The 2012 International (Spring) Conference on Asia Pacific Business Innovation and Technology Management

Impacts of Dividend Announcement on Stock Return

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Abstract

According to the dividend signalling theory, a company decides to announce its dividend payout policy to signal the market that the firm is now processing future prospects, which will result in changing its stock prices. This study focuses on the impact of dividend announcement of the 60 Thai companies in financial industry listed in the Stock Exchange of Thailand (SET) during the period 2005-2010. The study employs event study methodology in examining the effect of dividend announcement on the stock price surrounding forty days of announcement. In addition, the reaction of stock prices to the dividend announcement is also determined. Research result indicates that the stock prices move upward significantly after dividend announcements. Abnormal return (AR) and cumulative abnormal return (CAR) from the market model are statistically significantly revealed. The results confirm dividend signalling theory as the dividend announcements have significant impact on share prices.

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Keywords: Dividend Announcement; Abnormal returns; Event study; Market model.

1. Introduction

The dividend policy decision for a firm is very important thus the method that managers attain making dividend policy decisions and whether or not they follow an accurate set of guidelines or precise strategies to make these decisions will impact on the future performance of the firms. Financial managements’ goal is shareholders’ wealth maximization, which means maximizing the value of the company as measure by the price of common stock. This goal can be achieved by giving the shareholders a fair payment on their investments. However, the impact of dividend policy on shareholders wealth is still unsolved. The objective of the finance management should be to discover an optimal dividend policy that will increase value of the firm. It is often argued that the stock price tend to be reduce whenever there is a decrease in the dividend payments. The announcement of dividend increases makes abnormal positive returns, and announcement of dividend decreases generate abnormal negative returns. A fall in stock price happens because dividend payout is a signaling effect. Many researchers form dividend policy under the assumption of asymmetrically information between manager and investors. Dividend can signal information to investors about the firms’ future performance. The purpose of this paper is to observe whether stock price reacts to the announcement of dividend in The Stock Exchange of Thailand (SET). In the previous research present the stock price should react positively with announcement of the dividend payout increase and, conversely, react negatively with dividend payout decrease.
2. Literature Review

Several empirical researches on the relevance of the relationship between the dividends and stock prices, it is inconclusive (Kadir, 2011). Miller and Modigliani (1961) propose under unrealistic assumption, in a world of no taxes and transaction costs, dividends are irrelevant to investors. Gordon (1963) argues that shareholder prefer cash dividend than capital gain because they wish for less on the riskiness of the future dividend stream, and prefer a high dividend policy than a highly uncertain capital gain from doubtful future investment. Furthermore, the firm mostly makes decision on its dividend policy in attempting to have positive impact helping increasing the value of the firm. Easterbrook (1984), Jensen and Meckling (1976) and Black (1976) propose that dividends play a rule in decreasing agency conflict between manager and shareholder. When manager decision to pay out dividends for used to remove the free cash from the control and pay it off to shareholders. Therefore, positive changes in stock price occur as a result of it. On the base of signalling theory from a research by Lintner (1956), who found that dividend decision depend on the sustainability of firm earning over the long term. Bhattacharyya (1979) argues that dividend policy based on asymmetric information that managers have private information about the distributional support of the cash flow of project and they can send signal to the market by the choice of dividend policy. Miller and Rock (1985) present it is unwise for bad expectation firms to entrust high level dividends, and only good expectation firms can commit high level dividends without uncertain long-term operations. John and Williams (1987) predict that dividend changes signal permanent change in current earnings. Allen and Michaely (1995) regardless of the accurate information contained in the dividend signal, hypothesis to be valid. The supporter of signalling theories believe that a dividend policy used as a tool of putting the message of quality across has a lower cost than other alternatives. Consistent with their research results can give an important implication, which is unexpected dividend changes should be followed by stock price changes in the same direction. According to the background on the relevance of dividend and stock prices argument that stock prices incorporate all expected future dividends, thus one of the most significant corporate events, announcement of dividend interests’ academics in addition to investor to conduct event studies to examine the resulting stock price reaction.

3. Methodology and Sample

The study focuses to investigate the impact of dividend announcement by examining the reaction of stock price to dividend announcements using event study methodology to explore stock returns around the dividend announcement date. Event study studies the behaviour of firms’ stock price around corporate or economic events such as dividend announcements. In the academic accounting and finance field, event studies have been applied to a variety of firm specific and economies wide events. In most applications, the focus is the effect of an event on the price of a particular class of firms’ share. Some examples as earning announcement, mergers and acquisitions, issues of new equity or debt and dividend announcement which is the study in this paper. According to Brown and Warner (1985) an event study describes a technique of empirical financial research that permits an observer to evaluate the impact of a particular event on a stock price like dividend announcement and stock return.

Moreover, to study the impact of dividend announcements, 60 Thai companies in financial industry listed in The Stock Exchange of Thailand (SET) during the period 2005-2010 that have price sensitive information around the date of dividend announcements are taken into consideration for this research. The event date is the dividend announcement date, when the board of directors has proposed the dividend proposal, is defined as \( t = 0 \), the time window is the estimation period and event period so fix the time period over which the share prices of the firms are involved. The interest period is prior and after the event date to capture the price effect of announcements which occur after stock market closes on the announcement day (MacKinlay, 1997). This paper uses a time period of -20 to +20. For the estimated of return parameters, defines an estimation window period of 100 days. Estimate market model using data \( t = -120 \) to \( t = -21 \)(where \( t = 0 \) is dividend announcement date) and use OLS (Ordinary Least Square): Under the CAPM, the expected daily return \( E (R_{it}) \) for stock \( i \) on day \( t \) is calculated as follows:

\[
E (R_{it}) = \alpha_i + \beta_i R_{mt} + \epsilon_{it}
\]  \( (1) \)
where $\alpha_i$ and $\beta_i$ are ordinary least square (OLS) values estimated from estimation period, and $R_{mt}$ is the daily market return on day $t$. In analyzing the impact of the event “Dividend announcement” to use Event Study Technique suggested by Campbell and MacKinley (1997) that explore abnormal return of the stock in the event window. Abnormal returns ($AR_{it}$) are calculated as the difference between actual returns and the returns predicted by the market model:

$$AR_{it} = R_{it} - E(R_{it})$$  \hspace{1cm} (2)

After obtain abnormal return of each period of the stock then calculated the Cumulative abnormal returns (CAR) are calculated by aggregating daily ARs over time starting from before the day of dividend announcement to after the dividend announcement date. Cumulative average abnormal daily returns for an event period from $T_1$ to $T_2$ can compute as follows:

$$CAR_{it} = \sum_{t=T_1}^{T_2} AR_{it}$$  \hspace{1cm} (3)

Although, a researcher had found abnormal returns, it must be proved that the results are not gained by unexpectedly or by biased time series. A basic assumption that is the daily abnormal returns are identically and independently distributed. It is also assumed that over a long time stock prices have a tendency to approach the expectation value that mean value. The testing to compute by the t-statistic for the sample of N observations for each day ‘t’ in the event window. The study investigates the following hypotheses:

There is no Cumulative Abnormal Return or $\mu_{CAR} = 0$

If the resulting from an event is believed to affect a firm’s current and future earnings, its stock price changes as soon as the market studies about the event. To observe whether an event had any impact on the firm's values, pre event and post event abnormal returns (AR) and cumulative abnormal returns (CAR) are measured. Conclusions are described the test results of statistical significance of abnormal returns (AR) and cumulative abnormal returns (CAR).

4. Empirical study results

The findings in this study are obtained in terms of the event study methodology in which the abnormal return of company with a view to study the impact of dividend announcement. In order to investigate the occurrence of abnormal return (AR) and cumulative abnormal return (CAR) centric to dividend announcement date were obtained for sample stocks for the study period. The same were concentrated for 41 days event window comprising 20 days prior/post to dividend announcement, shown in table 1.

Table shows that the abnormal return around the dividend announcement. A positive incidence of abnormal return was noticed around 2 days post announcement. The t-test value on AR and cumulative abnormal returns (CAR) have a rising tendency in the post event period for stocks show that for the days during the event window they are significant at 1% level. The general conclusion describes from the analysis of the AR and CAR for dividend announcements is significant.

5. Conclusion

The results of this empirical study indicate that the stock prices move upward significantly after dividend announcements. Abnormal return (AR) and cumulative abnormal return (CAR) from the market model are statistically significantly revealed. The results confirm dividend signalling theory as the dividend announcements have significant impact on share prices.
Table 1  Average Abnormal Returns, Cumulative Average Abnormal Returns & t-values of stocks

| Days | Pre Announcement | Announcement Post Announcement |
|------|------------------|--------------------------------|
|      | AAR | t-test | CAAR | t-test | Days | AAR | t-test | CAAR | t-test |
| -20  | -0.003307 | -1.872127 | -0.003307 | -1.872127 | 0    | 0.04436 | 2.365294 | 0.002670 | 1.098371 |
| -19  | -0.002332 | -1.219972 | -0.005638 | -2.265467 | 1    | 0.08045 | 2.9583734 | 0.012481 | 4.084109*** |
| -18  | -0.005054 | -0.297770 | -0.002836 | -1.126160 | 2    | 0.01144 | 0.688008 | 0.009190 | 2.762816*** |
| -17  | -0.002126 | -1.174096 | -0.002631 | -1.057093 | 3    | 0.001527 | -0.922627 | -0.000382 | -0.165250 |
| -16  | -0.005775 | -0.382386 | -0.002702 | -1.274057 | 4    | 0.003486 | 2.073334 | 0.001960 | 0.847629 |
| -15  | -0.001217 | -0.768620 | -0.001793 | -0.827955 | 5    | -0.00208 | -0.090672 | 0.003278 | 1.182375 |
| -14  | 0.000199  | 0.131626 | -0.001019 | -0.475130 | 6    | 0.000327 | 0.149996 | 0.000119 | 0.041039 |
| -13  | 0.002295  | 1.364373 | 0.002494 | 1.095699 | 7    | -0.004527 | -1.796742 | -0.004000 | -1.321452 |
| -12  | 0.001458  | 0.856612 | 0.003733 | 1.718805 | 8    | -0.006114 | -2.470516 | -0.010441 | -3.016890 |
| -11  | 0.005444  | 2.420842 | 0.006882 | 2.353079 | 9    | -0.009734 | -4.100181 | -0.015848 | -4.992624 |
| -10  | 0.002516  | 1.199609 | 0.007060 | 2.593313 | 10   | 0.000034 | 0.020079 | 0.000969 | 3.317219 |
| -9   | -0.000031 | -0.018398 | 0.002485 | 1.039471 | 11   | 0.002489 | 1.362100 | 0.002524 | 0.962143 |
| -8   | -0.000250 | -0.155806 | -0.000281 | -0.119373 | 12   | -0.011774 | -1.686997 | 0.000715 | 0.285812 |
| -7   | -0.001637 | -1.055516 | -0.001866 | -0.876383 | 13   | 0.000418 | 0.205927 | -0.001356 | -0.498546 |
| -6   | 0.004035  | 1.873101 | 0.002598 | 0.844637 | 14   | 0.000320 | 0.183304 | 0.000738 | 0.280395 |
| -5   | 0.000722  | 0.280342 | 0.004757 | 1.338582 | 15   | 0.001710 | 1.162130 | 0.002029 | 0.875563 |
| -4   | 0.004841  | 1.821666 | 0.005563 | 1.403000 | 16   | -0.001949 | -0.362964 | -0.002593 | -0.483830 |
| -3   | 0.000257  | 0.154432 | 0.005998 | 1.595154 | 17   | -0.000984 | -0.601080 | -0.002933 | -0.533809 |
| -2   | -0.000308 | -0.186308 | -0.000501 | -0.023375 | 18   | 0.001063 | 0.748665 | 0.000079 | 0.009120 |
| -1   | -0.001766 | -1.099641 | -0.002074 | -0.876095 | 19   | 0.001550 | 1.129287 | 0.002613 | 1.276030 |
| 0    | 0.004436  | 2.365294 | 0.002670 | 1.098371 | 20   | 0.003634 | 2.126215 | 0.005183 | 2.392060 |

*** Significant at 1% level (p<.01)

Figure 1: AR for simultaneous dividend Announcement

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