# DIVIDEND TAX, DIVIDEND PAYMENTS AND SHARE VALUES: A SOUTH AFRICAN PERSPECTIVE

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**Abstract**

The study investigates the impact of changes in dividend taxes on dividend payment policies and in turn, the impact of dividend payments on share prices. An event study approach is used to analyse the share price movements before, on and after dividend announcement dates. The results for companies of which the dividend paid resulted in an increase in the dividend payout ratio were that share prices responded positively to the announcement on the announcement date and for the few days thereafter. The findings again underline the paradoxical nature of dividends and although a better understanding of the impact of dividends on South African companies was gained, the dividend puzzle remains largely unsolved.

**Keywords:** Agency Theory, Clientele Effect, Dividend Puzzle, Dividend Tax (DT), Secondary Tax on Companies (STC), Shareholder Value, Signalling Theory

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## 1. Introduction

Recent dividend tax reforms in South Africa and internationally have again intensified the focus on the impact of taxation on dividend payment policies and in turn, the effect of dividends on share prices. The picture that emerges after a review of the literature in the next section is far from coherent since there are numerous theories on the importance of dividends, some of which are directly opposed to each other. Among many other influencing factors, a discrepancy between the rate of tax on dividends and the capital gains tax rate has a direct bearing on the preference or the lack thereof on the part of shareholders for cash dividends and therefore, dividend announcements may have an impact on share prices that is not entirely predictable.

If the current view that the main financial aim of a business enterprise should be to enhance and maximize shareholder wealth is still valid, then it stands to reason that dividend policies should be structured towards the fulfilment of this aim, all other things being equal. This study investigates the existing theories regarding the payment of cash dividends and then proceeds with empirical tests based on South African companies listed on the JSE. An event study approach was used to analyse the impact of dividend announcements on the share prices of a sample of companies.

Based on the literature, the expectation stated as the hypothesis to be tested, was that announcements of dividend resulting in increased payout ratios would result in a decrease in the value of the shares and that announcements of dividends resulting in decreases in payout ratios would cause an increase in the value of the shares. The findings were that in general, the share prices of South African companies reacted positively to dividend announcements irrespective of whether the announcement resulted in an increase or decrease of the company's payout ratio. Contrary to the expectation, for companies that announced dividends resulting in increases in payout ratios, share prices reacted positively on and after the announcement date. For companies that announced dividends resulting in decreases in payout ratios, share prices also reacted positively around the announcement date. This latter finding is in line with what was anticipated.

## 2. Literature Review

### *2.1 A global perspective of recent dividend tax reforms and related research*

On 1 April 2012 Secondary Tax on Companies (STC) of 10%, levied on South African companies, was replaced with a Dividend Tax (DT) of 15% levied on beneficial shareholders. In the greater global context the South African dividend tax adjustment did not occur in isolation; on the contrary, it follows in the wake of international capital market taxation reforms. These changes in taxation legislation sparked renewed interest in the debate regarding the impact of dividend taxes. Wang and Guo (2011:199) reported that a number of countries focused on dividend tax reforms in recent years. However, the direction of the adjustments was contradictory as some countries like Germany and Britain increased their dividend tax rate while others like the United States and China have reduced it.

Alstadsaeter and Fjaerli (2009:596) conducted research based on Norwegian companies for the period 1999 to 2006. They found that after the introduction of a dividend tax in 2006, there was a sharp drop in dividends accompanied by a dramatic decrease in debt ratios. The dividend payments and capital structure of companies proved to be very sensitive to the changes in the taxation of the shareholders.

Wang and Guo (2011:208) researched the impact of a dividend tax cut in 2005 in China and found that it resulted in companies increasing their dividends. In a study based on Indian listed companies, Ganguli (2011:132) asserted that dividend tax adjustments provided unique opportunities to investigate share price reaction to changes in dividend payouts. His research focused on the introduction of a dividend tax in India and found that, contrary to expectations, increased dividend payments lead to increased share values in spite of the fact that higher dividends lead to higher dividend tax.

Jabbour and Liu (2004:73) studied the impact of the 2003 divided tax cuts in the United States of America (USA) on dividend policy and found that the more profitable the company, the better the chance that a higher dividend would be paid due to a lower dividend tax rate. Brown, Lliang and Weisbenner (2007:1963) also investigated the (temporary) 2003 dividend tax cut in the USA and found evidence that companies were much more likely to increase dividends after the tax cut if the top executives owned a larger proportion of the issued shares.

Amromin, Harrison and Sharpe (2008:625) tested the hypothesis that the dividend tax cut in May 2003 in the USA would boost share prices and thereby lower the cost of capital. Their findings presented little evidence that the news of the tax cut had an impact on share values in the share market as a whole. They did find positive abnormal returns for high-dividend yield shares, while low-dividend shares actually decreased in value.

In the American Tax Foundation Special Report (2010), it is documented that before the dividend tax reduction of 2003, double taxation and high tax percentages made the USA unattractive as an investment destination. It was argued that the double taxation discouraged capital formation, encouraged debt financing and discouraged corporate investment and dividend payouts. The top individual tax rate on dividends and on capital gains was dropped to 15% and this move brought some welcome relief by reducing the double tax on corporate profits. However, the lowered rates brought only temporary respite because they were set to expire at the end of 2010 with the capital gains tax rate increasing to 20% and the rate on dividends increasing to 39.6%.

### *2.2 Miller and Modigliani and the clientele effect*

In order to get a better grasp of the link between dividend tax, dividend policy and share values, it is necessary to go back to 1961 when Miller and Modigliani (1961) postulated that under perfect capital market conditions with no transaction costs and no taxes, dividends would be irrelevant and would not affect the value of a company. Unfortunately, a world with no taxes does not exist and shareholders receiving dividends are required to pay tax on the dividend income in most countries.

The alternative to paying a dividend is the re-investment of profits which theoretically is capitalised into the share price, resulting in taxable capital gains when the shares are sold. As a secondary, but related comment it is noted that dividend taxes and capital gains tax both constitute double taxation because profits are already taxed at normal corporate tax rates and then taxed again as a dividend tax upon distribution or as a capital gain upon realisation of the shares. Consequently, it is evident that the tax rates and unique requirements of countries regarding the taxation of dividends and capital gains are very relevant to the dividend payment decision.

Miller and Modigliani (1961) also came up with the clientele effect which assumes each company has a body of shareholders which finds its dividend policy optimal. This means that a change in the dividend policy might cause a change in clientele and this could be costly. Elton and Gruber (1970:73) provided evidence, based on a sample of American companies, supporting Miller and Modigliani's clientele effect and indicated that a change in dividend policy could cause a costly change in shareholder wealth. They also found that shareholders in higher tax brackets show a preference for capital gains over dividend income, compared to those in lower tax brackets who do not.

Elton and Gruber (1970) also found that, in line with the expectation that dividend taxes make dividends worth less than capital gains, share prices dropped by less than the full amount of the dividend on ex-dividend days. According to Eades, Hess and Kim (1984) dividend tax is not the sole cause of this anomaly found by Elton and Gruber (1970). Eades et al. (1984) provided evidence that the ex-dividend day price decrease for share dividends (called scrip dividends in South Africa and stock dividends in the USA) was also less than the amount of the dividend in spite of the fact that the receipt of share dividends are tax-exempt in the hands of the shareholders.

### *2.3 The link between dividend tax, dividend payouts and shareholder value*

Fama and French (1998:841) started their study with the hypothesis that value is negatively related to dividends and positively related to debt. Their results showed the opposite, namely that there is a positive relation between dividends and company value and that dividends apparently contain information about profitability that is not conveyed by reported earnings or other accounting indicators.

Harris and Kemsley (1999:275) and Harris, Hubbard and Kemsley (2001:569) used a sample of American companies for the period 1975 to 1994 and studied the impact of dividend taxes on company valuation. They stated the premise that in the USA retained earnings are subject to dividend tax when distributed versus contributed equity capital that can be paid back to shareholders without attracting tax, as an initial point of reference. Furthermore, it was inferred that retained earnings should be valued (lower) on an after-tax basis; compared to contributed capital, which should be valued on a before-tax basis. The conclusions were that overall company value and the relative valuation weights investors attribute to retained earnings, contributed equity and current earnings were all affected significantly by dividend taxes.

In a study based on American companies over the period 1989 to 1998, Dhaliwal, Li and Trezevant (2003:176) used the term 'tax penalty' to refer to the scenario where dividend income in the hands of individual taxpayers is taxed at a higher effective rate than capital gains income. Their results indicated that a dividend tax penalty is incorporated into the return of a company's ordinary shares and that the company's dividend policy and ownership structure have an impact on the size of the dividend tax penalty.

Yang and Chang (2004:55) indicated how the difference in the way that income from dividends, interest and capital gains are taxed in the hands of the recipient presents opportunities for shareholders and company management to devise permissible strategies to maximise tax savings by shifting gains and losses between them. By implication, these strategies impact the dividend policies of companies and affirm the dynamic interaction between dividend taxes, capital gains taxes, dividend payouts, capital structure and company value.

The literature reviewed so far seem to indicate that, internationally, companies persist with dividend payments in spite of strong arguments that the re-investment of profits would be preferable from most investors' point of view and therefore enhances shareholder value. Further investigation into this phenomenon brought to light the roles played by the concept called 'the dividend puzzle', signalling theory and the agency theory of dividends, which are discussed in the ensuing section.

### *2.4 Dividend puzzle, signalling theory and agency theory*

Black (1976) postulated that the dividend puzzle and signalling theory present two counter-arguments. The dividend puzzle theory states that if dividends are taxed at a higher rate in the hands of the shareholders than the tax on capital gains, companies should limit or not pay the dividend because it would be preferable for shareholders to rather make their own dividends by selling shares when it suits them. The benefits of this approach would be paying less tax and having the flexibility to choose the time when shares are sold to create the home-made dividend.

Signalling theory, on the other hand, argues that in spite of the higher tax cost when the dividend is paid, the dividend provides valuable information about the company's future prospects, thereby removing information asymmetry between managers and shareholders. In a follow-up study Black (1986) stated that the positive correlation of share prices with dividends simply meant that 'investors care about dividends directly'.

John and Williams (1985) and Bernheim and Wantz (1995) produced evidence in support of signalling theory by concluding that it is the higher tax on dividends which makes dividends informative about the companies' future values. Amihud and Murgia (1997) investigated the validity of the signalling models applied to German companies. Unlike the USA, dividends of German companies were actually taxed at a lower rate than capital gains at the time and the study set out to determine whether dividends still conveyed information about future value under these conditions. The findings were that dividend changes in Germany impacted share prices in the same way as in the USA, indicating that dividend payments contain information that can be explained by factors other than the dividend tax 'premium'.

Roseff (1982) and Jensen (1986) interpreted dividends in the context of agency theory which denotes managers as agents of shareholders and shareholders as the principals in a relationship with conflicting interests. The cash pay-out of dividends reduces the power of managers by decreasing the free

cash flow resources under their control. When new capital needs to be raised to finance investments, it is more likely that management will be subjected to the monitoring and discipline of the lenders and the capital market. The dividend paid also serves as a deterrent for extravagant expenses and empire-building by managers. Dividend payments therefore reduce agency costs.

Pinkowitz, Stultz and Williamson (2006) undertook a study on the agency theory implications of dividends and corporate governance. They included companies from different countries in the study. The results suggested that the relationship between dividends and company value is weaker in countries with better corporate governance and therefore support the agency theory.

### *2.5 Dividend tax and dividend policy in South Africa*

Before 1993, dividends received in South Africa were taxed in the hands of individual taxpayers and not at company level. Companies receiving dividends were exempt from this dividend tax. According to Williams (1997:83) individual taxpayers were allowed a deduction for dividends received ranging from 33.3% to 100% of the dividend, depending on their other taxable income. Just before the replacement of this personal dividend tax regime with STC in 1993, most taxpayers had to include two thirds of the dividend received as part of the total taxable income to be taxed at personal marginal tax rates.

In 1993, STC was introduced at a rate of 15% levied against the company paying the dividend and not the shareholder receiving it. There was a simultaneous drop in the normal corporate tax rate at the time from 48% to 40%. Koch, Schoeman and Van Tonder (2005:194) and De Wet and Das (2008) commented that the motivation for the dramatic adjustment was 'to encourage investment opportunities' and to boost job creation along with increased capital investment, which would be effected, according to SAICA (2009:12), by encouraging companies to adopt modest dividend distribution policies. Joseph (2012:17) noted that the introduction of STC was meant to ensure continuing investment in the South African market, despite the fact that, at the time, the economy was unstable due to political changes.

Ellis (2008) researched the impact of the introduction of STC on dividend payments of South African companies and found that there was no negative effect as the dividends of companies in the sample just continued to increase. Correia. Flynn, Wormald and Uliana (2007:16-21), however, indicated that the composition of dividends changed dramatically since 1993 as companies used substantially greater amounts of scrip dividends (shares) instead of cash dividends to limit the liability for STC. Following the introduction of STC in 1993, the STC rate was raised and reduced on different occasions while the corporate tax rate generally declined. The STC rate was reduced from 12.5% to 10% on 1 October 2007 as part of the first phase of the Dividend Tax implementation process (Joseph, 2012:17) and the corporate tax rate at this time was (and still is) 28%.

The introduction of the new Dividends Tax (DT) had already been announced by the then Minister of Finance, Trevor Manuel, in his Budget Speech of 2007 (Passmore, 2012:36), although STC remained in place until 31 March 2012. The minister indicated that the secondary tax system (STC) which allows tax to be collected from a few thousand companies instead of millions of shareholders, would be replaced in order to enhance the transparency and equity of the tax system (Manuel, 2007).

The main objectives, supplied by the South African Revenue Service (SARS, 2012), for the change to the new dividend tax withholding system, were to align South Africa with the international norm of taxing the recipient of a dividend and not the company that issues the dividend, and to make South Africa a more attractive international investment destination, as previously foreign investors had viewed South Africa as having a higher corporate tax rate than other international investment areas. Troskie (2008/9:35) believes that the new dividend withholding tax system will make the South African company tax rate more competitive, and that it should reduce uncertainty for foreign investors, as the system will be familiar to them, which, according to Mazansky (2009) will hopefully make South Africa a more attractive foreign investment destination.

Initially, the Dividend Tax was to be phased in at a 10% rate (similar to the existing STC rate), with the effective date for the completion of the conversion to the new tax system set for the end of 2008. However, the implementation thereof was delayed, according to Mollagee (2013:21) and Fin24 (2010), mainly due to the renegotiation of international double tax treaties.

According to SAICA (2009: 12) the second phase of the STC reform entails the replacement of STC with a tax that is levied at a shareholder level. In his 2012 Budget Speech the current Minister of Finance, Pravin Gordhan, announced that the Dividend Tax would take effect as of 1 April 2012, but at a rate of 15%, and not 10% as had been previously announced (Gordhan, 2012).

The reasons for the increase in the rate appear unclear, as the minister merely mentioned 'equity reasons'. Different interpretations were therefore given to his statement by analysts, including that the increase would be used to compensate SARS for the substantial 'losses' it would suffer as a result of certain groups being exempt from dividend tax (Wealthwisemag, 2012) and that the increase was an attempt to address the apparent mismatch in the way

that income from interest, dividends and capital gains are taxed (Planting, 2012).

The beneficial shareholders that will be exempt from dividend tax include all South African companies, public benefit organisations, all tiers of government and semi-government institutions, pension, provident, retirement annuity and other similar funds, environmental rehabilitation trusts, medical aid schemes and the first R200 000 of the total dividend paid to shareholders in micro-businesses during a particular year of assessment (Joseph, 2012:17 and Troskie, 2008/9:35).

The new Dividend Tax system would initially have allowed, for a period of five years, the offsetting of STC credits against dividends paid, provided that the company paying the dividend had notified the recipient of the dividends of the amount by which the dividends reduced the STC credit of said company (Ellary, 2012:34). However, the minister of Finance in his 2012 budget speech also reduced the initial five year transition period in respect of STC credits to three years, due to the delayed implementation of the Dividends Tax regime (McFadden, 2012) and as the proposed increase of the rate from 10% to 15% meant that any available STC credit was likely to be used up more quickly (Planting, 2012).

The offsetting of an STC credit against possible dividends would mean that the dividend in question would not be taxed during that particular year, which would increase dividends in the hands of investors during this three year period. It furthermore implies that for as long as the STC credits last, companies are more likely to pay out more substantial dividends to investors during this time.

It should also be noted that Passmore (2012:36) and Mollagee (2013:20) addressed the fact that the new Dividend Tax will add a significant administrative burden on the companies which have to withhold the dividend taxes. This could potentially act as a disincentive to paying dividends. To this extent, Brandt (2012) advises companies to consider amending their dividend policies in order to ease the burden of the implementation of the new dividend withholding tax system.

However, at the same time, companies are informed that, although they are under no obligation to increase their dividend policy to ensure that their shareholders are in a similar position as they would have been under the old STC system; this matter should be borne in mind for future dividend decisions. Companies may be very confused about the contradictory advice, and it should be interesting to see what the effect of the dividend tax system will be once the implementation period and STC offsetting period has passed.

## 3. Objective of the Study and Hypotheses

Under the STC dividend tax regime in South Africa the perception existed that the total corporate tax burden locally was heavier than in other foreign countries and as a consequence, it had a negative impact on the attractiveness of South Africa as an investment destination. The replacement of STC with Dividend Tax in 2012 aligned South Africa with most other countries where dividends are taxed in the hands of the receiver and not at company level. In commentaries by Momentum Investments (2012) and PKF Chartered Accountants (2012) it is stated explicitly that Dividend Tax was implemented to encourage investment into the country.

Purely from a company perspective, the relief of the obligation to pay STC meant less total corporate tax and the possibility of greater (inbound) foreign investment. However, from an individual investor's point of view, the 15% Dividend Tax may lead to a preference for capital growth rather than dividends and therefore may inhibit the payment of dividends. The current maximum effective capital gains tax rate in South Africa is 13.3%, making profit re-investment a slightly better option than receiving a dividend.

The increase of the dividend tax rate from 10% as STC to 15% as Dividend Tax may be construed as a discouragement to pay dividends and an incentive for re-investment. The fiscal intent may be that greater re-investment of profits may lead to more future profits and in turn, more tax for the state and job creation. From an investor's view, less dividends and more re-investment of profits, combined with the availability of projects with potential positive net present values (NPVs), could lead to higher share prices. There was some support for this argument in a study based on listed South African companies by Nell, Hamman and Smit (2001) who found that companies that decreased dividends showed growth in earnings in the following years.

However, this perspective is somewhat contrary to findings by Arnott and Asness (2003:84) that provided emphatic evidence that low payout ratios precede low earnings growth. Incentivizing higher retention rates is also in conflict with the signalling theory and agency theory, which both support the notion that the payment of a dividend has value and therefore may lead to an increase in the share price and company value.

The objective of this study is therefore to investigate the impact of dividend announcements on the share price of companies, against the background of recent government tax legislation, the signalling theory and agency theory. There are therefore two hypotheses, the first being that higher dividend payouts lead to lower company value:

*H1 = Higher dividend payouts lead to lower company value*

The second hypothesis is related and complementary to the first, namely that lower dividend payouts lead to higher company value:

*H2 = Lower dividend payouts lead to higher company value*

It should be noted that both hypotheses are in line with fiscal intent, but contrary to the signalling and agency theories.

## 4. Data and Descriptive Statistics

Companies listed on the JSE were used for the empirical tests and the top 100 companies in terms of ordinary share market capitalization were included in the initial sample. Only the companies that paid cash dividends during the period 1 January 2008 to 31 December 2012 were retained for the purposes of the analysis and data regarding dividends paid (DIV), earnings after tax (EAT), market capitalization (MV), dividend announcement dates and daily share prices were gathered. McGregor BFA was used as the source for the data and the final size of the sample for which complete information could be extracted was 68 companies. The total cash dividends, earnings, market capitalisation, dividend payout and dividend yield for the sample companies for each year from 2008 to 2012 are provided in Table 1.

**Table 1.** Total dividends, earnings, market capitalisation, dividend payout % and dividend yield % per year from 2008 to 2012

| | 2012 | 2011 | 2010 | 2009 | 2008 |
|---|---|---|---|---|---|
| Sample size (N) | 68 | 68 | 68 | 68 | 68 |
| ∑DIV (R'000) | 175281859 | 144530759 | 114786324 | 128674042 | 119716953 |
| ∑EAT (R'000) | 360797050 | 427246383 | 282655489 | 245945693 | 332414665 |
| ∑MV (R'000) | 3815055566 | 3350349827 | 3200391559 | 2527371726 | 2793374985 |
| ∑DIV / ∑EAT (%) | 48.58% | 33.83% | 40.61% | 52.32% | 36.01% |
| ∑DIV / ∑MV (%) | 4.49% | 4.31% | 3.59% | 5.09% | 4.29% |

Table 1 indicates that the total dividends paid by the sample companies dropped from 2009 to 2010, but then again showed an upward trend in 2011 and 2012. Total earnings dropped significantly from 2008 to 2009, perhaps as a result of the economic crisis, but then grew strongly in 2010 and 2011, after which a drop-off occurred again in 2012. Total market capitalisations dropped from 2008 to 2009 and then showed steady growth each year until 2012. Dividend payout ratios reached a high of 52.32% in 2009, dropped significantly in the next two years and then recovered to 48.56% in 2012. Dividend yields also peaked in 2009, dropped by a large margin in 2010 and then increased gradually to 4.49% in 2012. Table 2 contains the descriptive statistics of changes in dividends, earnings and payout ratios, as well as companies that increased their payout ratios and those that decreased it.

**Table 2.** Descriptive statistics

| | 2012 | 2011 | 2010 | 2009 | 2008 |
|---|---|---|---|---|---|
| ΔDIV (%) | 104.33% | 278.56% | 267.22% | 101.94% | 32.88% |
| ΔEAT (%) | 28.00% | 49.94% | 120.93% | -4.38% | 29.32% |
| ΔDIV PAYOUT (%) | 75.47% | 255.39% | 67.52% | 197.94% | 18.45% |
| Increased payouts | 44 | 31 | 26 | 47 | 39 |
| Decreased payouts | 24 | 37 | 42 | 21 | 29 |
| Total | 68 | 68 | 68 | 68 | 68 |

$\Delta DIV\ (\%) = (Dividend_t / Dividend_{t-1} - 1)*100$

$\Delta EAT\ (\%) = (EAT_t / EAT_{t-1} - 1)*100$

$\Delta DIV\ PAYOUT\ (\%) = (Dividend_t / EAT_t / Dividend_{t-1}/EAT_{t-1} - 1)*100$

The descriptive statistics in Table 2 are based on the average of the changes in dividends, earnings and payout ratios for each company in the sample. Large increases or decreases in dividends, earnings or payout ratios by individual companies produced outliers which distorted the averages. However, no effort was made to remove these on the grounds that the main purpose of calculating these changes was to identify the companies that increased their payout ratios and those that decreased it. The research methodology is described in the next section.

## 5. Research Methodology

An event study approach as described by MacKinlay (1997:14-16) was used as methodology and specifically the constant mean return model. The model is used to investigate abnormal daily share returns around the final dividend declaration date,

which is denoted as the event date, or day 0. Similar to a study based on Indian companies by Ganguli (2011:134), an event window of 11 days was used, including the 5 days before the dividend announcement day, the announcement day itself and the 5 days thereafter. The estimation window was set at 150 days, ranging from day -155 to day -6. All the calculations described below were done separately for the two groups, namely the companies that increased dividend payouts and those that decreased it.

For each day in the event window, as well as in the estimation window, daily returns were determined using the following formula:

$R_{it} = (P_{it} - P_{it-1}) / P_{it-1}$

Where $P_{it}$ = Closing share price on a given day

$P_{it-1}$ = Closing share price on the previous day;

prices are adjusted for share splits, bonus share issues, rights issues and share buybacks.

The constant mean return model requires the determination of the expected return during the estimation period, which is the mean daily return:

$R_{it} = \mu_i + e_{it}$

For this study,

$\mu_i = \sum R_{it} / 150$

Where $e_{it}$ = the disturbance term so that

$E(e_{it}) = 0$ and

$Var(e_{it}) = \sigma_{it}^2$

The abnormal return (AR) is then determined for each day in the event window:

$AR_{it} = R_{it} - \mu_i$

Then a cross-sectional average abnormal return (AAR) is calculated for each day in the event window, namely day -5 to day +5:

$AAR_t = \sum AR_{it} / N$

Finally, the cumulative average abnormal return (CAAR) is determined for each day in the event window and the results are tabulated and plotted on a graph for analysis and interpretation.

## 6. Results and Discussion

The AARs and CAARs during the event window for each year from 2008 to 2012 for companies that increased their dividend payout ratios are presented in Table 3, while the same information for companies that decreased their dividend payout ratios is given in Table 4. The tables are followed by the graphs depicting the movement in the AARs and CAARs during the 11-day estimation period. Figure 1 shows the data for companies that increased their dividend payout ratios and Figure 2 the data for those companies that had decreases in their dividend payout ratios.

**Table 3.** Share price reaction to dividend payout increases

| Event day and around | AAR (%) | CAAR (%) |
|---|---|---|
| -5 | +0.159 | +0.159 |
| -4 | -0.242 | -0.082 |
| -3 | -0.067 | -0.150 |
| -2 | +0.023 | -0.126 |
| -1 | -0.022 | -0.148 |
| 0 | +0.307 | +0.159 |
| +1 | +0.259 | +0.418 |
| +2 | +0.199 | +0.617 |
| +3 | +0.240 | +0.857 |
| +4 | +0.225 | +1.082 |
| +5 | +0.132 | +1.214 |

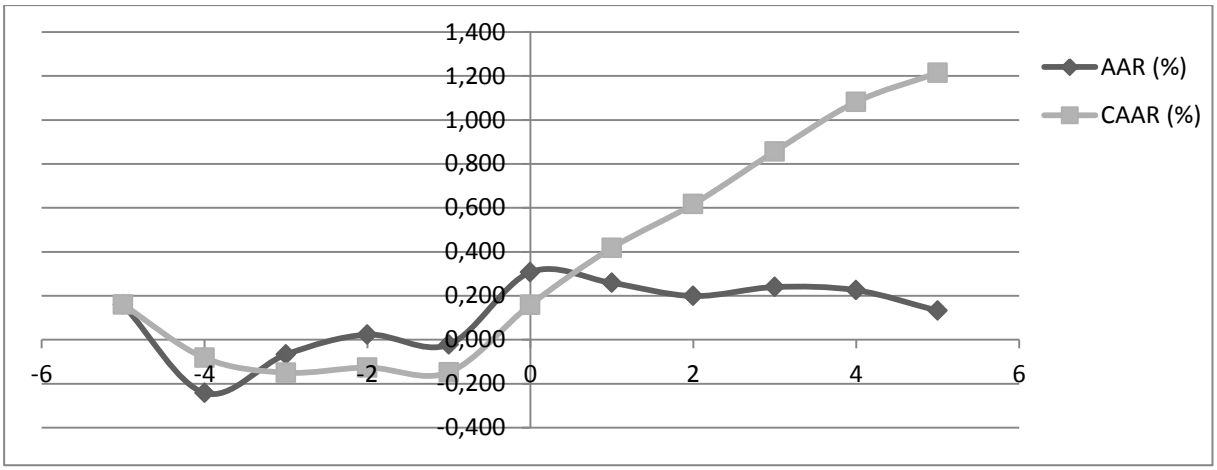


**Figure 1.** Graphical presentation of share market reaction to dividend payout increases

Table 3 and the graph-lines in Figure 1 reveal that for companies that increased their dividend payout ratios there was very little market reaction before the dividend declaration announcement day. On the announcement day and on each of the next five days, the market price reacted positively, indicating that the market perceived the increased dividend payout ratios as good news. This is in spite of the higher tax that the dividends would attract relative to capital gains tax and it is contrary to the first hypothesis that higher dividend payouts would result in lower company values. The first hypothesis is therefore rejected.

**Table 4**. Share price reaction to dividend payout decreases

| Event day and around | AAR (%) | CAAR (%) |
|---|---|---|
| -5 | -0.266 | -0.266 |
| -4 | -0.153 | -0.418 |
| -3 | -0.013 | -0.431 |
| -2 | +0.095 | -0.336 |
| -1 | +0.434 | +0.099 |
| 0 | +0.390 | +0.489 |
| +1 | +0.497 | +0.985 |
| +2 | +0.030 | +1.015 |
| +3 | +0.206 | +1.221 |
| +4 | +0.256 | +1.477 |
| +5 | +0.192 | +1.669 |

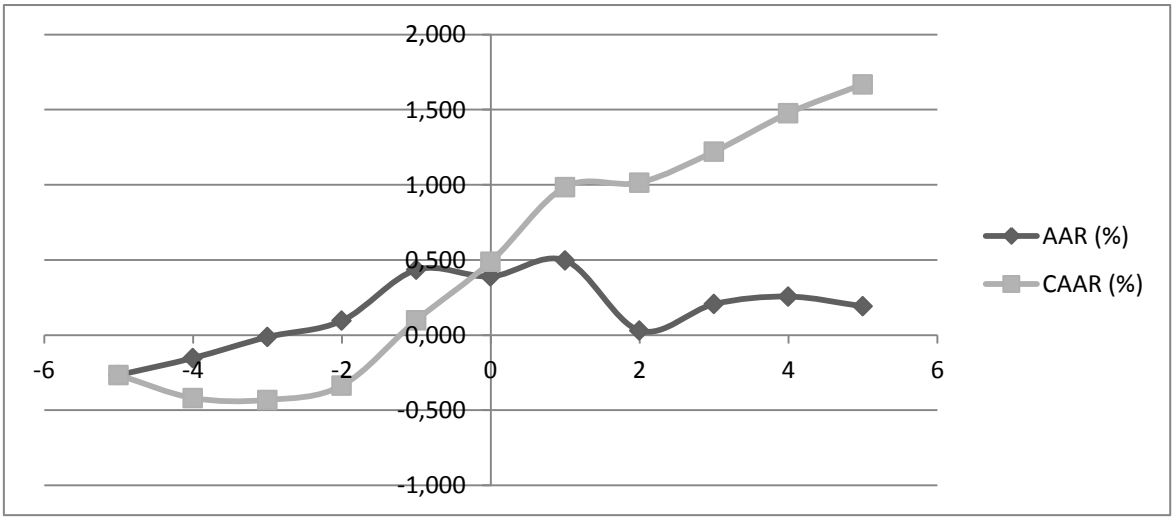


**Figure 2.** Graphical presentation of share market reaction to dividend payout decreases

Table 4 and the graph-lines in Figure 2 show that for companies that announced dividends resulting in lower payout ratios, the market price also reacted positively, indicating that the market also interpreted the announcement of dividend payments resulting in lower payout ratios as good news. Positive share price returns were reported in anticipation two days prior to the dividend announcement date and the positive returns continued each day for each of the following seven days until the fifth day after the dividend announcement.

The slight drop in the positive returns two days after the announcement date can be ascribed to an expected correction in the share price after continuous increases in the preceding four days. These findings for companies that had decreases in dividend payout ratios are in line with the second hypothesis that decreases in dividends would lead to increased share values in the presence of dividend taxes which are higher than the rate of capital gains tax. The second hypothesis is therefore accepted.

One would have expected the findings for the two groups of companies to move in tandem, i.e. higher payouts and lower values for the one group combined with lower payouts and higher values for the other or alternatively higher payouts and higher values for the one group combined with lower payouts and lower values for the other. The contradiction in the findings for the two groups of companies is somewhat perplexing as the findings for the companies with increased dividend payouts lend support to the signalling and agency theories, while the results for the companies with decreased payouts re-affirm the dividend puzzle theory of Black (1976).

The CAAR of 1.669% for companies that decreased their payouts was slightly higher than the CAAR of 1.214% of companies that increased their payouts and consequently one might argue that on the balance, the net effect for the total sample of JSE companies was that the markets reacted more positively to decreases in dividend payouts compared to the reaction to increases in the same.

## Conclusions

Numerous studies have been done locally and internationally to determine the impact of dividend payments on share values. To date, no local study has endeavoured to gauge the impact of dividend announcements and payout ratios on share values during an event window using daily share price information. Changes in the legislation on dividend taxes, like the change from STC to a dividend withholding tax system in South Africa in 2012, accompanied by an increase in the rate from 10% to 15%, create the opportunity to investigate how different tax implications affect dividend policies and how dividends affect share prices. This study first explores the theoretical landscape related to the impact of dividends on share prices and then uses the event study approach to compare the results of price movements during an event window with those during an estimation window.

The results of the study are mixed and in a sense constitute a 'hung jury'. It was found that the markets reacted positively to dividend announcements that resulted to higher dividend payout ratios as well as those that resulted in lower payout ratios. The positive movements of share prices around the dividend announcement dates also, against the backdrop of the imperfections and tax dispensation of the local financial markets, render the irrelevance theory of Miller and Modigliani (1961) invalid for South African JSE listed companies.

The first hypothesis stating that higher dividend payouts would result in lower share values was rejected on the grounds that the findings report share price increases after announcements of increased dividend payouts. These results support the signalling theory that postulates that dividends have information value which is greater than the higher tax cost related to it, relative to capital gains tax. The results are also in line with the agency theory which argues that dividend payments have value because it limits the free cash flow at the disposal of managers.

Given the findings that led to the rejection of the first hypothesis, one would have expected that the second hypothesis would also be rejected. Surprisingly, for companies of which the dividend announcements resulted in decreases in dividend payout ratios, share prices also reacted positively and even more so than for the group of companies that had increases in their payout ratios. These findings represent support for the dividend puzzle theory of Black (1976) which states that it is preferable to not pay dividends when the tax on the dividends outweigh the capital gains tax rate.

Based on these outcomes it could be debated whether there is perhaps an inconsistency or an overly optimistic bias in the South African share market which manifests in announcements of dividends resulting in both increases and decreases in dividend payouts positively impacting share prices. Furthermore, significant movements in the international markets, causing extreme volatility on the JSE, may have coincided with the event windows in the research period and consequently may have masked the impact of the dividend announcements.

The findings therefore do not send a clear signal in terms of how South African investors have interpreted changes in dividend payments in recent times of changing taxes on dividends. The ramifications of dividend policy changes on share prices therefore still remain somewhat of a mystery. It is suggested that the underlying causes of this phenomenon as well as the impact of the new dividend withholding tax system in South Africa on company dividend policies and share values from 2012 onwards, be explored in further studies.

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