markets.

⁴ See Seki (2005), Yoshikawa and Phan (2005), Jackson and Moerke (2005) and Bebenroth and Tabuchi (2004).

⁵ These figures are obtained after the data are truncated at 5%.

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