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The Relative Announcement Effects of Ordinary Dividends, Special Dividends and Share Buybacks in New Zealand

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Abstract: This study first examines investor reactions to three types of cash disbursement announcement in the New Zealand context: increases in ordinary dividends, notification of special dividends, and the first disclosure of a share repurchase programme. Secondly it investigates whether the disbursement type is influenced by any company characteristic. Event study methodology is employed. The market model is used to create abnormal returns (ARs) on the dates of the announcements and these ARs are then subjected to T-tests and then a Kuskal-Wallis test to determine if they differ across the three announcement types. Given that dividends and earnings are announced simultaneously, a restricted least squares regression procedure is used to separate these two effects out. A multinomial logistic regression is then used to determine if any inherent company characteristic (size, leverage, liquidity risk, profitability level) influences a company’s choice of disbursement type. In the New Zealand context, investors react more dramatically to announced increases in ordinary dividends and special dividends than to announcements of share buybacks. With respect to the influence of company characteristics, share buybacks tend to be a disbursement preference for larger companies. The findings provide no support for any preference for buybacks as a substitute for dividends in the New Zealand context. This study breaks new ground in considering the relative attractiveness of the three disbursement types in New Zealand.

Keywords: Event Study, Ordinary Dividends, Special Dividends, Share Repurchases, Company Characteristics

JEL Classifications: G14, G35
Section I. Introduction

How do New Zealand investors view share repurchases versus dividend increases and special dividends? Given that the economic and regulatory environment in New Zealand is quite different from in the United States, are there firm-related factors that make a New Zealand firm choose one type of pay-out over another? This paper addresses these two questions, which are two small new shoots on the very large bush of research concerning dividend policy, and more recently, share repurchases.

Factors affecting dividend policies have been extensively studied since Lintner’s (1956) pioneering paper in the United States of America. This was mainly due to dividends being the main form of cash disbursement by firms prior to the 1970s, from which time they appeared to go into a decline. Fama and French (2001) recorded that fewer firms in the United States paid dividends from 1978 to 1999 and named the phenomenon the “dividend disappearing” puzzle. Denis and Osobov (2008) reported its occurrence in Canada, the United Kingdom of Great Britain, France, Germany and Japan. Given that some underlying factor must be driving the decline, Grullon and Michaely (2002) proposed a substitution hypothesis stating that share repurchases can be substituted for dividend payments and furnished supporting evidence. Skinner (2008) found that share repurchases were the predominant form of pay-outs in the United States, while Brown, Handley and O’Day (2015) provided further evidence of this for firms in Australia.

With respect to the dividend substitution hypothesis, the current study is largely exploratory. First, it explores the degree to which the share prices of New Zealand firms are affected by ordinary dividend, special dividend and share purchase announcements, where the effect is measured by abnormal returns (the signalling hypothesis). Second, it investigates whether the abnormal returns connected with increases in ordinary dividends, special dividends or share repurchases, are significantly different from one another; and if they are, by what magnitude. Therefore, in addition, the paper checks to see if it is possible to predict the choice of pay-out a firm chooses based on firm characteristics in a manner similar to Lie (2005).

The paper is organized as follows. Section II is the literature review. Section III describes the data used in this study. Section IV outlines the methodology used and Section V covers the results and provides some discussion. Section VI concludes this paper.
Section II. Literature Review

The concept of dividend signalling is that in an information-asymmetric market, managers possessing private information may use disclosure of firm earnings and dividends to release at least a flavour of this information to investors, who react to positive news by bidding the share price up (or if negative, down). The effects of announcements on share prices have been studied extensively since the 1960s. With respect to unexpected increases in dividends, Pettit (1972), Woolridge (1982), Wansley and Lane (1987), and Bessler and Nohel (1996) show that announcements are associated with positive abnormal returns in share prices. With respect to unexpected earnings increases, Ball and Brown (1968), Brown (1978), and Rendleman, Jones and Latané (1982) show that announcements are associated with abnormal returns in share prices. Recent studies show that the effect of dividend announcements is still relevant (Suwanna, 2012; and Balachandran, Krishnamurti, Theobald and Vidanapathirana, 2012). Similarly, the effect of earnings announcements is still relevant (Gyami-Yeboah, Ling and Naranjo, 2012; and Tama-Sweet, 2014).

With respect to the two announcement types in tandem, Kane, Lee and Marcus (1984), Easton and Sinclair (1989), Leftwich and Zmijewski (1994), Cheng and Leung (2006), Lonie, Abeyratna, Power and Sinclair (1996) and Anderson (2009) provide evidence of a significant interaction effect between announced changes in dividends and in earnings. Where the changes are in the same direction, a recorded abnormal return is likely to be amplified (positively for positive changes, negatively for negative changes). When they offset each other by having different signs, abnormal returns are likely to be insignificant. Kane, Lee and Marcus’ paper provided a methodology for separating the impacts of the two announcement types when announcements were made concurrently (or near to concurrently).

Another theory that underpins the announcement effect is that of Jensen’s (1986) free cash flows. This states that, because managers are likely to make use of excess cash not needed for reinvestment to pursue their own interests, disbursement of such cash flows to shareholders may be a better use of them and reduce the effect of agency problems between managers and shareholders.

There has been extensive research done on dividend policy more generally since the 1950s. This field of study largely began with Lintner (1956) who proposed that a company’s earnings may help determine changes to the value of dividends a firm is willing to pay out. A key finding
in Lintner’s study is that managers are unwilling to cut dividends and are only willing to increase them if the firm’s earnings can sustain this increase.

Modigliani and Miller (1961) introduced the dividend irrelevance theory that states that dividend policies do not affect a firm’s value in a presence of a perfect and frictionless market. But such a market is unrealistic in the real world. Wansley and Lane (1987) on the other hand furnish results closer to those of Lintner in finding that the financial characteristics of a firm such as liquidity ratios, valuation ratios, activity ratios, leverage ratios and size could be used to predict a firm’s decision to initiate dividend payments or not. Fama and French (2001) also provide evidence of a relationship between a firm’s characteristics and its dividend policy, where larger and more profitable firms are more likely to pay dividends and smaller firms less likely.

Banerjee, Gatchev and Spindt (2007) argue more directly against dividend irrelevance in the case when trading friction is present in markets. They show how liquidity affects dividend policy. In particular, in markets with trading friction, investors benefit from the payment of dividends as it enables them to meet liquidity requirements without having to achieve these by trading in the stock. The more liquid a common stock is, the less likely it becomes that the shareholder of the stock would receive a dividend. Griffin (2010) examines liquidity and dividend policy on an international level to determine what effect the liquidity of a firm’s stock has on the size of dividends paid out to stockholders. His study provides support for Banerjee et al’s findings, in that he finds an inverse relationship between a stock liquidity and the dividend amount paid. Kuo, Philip and Zhang (2013) show that risk and liquidity are an important determinants of the dividend policy for firms in the United States of America, United Kingdom, France and in other European markets.

Share repurchases have been of interest since the 1970s and increasingly more so since 1982 when US Securities Exchange Commission (SEC) relaxed share repurchase regulations by adopting Rule 10b-8, which led to an almost three-fold increase in share repurchases among firms in the United States of America within a year of its adoption (Grullon and Michaely, 2002).

Grullon and Michaely developed a substitution hypothesis to the effect that share repurchases can be substituted for dividend payments. They furnished evidence that firms in the United States of America were using funds to buy back shares that could have been used to increase dividends. Skinner (2008) provides supporting evidence for the substitution hypothesis,
concluding that share repurchases are the most dominant form of pay-out in the United States of America. In Australia, Coulton and Ruddock (2011) find a decline in the proportion of firms paying dividends since the relaxation of regulations governing share repurchases in 1998. Brown, Handley and O’Day (2015) provide further evidence for the substitution hypothesis in Australia and illustrate how a difference in the tax treatment of repurchases and dividends affects their substitutability.

With respect to announcement effects, a number of papers have documented the existence of abnormal returns upon the announcement of a share repurchase programme (Ikenberry, Lakonishok and Vermaelen, 1995; Grullon and Michaely, 2002 and 2004; Oswald and Young, 2004; and Andriosopoulos and Lasfer, 2015).

Special dividends or specially designated dividends (SDDs) are used when managers are unwilling to raise the level of regular dividends if uncertain the firm has the ability to maintain the new level of regular dividends. An announcement of special dividends affect a firm’s share price in a similar way to the announcement of a regular dividend in that an abnormal return is detected at the time of the announcement (Brickley, 1983; Howe, He and Kao, 1992; and Lie, 2000 and 2005).

Lie (2000) investigates the effect of announcements regarding special dividends, share repurchases and regular dividend increases. He finds that the disbursement of excess funds relating to the free cash flow hypothesis is applicable to share repurchases and large special dividends but not for regular dividend increases that tend to be much smaller in magnitude.

The other three studies show support for the information signalling hypothesis. Brickley compares the size of returns between announcements of special dividends and increases to regular dividends. He finds that, while disclosure of a special dividend may convey positive information to investors, it is associated with a lesser signalling impact than the information conveyed by an increase of a regular dividend. Howe et al used a Tobin’s Q-ratio to determine if a firm is overinvesting and finds that there is no significant difference between the excess return generated by announcements of share repurchases and those of special dividends for low-Q (overinvesting) and high-Q firms. He concludes that their results are more consistent with the information signalling hypothesis. Lie’s (2005) study examines the relationship between managers’ payout decisions and firm characteristics such as debt level, cash flow and the degree of certainty of future operational cash flows. He finds that managers do change the payout based on these factors. Firms with a high cash flow or low debt ratios...
increase payouts (either by increasing regular dividends or initiating a share repurchase program or a special dividend). He concludes that this implies managers do convey information about the firm through the announcements.

Most of the papers so far discussed pertain to the United States of America, where traditionally dividend and earnings announcements have been usually made separately, and where there is no dividend imputation system. Firms in New Zealand, the United Kingdom and Australia release dividend and earnings information simultaneously and are subject to a tax imputation credit system. Aside from this, a study by Anderson (2009) corroborates the findings for the effect of dividend and earnings announcements on the share prices of New Zealand firms and finds that the abnormal returns generated are significant.

This study examines the effects of ordinary dividend, special dividend and share purchase announcements on share prices for firms in New Zealand in terms of abnormal returns. Additionally, this paper investigates whether these abnormal returns are significantly different from one another and the size of the differences. The significance of these tests is that these items measure shareholder reaction to announcement information (the signalling hypothesis). However, it is also possible to examine the choices among these disbursement types that managers make. Therefore, this paper wishes to identify firm-specific measures that may help to predict the choice of payout a firm chooses in a manner similar to Lie (2005).

**Section III. Data**

The study employs a sample of 349 observations of final dividend and earnings announcements, which are released simultaneously in New Zealand. These are from 59 companies taken from the NZX Company Research database. These observations constitute what was available on the basis of the following minimum information requirements: the companies had to have their financial information present in the NZX Company Research database from January 2008 through December 2014. In addition, they must have paid a final dividend within the study period from January 2009 through December 2014. With respect to special dividends, the study makes use of 16 observations, which was the number of observations available on the basis of the same minimum information requirements. The study also employs 51 observations of initial announcements of share buyback programmes by listed New Zealand firms over the same span of time. The daily adjusted share price of the companies
was acquired from the NZX Company Research database while the adjusted closing price of the S&P/NZ ALL index was acquired from DataStream from January 2008 through January 2015.

The NZX Company Research database was used to obtain two valuation ratios:

1. Price to earnings ratio
2. Price to net tangible assets ratio

The purpose of the valuation ratios is to act as a proxy for a stock’s liquidity as this was found to have a significant relationship with a firm’s dividend policy by Wansley and Lane (1989), Banerjee et al (2007), Griffin (2010), Kuo et al (2013). Higher values of such ratios would imply that the stock is more liquid but these authors do note that these ratios are not perfect proxies for liquidity.

The NZX Company Research database was also used to gather financial profile ratios which encompassed five dimensions of the firm’s financial and operating performance:

1. Net profit margin for profitability,
2. Total assets turnover (TATO) for activity,
3. Debt ratio for gearing,
4. Current ratio for firm-level liquidity risk,
5. Total assets for firm size.

Announcements regarding ordinary dividends, share repurchase programmes and special dividends were also acquired from the NZX Company Research database.

**Section IV. Methodology**

The first empirical section of this paper utilizes a conventional event study methodology called the market model to examine the stock reaction, in terms of an abnormal return (AR) or a three-day cumulative abnormal return (CAR), to our announcement events of interest. (While CARs were employed in the study, for brevity only AR results are disclosed.) The daily share returns are calculated as follows:

\[
R_{jt} = \ln \left( \frac{P_{jt}}{P_{jt-1}} \right)
\]

(3)
Here, for security $j$ on day $t$, $R_{j,t}$ is the return on the security, $\ln$ is the natural logarithm, $P_{j,t}$ is the adjusted closing price, and $P_{t-1}$ is the adjusted closing price the previous day. Likewise, $R_{Mt}$ which is the return on the market portfolio, is calculated as:

$$R_{Mt} = \ln \left( \frac{P_{INDEX,t}}{P_{INDEX,t-1}} \right)$$  

(4)

$P_{INDEX,t}$ is the price of the market index on day $t$ and $P_{INDEX,t-1}$ is the price of the market index on day $t-1$. Ordinary least squares regression employing returns data on a 100-day parameter estimation period where $\alpha$ and $\beta$ are the parameters and $\varepsilon$ is the random error term:

$$R_{j,t} = \alpha + \beta R_{Mt} + \varepsilon$$  

(5)

These parameters are then used to forecast a return expectation, $E(R_{j,t})$ for each day within the study’s 21-day test period, which is defined as containing the day of the announcement plus the ten preceding and ten following days.

$$E(R_{j,t}) = \alpha + \beta R_{Mt}$$  

(6)

Daily abnormal returns ($AR_{j,t}$) are then calculated by subtracting this daily return expectation from the actual recorded return ($R_{j,t}$):

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

(7)

T-testing will be done on the set of ARs for each day of the test period to determine if there are any statistically significant divergences from an expected value of zero. If signalling occurs, then such a divergence will be detected on or tightly about day zero.

Next, two measures are employed to assess the correlation between abnormal returns and the type of disbursement being announced.

The first, restricted least squares (RLS), relates only to the announcement of ordinary dividends. This was pioneered by Kane et al (1984) to determine both the individual and joint impacts on abnormal returns of dividends and of earnings in joint dividend-and-earnings announcements. For this procedure, the dependent variable will be the AR at time zero ($AR_{j0}$), while the measures of change to dividends ($\Delta DPS$) and change to earnings ($\Delta EPS$) are the first-
order independent variables. A conventional percentage change to ordinary dividends for each company would be:

\[
\Delta DPS_{j,t} = \frac{DPS_{j,t} - DPS_{j,t-1}}{DPS_{j,t-1}}
\]  

(1)

Here, for a firm \( j \) in year \( t \), the change to dividends per share is \( \Delta DPS_{j,t} \), the dividend per share is \( DPS_{j,t} \), while the dividend per share from a year earlier carries the subscript \( t-1 \). However in cases where \( DPS_{j,t-1} \) takes on the value, zero, \( \Delta DPS_{j,t} \) becomes infinite and the associated announcement observation becomes unusable, precluding all observations of dividend initiations or resumptions. Since there are a number of initiations and resumptions available for inclusion, an alternative \( \Delta DPS \) measure is used:

\[
\Delta DPS_{j,t} = \frac{DPS_{j,t} - DPS_{j,t-1}}{P_{j,t-1}}
\]  

(2)

In the denominator, the adjusted closing share price for the firm on the day before the announcement is \( P_{j,t-1} \). This denominator allows for an increase of observations by 43 for final dividends and by 71 interim dividends (giving a total of 354 observations of each). The compilation of \( \Delta EPS \) is analogous to Equation 2.

The remaining independent variable is an interaction dummy representing dividend increases only (DI\(_{ONLY}\)). The coefficient of the intercept will capture the effect of other types of dividend change (no change or a decrease).

The RLS procedure is comprised of three regression runs, the first of which is the unrestricted run and two runs that are restricted. In the restricted runs, one type of explanatory variable is removed from the regression. The initial restricted run employs the first-order variables alone and the second, the interactive dummy alone.

\[
AR_{j0} = \alpha + \beta_1 \Delta DPS_j + \beta_2 \Delta EPS_j + \beta_3 DI_{ONLY} + \varepsilon
\]  

(8a)

\[
AR_{j0} = \alpha + \beta_1 \Delta DPS_j + \beta_2 \Delta EPS_j + \varepsilon
\]  

(8b)

\[
AR_{j0} = \alpha + \beta_1 DI_{ONLY} + \varepsilon
\]  

(8c)

\( ^1 \) DI\(_{ONLY}\) incorporates both DI-EI and DI-ED.
Our purpose is to isolate the individual impact of an increase in ordinary dividend from that of the earnings increase. This will be detected from the significance (or lack thereof) of the p-value associated with the independent variable, DIONLY in conjunction with the procedure’s interaction F-statistic. The interaction F-statistic measures the significance of the interaction dummy and is calculated from the residual sum of squares from Equation (8a) and the restricted Equation (8b) incorporating the first-order variables only.

The second methodology is the Kruskal-Wallis (KW) test to determine if significant differences exist in the ARs and CARs associated with increases in ordinary dividend versus those associated with share repurchases and those associated with special dividends.

The final objective of the paper is to find out whether company-specific variables can be used to identify a firm’s choice of payouts. Here we use a multinomial logistic regression procedure. The company characteristics employed in this procedure as independent variables are: current ratio, debt ratio, net profit after tax, price-to-earnings ratio, total assets and total assets turnover ratio.
Table 1 furnishes the results for abnormal returns on the three payout types generated at the time of announcement.

**Table 1: Significance of Abnormal Returns on the Three Payout Types**

<table>
<thead>
<tr>
<th>DPS-EPS Combination</th>
<th>Final Dividend &amp; full-year Earnings</th>
<th>Special Dividend</th>
<th>Share Repurchase</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Observations</td>
<td>121, 47, 16, 51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>0.0225, 0.0154, 0.0144, 0.0003</td>
<td>0.0190, 0.0176</td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.0401, 0.0361, 0.0190, 0.0176</td>
<td>0.0086, 0.2079</td>
<td></td>
</tr>
<tr>
<td>p-value</td>
<td>0.0000, 0.0054, 0.0086, 0.2079</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The dataset contains 349 observations of abnormal returns (ARs) relating to joint announcements of final dividends and full-year earnings, but only observations of dividend increases are reported in this table. Also, there are 16 special dividend announcements and 51 announcements of share repurchases. DI denotes dividend increase while EI and ED denote earnings increases and decreases; and DI-EI denotes an increase in both dividend and earnings. There are 168 dividend increases (121 with earnings increases and 47 with earnings decreases). A final dividend is defined as the dividend announced at the end of the company year that does not include any prior interim dividend.

From Table 1, the abnormal return associated with final dividend and earnings combination in which both increase is strongly significant ($p < 0.0000$). Even when announced earnings decrease, the rising dividend in the DI-ED combination, a strongly significant positive coefficient is still obtained (0.0154, $p = 0.0054$). The results are also strongly significant for special dividends ($p = 0.0086$), which is in keeping with Brickley (1983) and Lie (2005).

However, the ARs are insignificant for share repurchase announcements. This stands in strong contrast to American evidence presented by Grullon and Michaely (2002) who found that firms in the United States tended to make payouts in the form of share repurchases in place of dividends (this phenomenon becoming known as the substitution hypothesis). Additionally, Brown et al. (2015) showed a similar phenomenon happening in Australia. Possible reasons for this behaviour could either be that investors in New Zealand do not view share repurchases as highly as in the United States or Australia or that there is a lack of observations. There are fifty-one observations of share repurchase announcements by twenty firms.

In the next set of tests, we return to employing the full sample of 349 ordinary dividend announcement ARs to determine if the first-order variable $\Delta$DPS and an interaction dummy denoting increasing dividends each have a statistically significant association with ARs.
In Table 2, ΔDPS is strongly significant \((p < 0.0000)\) in both unrestricted and first restricted regressions, while the DIONLY interaction variable is strongly significant in the second restricted regression. These results are validated by the significance of the first order and interaction \(F\)-statistics \((p = 0.0183\) and 0.0072 respectively\) Collectively, these three instances provide reasonable evidence of a positive relationship between dividend-increase announcements and abnormal returns that is underpinned by the lack of significance of ΔEPS coefficients. We were able to provide a simple robustness check by re-running the RLS regression with a different single interaction term that captures the effect of rising earnings irrespective of movement in dividend, EIONLY. While ΔDPS were significant in the restricted and unrestricted procedures, ΔEPS was not and the interaction F-statistic was insignificant.

Having used restricted least squares regression to establish the existence of a link between announcements of rising ordinary dividends and announcement-day abnormal returns, we are in a position to compare abnormal returns across the three categories of equity disbursement announcement. This has been done with a Kruskal-Wallis test.
Table 3: Kruskal-Wallis Test on Abnormal Returns of the Three Announcement Types

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>KW Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rising Ordinary Dividend</td>
<td>0.0154</td>
<td>102.10</td>
</tr>
<tr>
<td>Share Repurchase</td>
<td>0.0031</td>
<td>73.18</td>
</tr>
<tr>
<td>Special Dividend</td>
<td>0.0144</td>
<td>105.00</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>10.79 **</td>
<td></td>
</tr>
<tr>
<td>Degrees of Freedom</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

** indicates significance at the 1 percent level of a Type I error

In Table 3, the Kruskal-Wallis test shows that there is a significant difference in abnormal returns between final ordinary dividend increases, share repurchases and special dividend announcements. Interestingly, the rank order, which is based on medians, differs from the size-order of the means. However, in terms of mean abnormal returns, the order of magnitude would be ordinary dividend announcements followed by special dividend announcements followed last by share repurchase announcements. In terms of the median-based Kruskal-Wallis rankings shown in the table, special dividends outrank ordinary dividends.

The next part of the analysis employs a multinomial logistic regression procedure to test if company-specific variables can provide any insights to explain this phenomenon similar to Lie (2005). This is reported in Table 4:
In Table 4, the reference category is the choice to issue an increased ordinary dividend. Hence the coefficients of the two columns may be read as measures of increase in the firm characteristic that is associated with the shift from payment of a higher ordinary dividend to that of a special dividend, or a move to a share buyback programme. Only two variables achieve significance. These are total assets and the total asset turnover ratio (sales/total assets). These two characteristics imply that firms that use alternatives to ordinary dividend increases tend to be larger and more efficient in their asset usage. Given that total assets is an alternative measure of size, while Lie’s (2005) market to book ratio is also a reasonable proxy for size, the results from this procedure provide some support for Lie.

<table>
<thead>
<tr>
<th>Levels of Dependent Variable</th>
<th>Choice to issue special dividend</th>
<th>Choice to instigate a share buyback</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Increases in final ordinary dividends (Reference category)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Special dividends</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Share repurchases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference category versus:</th>
<th>Coefficient</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.1259 *</td>
<td>1.7313</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>0.8436</td>
<td>0.9952</td>
</tr>
<tr>
<td>Debt Ratio</td>
<td>2.9214</td>
<td>0.6277</td>
</tr>
<tr>
<td>Net Profit After Tax</td>
<td>1.0000</td>
<td>0.9999</td>
</tr>
<tr>
<td>Price-to-Earnings Ratio</td>
<td>0.9888</td>
<td>0.9879</td>
</tr>
<tr>
<td>Total Assets</td>
<td>1.0000 **</td>
<td>1.0000 **</td>
</tr>
<tr>
<td>Total Assets Turnover Ratio</td>
<td>2.2481 *</td>
<td>2.0701 *</td>
</tr>
</tbody>
</table>

N = 188
Wald = 38.740 **
Pseudo R² = 0.104
Log pseudolikelihood = -142.697

For this multinomial logistic regression, the reference level of the dependent variable is that of an increase in ordinary dividends. Hence the other two categories are measured against this one. A positive coefficient on a variable in the first column means that a firm theoretically moving from an ordinary dividend increase to a a special dividend is likely to have an increased value for that company characteristic variable. The data comprises 16 special dividend observations, 51 share repurchase observations and 121 DI-EI observations. The 47 DI-ED observations have been dropped from this procedure on the ground that the earnings component might have a confounding impact. * denotes significance at the 5 percent level and ** denotes significance at the 1 percent level.
Section VI. Discussion

In this study, we examine the effect of earnings and the different types of cash payout announcements of New Zealand firms to their share prices as measured by one-day abnormal returns. The results from the event study show that investors react significantly to ordinary dividends and special dividend announcements but not towards share repurchases. One implication of this is that they provide support for the information signalling hypothesis rather than the free cash flow hypothesis.

The result however is surprising for share repurchases as firms in the United Kingdom and Australia have shown that the effects of such announcements were significant and have shown signs in support of the substitution hypothesis in that dividends are being replaced by share repurchases (Brown et al 2015).

The paper then determined there is a demonstrable association between an increase in ordinary dividends and abnormal returns when the impact of simultaneous announcements of earnings is held constant. This is in agreement with Kane et al (1984) and Lonie et al (1996).

Third, the significance of relative magnitude differences in abnormal returns in response to the three types of cash payout has been analysed with a Kruskal-Wallis test. The test found sets of abnormal returns to be distinct from each other, with share repurchase instigations having the least impact on the marginal investor. Special dividends had a higher median, but lower mean abnormal return magnitude than ordinary dividend increases.

Lastly, company variables are tested to see if they can be used to predict a firm’s choice of cash payout. The Size proxied by total assets and the total asset turnover ratio (TATO) are found to be significant in being able to do so.

There are a couple of possible explanations for the differences in our results to the literature regarding share repurchases and special dividends. For the case of special dividends, we believe that the small number of available observations may be due to the requirement in the study that all companies in the sample must furnish an ordinary final dividend at least once in the study period. There are sixteen observations of special dividend announcements from thirteen firms.

However, for the results pertaining to share repurchases, it could be that only large firms in New Zealand view share repurchases as a viable form of cash disbursement and that investors place a higher emphasis on the information content from increases in dividends. Alternatively,
it could also be the relatively low number of observations in the data set (due to the same ordinary dividend requirement mentioned above for special dividends). Perhaps a separate study should be conducted to focus only on share repurchases for firms in New Zealand to provide more insight on this matter. Future research should also consider having less stringent requirements on the dataset to allow for more observations of share repurchases or special dividends. Doing so may allow for a better testing on whether the company-specific variables can be used to predict the choice of a firm’s payout.

Furthermore, considering that none of the prior papers have used a multinomial logistic regression, this procedure should be used as a tool for future research on dividends, share repurchases and special dividends.

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