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ARE DIVIDEND CHANGES AND SHARE REPURCHASES A GOOD PREDICTOR OF FUTURE CHANGES IN EARNINGS?

M.COMM (FINANCE)

in the

SCHOOL OF ECONOMIC AND BUSINESS SCIENCES

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UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

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ABSTRACT

The study examined whether: share repurchase events and changes in dividends were good predictors of future changes in earnings. The research also investigated how the South African market reacted to share repurchase events in the short-run. Using INET BFA, data for 226 dividend paying companies and 55 share repurchasing companies, trading on the JSE during the period 2003 to 2013, was collected.

Dividend theory suggests that changes in dividends convey information content about the future earnings of the firm. After testing this theory, limited support was found for this notion. Firms that had increased dividends at (T0) showed significant earnings increases in that year. Nonetheless, some of the dividend increasing firms showed no subsequent unexpected earnings growth at (T1) and (T2). While the size of the dividend increase had a strong positive relationship with current earnings; it failed to predict future earnings with any consistency. Firms that had cut dividends at (T0) experienced a reduction in earnings in that year but showed increases in earnings at (T1). However, consistent with Lintner's (1956) model on dividend policy, firms that had increased their dividends were less likely to experience a reduction in earnings, as opposed to the no-change or dividend decrease groups.

A linear regression model was employed in testing whether share repurchases were useful in predicting changes in future earnings. According to the results reported in the regression model, share repurchases are a good predictor of future changes in earnings. The study at hand then went on to explore how the South African market reacted to share repurchases. Through the utilisation of the Market Model-Event Study Methodology (with an event window of 41 days, 20 days prior and 20 days post the event), the findings of the report indicated that the South African market reacted positively to share repurchases. This was evidenced through positive: share price returns, abnormal returns and average abnormal returns, post the event. Nonetheless, cumulative average abnormal returns remained negative in the short-run. In addition, the results showed that firms engage in share repurchase activities

in order to signal that the stock is undervalued. There was an observable trend of declining share prices before the share repurchase event.

A few recommendations were proposed following the results obtained. Dividends are unable to predict changes in earnings. Therefore, a dividend cut, is not an indication that a company's earnings will decrease in the future or that the managers of that company foresee a decline in future earnings. From a share repurchase point of view, managers of JSE listed companies should not only focus on the short-term benefits of share repurchase events. These benefits are generally short lived as shares do return to their falling state, however authors such as Wesson, Muller and Ward (2014) have shown that the benefits of share repurchase events can also be observed in the long- run, A further point to note for both investors and managers of JSE listed companies is that share repurchases are a good predictor of future earnings. Therefore, it is very confusing for investors when a company announces a share repurchase event but does not follow through with it.

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&

Mr. Douglas Mbululu, my supervisor

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CHAPTER 1

1. BACKGROUND TO THE STUDY

Dividend policy has been studied extensively, over the past years. The seminal work of Miller and Modigliani (1961) gave birth to a broad body of literature dealing with and examining the pay-out policies of firms in the United States and elsewhere in the world. The term 'dividend policy' refers to the practice that management follows in making dividend pay-out decisions, in other words, the size and pattern of cash distributions over time to shareholders (Lease, John, Kalay, Loewenstein & Sarig, 2000). Interestingly, dividend policy remains one of the most contested topics in finance. In particular, the question of whether dividend changes reveal information about future or past earnings and profitability has been described as one of the most controversial subjects in corporate finance (Grullon, Michaely, Benartzi & Thaler, 2005). Lintner (1956) holds that dividend increases convey information about future earnings. On the other hand Bernartzi, Michaely and Thaler (1997) and Wolff and Auret (2009) maintain that alterations in dividend policy are a reflection of past events. This question remains highly contested and unanswered.

In addition to the aforementioned, new research conducted by Viviers, Firer and Muller (2013), shows that the number of South African companies paying dividends has decreased substantially over the past few years. The findings of these authors are in line with that of Fama and French (2001), who provide evidence that the number of listed firms paying cash dividends in the United States has declined dramatically. These authors show that the proportion of firms paying cash dividends has fallen from 66.5% in 1978 to 20.8% in 1999. Although this decline is due in part to changes in the characteristics of firms that are publicly traded (i.e., more firms exhibit characteristics similar to those of non-dividend paying firms) the results show that, even after controlling for these characteristics there is a significant decline in the residual propensity to pay dividends. Several explanations have been offered as to the reason(s) for a declining propensity of firms to pay dividends. Most arguments have focused on the possibility that improved corporate governance has reduced the need for dividends as a mechanism to control the agency problems of free cash flows. Furthermore, the increasing occurrence of share repurchases, the decline in

the information content value of dividends, the observed lower transaction cost for consumption-initiated sale of shares owned and the catering theory, are among the other explanations that have been offered by researchers (Bildik & Fatemi, 2009). Grullon and Michaely (2002) suggest that there is evidence which indicates that share repurchases serve as substitutes for dividends.

One of the most significant trends in corporate finance during the 1900s was the increasing popularity of open market share repurchases. In the United States alone, the number of open market repurchases increased by 650%, between the year 1985 to 1996 (Jagannathan, Stephens & Weisbach, 2000). Before exploring this topic in greater detail, it is important to have an understanding of what share repurchases entail. In an ordinary share repurchase, the repurchasing firm distributes cash to some of its shareholders and in exchange acquires a fraction of its outstanding equity. Generally, a cash repurchase of ordinary shares: changes the structure of assets held by the firm, alters the firm's financing mix, revises the ownership proportions of each of its shareholders and distributes cash to shareholders by means of a transaction that is taxed differently than an equivalent dollar amount distributed as a dividend (Dann, 1981). According to Persons (1997), repurchases have an advantage over other signals like: dividends, corporate philanthropy or advertising. In addition to the aforementioned, literature provides a lengthy list of motivations as to why companies repurchase their own shares, these include: capital structure adjustments, takeover defence, signalling, excess cash distribution, substitution for cash dividends and wealth expropriation from bondholders. Nonetheless, the traditional signalling theory, which is motivated by asymmetric information between the market place and the firm's managers, emerges as one of the most prevalent explanations for share repurchases. When managers were asked why they repurchase shares on the open market, the most commonly cited reasons were 'undervaluation' and that their shares represented a 'good investment', two reasons which are seemingly consistent with the signalling theory (Ikenberry, Lakonishok & Vermaelen, 1995). The paper written by Lintner (1956) indicates that firms are reluctant to cut dividends and experience negative share market reaction when they do. Repurchases, on the other hand, are more flexible and involve no such commitment or risk. Firms will sometimes announce share buy-back programs

but fail to repurchase any shares. In most instances, the market will not punish firms that perform these acts (Fried, 2001).

1.1. Problem Statement

Dividend policy is one of the few areas in corporate finance to have been researched and analysed thoroughly, yet no consensus has been reached. According to Black (1976), the more one looks at the dividend picture the more it seems like a puzzle with pieces that just do not fit together. Academic literature is still not clear as to when and why companies pay out dividends. Furthermore in the instance when companies pay-out or cut dividends, what signal is being sent out about the future prospects of those companies?

For decades researchers have maintained that the decision to pay-out dividends is important due to its signalling effect (Deeptee & Roshan, 2009). Linter (1956) maintains that managers only increase dividends when they are confident about the future earnings of the company and believe that their decision will not be reversed in the future. Rock and Miller (1985) state that dividend increases are a signal of good news; nonetheless there are dissipative costs involved. On the contrary, there lies a strong argument against dividend increases as they have led to reductions in earnings (Grullon *et al*., 2002). Furthermore Watts (1973), DeAngelo, DeAngelo and Skinner (1996), and Bernartzi, Michaely and Thaler (1997) find no evidence that dividend changes predict abnormal increases in earnings. From a South African perspective, the limited research conducted on this topic shows that there is a strong concurrent relationship found between dividend changes and earnings changes. However, none of the regression analyses indicates any evidence that dividends convey information content about future earnings (Wolff & Auret, 2009). The aforementioned is the point of departure for the study at hand. Therefore, the problem to be addressed by this study is whether current changes in dividends are a good predictor of future earnings, within the South African context. This investigation is particularly important as it covers the period post the global financial crisis and is thus an update of the paper written by Wolff and Auret (2009). Moreover the changes in corporate policies and practices warrant an investigation to be conducted

on the trend of dividend pay-outs in the South African market. Therefore, the question to be addressed here is whether South African companies are reducing dividend pay-outs or increasing them.

Lintner (1956) concluded that dividends are sticky, tied to long-term sustainable earnings, paid by mature companies and smoothed from year to year. However, repurchases were virtually non-existent when Lintner (1956) and Miller and Modigliani (1961) wrote their papers. Over the past two decades, these corporate actions have grown in importance. In fact, several executives view share repurchases as being more flexible than dividends and use this flexibility in an attempt to time the market by accelerating repurchases when they believe their share price is low (Brav, Graham, Harvey & Michaely, 2005). From a South African perspective, companies were only allowed to repurchase their own shares as of the 1st of July 1999 (Bester, Wesson & Hamman, 2010). Initially share repurchases started off slow due to uncertainty regarding the treatment of repurchases under tax laws, nonetheless once the tax implications had been clarified and companies became familiar with this new distribution mechanism, repurchase programmes were initiated by many JSE listed companies (Daly, 2002). From the period 2000 to 2003, Bhana (2007) reported 117 open market repurchase events. In a later study conducted by Bester (2008) it was found that 121 companies, listed on the JSE, had made 312 repurchase events from the period July 1999 to June 2007. These growing numbers have raised some interesting questions on how the South African market reacts to actual share repurchase events from the period 2003 to 2013 and whether events of this nature are a good predictor of future earnings. In addressing these questions, this study seeks to contribute to the thin literature that is available on share repurchases in the South African market.

1.2. Research Objectives:

- to determine the relationship between dividend changes and future earnings
- to determine the impact of actual share repurchases on share price performance

- to examine the South African market's reaction to actual share repurchase events

1.3. Delimitations

- Due to time constraints, this study will only look at companies listed on the Johannesburg Securities Exchange (JSE).
- The study is quantitative, as a result of this it lacks the human element provided by a qualitative study. Particularly with regard to investors' perceptions on dividend changes and share repurchases.

1.4. Importance and Benefits of the Proposed Research

Decisions concerning equity cash flows (that is: dividends, share repurchases, and equity issues) have long been the focus of controversy and confusion among academics and financial practitioners (Asquith & Mullins, 1983). Dividends and share repurchases have always been perceived as vehicles for communicating information to shareholders. Nonetheless, they have always been viewed in isolation. While extensive research may have been conducted on share repurchases in the developed markets, there is very minimal research on share repurchases in emerging economies. In addition, most studies on repurchases in developing or emerging markets are exploratory in nature, with little focus on how the market reacts to repurchases. This may be as a result of share repurchases being a fairly new phenomenon in developing markets. From a South African context, share repurchases were only introduced in the year 1999 and have always been regulated differently to repurchases in developed markets. Very few South African researchers such as: Bhana (2007), Chivaka, Siddle, Bayne, Cairney, and Shev (2009), Wesson *et al*. (2014), and Wesson, Bruwer and Hammen (2015), have conducted investigations on this topic. As a result, the study at hand carries a lot of value from a South African perspective. It can be argued however that a lot of literature already exists on dividend policy. It can also be argued that corporate policies and practices are dynamic furthermore; economies go through cycles which influence the pay-out policy adopted by companies. Therefore the effect that changes in dividends have on

earnings, the changes in the propensity to pay dividends as well as the growing trend in the use of share repurchases in South Africa, warrants further scrutiny.

The remainder of the research report will be structured as follows: Chapter 2 provides a detailed overview of the current literature on dividends theory and investors' perceptions on dividend transformations. This chapter also provides a wide-range of literature on share repurchases (from an international and South African perspective). Chapter 3 consists of the methodology used, while Chapter 4 discusses the results obtained. Lastly, Chapter 5 concludes the investigation.

CHAPTER 2

2. LITERATURE REVIEW

This section covers an extensive amount of literature on dividend pay-out policy. This includes an overview and synthesis of some important literature, chronicle changing perspectives and trends, stylized facts, practical implications, and suggestions for future research. Pieces of the dividend puzzle that have received empirical support are also identified and discussed. In addition to the aforementioned, the literature review takes an in-depth look at share repurchases. This includes the: reasons for share repurchases, the share price behaviour following share repurchase events, dividend and share buy-back decisions in the context of management pay-out decisions, financial benefits that share repurchases confer on corporates and shareholders, the impact of a change in the regulatory environment on share repurchases activity and the signalling effect of share repurchase events. While the information covered in the literature review may be inevitably incomplete, given the massive amount of literature available on dividends and share repurchases, there are detailed examinations of: theories and empirical evidence on individual studies. The distinctive contribution of this paper is that it synthesises the major conclusions based on theoretical and empirical findings from various authors.

2.1. Miller and Modigliani Dividend Irrelevancy Theorem

The Miller and Modigliani Theorem is the foundation of modern corporate finance. At the heart of this theorem is the belief that a firm's value is not affected by its financial decisions (Miller & Modigliani, 1961). In essence, the MM proposition is a collection of four assertions obtained from previous studies. According to this theorem a firm's market value is not affected by its debt-to-equity ratio, while a firm's leverage ratio has no effect on its weighted average cost of capital. Miller and Modigliani (1961) continue by stating that a firm's equity value is independent of its dividend policy and a firm's equity-holders are indifferent about the financial policy chosen. Nevertheless, it is important to note that the MM theorem requires a number of assumptions to be met before it can hold. These include the following: no taxes or brokerage fees, no capital market frictions, that is, no transaction costs, trade restrictions or bankruptcy

costs, symmetric access to credit markets and finally the idea that a firm's financial policy does not reveal any information .

The MM theorem, together with its stringent assumptions, has spurred a lot of debate in the academic sphere. Numerous attempts to overturn the theorem's controversial findings have been documented. According to Myers (2003), the presence of taxes alters the results of the MM theorem, since firms are able to make use of the debt tax shield. Therefore one may find companies accumulating more debt, instead of paying out dividends, so as to take advantage of the tax benefit. Miller and Modigliani (1961) further argue that investors are indifferent between dividends and share repurchases. However, if dividend taxes are higher relative to capital gains taxes, investors with high tax brackets will prefer shares with low dividend yields or share repurchases (Grullon *et al*., 2002). Thus, it can be stated that dividend policies are in fact affected by taxes. When shifting the focus to the costs of financial distress, which include: legal and administrative costs of bankruptcy, agency, moral hazard, monitoring and contracting costs, it becomes apparent that these overheads exists (Myers, 1984). If agency costs and moral hazard problems did not exist, there wouldn't be a reasonable explanation of debt covenants. A further argument posed against the MM theorem was presented by Donaldson (1961), who established that the majority of managers favoured the internal generation of funds as a source of new funds and when external funds were needed, issuing equity was rarely thought of. These results reaffirmed the pecking order hypothesis, which describes typical firm behaviour. According to this theory, firms initially prefer internal funding over external financing. Since dividends are sticky and cannot be changed in the short-run, dividend cuts are not used to finance capital expenditure. If a firm requires external funding, the safest security will be used first, which is, debt. As the need for external financing increases, the firm will issue equity as the very last option (Myers, 2001). The MM theorem (1961) supports the idea that dividends are irrelevant and have no effect on shareholder wealth. However this proposition seems to have a number of pitfalls, as some of the assumptions put forward do not hold in the real world.

2.2. Dividends are Relevant

Increasing dividend payments, ceteris paribus, may be associated with increases in the firm's share, which later translates to firm value. In fact there is a long standing belief that dividends affect shareholder wealth and this is reflected in the intrinsic value of a firm's share. This characterisation of dividends and intrinsic value is consistent with the prevailing conventional wisdom of the early twentieth century. Williams (1938) developed a discounted cash flow (DCF) model depicting the intrinsic value of a firm's share as the present value of a growing stream of dividends during an era when investors expected that dividends would provide the largest proportion of their total return. Years later, Gordon (1959) published an updated version of the same model. The DCF model gained wide popularity among both academics and practitioners. This model is still used today.

While the DCF model may be exceptional at depicting the intrinsic value of a firm's share, the question to ask here is why are increments in dividend payments associated with increases in the firm's share? In a world of uncertainty and imperfect information, dividends are valued differently to retained earnings (or capital gains). Since a higher current dividend reduces uncertainty about future cash flows, a high pay-out ratio will reduce the cost of capital, and hence increase share value (Malkawi, Rafferty & Pillai, 2010). According to Brigham, Gapenski and Ehrhardt (1999), the firm's optimum dividend policy must strike a balance between current dividends and future growth so as to maximise the share price. Empirical evidence shows that a dollar of dividends has, on average, four times the impact on share prices as a dollar of retained earnings (Graham & Dodd, 1934). Furthermore, the survey conducted Baker and Powell (1999) and Brav *et al*. (2005) confirms the results obtained in Lintner's (1956) paper managers believe dividends ought to be related to permanent rather than temporary increases in profits. This proposition is consistent with the notion that a fundamental relationship exists between dividends and firm value. In the study performed by Bulan and Hull (2013), it was observed that managers remained reluctant to cut dividends as this had severe consequences on the share price. Bulan (2010) even showed that for a given magnitude of the dividend cut, the three-day cumulative abnormal return around the dividend reduction was more negative for firms with less visible signs of poor performance

compared to those that have experienced a more prolonged period of poor performance. Therefore, if a firm cuts its dividend, investors will also discount the share price when there are no visible signs of financial distress that warrant the conservation of cash. Nevertheless, investors will be more forgiving of a dividend cut if they perceive that the cut is necessary for the firm's turnaround. DeAngelo, De Angelo and Skinner (1992) argue that a dividend reduction reflects a low level of current and expected future earnings of the firm, while Stepanyan (2009) states that dividend-cutting firms lack financial slack (excess cash or excess debt capacity). Given the evidence in the aforementioned, one can conclude that a dividend cut should not be much of a surprise to investors if managers cut the dividend as a last resort.

Having looked at the evidence highlighting the relevance of dividends, it is important to note that dividend payment patterns of firms may be influenced by customs, beliefs, regulations, public opinions, perceptions and hysteria, general economic conditions and several other factors, all in perpetual change, impacting different firms differently (Barman, 2007). If a firm has overdue liabilities or is insolvent or bankrupt, the law will prohibit this company from paying out cash dividends. Furthermore, restrictive provisions in loan agreements constrain the firm's ability to pay dividends. Generally, these constraints prohibit payment of the cash dividends until a certain level of earnings has been achieved or limit dividends to certain dollar amount or percentage of earnings. Additional constraints may arise internally, where a firm's ability to pay cash dividends is reliant on the amount of liquid assets (cash and marketable securities) available. A large mature firm may have adequate access to funds, whereas a rapidly growing firm may rely heavily on internal financing to support acceptable projects. Therefore, it can be said that dividend payment patterns do not always give a true representation of a firm's financial standing. Dividend pay-outs may be viewed as a factor affecting firm value; however investors should look at the broader picture. The reason behind a dividend cut is what matters. A firm's value should not be reduced because managers have decided to invest funds internally or in a project with a positive net present value, instead of increasing dividends. Companies may borrow funds, so as to increase dividends. This is not a true

reflection of the firm value and performance. Analysts need to examine dividend changes thoroughly and not assume that all dividend increases are good.

2.3. Repurchases as an Element of Pay-out Policy

Excess cash in a company may either be retained for on-going business operations, new investments, or paid out to shareholders in the form of dividends or share repurchases. In what way(s) is returning cash to shareholders via a share buy-back preferable to returning cash via a traditional dividend? Companies usually set a target dividend pay-out ratio (Baker and Smith, 2006; Baker, Veit and Powell, 2001; Marsh and Merton, 1986; Lintner, 1956), which is not changed unless a higher dividend can be sustained in future. Share repurchases on the other hand, are considered to be a much more flexible method of distributing excess cash to shareholders since they are financed from temporary cash flows (Bhargava, 2010; Brav *et al*., 2005). As a result, share repurchases are more susceptible to the current financial situation of a company and take place on an ad hoc basis. Where managers believe their companies are undervalued, they may use share repurchases to increase its share prices (Brav *et al*., 2005; Dittmar, 2000). Share repurchases are also used as a signalling instrument, to convey to the market that managers believe the company is undervalued (Wesson, 2015). It is not surprising that they have become an important financial tool for listed companies, globally. In the United States share repurchases by companies except financials and utilities listed on Compustat, equalled dividends for the first time in 1998, overtook dividends in 2005 and widened the margin significantly in 2006 (Dittmar, 2008). In Europe, share repurchases accounted for half of the total cash pay-outs in the year 2005 and show similar trends to those in the United States (Von Eije & Megginson, 2008). Bagwell and Shoven (1989) argue that the increase in repurchases indicates that firms have learned to substitute repurchases for dividends.

2.4. Why would Companies choose Share Repurchases over Dividends?

Over the past few years, share repurchases have grown in popularity. According to the paper written by Skinner (2008), share repurchases exceed dividends in the periods 2000, 2004 and 2005. One of the key differentiating factors between

dividends and share repurchases is the potential flexibility offered by the latter. Repurchases preserve financial flexibility relative to dividends because they do not implicitly commit the firm to future pay-outs. Some reports even state that there is a trend among managers to utilise share repurchases as a substitute for dividends, because they provide more flexibility. In the study conducted by Ikenberry *et al*. (1995) it was held that a share buy-back is not only a substitution of cash dividend, but also a more flexible technique of cash distribution because it is not a commitment of a future payment. Compared to dividend pay-outs which represents on-going commitment and are used by firms with higher continuous operating cash flow, share repurchases are often used when firms have high temporary non-operating cash flow. In the survey conducted by Brav *et al*. (2005), two-thirds of the managers interviewed stated that they were fond of the flexibility of share repurchases and disliked the rigidity of dividends because once a firm initiates a dividend it is expected to continue to pay dividends in the forthcoming periods. As a result of this, firms shy away from dividend initiations. Fama and French (2001) raise an interesting viewpoint that the percentage of firms paying cash dividends has diminished drastically therefore there is a decrease in the propensity to pay dividends as managers have become more inclined to buy back shares. This argument is supported by Jagannathan *et al*. (2000), who state that share repurchases have increased in prominence when compared to dividends. Interestingly Grullon and Michaely (2002) raise a similar argument nonetheless their analysis is slightly different. They maintain that large established firms have not decreased their dividend pay-outs however there is a higher propensity to pay-out cash through share repurchases.

As mentioned in the earlier parts of this section, the flexibility inherent in repurchase programs is the main reason as to why they are utilised instead of dividends. Nonetheless, before one delves further into this topic, it is important to first understand the concept of financial flexibility (that is, the ability to avoid underinvestment as well as financial distress). There are two key components of financial flexibility the pay-out policy and risk management. The level and form of pay-out influence financial flexibility, therefore selecting lower pay-outs or more repurchases, relative to dividends, increases financial flexibility. Similarly, risk

management is fundamental to avoiding underinvestment and financial distress. Firms hedge to avoid raising costly external capital (Froot, Scharfstein & Stein 1993). In the paper written by Bonaime, Hankins and Harford (2013) it was established that both bank holding companies and nonfinancial firms recognize that pay-out policy and risk management both contribute to financial flexibility and are substitutes. However, hedging is costly, the direct cost being the price of the derivative instruments measuring and monitoring the underlying exposure and the indirect cost being the probability of forgoing some future cash flows in a good state economic environment. Therefore, if financial hedging and pay-out flexibility are substitutes and hedging is costly, firms should maintain full pay-out flexibility at all times unless doing so is also costly. Such pay-out flexibility implies that firms would need less active hedging and should not pay dividends.

Paying lower dividends and repurchasing fewer shares while retaining cash and liquid assets can provide flexibility to firms in less stable markets, allowing them to react more aggressively to competitive threats when they do materialize (Hoberg, Phillips & Prabhala, 2012). Rapp, Schmid and Urban (2012) put forward an interesting argument relating to financial flexibility. Under their view, firms assigning a high value to financial flexibility are expected to limit or even avoid pay-outs at all costs. The rationale behind this notion is that, ceteris paribus, pay-outs reduce internal financing opportunities and raising external capital comes along with substantial costs, as mentioned by the likes of Myers and Majluf (1984). Furthermore, it is expected that pay-out decisions follow a pecking order according to which firms with a high value of financial flexibility are expected to prefer share repurchases to dividends when they decide to distribute earnings to their shareholders. This is in line with the view that dividends are often considered as an on-going commitment, while share repurchases can be omitted or reduced more easily (Guay & Harford, 2000).

In the paper written by Iyer and Rao (2015), it was established that flexibility in a firm's pay-out policy can be organised into three types – operational, reactive, and timing. Operational flexibility refers to the ability of firms to decide whether to allocate

cash to shareholders or to keep it in the firm (e.g. for investments). Dividends and share repurchases may differ in their intrinsic operational flexibility. Introducing dividends may prohibit firms from investing in profitable ventures if reducing dividends are met with adverse market reaction. A firm that pays dividends is expected to pay (increase) the dividends in future or face hostile market reaction if it chooses to reduce dividends. Therefore, once a firm starts paying dividends it becomes constrained by its choice. This choice to pay dividends may prevent the firm from investing in profitable ventures or conserving cash for future needs. Fearing adverse market reaction the dividend paying firms might elect not to reduce dividends. Share repurchases may not suffer from this drawback. Reactive flexibility relates to the ability of repurchasers to evaluate the current and future environment, and alter an on-going open market share repurchase program based on the dynamic environment. A dividend once announced is rarely reversed. On the contrary, a share repurchase announcement is not a firm commitment. Firms can decide to delay or even suspend an on-going open market share repurchase program if the environment turns hostile.

The final type of flexibility of share repurchases is the timing flexibility, which relates to the market timing of the actual open market repurchases. After announcing an open market share repurchase program the firm can decide to wait till the time is appropriate to repurchase shares. The managers may use their superior information on the intrinsic value of the firm and buy the stated amount of shares (or dollar value) when the market value of the shares drop below the intrinsic value of the firm. Snajdr (2009) supports this argument by stating that share repurchases are more flexible when it comes to time. Dividends are typically paid on a quarterly or annual basis, nonetheless share repurchases can be made in any moment in time, they take only several weeks and they give firms a better ability to increase their value when it is necessary. From the aforementioned it can be concluded that dividends constrain managers, therefore favouring a more flexible pay-out structure increases financial flexibility, thus allowing managers to utilise excess capital effectively (John & Knyazeva, 2009).

While it may be true that share repurchases afford managers with an extensive amount of flexibility, they also afford managers with the freedom to set up share repurchasing programs, irrespective of whatever intention they might have. Therefore, firms can and do initiate programs of any size even if they have no immediate intention of buying back shares. In fact, Ikenberry and Vermaelen (1996) provide a theoretical framework which suggests that most firms should be expected to continually have share buyback agreements in place, given their low-cost and flexibility. In such a world, one would expect these announcements to lose their signalling power (Chan *et al*., 2007). Up till now, the study has focused on the flexibility of share repurchases as a whole. However, over the past decade the frequency and dollar volume of accelerated share repurchases (ASRs) has exceeded that of privately negotiated repurchases, fixed-price self-tender offers, Dutch-auction self-tender offers, and large special dividends. In ASRs, a firm enters into a contract with an intermediary, typically an investment bank, whereby the intermediary immediately delivers a specified number of the firm's shares in exchange for cash based on an agreed upon price per share (ordinarily the most recent closing price). The intermediary obtains the shares that it delivers to the repurchasing firm by borrowing them, typically from institutions. The intermediary then covers its short position by purchasing shares in the market over a specified time period, normally several months. ASRs are credible commitments by firms to repurchase shares immediately. Nonetheless, including an ASR in a repurchase program reduces the flexibility that firms have to alter an announced program in response to subsequent changes in the liquidity and price of its share, firm conditions and so on (Bargeron, Kulchania & Thomas, 2010). Therefore, not all share buy backs offer the firm an extensive amount of financial flexibility.

Jagannathan *et al*. (2000) find that firms with more volatile cash flows prefer more flexible share repurchases over dividends. This suggests that firms utilise share repurchases to distribute temporary profits and increase dividends only when they believe earnings have risen permanently. Therefore, despite the fact that share repurchases are more flexible than dividends, their future pay-outs are uncertain. In addition to the above mentioned, Teng and Hachiya (2011) raise an interesting argument that in contrast to large firms which can easily attract relatively more

attention from investors than the small firms, the small firms are more likely to buy back more outstanding shares as a means of attracting attention from the market. Therefore, companies are not suddenly gravitating towards share buybacks because they are more flexible, share repurchases are often used as a mechanism for attracting attention to smaller firms. Grullon and Michaely (2002) confirm this hypothesis by stating that at the aggregate level younger firms have become more inclined to pay out cash in the form of share repurchases. Dhanani and Roberts (2009) maintain that while share repurchases may be more flexible, they are unlikely to replace dividends.

Dividends still remain a major source of redistribution of cash flow and a primary pay-out vehicle. Fama and French (2001) show that generally, firms repurchasing shares are also dividend-paying firms. As a matter of fact, net share repurchases are larger and more prevalent among dividend payers. Therefore, share repurchases cannot substitute cash dividends. The findings obtained in the study conducted by Benhamouda and Watson (2010) supports the aforementioned. These results hold that British companies do not substitute dividends for share repurchases furthermore investors perceive cash dividends as being better than share repurchases. According to Ma (2012), investors generally accept dividend pay-outs as a credible signal, which indicates future profitability and stability. Managers pay attention to the dividend policy, dividends are not random over time and are far more frequent than share repurchases. In addition, investors also believe that managers intentionally choose a costly way of distributing surplus cash in order to convey favourable interior information. More importantly corporate managers and investors, who bestow a privilege upon dividend payments, hold the viewpoint that the disadvantage of the dividend can be offset by the increase in capital gains in signalling equilibrium.

The role of dividends has however led to a number of controversies that can be summarized in Black's (1976) famous dividend puzzle argument. The dividend puzzle questions why firms pay dividends and why investors are concerned with dividends if they are irrelevant, inflexible, costly and tax disadvantaged. Feldstein and Green (1983) raise a similar question of, why companies pay dividends on

condition that dividends are taxed more heavily than retained earnings. The transaction costs of selling shares cannot explain why dividends exist as companies can avoid such costs by buying back shares. Furthermore, dividend changes do not necessarily convey the forecasts of the company's prospect. For example, the dividend cut does not indicate that future performance will degenerate.

Allen *et al*. (2000) summarise the current consensus, when they conclude that: "While a number of theories have been put forward in the literature to explain their pervasive presence, dividends remain one of the thorniest puzzles in corporate finance". Dividends still amount to more than double the total value of share repurchases (Jagannathan *et al*., 2000). As puzzling as this may be, it can be concluded that dividends and share repurchases can coexist. Some firms may prefer dividends while others only share repurchases. Furthermore, firms can change their method of cash redistribution depending on the current situation.

2.5. Why and How Companies Decide on a Dividend Policy

The duty of maximizing shareholders' wealth often encourages the management of a firm to treat the dividend strategy as a critical matter (Ma, 2012). A firm's dividend policy decision is so crucial that the manner in which managers go about making dividend policy decisions and whether or not they follow a precise set of procedures or specific strategies to make these decisions, has a huge impact on the value of the firm (Deeptee & Roshan, 2009). Lintner (1956) conducted research on how top level managers formulated dividend policy decisions. He formulated a model consisting of the following variables: earnings stability, plant and equipment expenditures, willingness to use external financing, firm size, ownership by control groups and use of share dividends. In his findings, Lintner (1956) established that: corporate dividend decisions were made conservatively, managers targeted the dividend pay-out ratio, the current year's dividend pay-out was not influenced by the profitability level of the same period (T) but had an impact on the profitability level of the next period (T+1), finally shares were repurchased when firms had accumulated a large amount of unwanted cash or had a desire to modify the capital structure. In later studies conducted on dividend policy, it was established that dividend increases (or

decreases) are usually followed by positive (or negative) abnormal returns (Pettit, 1972; Asquith and Mullins, 1983; Grullon *et al*., 2002). Therefore, corporate dividend policy plays an essential role in the survival and progress of listed firms.

In a later study conducted by Brav *et al*. (2005) it was asked whether pay-out decisions were still made conservatively. Ninety-four percent of dividend payers, who took part in this survey, strongly agreed that they were hesitant when it came to reducing dividends therefore; managers seek to maintain the existing level of dividends and avoid having to cut dividends except in extreme circumstances. DeAngelo, DeAngelo and Skinner (2008) documented further evidence demonstrating a strong reluctance of managers to cut their regular cash dividend. Daniel, Denis and Naveen (2010) expanded on this question and showed that dividend cuts occurred infrequently and when they did occur, they were generally preceded by a period of poor operating performance. Interestingly, a dividend cut seems more credible when investors observe the firm experiencing operating and financial difficulties however, in spite of the visible signs of poor performance investors still react negatively to their dividend cut announcements (DeAngelo & DeAngelo, 2006). Jensen, Lundstrum and Miller (2010) argued that a dividend cut signals a retrenchment within the firm. Cost-cutting measures from retrenchment policies result in firms allowing some of their growth options to expire therefore, investors end up having a negative sentiment towards dividend cuts.

On the contrary, it has been said that the survival of any company is dependent on the continuous investment in facilities and the employment of internal financing, through the use of retained earnings (Uwuigbe, Jafaru & Ajayi, 2012). From time to time, firms need to cut back on dividends and reinvest funds into the company. In countries like Nigeria, government tends to put restrictions on the amount of dividends a company may pay. This forces companies to plough back part of their realized profits and ensures that funds are available for continuous investment in assets, so that the company continues to operate on the going concern principle. The aforementioned may be the reason why the propensity of firms to pay dividends has shown a global decline. The study conducted by Black (2013), indicates that the

percentage of firms paying dividends globally has dropped from 71% in 1991 to 61% in 2012, with declines occurring in both the United States and international markets. Even so, the popular view remains that dividend policy is important, as evidenced by the large amount of money involved and the attention that firms, security analysts, and investors give to dividends. Firms tend to follow a managed dividend policy rather than a residual dividend policy, which involves paying dividends from earnings left over after meeting investment needs (Baker & Weigand, 2015).

Lintner (1956) indicated that one of the most important aspects of dividend policy (after the firm had determined its earnings) was choosing a pay-out ratio. While this outcome may have been obtained many years ago, authors such as Kapoor (2006) still find that companies generally prefer a stable dividend pay-out ratio because the shareholders expect it and reveal a preference for it. In the study conducted by Arnott and Asness (2003), it was found that higher aggregate dividend pay-out ratios were associated with higher future earnings growth. Zhou and Ruland (2006) supported these findings when they examined the possible impact of dividend pay-outs on future earnings growth. In the investigation conducted by Amidu and Abor (2006) it was held that pay-out ratios were positively related to: profitability, cash flow and tax but were negatively related risk and growth. On the contrary, the study conducted by Brav *et al*. (2005) revealed that nearly 40% of the survey respondents stated that they target dividends per share, 28% said that they target dividend pay-out, 27% target growth in dividends per share, 13% target dividend yield and 6% claim to not target dividends at all. The firms that were identified as cash cows primarily targeted the growth in dividends per share because they felt pressure to return capital to investors when earnings growth was robust. According to Brunzell, Liljeblom, Loflund and Vaihekoski (2014), a specific pay-out ratio which would always be followed would leave no information value for the dividend, in excess of that already conveyed through the disclosure of current earnings. The most famous statement about the relationship between dividend policy and corporate value claimed that, in the presence of perfect markets, given a firm's investment policy, the dividend pay-out policy it chooses to follow will affect neither the current price of its shares nor the total return to its shareholders. However, market imperfections such as differential tax rates, information asymmetries between insiders and outsiders,

conflicts of interest between managers and shareholders, transaction costs, flotation costs, and irrational investor behaviour, make the dividend decision relevant (Kapoor, 2009).

2.6. Catering Theory of Dividends

Miller and Modigliani (1961) proved that dividend policy was irrelevant to share value in perfect and efficient capital markets. After this theory was published many researchers criticized it, using various approaches. The catering theory of dividends was developed by Baker and Wurgler (2004a). In this theory, the assumption of perfect markets and efficient markets was relaxed and three basic ingredients were suggested. First, for either psychological or institutional reasons, some investors have an uninformed and perhaps time-varying demand for dividend-paying shares. Second, arbitrage fails to prevent this demand from driving apart the prices of payers and nonpayers. Third, managers rationally cater to investor demand—they pay dividends when investors put higher prices on payers, and they do not pay when investors prefer nonpayers. The essence of the catering theory was that managers give investors what they currently want. In the case of dividends, catering implies that managers tend to initiate dividend pay-outs when investors put a relatively high share price on dividend payers, and tend to omit dividends when investors prefer nonpayers. Baker and Wurgler (2004a) then inquired about the source of investor demand for dividends. They did not find evidence of it springing from traditional dividend clienteles. Instead, sentiment appeared to be a key factor. However, once dividends were initiated, increases and decreases appeared to be governed more by firm-level profitability than by the relative valuations of payers and nonpayers. Therefore, the catering theory explains the number of payers but not the total pay-outs by existing payers.

The results obtained in the study conducted by Neves (2009) are consistent with previous arguments that: investors' sentiments can be significant when determining dividend pay-outs. This research reveals that investor sentiment significantly affects the propensity to pay dividends across firms in the Eurozone and, as expected, this effect is positive after controlling for traditional determinants of dividends, such as:

the free cash flow, leverage, earnings, tangible fixed assets and size. The findings of the study provide empirical support for the catering model previously documented in the United States firms.

The paper written by Ramadan (2015) aimed to investigate the validity of the catering theory of dividends in the Jordanian market. Utilizing an unbalanced, pooled cross-sectional time series Ordinary Least Squares regression model (for all companies listed on the Amman Stock Exchange excluding the financial sector firms and non-consistent dividends-paying firms), it was found that the dividend premium which is a proxy for the catering theory, is affected by explanatory variables. Therefore, companies listed on the Amman Stock Exchange take investors' demand for dividends into account and react to this preference in their dividend policy. This confirms the validity of the catering theory of dividends in the Jordanian market. The study conducted by Abdulkadir, Abdullah and Wong (2014) examined the implication of catering theory of dividend in the Nigerian market. The study concentrated on the financial sector due to its exclusion in previous studies on dividend pay-out policies. The findings indicate that the dividend premium exerts a positive influence on the dividend pay-outs of the sampled firms. Therefore, financial firms listed on the Nigerian Stock Exchange consider investors demand for dividends and respond to this demand when making dividend pay-out decisions. Nonetheless, the study also concludes that catering to investors' demand for dividends by the sampled firms is limited to normal economic conditions and does not extend to crisis period. The paper written by Kim and Byun (2013) investigated the international presence of the dividend catering theory in different legal regimes from the period 1996 to 2010. Using a modified dividend premium, the authors find evidence of dividend catering among firms in common law countries, but not for those in civil law countries. Catering in common law countries persists even after controlling for the effect of fundamental variables like: profitability, size, and growth opportunities. In civil law countries, cash dividends are less responsive to the value premiums of dividend-paying firms. These results suggest that when investors are well protected and negative sentiment is present, they force dividends from managers by placing a high value on dividend-paying firms. The aim of the research conducted by Handary, Lukviarman and Febrianto (2006) was to investigate the association between market

reaction around the dividend announcement and investor demand for dividends, by using dividend catering theory to be tested within Indonesian firms listed on the Jakarta Stock Exchange. In the study, results showed that there is a positive, statistically significant correlation between the dividend yield variable and share returns. This means that the share returns will be high if the ratio of dividend yields is also high. Nevertheless, most announcement windows show that share returns become lower when investor sentiment for dividends is higher. The reason for the negative relationship between the dividend premium and share return may be explained on the research conducted by Denis and Osobov (2005). In their study they concluded that the dividend premium is a proxy for the relative growth opportunity of dividend payers rather than a measure of investor sentiment.

While there may have been a large number of studies that supported the catering theory, there were some studies that disagreed with notion. In the study conducted by Rashid, Nor and Ibrahim (2013) it was held that the dividend catering incentive creates disequilibrium in the market because it leads to the conclusion that companies pay dividends not because they have a reserve of income but because investors want dividends as a tangible income. Furthermore, this theory goes against the life-cycle theory which states that firms pay-out dividends when they reach a certain level of maturity in their lifecycle. In addition to the aforementioned, the paper written by Tsuji (2010) revealed that the dividend initiation decision of Japanese electrical appliances industry firms has no predictive power for relative future negative returns of payers over nonpayers. This evidence is inconsistent with the suggestions of catering theory of dividends by Baker and Wurgler (2004a). More precisely, the excess returns of payers over nonpayers is statistically significantly negative in the United States, while future excess returns of payers over nonpayers are positive in the Japanese electrical appliances industry firms.

Having looked at the various arguments for and against this theory, it is important to acknowledge that there is more to the story than dividend catering. While the dividend premium may have significant explanatory power, so do individual firm characteristics. There are both internal and external factors affecting decisions to

change dividends and the capital market's reaction to such decisions. The role of other non-catering factors is especially apparent in the negative share market reaction to dividend decreases, which the dividend catering theory cannot explain by itself.

2.7. Signalling Theory

2.7.1. Signalling Theory of Dividends

Baker (2009) states that: certain sources of company information (accounting data and future prospect reports) are not completely reliable. These kinds of information do not always present a company's profitable business opportunities and may be influenced by management. Given that outside investors have imperfect information regarding the firm's profit opportunities, the company has to find other ways in order to convince outside investors about future cash flows and profits. Dividend pay-outs are perceived as a tool for communicating information to the market (Bernartzi *et al*., 1997). According to signalling theory, corporate managers use dividend pay-outs to signal information to the markets (Baker & Kapoor, 2015). Unlike most events, dividend declarations are backed by cash therefore, they are more credible (Asquith & Mullins, 1983). Under the title of signalling or information content of dividends, a number of studies have examined the reaction of the share market to dividend announcements. Modigliani–Miller (1959) and Miller–Modigliani (1961) put forward an argument which stated that dividend reductions convey information that future earnings prospects are poor. Lintner (1956) indicated that dividends provide a signalling device and the market uses dividend announcements to value firm's share. Shareholders may not be interested dividends however they may look at changes in a company's dividend policy. Changes in dividend pay-outs are perceived as being a signal of the company's prospects, where increased dividend pay-outs are viewed as good news and the market reacts positively to them (Naser, Nuseibeh & Rashed, 2013). Despite the fact that dividends have a higher tax rate compared to capital gains, investors are willing to pay a higher tax rate for dividends in exchange for the positive signal dividends send regarding the future prospects of the firm. Lintner's (1956) investigation found that dividend increases were actually an indication of permanent increases in earnings while dividend decreases were a sign of continuous declines in earnings. At a later stage, Bhattacharya (1979), Miller and Rock (1985)

and John and Williams (1985) found supporting evidence for Linter's (1956) investigation. According to these theorists, dividend policy changes were in fact a signal of a firm's future expectations and it was normal for managers to anticipate increased: profitability, earnings and growth rates. Essentially what this supposition meant was that there was a positive relationship between changes in dividends and the subsequent share price reaction (Sharma, 2001). If a firm had experienced a dividend cut, the firm would also experience a decline in average earnings per share (Howatt *et al*., 2009). This was not surprising, as the study conducted by Aharony and Swary (1980) showed that when dividends decreased, the average share price decrease was –3.76% and when they rose, the share price increased +0.72%. Both results were statistically significant. The share price reaction to dividend increases or decreases suggests that investors perceive these changes as positive or negative news about a firm (Grullon *et al*., 2002). Nevertheless, what is particularly interesting is that some studies find the share price changes to be temporary. As soon as investors discover that the dividend changes were not based on the estimated future earnings of the firm, the temporary share price increase disappears (Black & Scholes, 1974).

While most theorists believe that dividends signal information to investors, there have been many studies which have rejected Linter's (1956) hypothesis of dividends being a signal of a firm's future prospects. The study conducted by Watts (1973), found that unexpected dividend changes contained little information on the future earnings of a firm. Furthermore, there were no irregularities in share returns, during the two month period surrounding the dividend announcements. According to the findings by Sharma (2001), firm profitability decreased after dividend initiations while Bernartzi *et al*. (1997) established that there was limited evidence supporting the view that dividend changes had some sort of information content about future prospects. In fact there was a robust link between past earnings and dividend changes and a strong suggestion that dividend cuts were a signal of increases in future earnings. More recently, the move to deliver cash back to Apple shareholders was viewed as the company admitting that it had reached a certain level of maturity and growth prospects would be difficult to come by in the future. Therefore, dividends do not directly reveal the future prospects of a firm.

The majority of firms still pay dividends, even though dividends are costly in so many ways (Bernartzi *et al*., 1997). This is due to the fact that most of these firms have paid dividends for many years and are obligated to continue with these practices (Skinner, 2008). Since Lintner's (1956) paper, mangers have been hesitant to cut dividends even if they prefer not to pay them at all they are forced to do so by the firm's history (Skinner, 2008). Essentially, the aforementioned states that even though dividends do not have any signalling information, managers will declare dividends and initiate dividend policy changes because of the firm's history. For this reason, it becomes extremely difficult to draw information from dividend changes.

2.7.2. Signalling Theory of Share Repurchases

Textbook discussions on pay-out policy generally suggest that dividends and share repurchases are more or less equivalent ways of paying out cash flows (Brealey & Myers, 1996). In practise, dividends and repurchases are used at different places in the business cycle by different types of firms. In contrast to dividends, which grow smoothly, aggregate share repurchases are volatile and vary considerably with the business cycle. Companies increase their repurchases disproportionately relative to dividends, during boom times and reduce them more during recessions (Jagannathan *et al*., 2000). As a result, several executives perceive share repurchases as being more flexible than dividends, and they use this flexibility in an attempt to time the market by accelerating repurchases when they believe their share price is low (Brav *et al*., 2005). According to Ikenberry *et al*. (1995), firms with high book-to-market ratios (or value shares) are more likely to have undervaluation as their primary motivation for repurchasing shares. At the other extreme, it is more probable for firms with low book-to-market ratios to repurchase shares for reasons other than undervaluation.

The explanation most commonly offered in literature for the repurchase of shares is that corporate managers use this action to 'signal' to the market. The company's management is better informed about the company's true value than outside shareholders. This information asymmetry can lead to shares being priced below

their intrinsic value. Share repurchase plans convey a more credible signal than repeated verbal or written statements by management that company shares are undervalued (Miller & Rock, 1985). According to Persons (1997), share repurchases are a more useful signal than: dividends, corporate philanthropy or advertising. Moreover, large and significantly positive returns are experienced by the ordinary shareholders of repurchasing firms. Vermaelen (1981) examined the price behaviour of shares repurchased by companies in the open market. His sample size consisted of 243 open market offers (made between 1970 and April 1978) by 198 United States companies. The results of the study showed that open market share repurchases had a cumulative abnormal share price decline of -6,99% from (T-60) until (T-2) then from (T-2) to (T0), the two-day average abnormal share return was 3,37% and the subsequent cumulative abnormal share return decline from (T+3) to (T+60) was-1,31%. It was therefore concluded that companies repurchasing their shares were signalling undervaluation to the market. In addition to the aforementioned, signalling models suggest that firms adjust their cash distribution level to signal their future prospects in the market. A declaration of a share repurchase program typically signals that the firm will do better. In the survey conducted by Dhanani and Roberts (2009), it was recognised that investors perceive share repurchase programmes as having a positive impact on the share price, however with regard to company value, investors understand that this is a gradual process, taking place over a long-term period.

Academic studies have examined a number of reasons for why firms repurchase shares. As previously mentioned the explanation that share repurchases signal undervaluation, has been a key focus of several papers. Similarly, it is also for this same reason that low-quality firms may announce an open market buyback program. The market, on average, reacts positively to open market share repurchases, yet by design, these programs are not binding and are structured for flexibility. Therefore they afford managers the ability to authorize a buyback even if there is no intention to buy back shares and have the possibility of manipulating investor opinion (Bhattacharya & Dittmar, 2004). One might question that if some repurchases are manipulative in intent, why it is that the market does not penalize these shares? Even though low-earnings quality firms do not show positive abnormal long-run

return performance, by the same token there is no evidence of a negative drift. Instead, their long-term share performance is comparable to firms with similar firm characteristics, which suggests that repurchase events made by low earnings quality firms have no long-term signalling effect. One of the main reasons behind this is that while managers in high discretionary accrual (DA, defined as the residual for a given case away from its respective expected value) firms may be working to manipulate investor perception, their market price at the time of the buyback is not overvalued. As a matter of fact, high DA firms who announce a share repurchase have typically suffered steep declines in market capitalization in the prior year. After such losses, it may be the case that managers are simply hoping to prevent any further erosion in price. Furthermore, given the fact that the size of the initial announcement effect for all firms (including high DA firms) is small, roughly 2%, a price change of this magnitude when corrected later will be difficult to distinguish and leaves little economically material drift to estimate.

The fact that some company managers appear to be misleading the market may provide some insight into why investors seem to react with scepticism to repurchase announcements (Chan, Ikenberry & Lee 2007). According to Asquith and Mullins (1986), false signalling may mislead the market for a short time. Market vengeance is not immediate, nonetheless it is not unavoidable. Announcing share repurchase programs is costless (in a monetary sense), as both overvalued and undervalued firms can announce their intentions, however companies announcing share repurchase programs without implementing it put their credibility at risk. Moreover, the loss of credibility and reputation from not implementing a share repurchase announcement may be perceived as a cost associated with false signalling and investors' being misled. Nonetheless, carrying out share repurchases is a costly tool, in a monetary sense (Bukalska, 2014).

2.8. Tax Implications

2.8.1. The Tax Implications of Share Repurchases

Share repurchases and dividends are two means by which firms distribute cash to shareholders and decrease the agency costs resulting from excess cash flow

(Jensen, 1986). However, the current tax code puts dividends at a tax-disadvantaged relative to other available financial strategies. Grullon and Michaely (2002) suggest that the main reason behind the growth in share repurchases in the United States, is as a result of the relative tax disadvantage of dividends. Therefore, one finds many firms repurchasing shares in order to allow shareholders to benefit from the preferential tax treatment of repurchases relative to dividends (Vermaelen, 1981).

The personal tax savings hypothesis states that repurchases are beneficial because they are more tax efficient than paying out dividends. The thrust of this argument is that, holding total cash pay-out fixed, personal taxes are reduced and hence share value is increased when share repurchases are substituted for dividend distributions (Dann, 1981). To add to the above mentioned, Kaplan and Reishus (1990) propose that since the income tax rate is higher than the capital gains tax rate, management may prefer to engage in share repurchases, the gains of which are taxed at the capital gains tax rate, rather than dividends. Hirtle (2003) continues by stating that managers holding options will also prefer share repurchases to dividends due to tax incentives and because repurchases, in contrast to dividends, do not dilute share value. In the study conducted by Lie and Lie (1999) results show that tax considerations play a significant role in the choice between a repurchase and a dividend furthermore, there is considerable pressure from institutional investors to take advantage of tax benefits.

In the past decade major companies operating in the United States have increasingly repurchased significant amounts of their own ordinary shares because repurchasing shares, rather than paying dividends, has significant tax advantages for shareholders. A similar culture exists in Turkey since share repurchasing is more tax efficient when compared to paying out dividends. This may be as a result of dividends having a 15% withholding tax rate, while capital gains have a maximum tax rate of 10%, for both companies and individual taxpayers (Dizkirici, 2013). Australia also has a general preference for capital gains relative to dividends, on the basis of tax efficiency (Mitchell & Robinson, 1999). Le Roux (2006) reported that

South African companies preferred share repurchases to special dividends due to tax benefits associated with share buybacks. Furthermore, the lower taxes have led to a growth in share repurchases, which only became legal in South Africa on the 30th of June 1999 after the signing of the Companies Amendment Act No 37 of 1999 (Firer *et al*., 2008). In an article written by Wesson (2015), the big spenders on the Johannesburg Securities Exchange (JSE) include companies like: Sasol (R16 billion worth of shares repurchased), Telkom (R6.5 billion), Netcare (R5.5 billion), Remgro (R5.1 billion), Aveng (R4.2 billion) and Bidvest (R4 billion). The full repurchase figure for JSE companies could be closer to R50 billion per year. What these companies have in common is that they are all mature, blue chip companies. Firms of this nature are generally taxed much higher and for that reason, they may show a preference for capital gains relative to dividends.

When shifting our attention to a different school of thought (that is: the corporate savings hypothesis), Vermaelen (2006) argues that if a company borrows money to buy back shares, it lowers its corporate tax bill. This supposition is in line with the study conducted by Miller and Modigliani (1963), where it was shown that in the presence of corporate taxes, firms can increase their value by increasing the proportion of debt in their capital structure. Debt has tax advantages at the corporate level because interest payments reduce the firm's taxable income while dividends and share repurchases do not. Therefore, interest tax shields give companies a powerful incentive to increase leverage. In a perfect world, where there are no bankruptcy costs, a firm's value increases while it's cost of capital decreases, as more debt is increased. Nevertheless the world is far from perfect, distress costs dominate at high leverage. For that reason, a firm will always have an optimal or target debt range at which the incremental value of tax shields from a small change in leverage exactly offset the incremental distress costs (Lewellen & Lewellen, 2005). Reducing agency costs of free cash flow or lowering corporate taxes by increasing net debt, is strong motivation for shareholders to support the notion of companies borrowing money so as to repurchase shares. Having said that, it is important to note that the existence of a tax advantage for debt financing does not necessarily mean that companies should at all times seek to use the maximum possible amount of debt in their capital structures. Other forms of financing, notably retained earnings,

may in some circumstances be cheaper. More importantly, there are limitations imposed by lenders as well as many other dimensions (and kinds of costs) in the real-world (Modigliani & Miller, 1963). Furthermore, Lie and Lie (1999) argue that a large appreciation in the share price, prior to repurchases, reduces the tax advantage of repurchases relative to dividends. In the study conducted by Brav *et al*. (2005), managers were asked whether the tax advantage that repurchases had over dividends affected their decision to repurchase, 41.8% agreed that it did. These executives frequently cited tax inefficiency as a factor that caused them to favour repurchases over dividends. However, when dividend-payers were asked why they do not reduce dividends (or increase them less) because of tax inefficiency, it became clear that investor-level taxes were not a dominant factor. Overall, executives indicated that the differential in taxes was a consideration, but not a first-order concern, in pay-out policy decisions. In concluding this section on share repurchases and taxes, it should be noted that if investors are rational, they should prefer lower taxes to higher taxes on the cash flows they receive from their investments, and this should lead to a preference for repurchases over dividends.

2.8.2. The Tax Implications of Dividends

Numerous theories have been put forward in the literature, to explain the presence of dividends. Corporates pay dividends and investors pay tax on those dividends. Investors also pay tax on capital gains when they sell their share, however they can choose when to do so (Dahlquist, Robertsson & Rydqvist, 2009). If dividends are taxed more heavily than capital gains, as in most countries, share repurchases should be more superior to dividends. Nonetheless, dividends continue to be a substantial proportion of earnings and personal dividend taxes continue to be a substantial source of income. Miller and Modigliani (1961) held that investors can reduce the overall tax bill by sorting themselves into clienteles, in which low-tax investors collect dividends and high-tax investors realize capital gains. The theory of tax clienteles for dividend policies predicts that after a firm initiates dividends, tax-exempt institutions for which dividends are not disadvantaged will purchase shares being sold by individual investors for whom dividends are tax disadvantaged. As a result, the ownership of a dividend initiator's equity by tax-exempt investors is expected to increase after initiation. Supporting evidence, in the paper written by

Allen, Bernardo and Welch (2000) found that institutional investors were more likely to invest in dividend-paying shares because of their tax advantage. In addition, the research conducted by Dahlquist, *et al*. (2009) held that tax neutral investors, investment funds and partnerships behave according to the predictions of the dividend tax clientele hypothesis, while the evidence relating to businesses and individuals is ambiguous and depends on sample and empirical specification. Thus when investing in shares, it can be said that investors take taxes into account. If an investor faces high dividend taxes, in comparison to capital gains taxes, he/she will either choose share repurchases or shares with a low dividend yield. However, in the case of pension funds and university endowments (which are tax exempt) the tax benefit of a share repurchase will not be applicable (Bender & Ward, 2002). It was then questioned as to which investments tax-exempt investors move from, when they move into dividend paying firms. It is expected that tax-exempt investors move out of similar equity investments that already pay a dividend because this would be consistent with trading off dividend pay-outs and diversification in a natural way (Dhaliwal, Erickson & Trezevant, 1999).

Having heard the argument of the tax clientele theory of dividend, the question becomes: why would a firm want to attract institutional investors? When a firm pays higher dividends, it attracts a disproportionately larger ownership by institutions, and these institutions in turn are more likely to play a larger role in overseeing management than dispersed retail investors. Having large corporates as investors means that firms can have easier access to resources such as capital. It also boosts the reputation of the company which has large corporates as its shareholders. Therefore, it is expected that managers would weigh the positive share price response to the announcement of dividends against the consequences of angering institutional shareholders, if they were forced to have to cut the dividends in response to poorer performance (Allen *et al*., 2000).

In the study conducted by Brav *et al*. (2005) found that taxes are of second-order importance when considering a particular pay-out policy. Forty-two percent of companies that had repurchased shares agreed that the tax advantage over

dividends affected their decision to repurchase shares, however personal taxes were not a dominant factor when considering a particular pay-out policy. According to Farre-Mensa, Michaely and Schmalz (2014), studies centred on the United States May 2003 dividend tax cut confirm that differences in the taxation of dividends and capital gains have only a second-order impact on setting pay-out policy. Denis and Setpanyan (2009) also conclude that taxes do not seem to be a first-order determinant of dividend policies, which casts doubt on theories of dividend policy that focus on tax-based clienteles. Even though empirical results show that taxes have a minor effect on dividend policy, it was suggested by Grullon and Michaely (2002) that the issuance of dividends has decreased and the number of firms repurchasing shares has grown. They propose that the growth in the number of share repurchasers is due to the fact that in most markets, capital gains are taxed at a lower rate than dividend income and rational investors should prefer lower taxes as opposed to higher taxes. Baker, Singleton and Veit (2011) conclude the results in the United States and outside the United States are inconsistent, depending on the time period and country. For firms in the United States, evidence shows that taxes are a second-order determinant of dividend decisions. However, managerial surveys involving firms operating outside the United States produce mixed results. The dividend puzzle remains unsolved. Why do firms or managers not have cheaper and better ways of attracting institutions?

It should be noted however that the National Treasury and the South African Revenue Services identified a problem with share repurchases. According to their findings outgoing shareholder can avoid capital gains tax partially or completely by opting to sell shares back to the target company rather than selling shares to the incoming shareholder (Parker, 2016). Going forward, 33% of capital gains will be included in taxable income to be taxed at the normal tax rates applicable for individuals. On the other hand, dividends from South African companies will be exempt from income tax but will be subject to dividend tax at a rate of 15%. This excludes sums received from a pension or retirement funds (Deloitte, 2016). Therefore, dividends will be taxed at a lower rate than share repurchases. Nonetheless, the study at hand examines the period when dividends were taxed higher than capital gains.

2.9. The Behavioural Aspects of Corporate Dividend Policy

Corporate dividend policies vary. Traditionally, these variations are explained by differences in the tax system and the relevance of signalling devices as well as of agency problems due to informational asymmetries (Breuer, Rieger & Soypak, 2014). Recently, cultural aspects have been suggested as another reason for this finding. Furthermore, it is often argued that behavioural patterns may be a main determinant of corporate dividend policy as well. Different behavioural elements include self-control, mental accounting, hedonic editing, and regret aversion. Numerous demographic factors such as age, income, and retirement status can also affect an investor's preference for dividends (Baker & Weigand, 2015). Shefrin (2009) investigates various behavioural explanations of dividends and finds that a combination of subjective and empirical evidence provides strong support for behaviourally based theory. For example, the evidence shows that older, retired, and low-income households prefer dividend-paying shares to finance consumption. On the contrary, younger investors with moderate to high incomes have little need to finance consumption with dividends. The behavioural life cycle model by Shefrin and Thaler (1988), stipulates that people allocate their income in three different accounts: the current income account (*I*), the current asset account (*A*), and the future income account (*F*). Based on this differentiation, several reasons have been proposed to explain why dividends may be favoured to capital gains under certain instances. Consumption financed from accounts (*A)* and (*F)* involves subjectively felt penalties, as investors want to exercise self-control regarding the potential danger of excessive consumption due to time-inconsistency problems. Cash dividends are placed in the (*I)* account and therefore there is no penalty involved for the consumption financed by cash dividends. On the contrary capital gains through share price increases are placed in (*A)* account and consuming from this account will cause disutility. Hence, dividends are better suited for consumption purchases and impatient investors who want to consume with a clear conscience will prefer firms to pay-out a certain share of gains as dividends. As a result, different clienteles favour different companies because of their respective dividend policies which suit their saving and consumption decisions.

There is an argument which states that the demand for dividends by investors varies over time. In low-sentiment periods (e.g., recessions) investors may prefer saferdividend-paying shares, while in good times (e.g., booms) investors prefer riskier shares that invest their earnings rather than distribute them (Baker & Wurgler, 2004b). Thus, non-payer firms initiate dividend pay-outs when investor demand for dividends is high, and dividend paying firms tend to omit dividend payments more frequently when investors do not appreciate dividends. The idea of firms' catering to investors is not new. Numerous studies find evidence supporting the hypothesis that firms respond to investor demand across a variety of firm policies. For example Lee, Shleifer, and Thaler (1991) show that new closed-end funds are started when the discount of closed-end funds share prices is low relative to the underlying net asset value (NAV) and when investor sentiment is high (measured as the premium on small shares).

From an investor's point of view, Thaler and Shefrin (1981) and Shefrin and Statman (1984) suggest that shareholders favour dividends as a self-control mechanism. If investors were deprived of dividends, they would be tempted to sell shares and use the proceeds for consumption, and they might sell more shares than they originally intended. In this explanation, dividends help investors to pace consumption and avoid later regret from their own overconsumption. In addition to the afore-mentioned, Shefrin and Statman (1984) propose that investors may prefer dividends because they derive less utility from one big gain (e.g., a large capital gain) than from a series of small gains (e.g., a small capital gain and a dividend). Therefore, there is a higher marginal propensity to consume from dividends than from capital gains (Baker, Nagel, & Wurgler, 2007). From a manager's point of view, it has been found that managers who are over confident and optimistic about their firms' cash flows are less likely to pay dividends (Cordeiro, 2009). Deshmukh, Goel, and Howe (2009) find that the level of pay-out (dividend yield) is lower for optimistic managers. The rationale behind these findings is that managers with a strong belief in their firm's future prefer to invest cash in firm projects rather than pay it out to investors. In addition, these authors show that the market reaction to dividend increases by optimistic managers is less positive than the response to announcements by less optimistic managers. While that may be said, researchers such as Bouwman (2009),

present evidence which supports the notion that; managers who are optimistic about their future earnings distribute larger dividends. In fact the market reacts more strongly to dividend changes announced by optimistic managers. In another study of managerial overconfidence, Ben-David, Graham, and Harvey (2009), find no evidence that over confident managers are less likely to pay dividends. Furthermore, the study finds that managers who are more confident about their forecasts implement aggressive corporate policies including high dividends, high investments and high leverage. The results presented by the various authors are in contrast to one and another. This further supports the notion that the dividend puzzle is more complex than what it seems. Nevertheless, the various papers do show that there is a behavioural element behind dividend pay-outs. This may be seen in how managers and shareholders act or perceive dividend pay-outs.

2.10. Bird-in-the-Hand Theory

According to Gordon (1963), shareholders prefer cash dividends as they are more certain than capital gains. When a particular firm makes high dividend pay-outs, that firm is able to maximize its firm value and get a higher rating from rating agencies (Gordon, 1963). Moreover, Al-Malkawi *et al*. (2010) argue that on average, a dollar of dividends has four times the impact on share prices as compared to a dollar of retained earnings. Therefore, the bird-in-the-hand hypothesis suggests that shareholders need to realise their wealth and as a result of this, prefer dividends over capital gains (Ben-David, 2010). The true essence of the bird-in-the-hand theory of dividend policy is that shareholders are risk-averse and prefer to receive dividend payments rather than future capital gains. Shareholders consider dividend payments rather than future capital gains therefore a bird-in-the-hand is worth more than two in the bush. The payment of current dividends resolves investor uncertainty. Investors have a preference for a certain level of income rather than the prospect of a higher but less certain, income at some time in the future. Therefore, investors will bid up prices of the ordinary shares of companies that pay generous dividends, relative to similar companies that pay smaller dividends (Black & Scholes, 1974). This theory was developed as a response to the Miller and Modigliani dividend irrelevance theory (1961), since then more studies have found striking evidence suggesting that dividend pay-outs are important to investors and assist them when

making investment decisions (Deeptee & Roshan, 2009). Furthermore, results obtained by Baker and Wurgler (2004), indicate that dividends are highly relevant to share value. If a company announces an increase in dividend pay-outs, investors generally react positively.

Another reason as to why dividends are paid may be that firms paying healthy dividends are perceived as being relatively honest and less subject to accounting manipulations. Laing (2002) states that one should embrace shares that pay healthy dividends (a bird- in-the-hand is better than two in the bush). Healthy dividend payments also indicate that companies are generating real earnings rather than cooking the books. Buying dividend paying shares is a way of getting growth yet lowering risk (Amidu, 2007). Furthermore, dividend payment reduces the investor's transactions cost since the investor does not have to sell in the market the correspondent amount of share increased value of the retained earnings (Nikolaos, Evangelos & Dimitrios, 2010). When making dividend pay-out, the firm gets a higher rating from agencies as compared to a firm not making any dividend pay-out. With a better rating, the firm will be able to raise fiancé more easily from capital markets since credit institutions will be willing to give loans to the firm since the pay-out of dividends shows that the firm has the ability to meet its obligations (Deepte & Roshan, 2009).

A number of studies demonstrate that the bird-in- the-hand theory fails if it is posited in a complete and perfect market with investors who behave according to notions of rational behaviour. Furthermore, it has been held that a dividend payment does not affect risk rather it reduces the proportion of the investor's assets in equities. The investor who believes the firm's investment policy is too risky would desire such a reduction. If the investor wishes to reduce his investment in a firm, he can do so by selling part of his holdings. For shareholders who prefer a bird-in-the-hand to the perceived uncertainties of corporate investment, such homemade dividends substitute perfectly for corporate dividends (Easterbrook & Fischel, 1981).

An interesting observation made by Baker and Wurgler (2004) holds that investors who favour dividends (i.e. retirees and those who hold dividend paying shares for income despite the tax penalty) are said to be driven by behavioural biases, such as a lack of understanding, and are more likely to fall for the bird-in-hand argument. Furthermore, Bhattacharya (1979) states that, there is a certain level of risk which is associated with dividends. This risk is based on the micro and marco environment of the firm that is the business line the firm operates, the location of the business, labour power, human capital, competitive forces and so on. He continues by explaining that the riskiness of a firm's cash flow will influence its dividend payments however, an increase in dividends will not reduce the risk of the firm. Companies encountering greater uncertainty about future cash flows tend to have lower pay-out ratios. Keown, Martin, Petty and Scott (2007) also argue against the theory by stating that increases in current dividends do not decrease the riskiness of the company, however they do in fact work in the opposite direction. If an increase in dividends is made, the managers have to issue new shares in order to raise the much needed capital. Therefore a dividend payment just transfers the risk from old shareholders to new shareholders. The bird-in-the-hand theory is in stark contrast with some of the theories proposed in the afore-mentioned. If investors prefer to have some money in the hand, why would they choose dividends which have higher tax implications, it would make sense for them to choose share repurchases instead. Furthermore, there have been reports of managers retrenching workers or borrowing heavily, so as to meet their dividend payments. A rational investor would wait for the company to stabilize its finances first before demanding a dividend pay-out. Moreover, the various methods of meeting dividends payments are not sustainable. There will come a point where the company will not have enough funds to meet the dividend payments.

An interesting point to note is that companies like Google and Amazon have grown in leaps and bounds, without paying dividends. Funds are invested internally therefore; additional shares do not have to be issued all the time so as to raise funds. The notion behind the bird-in- the- hand theory stems from a behavioural aspect of dividend policy. When a company decides to initiate dividend payments, investors get used to those payments. If a company decides not to pay those

dividends, for whatever reasons, investors find this strange and perceive this as an increase in their risk profile and a decrease in that particular company's growth. As previous studies have shown, this is not always the case. A firm may decide to retain funds so as to invest in research and development, positive NPV projects and so on. However, since investors are used to the dividend payment, they do not even consider other factors because of learnt behaviour (a bird-in-the hand is worth more than two in the bush).

2.11. Life Cycle Theory of Dividends

According to the firm life-cycle theory of dividends, a firm's ability to find profitable investment opportunities diminishes as it matures. Eventually, it becomes optimal for the firm to distribute its free cash flow to shareholders in the form of dividends. Therefore, dividend policy is a function of a firm's life cycle. Essentially, this means that high- growth firms with larger cash flows and fewer projects tend to pay more of their earnings out as dividends (Kapoor, 2006). Newly listed firms, with predominantly unstable profitability, but strong growth opportunities, are typically firms in the growth stage of their life-cycle consequently they are not proper candidates to pay dividends according to the life-cycle theory of dividends (Fama & French, 2001). The research conducted by Knight (1921) and Schumpeter (1934), Mueller (1972) suggests that a firm innovates, in an attempt to exploit an invention involving a new product, process, marketing or organizational technique. In its initial stages, the firm devotes all available resources in developing the innovation and improving its profitability. The firm's growth is likely to be slow until it has successfully sorted out teething issues and establishes a foothold in the market. Thereafter, the company will grow rapidly, as it enters new markets and expands its customer base before any major competition can arise. After a while, competitors begin to enter the market, adopting and improving upon the pioneering firm's innovations. As existing markets become saturated and new markets are harder to find, the growth of the firm begins to slow down. As a result, the firm eventually reaches a point where it lacks profitable investment opportunities for the cash generated from its existing operations. At this mature stage, a shareholder value-maximizing firm would begin distributing its earnings to its shareholders.

Bulan, Subramanian and Tanlu (2007) find supporting evidence that firms initiate dividends after reaching maturity in their life cycles. In their study, dividend initiators are firms that have grown larger, are more profitable, have greater cash reserves, and have fewer growth opportunities compared to non-initiators at the same stage in their life cycles. They also find that no significant improvement in profitability or growth occurs around the initiation. DeAngelo, DeAngelo and Stulz (2006) investigate the life-cycle theory by examining whether the probability to pay dividends is related to the earned/contributed capital mix as measured by retained earnings to total equity (RE/TE) or retained earnings to total assets (RE/TA). In this research paper it was found that firms with low RE/TE (RE/TA) tend to be in the growth stage and reliant on external capital. However, firms with high RE/TE (RE/TA) tend to have accumulated high profits and are fairly mature. As a result, companies of this nature are good candidates to pay dividends. In a more study, Denis and Osbov (2008) examine cross-sectional and time series evidence on the propensity to pay dividends in six developed financial markets (United States of America, Canada, United Kingdom, Germany, France and Japan). They find that in all six countries, the probability of paying dividends is strongly associated with the ratio of retained earnings to total equity. The segment of firms that pay dividends is high when this ratio is also high and low when retained earnings are negative.

There is a broad consensus about the life-cycle theory of dividends many studies find that mature firms are more likely to pay dividends. In essence, these are large firms with low investment opportunities, stable cash flows, good governance, and low idiosyncratic risk. Nevertheless, this theory is in contrast with the signalling theory of dividends, which predicts that a firm will pay dividends to signal to the market that its growth and profitability have improved (Baker & Weigand, 2015). The life cycle theory of dividends is basically an indicator to investors that the firm has reached its maximum growth potential and can no longer find profitable projects to invest in. In addition, Baker *et al*., (2011) find limited evidence supporting the life-cycle theory of dividends. They conclude that the theory is descriptive in nature rather than having an economic rationale because it fails to explain why firms distribute dividends. Therefore, the puzzle of why investors like dividends and why firms distribute them

remains unresolved. Perhaps a richer, more unified theory of dividend policy, with the life-cycle framework as its backbone, can help explain the dividend puzzle.

2.12. Agency Theory

2.12.1 Agency Theory of Dividends

Corporate managers are agents of shareholders, therefore shareholders wish for management to run the company in a way that increases shareholder value. However, management may wish to grow the company in ways that are not in the best interests of shareholders yet maximize their personal power and wealth. The agency cost theory exists as a result of a separation between ownership and the management of a particular company. Jensen (1986) suggests that excessive free cash flow may produce agency costs, which are imposed on shareholders because managers do not always behave as the best stewards of investors.

Agency costs may come in the form of managers engaging in short-term cost-augmenting activities which indirectly enhance their non-salary income (Jensen & Meckling, 1976). Another form of agency cost happens in the long-term, and is especially damaging to the value of firm. Empire building occurs when managers want to satisfy their need for status, prestige and authority. This comes about when they: over-invest in firm size and/or growth-enhancing assets or over diversify with non-positive NPV projects (Baumol, 1959). There are two solutions to these problems. If a firm chooses to increase its leverage ratio, managers will be more disciplined through regular interest payments and instalments of the principle amount. Furthermore, constant dividend payments are widely acknowledged as a solution to maintain managerial discipline and reduce agency costs as shareholders recognise dividends as a way of punishing managers, who will now have reduced free cash flow. Easterbrook (1984) suggests that regular dividend payments force firms to finance externally. The investment banker or other creditors will closely look at the actual status of the firms when new securities are issued, acting as a monitor for their own interests. Paying out dividends helps reduce the agent costs since the improved monitoring disciplines managers to operate in the way of value-maximizing. In addition to the aforementioned, the free cash flow hypothesis implies

that dividend policy and the investment decision are interconnected. Therefore, an increase in dividend payments will reduce the overinvestment problem, which will have a positive impact on the market value of the firm, ceteris paribus (Lang & Litzenberger, 1989). By and large, agency theory leads to a prediction that ejecting the free cash flow to investors reduces agency costs and in turn adds value to firms.

Mixed empirical evidence exists as to whether dividends are successful in reducing agency costs among the firm's stakeholders. This is not unexpected given that agency costs are not directly observable and difficult to relate with a firm's dividend policy. Nonetheless, Allen and Michaely (2003) conclude that both dividends and repurchases seem to be paid to reduce potential overinvestment by management, which is an agency costs argument. Leary and Michaely (2011) argue that empirical data of US industrial firms provide more support for the models based on agency costs of free cash flows. Manos (2002) studied agency theory by examining 661 non-financial companies listed on the Bombay Stock Exchange. His findings followed the cost minimization model and the agency theory rationale for dividend policy. Having read the empirical evidence in the aforementioned, one can conclude that the payment of dividends serves as a mechanism to mitigate the agency problem between managers and shareholders and aligns their interests by reducing the discretionary funds available to managers. However, in practice, dividend pay-out is almost never of sufficient magnitude to become a constraining or disciplining factor (DeAngelo *et al*., 1996). Brav *et al*. (2005) finds no evidence indicating that pay-out is being used to self-impose discipline. In fact, 87% of managers think that the discipline imposed by dividends is not an important factor affecting dividend policy.

2.12.2 The Agency Theory of Share Repurchases

Share repurchases are a fundamental feature of the process a firm undergoes from growth phase to a more mature phase. Normally, in a growth phase, a firm has many positive NPV projects available, high capital expenditures, low free cash flows, and high earnings growth. At some point, the firm's growth slows down and its economic profits declines. In this phase, capital expenditures decline, and the firm generates larger amounts of free cash flows. The agency theory implies that if there is excess

cash flow under management's control, the company will enter new negative NPV projects which destroy the company value. Therefore, management should distribute this excess cash to the shareholders instead of entering into new negative NPV projects (Grullon and Michaely, 2004). Lie (2000) argues that large incremental distributions of cash through special dividends and share repurchases help mitigate the agency problems associated with excess cash flows. In addition, (Grullon and Michaely, 2004) state that repurchasing firms reduce their current level of capital expenditures and Research and Development expenses. Furthermore, the level of cash reserves on their balance sheet declines significantly. Nohel and Tarhan (1998) find supporting evidence for the free-cash-flow explanation. Therefore, Distribution policies that enable companies to deploy excess cash flow serve to prevent managerial self-interest and protect shareholder wealth (Grullon & Ikenberry, 2000). They also increase the need for companies to rely on external finance for future investments, and thus increase the monitoring of managers by these external stakeholders. According to Fenn and Liang (2007), firms with high levels of excess cash flow and low marginal financing costs will repurchase more shares. Firms with high levels of excess cash flow are at greater risk of overinvesting, and hence, derive greater benefits from distributing cash to shareholders.

As previously mentioned, transferring cash to shareholders by share repurchase diminishes the amount of cash in the company. The lower level of cash encourages management to better utilise the money left in the company (Jensen 1986). In the previous paragraph it was mentioned that: in the maturity stage, the firm's growth slows down and its economic profits declines. In this phase, capital expenditures decline, and the firm generates larger amounts of free cash flows. If this is the case, one might ask that if investment opportunities decline, why the market should react positively to share repurchases (Grullon, Michaely, 2004). Jensen (1986) explains that the positive market reaction to such events is due to the fact these events reduce the amount of free cash flows at management's disposal. The market is already aware of the reduction in profitable investments. An interesting point to note though is that even in the absence of agency costs, in situations where companies have free cash flows with few investment opportunities, distribution programmes that return excess capital to investors are valuable in that they enable investors to

reinvest their funds in alternative activities that generate a return higher than companies are able to achieve (Grullon & Ikenberry, 2000). Therefore from the empirical evidence highlighted in the previous paragraphs, one gets a sense that share repurchases add value to investors. If they don't result in an increase in the share value, they enable investors to invest their funds in firms that are at the growth stage and have projects with positive NPV values.

2.13 The Wealth Effects of Share Repurchases on Shareholders

There are a number of possible reasons as to why companies undertake share buy-backs. One of these reasons is that share repurchases can be utilised as a tool for transferring wealth to various stakeholders. Shares that are repurchased at a premium (non-greenmail repurchases) can be modelled as signals, while other repurchases are mere wealth transfers between the company and the selling shareholders, the extent of which is determined by the relative bargaining power of the seller and the repurchasing firm (Lamba and Ramsey, 2000). According to Vermaelen and Peyer (2005), wealth is transferred to the sellers in greenmail share buy-backs. Although managers who are often significant shareholders, lose by discounting the shares these losses are compensated by private benefits from control. In the study conducted by Morscheck (2014) it was concluded that: when participating shareholders are defined as institutions or individuals, an average wealth transfer to the non-participating institution is in the amount of 1%, 1.2%, and 4% of pre-transaction market-cap over the 6, 12, and 60 month period following a share repurchase. Therefore, non-greenmail premium and discounted repurchases are followed by positive abnormal returns in the year after the repurchase event.

Share buy-backs have also been known to result in a wealth transfer from bondholders or creditors to the non-participating shareholders because the increased debt used to finance the buy-back reduces the assets of the company and therefore the value of the claims of the creditors. In the study conducted by Dann (1981) and Maxwell and Stephens (2003) it was found that firms repurchase their shares in order to transfer wealth from bondholders to shareholders. According to this theory, share repurchases distribute cash to shareholders thus reducing the

cash flow available to cover the interest and principle payment for bondholders, which may lead to a higher probability of default on the bonds and a wealth transfer from bondholders to shareholders. However, the signalling theory suggests that the managers repurchase shares to signal that: the current share price is undervalued by the market. In this case, both shareholders and bondholders benefit from repurchase events and thus both share and bond prices should have a positive reaction on share repurchases (Zhu & Rong, 2012). The study conducted by Nishikawa (2003) finds empirical evidence that supports the aforementioned. Through the use of the Bond Database belonging to Lehman Brothers, the author found that there were significant negative excess bond returns during the open market share repurchase event month, however during the same period the share price reaction was significantly positive. Therefore, the bondholders and shareholders benefited considerably from the share buy-backs.

In addition to the above mentioned, the paper written by Minnick and Zhao (2006) introduces the concept of high growth firms making use of levered repurchases as a way of funding repurchases when they are cash poor. This view confirms the signalling theory, and suggests that firms may use levered repurchases to indicate private information to the market when traditional financing methods are closed to them. However, the costs of the increased probability of default outweigh the signalling benefits from the repurchase. The authors continue by stating that levered repurchases have five times as many downgrades in credit rating compared to unlevered repurchases, which is consistent with the wealth transfer hypothesis. Therefore, share repurchases generate concern that the bond stake may drop in value following this act. The company seeking to preserve the value of its bond stake, would try to prevent the repurchase from happening and, if it takes place, would be watchful to prevent a wealth transfer from bondholders to equity holders (Bodnaruk, Massa & Simonov, 2009). Bond covenants have been used by bondholders to minimize their potential losses. However, covenants do not eliminate the possible wealth losses of bondholders due to shareholders' actions (Nishikawa, 2003). Vermaelen (1981) argues that most bond covenants put limits on repurchases in the same way as they put restrictions on dividend payments. Nevertheless, if a reduction in assets (or available cash flows) is large enough, which is typically the

case in share repurchases, there could be a greater possibility of default on the bonds and wealth could be transferred to shareholders from bondholders.

An interesting argument raised by Myers (1977), states that once a firm adds risky debt to its capital structure, it introduces a series of financial obligations, legal constraints, and enticements which that can cause clashes between managers, shareholders and debt holders. Therefore, in a firm with risky debt in its capital structure, managers acting in the interest of shareholders may reject positive net present value investment opportunities because of these legal constraints. This underinvestment or debt overhang problem occurs when a positive net present value project decreases the value of equity because some of the value created goes to the debt holders. Nonetheless, in instances where a firm's existing debt structure causes deviations from its optimal investment policy, firms may attempt to renegotiate the terms of debt in order to resolve conflicts between security holders.

According to Julio (2013), allowing the shareholders to repurchase debt prior to maturity maximizes bondholder wealth across feasible strategies. If bondholders prohibit repurchases, the owners of the firm will not invest in the projects and the value of debt will fall to its minimum value. Thus, it is in the best interest of the bondholders (as a group) to allow repurchases and thus encourage more efficient investment policies. While bondholders may benefit as a group, if the firm repurchases a portion of outstanding debt, each individual bondholder may have an incentive to hold on to the debt since the value of their remaining bonds increases following the repurchase. In closing, it is important to note that: firms are inclined to repurchase debt when expected transfers to bondholders are high, even after controlling for leverage. In addition, the announcement of debt repurchases appears to be interpreted as good news to shareholders, as event returns are significantly positive.

2.14 Share Repurchases: A Tool for Changing Capital Structure and Ownership Concentration

Share repurchases are an important financial policy instrument that affects multiple corporate decisions like: pay-out, capital structure, investments and management compensation policies. Companies tend to use share repurchases as a tool to change their capital structure. Therefore, one may find firms with additional debt capacity repurchasing their own shares so as to achieve an optimum capital structure (Dittmar, 2000). According to Li and McNally (2007), the optimal leverage is the industry average debt ratio, so the optimal capital structure is the industry average debt to total asset ratio. Firms below the optimal capital structure repurchase their shares to increase leverage, benefit of taxes and increase firm value. Interestingly, the study conducted by Pacheco and Raposo (2007) found that there was a significantly lower leverage of initial repurchase firms relative to non and secondary repurchase firms. This finding may have been related to the existence of free cash flows problems, mentioned in the previous paragraphs, or concerns over the increased risk of financial problems prevent highly leveraged firms from repurchasing shares for the first time.

An important point to mention is that companies repurchasing their shares in order to distribute them among employees do not change the number of shares outstanding. Instead, the number of listed shares diminishes. The level of equity is temporarily lowered as long as the company holds its own shares (until their resale or distribution). Repurchasing shares in order to distribute them among employees; means that company wants to change the ownership structure. However, repurchasing shares to distribute them among employees, cannot change the company's capital structure or improve financial ratios (Bukalska, 2014).Why then do companies repurchase shares only to re-distribute them to employees? When the controlling shareholders have high ownership, their interests are more closely aligned with that of other shareholders. This is in line with a story in which firms with dispersed ownership have a stronger incentive to disgorge cash to mitigate agency costs related to free cash. Furthermore, employee share options increase the flexibility of a firm's cost structure. For example cost which lack access to capital, may use shares to compensate employees in order to conserve cash. Employee

share options also better align the incentives of a firm's employees with its owners or shareholders. Finally, employee share options enhance the incentives for productive behaviour throughout the entire firm (Voss, 2012).

According to the management share incentives hypothesis, Fenn and Liang (2001) find evidence that managers substitute repurchases for dividends to increase the value of their share options. More specifically, they find a strong negative relationship between dividend pay-outs and managers'-options and a positive relationship between repurchase activity and share options. Their main interpretation of this finding is that managers will have motivations to reduce dividends and increase repurchases (or retain more cash) because the value of the managers share options are negatively related to expected future dividend payments. Lambert, Lanen and Larcker (1989) find that, when a firm decides to pay a cash dividend the price of the share will approximately decline by the amount of the dividend on the ex-dividend date. In the study conducted by Murphy (1998) it was found that out of 618 large companies that granted share options to their chief executive officers, only 7 had plans that included dividend protection. Similarly, Weisbenner (2000) reported that in his sample of 799 companies that granted share options, only 2 offered dividend protection. Therefore it can be concluded that repurchases are more likely to take place when executives have share options. An interesting point, which was mentioned in the previous paragraph, is that of share repurchases and ownership.

Although a repurchase, at a general level, is merely an alternative mechanism for the firm to distribute cash, it also changes the composition of assets held by the firm, the financing mix and alters the ownership proportions of the remaining shareholders. Jensen (1986) suggested that share repurchases can help reduce the probability of incurring agency costs related to free cash. Similarity share repurchases can also help improve the governance of the firm. For example, in firms where there is insufficient monitoring of management, a repurchase may change the ownership composition such that the incentives to monitor management become greater for some shareholders if their proportional cash-flow rights and voting rights increase (Skjeltorp & Odegaard, 2004). Furthermore, in firms where controlling families have

weak control rights, the firm might engage in share repurchases so as to strengthen the control positions of the families and secure their future private benefits (Joh & Ko, 2007). Nevertheless, it should be noted that share repurchases have the possibility of intensifying the conflict between large shareholders and minority shareholders. If large shareholders have stronger incentives to becoming informed, a share repurchase may be used to increase their ownership (and the remaining shareholders ownership) in an undervalued company by retaining their shares, or alternatively decrease their ownership in an overvalued company at the expense of less informed owners (Brennan & Thakor, 1990). Moreover, share repurchases also contribute to the conflict between inside- and outside owners since insiders have incentives to secure their position in the firm. By repurchasing shares from the owners with the lowest valuations (Bagwell, 1991) they increase the cost to a bidding firm. Thus, a repurchase can be used to reduce the probability of a value creating takeover occurring, which would benefit shareholders, but potentially make the manager lose control over the firms resources (Skjeltorp & Odegaard, 2004).

2.15 Share Repurchases and Takeover Deterrence

Studies of share buy-backs have been an integral part of financial research. In particular, the use of share repurchases to deter unwanted takeovers has been studied extensively in both theoretical and empirical literature. According to Doan, Yap and Gannon (2012), there are five main hypotheses that explain a firm's takeover likelihood. They are the inefficient management hypothesis, the size hypothesis, the market–to-book ratio hypothesis, the growth and resource mismatch hypothesis, and the industry disturbance hypothesis. The inefficient management argument is based on the fundamental theory in corporate finance, whereby the takeover market or the market for corporate control is an external monitoring mechanism for management performance. If managers are unable to maximise the value of the firm, a better management team will replace them. The size hypothesis effect is associated with the transaction cost in a takeover announcement. It is maintained that larger firms tend to have a lower takeover likelihood compared with smaller firms, since the associated transaction costs for taking over large firms are much higher when compared to those of small firms (Palepu 1986). The relevant transaction costs include not only the acquisition cost which the acquirer initially pays

for the target firm, but also costs associated with the absorption of the target firm into the acquirer's organisation. The market-to-book ratio hypothesis states that a firm with a low market-to-book ratio is more likely to become a takeover target. Since the book value of the firm is not fully reflected in the market value, firms with low market-to-book ratios are considered a good investment opportunity.

An additional trigger of a firm takeover is the mismatch between a firm's future growth and its available resources. Billett (1996) states that two types of firms are more likely to have such an imbalance and both are found to be appealing to potential acquirers in the market. The first type includes young firms, which may have very high potential future growth but do not have enough resources, or the required capital might be too costly to finance their projects. The second type consists of mature firms that have excess cash-in-hand or comparatively easy access to low-cost capital. However, at the mature stage of the business cycle, firms of this nature do not have many profitable investment opportunities. Finally, the industry disturbance hypothesis, proposed by Gort (1969), suggests that takeover waves might be triggered by the difference in valuation perceived among market participants and as such clustered by industry. The valuation differential could be initiated by economic shocks in the market such as a change in technology, policy frameworks, or industrial structure. A factor that might signal a firm's takeover likelihood is the recent takeover history within its particular industry.

Share repurchases undertaken as a defence against hostile takeovers can come in one of two forms. First, it could be a targeted or negotiated share repurchase of one shareholder who has acquired a substantial shareholding in the company and is threatening a hostile takeover. The second form is a general share buy-back which can operate as a takeover defence by reducing the number of shares available to the hostile offeror. However, several empirical studies have concluded that the general share repurchase undertaken as a takeover defence (excluding targeted buy-backs), is not in the interests of the shareholders of target companies. As a matter of fact, a study of 49 defensive share repurchase events made by companies in the United States of America, over the period 1980-1987, found that the event of defensive

share buy-backs was associated with an average negative impact on the share price of the target companies.

On the contrary, the results for negotiated or targeted share buy-backs are mixed. In principle, these types of buy-backs either harm or benefit non-participating shareholders. On the one hand, it may be desirable for the company to repurchase the shares of an individual shareholder where that shareholder is disrupting or threatening to disturb the operation of the company. On the other hand, managers may buy-back the shares of an individual shareholder to entrench themselves against a hostile takeover that otherwise would be commenced by the shareholder. This may not be in the interest of shareholders where they are denied the right to consider the takeover offer (Lamba & Ramsay, 2000).

An interesting point to note is that there are numerous reasons why share repurchases deter potential takeovers. Distributing excess cash to shareholders may alleviate agency problems, thus reducing gains from a takeover. Moreover, the model offered by Hirshleifer and Thakor (1992), shows that managers of poor performing firms act to deter takeovers by increasing leverage during periods of high takeover activity. For debt-financed repurchases, increased leverage may provide an additional deterrent to the would-be acquirer. Finally, Bagwell (1991) shows that share repurchases deter takeovers and help protect incumbents from takeover attempts by raising share prices for corporate raiders to pay. Empirical evidence shows that takeover activity declines significantly after Dutch auctions. A Dutch auction share repurchase is a method whereby the firm announces the number of shares it will repurchase within a stated range of prices. Investors then indicate the price within the stated range of prices at which they are willing to tender their shares. Upon expiration of the tender offer, the firm identifies the minimum price at which the pre-specified number of shares may be repurchased. Using a logistic regression model, the study conducted Persons (1994) found that the Dutch auction repurchase method was more likely to be adopted by large companies that were previously subject to takeover pressure and have low inside ownership. The first firm to utilise the Dutch auction was Todd Shipyards in 1981 (Bagwell,1992). However in more

recent years companies such as: The Wendy's Company, KCG Holdings and Information Services Group have also utilised Dutch auction tender offers (The Wendy's Company, 2014; KCG Holdings, 2015 & Information Services Group, 2016)

While share buy backs may deter takeover activity, some theoretical models suggest that managers can use repurchases to pursue their own objectives. For example, if there is asymmetric information between the manager and outside shareholders, a repurchase can be used to: increase the manager's ownership in the undervalued firm and transfer wealth from outside owners to the manager and the remaining shareholders. In addition, share repurchases have the probability of decreasing value enhancing takeovers which benefit shareholders, but threaten the position of the manager and make him lose control over the firm's resources (Skjeltorp and Odegaarsd, 2004). Therefore, takeovers are one of the most important external mechanisms for aligning the interests of managers and shareholders.

Jensen (1993) finds that corporate governance worsens as the threat of a takeover decreases, since alternative governance mechanisms are likely to be less effective in disciplining managers. Consistent with this view, Mikkelson and Partch (1997) find that the propensity to fire Chief Executive Officers that are performing poorly, becomes weaker during the years in which takeover activity was low (1984-1988 versus 1989-1993). According to Shleifer and Vishny (1997), replacing poor performing Chief Executive Officers is a necessary condition for good corporate governance. Jensen (1986) and others have introduced an interesting point of view, where they stated that mergers represent a mechanism for: shifting assets into their best use and ensures that managers act in the shareholders' interest. In fact the rationale behind enacting legislation that promotes Merges and Acquisitions includes: capital allocation, increasing minority shareholder protection and transparency as takeovers can lead to good corporate governance and provide rapid access to new markets and new product lines (Garrett, 2010). In addition to the aforementioned, the study conducted by Martynova and Renneboog (2006) finds that the share price increases significantly before and after an official announcement of a takeover bid. When such a price increase occurs, the shareholders are able to

sell their shares at a much higher price than they would have had the takeover not taken place.

Given that takeovers offer gains to shareholders, defences adopted by the board against a takeover would be seen as being against the interests of the target company's shareholders. Therefore, attempts to defeat a takeover causes shareholders to miss out on an opportunity to gain from selling their shares to a bidder, who offers them a premium over the current market share price of the target company (Pearce & Robinson, 2004). On the contrary, many studies have argued that the share price increase before and after an official announcement of a takeover bid, is a short-term boost that does not last (Sudarsanam, 1995). Furthermore, the main beneficiaries in Mergers and Acquisitions are the managers of the acquiring business and the shareholders of the target company (Bootle, 2009). Knoeber (1986) states that takeover defences benefit the shareholders because they provide managers with the security of not being taken over on the near future. As a result, directors can focus their efforts on long-term investments. He continues by stating that managers receive financial compensations for their performances once the benefits of their work have been assessed. As a consequence, shareholders have to make sure that there is no risk for the company to be taken over, otherwise the managers would never receive their wages and therefore have no incentive to work harder under the threat of a tender offer. Therefore, takeover defences are essential in helping managers to focus the on long-term investments and on the best interests of the shareholders.

Having read the conflicting views on takeovers, it becomes clear that the idea of share repurchases being a mechanism for deterring takeovers is more complex than it seems. Takeovers in general are perceived to be a fundamental part of healthy capitalism. They keep good businesses performing well, ensure that capital is allocated properly and managers remain committed to the best interests of investors (Fama, 1980). However, changing financial and economic circumstances, in conjunction with a number of recent controversial takeovers, have led to the criticism of takeover activity (Davis, Offenbach, Stevens & Grant, 2013). Share repurchases

done in order to deter takeover activity, do not only lead to an increase in the share price but they also allow managers to focus on projects that are in the best interest of shareholders Knoeber (1986). Moreover, the use of anti-takeover amendments in an early stage of the firm history, just after an Initial Public Offerings for instance, protects its management and makes sure that the core directors of the company will remain in place long enough to continue the long-term investments necessary for the continued existence of the company Field & Karpoff, 2002). While there may not be an answer as to which school of thought prevails, it is important to note that the issue of utilising share buybacks as a method of deterring takeover activity depends on: whether shareholders prefer to remove non-performing managers so as to re-build an organisation that performs at its optimum level, or whether they prefer to keep these incumbents and have them under constant pressure of a takeover.

2.16 A South African Perspective of Share Repurchases

South African companies have been allowed by law (No. 37 of 1999) to repurchase their own shares since 1 July 1999 (Bester, Wesson & Hamman, 2010). Prior to this Act, companies were not allowed to repurchase their own shares. South African share repurchases started off slow due to uncertainty regarding the treatment of repurchases under tax laws, nonetheless once the tax implications had been clarified and companies became familiar with this new distribution mechanism, repurchase programmes were initiated by many listed companies (Daly, 2002). From the period 2000 to 2003, Bhana (2007) reported 117 open market repurchase events. In a more recent study conducted by Bester (2008) it was found that 121 companies, listed on the JSE, had made 312 repurchase events from the period July 1999 to June 2007. The figures shown above are strong indications of there being an increasing movement (in the world of share markets) towards adopting share repurchase activity. These growing numbers raise an interesting issue regarding the motivation behind share repurchases. Research papers show that firms buy back shares for numerous reasons such as: management's intention to signal to the market that the shares are undervalued, to distribute cash to shareholders, to ward off potential takeover raiders, to distribute excess cash when there are no profitable investment opportunities, to adjust financial leverage and to avoid dilution (Lee *et al*., 2010). However, in certain instances the reasons stated in international studies do not

always conform to those obtained in South African studies. Notable South African studies on the information-signalling hypothesis of open market share repurchases were performed by Daly (2002), Bhana (2007), Pienaar and Krige (2012). Bhana (2007) found that the South African market reaction to open market share repurchase events was similar to that experienced in the United States of America. Companies repurchasing their shares signal undervaluation to the market.

In contrast to managers in the United States, who consider repurchases a significantly more flexible (and thus more attractive) form of repaying capital to investors, South African managers felt the same way about repurchases, but had a stronger preference for dividends as a way of returning cash to their shareholders. Interestingly, managers in the United States and South Africa did not agree with the statement that their repurchase decisions were guided by a desire to resist a potential takeover. Nonetheless, they both agreed that their share repurchase decisions were affected by: the dilutionary effects of employee share option schemes and the fact that share options were not dividend protected. In conclusion it was found that both groups of managers viewed dividends and share repurchases as compliments and not substitutes. The only difference between the managers was the best alternative use of funds. Managers in the United States preferred to run down debt while South African managers preferred to focus on merger and acquisition activities (Firer *et al*., 2008).

The South African share repurchase environment consists of two methods of repurchasing shares: namely repurchases under general authority (general repurchases) and repurchases under specific authority (specific repurchases). General repurchases are similar in style to those of American open market share repurchases (Daly, 2002). Regulations on general (or open market) repurchases are more flexible and less cumbersome than specific repurchases, and it is expected that companies would show a preference for open market repurchases over specific share repurchases (Wesson *et al*., 2014). Bester *et al*. (2010) found that the South African share repurchase environment does however differ from the international environment therefore; international studies cannot be applied *pari passu* on South

African share repurchases. In arriving to this conclusion, the authors used a sample of 33 JSE-listed companies, which were studied over nine years, from July 1999 until 2008. The findings obtained showed that South African open market repurchases represent about 61% of total share repurchases in value and only about 49% of open market repurchases in value are announced via the Securities Exchange News Service (SENS) of the JSE. The listing requirements of the JSE propose that: once a company has cumulatively repurchased 3% of the original number of shares in issue, at the time that the general authority from shareholders was granted, and for each 3% in aggregate of the original number of shares acquired after the first 3%, it must make a SENS announcement regarding the prescribed holdings. This JSE requirement applies to general repurchases only. In relation to specific repurchases, it is suggested that as soon as a company has determined the terms of a repurchase, it should make a SENS announcement accordingly. Therefore if only half of the share repurchases are announced via SENS then, previous research has only dealt with half of the total share repurchases in South Africa. Furthermore, it will be difficult to do additional research on share repurchases in South Africa since existing data sources do not include unannounced share repurchases Wesson (2015). The South African share repurchase environment does however present an interesting and unique feature, which pertains to the subsidiaries of companies being able to repurchase the holding company's shares (up to 10% in total), this includes share trusts. Other countries only permit share repurchases of own shares by the holding company and prohibit share repurchases of the holding company's shares by subsidiaries and share trusts (Bester *et al*., 2010). In the case of repurchases by a subsidiary of a holding company, Secondary Tax on Companies (STC) was not payable as STC is no longer in existence in South Africa. Therefore, companies are encouraged to repurchase their own shares through a subsidiary rather than buying back the shares directly (Madubela, 2011).

In the research conducted by Wesson (2015), it was revealed that the rate at which companies are prepared to dish out money to buy back their own shares is picking up dramatically in South Africa. In the 10 years covered by this research, money spent on share repurchases has increased from R2.7 billion in 2000 to R26 billion in 2009. The splurge on share repurchases raises an interesting question of the

traditional role of share exchanges, which has always been to provide companies with funds to invest. Adding share repurchases to the R247 billions of dividends paid out to shareholders over the 10 year period covered by the aforementioned research, suggests that companies listed on the JSE distribute more funds to investors than they receive from them Wesson (2015).

Nonetheless, the most disturbing aspect of the research conducted by Wesson (2015) was the difficulty experienced in trying to get reliable data. The writer contends that South Africa's disclosure requirements are especially lax compared to other jurisdictions that allow share repurchases. The JSE's lax and poorly monitored requirements saw repurchases sometimes announced years after they had been undertaken and in almost half of the open market repurchases, no announcements were made. The aforementioned is the reason why there have been so few studies conducted on share repurchases in South Africa. Since Wesson's (2015) study, there have been amendments to the JSE's listing requirements, to ensure greater disclosure of share repurchase activity undertaken during a financial year. The new Companies Act makes repurchasing shares easier as it has removed the need for shareholder approval. However, in terms of the JES listings requirements, JSE listed companies do have to secure shareholder approval (Smith, 2016)

The aim of the study at hand is to examine the market's reaction to share repurchases of companies listed on the JSE. Previous studies show that share repurchase events are associated with positive Average Abnormal Returns and positive Cumulative Average Abnormal Returns (Punwasi, 2012). These findings are indicative of an 'announcement effect' and provide support for the signalling theory. An interesting observation however, is that of the managers using share repurchases as a tool for stabilising a company's share price which has been following a downward trend for many consecutive days. While the aforementioned may be an excellent strategy; Isa, Ghani and Lee (2011) state that managers should not signal under-pricing or make an effort to stabilise the price until there is a long enough period of consecutive declines in the price. In a more recent study conducted by Wesson *et al*. (2014), results showed that in the three months prior to the event of a

share repurchase, the shares were relatively stable with a negative Cumulative Abnormal Returns (CAR) of between -1% and 0%. In the period around the event date, the CAR increased by about 1 %, but this was not statistically significant. The CAR did however drop by 2% between (T+10) and (T+22), but this again was not statistically significant. From (T+50) a steady increase in the CAR, which reached a maximum of about 35% (for the equal-weighted sample) and 48% (for the weighted sample), was observed. In conclusion, the study found a much higher positive abnormal return than had been observed in prior international research conducted by authors such as: Ikenberry *et al*. (1995), Vermaelen (1981), and Lakonishok & Vermaelen (1990). The positive abnormal return was mainly confined to value shares, which showed an abnormal return of about 80% after about two-and-a-half years, before subsiding. This study therefore confirms that investment decisions based on open market share repurchase events, especially in respect of value shares, have earned significant abnormal returns for a period of about three years following to the event date. Investors should therefore take advantage of the informational value of open market share repurchase events.

An important point to note is that, repurchase announcements without follow through are not an effective and costless tool for boosting share prices as investors learn from past experiences about managerial motives of such announcements. Bhana (2007) suggests that managers should provide shareholders with a detailed explanation of future benefits likely to arise from a share repurchase program as it will eradicate any form of sceptism associated with a share repurchase program.

2.17 A South African Perspective on Dividend Policy

Over the past few years, numerous studies have been conducted on South African dividend policy. Empirical evidence found by Firer, Gilbert and Maytham (2008) showed that South African managers held similar attitudes to those in the study conducted by Lintner (1956) that is, targeting a pay-out ratio and being conservative when setting dividends. In support of the above mentioned, Seneque and Gourley (1983) showed that managers took current and future earnings into account, when

setting a dividend policy. Managers would not amend the dividend policy unless they were certain that they could maintain the new level (Marx, 2001).

Theories on South African dividend policy are extremely thought-provoking and diverse. The paper presented by Wolff and Auret (2009) focuses on whether dividend changes in South Africa, signal a change in earnings. The results found in this study are particularly interesting as they are the foundation of the study at hand. According to these theorists, dividend and earnings announcements are made on the same day in South Africa, therefore when current dividends are high, current earnings will also be high. However, there was no evidence of future increases in earnings after dividend increases. Even after applying several models in order to give signalling a chance to be observed, there was still no evidence of signalling. Therefore, it can be said that managers in South Africa do not use dividends to signal future earnings (Wolff & Auret, 2009). Furthermore, markets do not respond to dividend announcements but to earnings announcements (Ooms *et al*., 1987). There seems to be inadequate support for the signalling theory. While most managers believe that dividends convey information to the market, the majority of managers state that they would never use dividends to send a signal about future earnings (Firer *et al*., 2008).

2.18 Are Dividends Disappearing Globally

The dividend puzzle is a conundrum. For many years researchers have investigated the rationale behind the payment of dividends. Firms that pay dividends are at a competitive disadvantage since they have a higher cost of equity than firms that do not pay. Furthermore, dividends are taxed at a higher rate than capital gains therefore they are less valuable than capital gains. Fama and French (2001) study the commonness of dividend payers listed on the NYSE, AMEX, and NASDAQ, during the period 1926 to 1999. Their study shows that the percentage of firms paying dividends declines sharply after 1978. In 1973, 52.8% of publicly traded non-financial and non-utility firms pay dividends. The proportion of payers rises to a peak of 66.5% in 1978. It then falls persistently in 1999, where only 20.8% of the firms pay dividends. The decline in the frequency of dividend payers is in part due to an

increasing tilt of publicly traded firms toward the characteristics of non-dividend payers (small size, low earnings, and large investments relative to earnings). This change in the nature of publicly traded firms was driven by a flood in new listings after 1978 and by the changing nature of new lists. Prior to 1978, newly listed companies had strong investment opportunities (high asset growth rates and high market value of assets relative to book value) and were more profitable. Post 1978 the surge in new lists and their changing characteristics, produced a growth of smaller companies with: low profitability, strong investment opportunities and a culture of no dividend pay-outs.

Maung and Mehrotra (2011) offer a simple rational explanations based on two contemporaneous trends over the Fama and French (2001) examination period. The first is a sustained increase in the information content of share prices, thus lessening the relative benefit of costly signalling through dividends. The second trend is the tremendous growth in indexing that has occurred over the last three decades. Under the assumption that indexers care primarily about tracking error, their demand for idiosyncratic information may have also declined. Baker and Wurgler (2004b) use the same methodology of Fama and French (2001), to describe the evolution of the propensity to pay dividends from 1963 through to 2000. In addition the authors question whether the catering view of dividends in Baker and Wurgler (2004a) sheds light on the propensity to pay dividends. They find that there are four distinct trends in the propensity to pay dividends between the periods 1963 to 2000, two appearances and two disappearances. The post-1977 decline is by far the largest and longest, but the three earlier fluctuations are also evident. The second main finding shows that each of these four trends is associated with a corresponding fluctuation in a proxy for catering incentives, the share market dividend premium. This variable is measured annually and defined as the: log difference in the value-weighted average market-to-book of payers and the value-weighted average market-to-book of nonpayers. The dividend premium is positive in the mid-1960s, coinciding with the first (increasing) trend in the propensity to pay dividends. It then falls through 1969, suggesting a premium for nonpayers, and accurately predicts the start of a decreasing trend in dividend pay-outs. The dividend premium becomes positive in 1970 and remains positive through 1977. Nonetheless, the propensity to pay

dividends does not begin until 1973 or 1975. This due to the fact that during the early 1970s, Nixon's Committee on Interest and Dividends actively discouraged dividend increases, in an effort to fight inflation. Once this artificial control was cancelled, the propensity to pay dividends recommenced, in alignment with catering incentives. Interestingly, the dividend premium goes back to negative values in 1978 and remains negative through 2000. This predicts the start of a decreasing trend in dividend pay-outs.

Bildik and Fatemi (2009) examine the pattern of dividend payments and their trend over time, in 33 different countries over the period 1985 to 2006. Using data from a large sample of more than 17000 firms, these researchers find a considerable disparity in the propensity to pay dividends at the global level. However, the common trend across these markets is a declining tendency to pay dividends. Over the 22 years covered by this study, the proportion of payers declines sharply from 87% to 53%. This decline is persistent and consistent over the sub-periods, and across all 33 countries studied. Therefore, these findings indicate that there has been a large decline in the propensity to pay dividends worldwide. Even though Fama and French (2000) carefully state that their findings show a reduction in the number and percentage of dividend paying firms, their research is commonly interpreted as indicating that dividends themselves are disappearing. The research conducted by DeAngelo *et al*. (2004) confirms the radical transformation in corporate dividend practices over the last two decades nonetheless it does not indicate that dividends are disappearing. Rather, dividends paid by industrial firms actually increased over the period 1978 to 2000. The large reduction in payers occurred almost entirely among firms that paid very small dividends. The 25 largest dividend payers, all of which were established firms, collectively supplied over half (54.9%) of aggregate industrial dividends in the year 2000.

Numerous studies have tried to unpack the idea of the disappearing dividend. Researchers such as Shapiro and Zhuang (2014), show that firms with lower loss-aversion investors, tend to not pay dividends. Similarly, managers with higher capital gain benefits, like those whose compensation package has a higher share of share

options, are also less likely to pay positive dividends. In addition to the aforementioned, the authors continue by stating that a higher riskiness of future earnings symbolises a higher probability of a future dividend cut, which in turns means that the probability of such a firm paying positive dividends is lower. In the paper written by Amihud and Li (2002), the disappearing dividend phenomenon is partly due to the decline in the information content of dividend announcements. If dividends provide investors with less information about the firm's value, then given that they are costly, firms may refrain from initiating them or from raising them and may even reduce them. Furthermore, dividend announcements are becoming less informative due to the increase in shareholding by institutional investors, who are more sophisticated and informed than average individual investors. Thus, by the time the dividend news is announced, the information that it is intended to convey is already incorporated in the share price. Accordingly, the disappearing dividends are partly a result of the increase in institutional holdings. In certain instances, critics of double taxation blame the increasing rarity of dividends on the fact that such pay-outs are taxed as ordinary income, while capital gains enjoy deferred taxation until the share is sold. Furthermore, they are taxed at a much lower rate.Nonetheless, this type of thinking is not without fault as the disparity between the taxes has existed for years (before and after the 1970s).

There are two other trends, which took place in the 1970s, that provide a better explanation for the disappearing dividend: the boom in mergers and acquisitions (M&A) and the explosion of share options. Shares issued to finance a merger or to pay option benefits means there is less money available to pay-out in the form of dividends. In fact there is a consensus amongst scholars that the two most recent M&A waves have failed to maximize shareholder value. In most cases the acquiring companies paid too much (the so-called winner's curse). Similarly free cash spent on share repurchases was a convenient way of increasing the share price for a chief executive waiting to exercise an option however, this money cannot be spent on dividends (Kuttner, 2002).

Dividends, as a decision of the company, persistently keep the mystery and attraction. Till today, it cannot be said that there are exact motivations behind their offering or their real effects. Experts' opinions are varied as shown in the previous sections therefore it is even more difficult to understand the motivations of eliminating them. Studies have shown that there is a phenomenon of reducing dividends nevertheless it is unlikely that their disappearance will happen. Dividends are still an important instrument in the financial sector (Prisacariu & Sandu, 2012).

2.19 Dividends, Share Repurchases and the Substitution Hypothesis

Cash dividends and share repurchases are two major forms of pay out to shareholders. For decades companies in the United States have preferred to pay out cash in the form of dividends rather than share repurchases, despite the relative tax advantage of capital gains over dividends. Nonetheless, share repurchase activity has experienced extraordinary growth over the past twenty years. The results of the paper written by Fama and French (2001) show that even after controlling for firm characteristics, firms now have a lower propensity to pay dividends. Furthermore, Grullon and Michaely (2002) highlight the fact that dividend payments have grown at an average rate of 7.5 percent per year, while share repurchase volume has grown at an average rate of 28.3 percent. The question that comes to mind is: what are the reasons for the change in corporate pay out policy? From a tax perspective, there is an obvious incentive for companies to substitute dividends with share repurchases, as capital gains are taxed at more favourable rates than dividends. Moreover, share repurchases allow investors to postpone the realization of capital gains and thus the payment of taxes (Grullon & Michaely, 2002).

In the paper written by Dhanani and Roberts (2009), the data obtained from the United Kingdom indicated that open market share repurchase programs dominate in non-investment companies. These repurchase programs are primarily driven by a desire to: return excess cash flows to shareholders, influence reported earnings per share (EPS) levels, signal undervaluation to capital markets and optimise a company's gearing ratios. Similarly, investment companies also rely heavily on open market share repurchases as well as tender offers. The main factors contributing to

the use of share repurchase programs among repurchasing investment companies appear to be: the management and discount to Net Asset Value per Share (NAV), and the management of market liquidity. When shifting the attention to investors and managers, the reasons that attracted more managerial support for share repurchases include: capital reallocation in which surplus funds are returned to investors in the absence of value enhancing projects, the flexibility of share repurchase programs, their substitutability in relation to special dividends, the role that share repurchase programs have in influencing corporate gearing levels and signalling of undervaluation.

On the other hand, the reasons cited by investors include the view that share repurchases: enable companies to generate publicity in the markets, influence the total future dividend pay-out levels and mitigate the principal agent problem by reducing opportunities for management to engage in behaviours which benefit themselves at the expense of investors. In addition studies have found that once investors realise that dividends are being replaced by repurchases, they view a reduction in dividends in a less negative light. Therefore, the market reaction surrounding the announcement of a dividend decrease is significantly lowered for repurchasing firms than for non-repurchasing firms. Nevertheless, the idea of share repurchases being a substitute for dividends is not new. In (1961), authors Miller and Modigliani established that share repurchases and dividends were perfect substitutes since residual cash could be paid to investors in the form of dividends or repurchases, given a particular investment policy. In later studies, authors such as Grullon & Michaely (2002) also provided evidence that companiess had indeed been substituting dividends with share repurchases. In this particular study results showed that the majority of firms initiating cash payments did so through share repurchases and those firms that issued dividends, had also started to repurchase shares as well.

The study conducted by Firer *et al*. (2008), found that managers in the United States and in South Africa viewed dividends and share repurchases as compliments, not substitutes. The only difference between these managers was the best alternative use of funds for dividend payments. In the United States managers preferred to run

down debt, while in South Africa managers preferred to focus on merger and acquisition activities. The argument raised by Firer *et al*. (2008) opens the discussion on dividends, which have a long history dating back to the early sixteenth century in Holland and Great Britain when the captains of sixteenth century sailing ships started selling financial claims to investors, which entitled them to share in the profits, if any, of the voyages. At the end of each voyage, the profits and the capital were distributed to investors, liquidating and ending the venture's life. By the end of the sixteenth century, these financial claims began to be traded on open markets in Amsterdam. Nonetheless they were slowly replaced by shares of ownership, which caused the ownership structure of shipping firms to evolve. An interesting observation was that during this period corporate managers placed high importance on stable dividend payments. In a way, this was due to the comparison investors made with the other form of financial security then traded, namely government bonds. Bonds paid a regular and stable interest payment, and corporate managers found that investors favoured shares that performed like bonds (i.e. paid a regular and stable dividend). In addition was also believed that dividends contained important signalling information. Investors were often faced with inaccurate information about the performance of a firm, and used dividend policy as a way of evaluating what management's views about future performance were. An increase in divided payments was generally perceived as being reflective of rising future share prices (Malkawi, Rafferty & Pillai, 2010).

Today, the world still values dividends differently to share repurchases. In the study conducted by DeAngelo, DeAngelo, and Skinner (2000), the relation between the disappearance of special dividends and the appearance of repurchase programs was examined. Results showed that there was no evidence that share repurchase programs had replaced special dividends; therefore there was no evidence of the substitution effect. Furthermore, the findings in the Brav *et al*. (2005) paper showed that managers did not view dividends and share repurchases as one-for-one substitutes, therefore it was unlikely that share buy-backs would replace dividends as they each fulfil different roles within the organisation. The key difference between these methods of distributing cash to shareholders being that shareholders receiving

dividend payments receive a return without a trade in exchange, that is, without a need to relinquish a part of their shareholding (Dhanani and Roberts, 2009).

According to Bhattacharaya (1979), investors actually prefer the bird in the hand of cash dividends rather than the two in the bush of future capital gains. In the study conducted by Bernheim (1991), it was concluded that management uses dividends as opposed to share repurchases, because shareholders may, for example, want regular dividend programs because of their heavy reliance on this income. Besides increasing dividend payments, ceteris paribus, is associated with increases in share value as higher current dividends reduce uncertainty about a firm's future cash flows. An additional point to note is that in the absence of positive investment projects, companies would rather engage in dividend payments (special dividends) to help enhance shareholder wealth by enabling them to invest in projects that have positive NPV values. Easterbrook (1984) argued that dividends could be used to reduce the free cash flow in the hands of managers. Managers' interests are not necessarily the same as shareholders' interests, and in certain instances managers might conduct actions that are costly to shareholders, such as consuming excessive perquisites or over-investing in managerially rewarding but unprofitable activities. Shareholders therefore incur (agency) costs associated with monitoring managers' behaviour, and these agency costs are an implicit cost resulting from the potential conflict of interest among shareholders and corporate managers. The payment of dividends might serve to align the interests and mitigate the agency problems between managers and shareholders, by reducing the discretionary funds available to managers.

The finding by Jagannathan *et al*. (2000) shows that firms paying dividends have more stable earnings than firms that use share repurchases. Therefore, share repurchases are used to pay out extraordinary transitory earnings and dividends are used to pay-out permanent earnings. In the study conducted by Dhanani and Roberts (2009) both managers and investors echoed the fact that repurchase programs were a flexible means with which to return surplus cash to investors and were similar to special dividends, however they also stated that they had reservations about the role of share repurchases in this capacity. Special dividends

are more equitable and represent a more certain distribution of resources to investors in comparison to share repurchase programs, in which only the sellers receive the rewards and there is little certainty associated with these gains. Interestingly, in the study performed by Allen *et al*. (2000) it was argued that firms paying dividends were more likely to attract institutional investors. This stems from the fact that institutional investors are often subject to restrictions in institutional charters (such as the prudent man rule) which to some extent prevents them from investing in non-paying or low-dividend shares. Furthermore, these institutions have a relative tax advantage over individual investors and as a result are able to purchase high dividend paying shares. In the same way, good quality firms prefer to attract institutional clienteles (by paying dividends) because institutions are better informed than retail investors and have the ability to monitor or detect firm quality. Therefore, the clientele effect plays a critical role in the presence of dividends and the documented irregularities, such as a reluctance of firms to cut dividends.

Dividend payments support the signalling, free cash flow and clientele hypotheses, nonetheless, repurchase programs are also used to signal undervaluation in the markets and managers are very conscious of their effect on earnings per share. In the study conducted by Grullon and Michaely (2002), it was established that the propensity of firms to initiate a dividend payment in the 1990s is by order of magnitude, smaller than it was in the 1970s. Furthermore, established companies now distribute more of their cash flows through repurchases and less through dividends. The paper written by Brav *et al*. (2005) is the latest study to examine the role of share repurchases in the United States, as part of a broader study that also examined companies' dividend policies. In this study, survey results showed that, managers were hesitant to shift dollars away from repurchases toward dividends because a substitution in this direction is not reversed except under extraordinary circumstances. This is mainly due to the fact that dividends are sticky and tied to long-term sustainable earnings (Lintner, 1956). The managers continued by expressing that they valued the flexibility of repurchases and disliked the rigidity of dividends.

South African managers felt the same way as American managers, when it came to repurchases but they had a stronger preference for dividends than their counterparts in the United States (Firer *et al*., 2008). In relation to executives' views on the form of pay-out they would choose if they were hypothetically paying out for the first time, survey results revealed that, among firms that do not currently pay out, 67% say that if they were beginning to pay out they would repurchase only, while 22% say they would only pay dividends. The tendency of a decreasing reliance on dividend payments and the increasing reliance on repurchases also implies that nowadays, a more appropriate tool of valuation is total pay-out rather than dividend pay-out (Grullon & Michaely, 2002). A point to note however is that during rising markets, investors may be willing to tolerate higher gearing levels, which may make repurchase programs popular during such conditions. Conversely, during falling markets, managers may be more inclined to return cash to investors to enable them to invest it more efficiently and in this case. The aforementioned, reiterates the fact that share buy-backs are more flexible then dividends. Mitchell, Dharmawan and Clarke (2001) concur with this idea, as they explain that share repurchase programs may gain popularity in downward markets since companies may be reluctant to distribute cash dividends which subsequently, may have to be reduced. Brennan and Thakor (1990) do however point out that share repurchases offer informed investors an advantage over uninformed investors. The informed investors will not participate in the purchase if they believe the share is undervalued, but will if it is overvalued. Therefore, investors should not always be persuaded to sell off their shares every time a company makes a share repurchase announcement. Rather, there be an investigation as to why the organisation is repurchasing shares in the first place.

2.20 Conclusion

A lot of research has been performed on dividend policy. While studies may have examined the various issues pertaining to dividend policy, they have produced mixed and inconclusive results. Perhaps the famous statement made by Black (1976) that the harder one looks at the dividend picture the more it seems like a puzzle with pieces that just do not fit together, is fitting when it comes to dividend policy since academic literature is still not clear as to when, why and how companies pay dividends, and whether dividends create or destroy value. The survey conducted by

Brav *et al*. (2005) indicates that the three main factors that affect dividend decisions are: the ability to maintain stable dividends, future earnings and investors' preferences.

However over the past few years companies a lot of dividend paying companies have not been able to maintain stable dividends. Kumba Iron Ore cut its dividends after full-year profits decreased by 29% (van Vuuren, 2015). The second largest shale gas and oil producer in the United States, Chesapeake Energy Corporation halted its quarterly dividend for the first time in 14 years as slumping energy prices crimped cash flow (Wilson, 2016). Similarly, there are speculations that Anglo America could cut its dividend for the first time since 2009 as tumbling commodity prices reduce the cash available to pay investors (Crowley & Riseborough, 2015). On the other hand, it is true that dividends decisions are affected by future earnings. Of the companies that have reduced their dividend pay-outs, the reduction in earnings income plays a major role in the decision to cut dividend pay-outs. This also pertains to the companies' future outlook. In fact the common trend among these companies is an initial decrease in earnings, as a result of economic conditions, followed by a dividend decrease. Investors become sceptical and start selling off their shares this causes the share price to fall even further.

Fama and French (2001) and Grullon and Michaely (2002) suggest that firm size contributes immensely to the size of the dividend. According to these theorists, large firms tend to pay more dividends to reduce agency costs since they face high agency costs as a result of ownership dispersion, increased complexity and the inability of shareholders to monitor firm activity closely. Due to the weak control in monitoring management in large firms, a large dividend pay-out increases the need for external financing, which in turn, leads to the increased monitoring of large firms by creditors. Another observation that can be made in relation to firm size is that, large firms are companies that have reached maturity. As a result they tend to have a lot of capital with very minimal investment opportunities that have positive NPVs. This leads to them paying large amounts of dividends. On the contrary, young firms with ample investment opportunities and limited funds do not pay dividends at all.

While theorists may have found conclusive evidence regarding the firm size effect, this has not been the case with the signalling theory of dividends. Firstly, there is a school of thought that does not find support for the assertion that dividend changes convey information about future earnings. Secondly studies on the market reaction to dividend announcements, yield results that are in accordance to the information signalling hypothesis. Thirdly, in most cases, analysts revise their predictions on earnings in the same direction with changes in dividends. Finally, empirical results obtained from field surveys are relatively mixed (Ma, 2012). Though academics may not be in one accord when it comes to the signalling theory of dividends, it should be noted that once a company initiates dividends, the variations in that amount do actually carry so sort of information content. The interesting question is what is the nature of that information? Benartzi *et al*. (1997) show that dividend policies reflect the past or current company performance before dividend announcement. According to Lintner (1956), dividend increases are a signal of management's belief that earnings have increased permanently, thus conveying information content about future earnings. Therefore, the objectives of this study are to determine: whether dividend changes reflect the future performance of firms and how the market reacts to transformations in dividend policy, from a South African perspective.

Recent studies show that there is a decline in the propensity to pay dividends worldwide. In fact only large firms, with high profitability and low growth opportunities, have been known to have a greater propensity of paying dividends than small companies with high growth opportunities. A study conducted by Grullon and Michaely (2002) arrived to a conclusion that repurchases were gradually replacing dividends: companies funded their share repurchase programmes principally with funds that would have otherwise been used to make dividend payments. The report also showed that while companies were unwilling to reduce their dividends to initiate share repurchase programmes, new pay-outs were more likely to be exercised through repurchases than dividends.

From a South African context, share buy-backs are a fairly new concept as companies were only allowed to repurchase their own shares on the 1st July 1999

(No. 37 of 1999). The first research on share repurchases in South Africa was done by Daly (2002). He investigated repurchase activities between July 1999 and September 2001. Further research on South African share repurchases was published by the likes of Bhana (2007), Bester (2008), Bester *et al*. (2010). Nonetheless, these researchers and many others have continued to complain about the extreme difficulty they have experienced when trying to obtain reliable data. South Africa's disclosure requirements are remarkably lax, when compared to other jurisdictions that allow share repurchases. The JSE's lax and poorly monitored requirements have led to repurchases sometimes getting announced years after they had been undertaken and in almost half of the open market repurchases, no announcements were made (Wesson, 2015). As a result of this, very few studies have been conducted on share repurchases in the South African market. This study seeks to contribute to the limited research that is available on share repurchases, within the South African market. The next chapter describes the methods employed to conduct the study.

CHAPTER 3

3. METHODOLOGY (RESEARCH DESIGN AND METHODS)

In this chapter, the methods and procedures which were used to accomplish the purpose of the research are presented.

3.1 Sampling and Data Collection

Using INET BFA, data for 226 dividend paying companies and 55 share repurchasing companies, trading on the JSE during the period 2003 to 2013, was collected. The sample selected, based on data availability, consisted of: cash dividend pay-outs and earnings per share for the years in which the dividend pay-out had either increased or decreased. These two variables were observed in order to determine whether cash dividend changes signal past or future changes in earnings. In addition to the aforementioned, event dates for share repurchases and daily share price returns for companies that had repurchased their shares were collected in order to ascertain what the market's reaction was, around the share repurchase event. The market's reaction was monitored by observing changes in share price returns, before and after the share repurchase event. A point to note is that none of the financial data sources in South Africa (McGregor BFA, I-Net Bridge and Reuters) have detailed records on share repurchases. Therefore it is impossible to obtain a complete picture of share repurchase activity that takes place.

In selecting companies that formed part of the dividends sample, the following criteria had to be met:

- Company distributions were semi-annual or annual cash dividend pay-outs nonetheless they had to be paid in South African rands.
- The firm's earnings data must be available for the years in which the dividends were paid out.
- The dividend pay-out did not represent a dividend initiation of a company.
- Companies that had only issued cash dividends once, did not form part of the study.

The sample period chosen reflects a unique time in South Africa's economic development. During the period 2003-2007 there was relative political stability that fostered unprecedented corporate economic prosperity. Furthermore a fairly uniform dividend tax policy prevailed during this time, as dividends were not taxed in the hands of the individual (Wolff & Auret, 2009). However, from the year 2008 the world economy went into a recession. Some companies went under, while others stopped paying dividends altogether. Although other countries had recovered from this recession, South Africa's economy continued to experience sluggish growth. During the period 2008 to 2013, this economy was characterised by political instability, labour unrest, currency volatility, minimal growth and other pressing issues. Certain sectors that were among the best prior to the year 2008, experienced negative growth and continued to struggle during the aforementioned period.

Furthermore, from the year 2012, the Secondary Tax on Companies declaring dividends was replaced with Dividend Tax levied at a rate of 15% on dividends paid by a company. The main difference between Dividend Tax and Secondary Tax on Companies lies in who is liable for the tax. Dividend Tax is a tax imposed on the shareholder upon receipt of the dividends, whereas Secondary Tax on Companies is a tax imposed on companies on the declaration of dividends (Strydom, 2012). A similar incident was experienced in the study conducted by Nell, Hamman and Smit (2001). During their sample period (1974 -1996), a change in the dividend tax regime transpired, where all investors, except for those falling into the lowest income bracket, incurred a dividend tax post March 1990. Previous studies show that, a tighter dividend tax regime during a portion of the sample period would depress the level of dividends paid by firms relative to the period when there was no Dividends Tax (Wolff & Auret, 2009). Sealy and Knight (1987) found a negative preference for dividends during the period (1973-1980), when the tax regime had changed. It will be interesting to see how the South African companies react to the introduction of Dividend tax.

In the paper written by Benartzi *et al*. (1997) it was required that: for firms to be included in the sample, they had to have a financial year-end in December and

dividends be paid quarterly without fail for at least two consecutive years. In the South African context, dividends are paid annually or semi-annually. Including companies that only had a financial year-end falling in a specific month would lead to a data set that would be too small for meaningful analysis. Therefore, the requirement of Benartzi *et al*. (1997) that firms must issue dividends at a specific interval to be included, was relaxed. In addition to the aforementioned, firms were included in the sample irrespective of the year-end month. In the end, the entire population of firms meeting the above criteria was used for analysis. Such firms tended to be medium to large capitalisation firms with a strong earnings record. In the study conducted by Wolff and Auret (2009) an approach of a similar nature was adopted when selecting the data to be analysed. The study at hand also included all firms that had paid at least two consecutive dividends at any time during the sample years. Such an approach was adopted by Nell *et al*. (2001), so as to have a larger sample to analyse and to get a full picture on firms that issued dividends.

In relation to share repurchases, several criteria had to be met, in the processing and preparation of the sample:

- The daily share price returns data, for the 41 trading days surrounding the event, had to be available for each firm that has repurchased its shares, so as to monitor investors' perceptions of share buy-back event.
- Company share buy backs had to be paid in South African rands.
- Repeat events, where companies announced the same share repurchase program more than once, were excluded from the sample. This study only included the first and actual share repurchases.
- Falsified events of share repurchases, where the company makes an event but ends up not repurchasing any shares, were also excluded from the sample. Therefore, the bid to repurchase shares had to be successful.
- It was also required that the repurchase price be not predetermined in the following manner: A synthetic buyback in which companies buy a call or sell a put on their own shares. In these cases the repurchase takes place at the strike price, which is below the market price for calls and above the market price for put option transactions.

- Share repurchase prices, fixed years in advance, did not form part of the sample.
- Specific and general share repurchases formed part of the sample.

Event Window

A window of 41 trading days from 20 days before to 20 days after the event day 0, or (-20, +20), is used to measure short-term share price return performance surrounding the actual repurchase events, for a period of 10 years. This window is approximately equivalent to one calendar month before and one calendar month after the event day. It was found to be particularly interesting to see how share prices change one month before and one month after the share repurchase event. As a company that had repurchased shares, it would be of great importance to see whether the benefits of repurchasing shares can be reaped within the first month of the event having taken place or would they occur in the long run. In determining an appropriate event window for this study a number studies were referenced. In the international paper written by Lamba and Ramsay (2000), a 41 day interval was observed in order to assess: whether there were any leakages of information prior to the share buy-backs being announced. Furthermore, the market model used by Isa, Ghani and Lee (2011) to obtain abnormal returns, uses an event window that starts from 20 days before the event and 20 days after the event (-20, +20) for 41 days. Lin, Lin and Liu (2011) also used the same market model and observed a 41 day window period, when examining share price behaviour around share repurchase events. The majority of the studies in the aforementioned focused on emerging economies, where share repurchases were a fairly new phenomenon. As a result a similar methodology was adopted in the study at hand since the South African economy is also perceived as an emerging economy. The market model was utilised to obtain abnormal returns and a 41 day window period was observed to monitor share price returns around the share repurchase event.

In the paper written by Wesson *et al*. (2014) it was stated that the share repurchases data in their study was an improvement on the previous datasets used in South

African studies on the under reaction hypothesis of open market repurchases. As a result, the study at hand adopted the authors' approach of excluding repeat and falsified share repurchase events. These exclusions assisted in ensuring that data collected was accurate and represented the status quo of the South African repurchases market. In the study conducted by Bradley and Wakeman (1983), the final sample had to meet the following criteria: there had to be no problems in dating the event and the repurchase, the offer to repurchase shares had to be successful and daily rates of return on the ordinary share had to be available for the days surrounding the event. A similar method was assumed for the purposes of this study. The offer to repurchase shares had to be successful and no problems had to be encountered when sourcing the date for a specific share repurchase program. The date was particularly important because daily share returns (pre and post share repurchase events) had to be assessed. In a later study, performed by Peyer and Vermaelen (2004), it was required that the repurchase price not be predetermined in the following sense: synthetic buybacks in which companies buy a call or sell a put on their own shares. In these cases the repurchase takes place at the strike price, which is below the market price for calls and above the market price for put option transactions. Furthermore, the repurchase price had to not be based on an average of share prices over a certain number of days prior to the repurchase event and finally the repurchase price had to not be fixed two (three) years in advance. This method was also followed in the study at hand. Exclusions were made so as to construct a sample that represented share repurchases in their true nature. Previous studies have shown that share repurchases are a signal that shares are under-priced if companies fix the share repurchase price years in advance, then there is no signal being sent to the markets. Of course the market will under react because the repurchase price has been predetermined. Furthermore, synthetic share buybacks were excluded because the study at hand focused on actual share repurchase programs, where shares were repurchased by companies and there were no other factors that would influence the price of the share besides the fact that it was under-priced, when compared to its normal trading price.

3.2 Description of Overall Research Design

The three main variables in the study are firm earnings, dividend changes and the market's reaction (which will be measured using share prices returns before and after a share repurchase event). The first two variables (firm earnings and dividend changes) were used in the study conducted by Wolff and Auret (2009). Both variables were also used in an earlier study conducted by Nissim and Ziv (2001). The third variable (market reaction) was adopted from the study conducted by Wesson *et al*. (2014). The same variable was also used by Bhana (2007).

The earnings measure chosen is headline earnings per share, defined as all the: profits and losses from operational, trading and interest activities, including those that have been discontinued or acquired at any point during the year. Omitted from this figure are: profits or losses associated with the sale or termination of discontinued operations, fixed assets or related businesses, or from any permanent devaluation or write-off of their values. In order to determine whether changes in dividends hold information content about changes in earnings, unexpected earnings for a firm year were defined as the difference between the actual earnings in that year and the earnings that were incurred in the previous year. This value was divided by the market value per share (for a particular firm) at the beginning of the base year. For the purposes of this study, the base year was the year 2003 and for the sake of convenience, 'unexpected earnings change' were simply termed 'earnings change' or 'change in earnings' throughout this study. The market value per share deflator was utilised because market values incorporate information about future profitability from all possible sources (Nissim & Ziv, 2001).This method was also adopted by Wolff and Auret (2009).

To determine whether dividend changes affect earnings, changes in the earnings of a firm were calculated as follows:

$$\Delta E_{jt} = [(E_{j,t} - E_{j,t-1}) / MV_{t,0}] \times 100 \qquad (1)$$

Earnings for firm (*j*) in year *(t)*, less earnings for firm *(j)* in year *(t-1)*, divided by the market value per share for firm *(j)* at the beginning of the base year *(t)*, multiplied by 100.

For the purposes of this study, the term dividend referred to all ordinary dividends paid during the year. Special dividends (i.e. dividends paid by a company in lieu of a particular transaction, such as to distribute profits from the disposal of an asset to shareholders) were excluded. To determine the change in dividends, the difference between the dividend at time *(t)* and the dividend at time *(t-1)* was calculated and that answer was divided by the value of the dividend at time *(t-1)*. The answer obtained was then be multiplied by 100, so as to convert it into percentage form. The formulas employed in the determination of changes in dividends, was obtained from the Wolff and Auret (2009) paper.

$$\Delta D_{jt} = [(D_{j,t} - D_{j,t-1}) / D_{j,t-1}] \times 100 \quad (2)$$

Similar to the study conducted by Wolff and Auret (2009), the regression model used to test whether dividend changes are beneficial in predicting earnings changes was recommended and used by Nissim and Ziv (2001). This model is written as follows:

$$\frac{[E_t - E_{t-1}]}{MV_{-1}} = \beta_0 + \beta_1 R\Delta D_0 + \varepsilon_t \quad (3)$$

According to the regression model: (E_t) denotes earnings in year *(t)*, (MV_{-1}) represents the market value of the ordinary share at the beginning of the dividend event year and $(R\Delta D_0)$ refers to the rate of change in dividend per share in year 0, defined identically as 'change in dividend'. Therefore, $(\beta_1 \Delta D_{j,t})$ is a change in dividends multiplied by the coefficient of a change in dividends. (β_0) is the intercept and (ε_t) is the error term. The fundamental assumption of the regression is that earnings follow a random walk, so the change in earnings measures unexpected profitability (Nissim and Ziv, 2001).

Through the aid of correlation matrix, the study was able to determine the nature of the relationship between earnings and dividends. The correlation coefficient *(ρ)* was given by the covariance between changes in earnings and changes in dividends, divided by the standard deviation of changes in earnings *(σ_e)* and the standard deviation of changes in dividends *(σ_d)*. While this method may have not been adopted from any study, it was included as an extension to the investigation on the relationship between changes in earnings and changes in dividends. In addition, the same method was used to monitor the correlation between share repurchases and earnings. The formula for the correlation coefficient is written as follows:

$$\rho = \frac{\text{COVed}}{\sigma \text{e} * \sigma \text{d}} \quad (4)$$

The study at hand also addressed the question of whether changes in dividend policies caused changes in earnings. One way of doing this was through testing for causality, where F-tests were used to test whether lagged information on a variable *(Y- dividend changes)* provided any statistically significant information about a variable *(X- earnings)*. A simple method of testing for causality uses autoregressive models.

$$\text{y}_\text{t} = \mu + \phi \, \text{x}_\text{t} - \text{n} + \varepsilon_\text{t} \quad (5)$$

The current observation is given by *(y_t)* and all the previous observations are given by *(y_{t-1}). (φ)* symbolises the parameters to be estimated, which will be given by the Dickey-Fuller test, *(μ)* signifies the mean, while *(ε_t)* is the standard error. However, for the purposes of the study, the test for causality was conducted through the aid of Eviews.

To estimate the share price responses to share repurchase events, Kapoor (2009) calculated a return *($R_{j,t}$)* which is the time *(t)* return on security *(j)* as *($P_{j,t} - P_{jt-1}$)/ (P_{jt-1})*. *($P_{j,t}$)* was the adjusted closing price of the share *(j)* on day *(t). (P_{jt-1})*

was the adjusted closing price of share *(j)* on day *(t-1)*. Nonetheless, for the purposes of this study, logarithmic returns were used. There are several benefits to using log returns, these include the fact that logs and exponents are easier to manipulate with calculus and as a result are mathematically convenient. Moreover, for short periods (e.g. daily) the log return approximates the discrete return anyway. Finally, log returns are time additive: a two period log return is identical to the sum of each period's log return. The formula for log returns is written as follows:

$$R_{j,t} = \mathrm{Ln}(P_{j,t}/P_{j,t-1}) \quad (6)$$

The abnormal returns were then calculated for each of the days in the event window according to the equation shown below:

$$AR_{j,t} = R_{jt} - E(R_{m,t}) \quad (7)$$

$$E(R_{m,t}) = \alpha + \beta_j R_{m,t} + \varepsilon_{j,t} \quad (8)$$

Returns were estimated by employing equation (6). On the other hand, expected returns on the market were calculated using equation (8), where: $(R_{m,t})$ are the returns based on the broadly defined Johannesburg All Share Index, $(\varepsilon_{j,t})$ is the random error term, (α_j) is the intercept, and (β_j) is a regression constant. These equations were adopted from the study conducted by Kapoor (2006).

Abnormal returns may be positive or negative as per the response of investors to the occurrence of event (the share repurchase event). Typically, some of the firms will show a negative abnormal return around the event when a positive figure was expected. If there are a certain number of firms or events *(N)*, it is of interest to see whether the return averaged across all firms or whether this was the case for a specific individual firm. The average across all firms, for each separate day *(t)* during the event window, was calculated as follows:

$$\mathrm{AAR_{j,\,t}} = (1/\mathrm{N})\ \Sigma\,\mathrm{AR_{j,\,t}} \quad (9)$$

For the purposes of this study abnormal returns were averaged by dividing this value by the total number of events *(N)*, to find out daily average abnormal returns.

In order to ascertain the size of abnormal returns and average abnormal returns, over the entire event window, cumulative abnormal returns *(CAR)* and cumulative average abnormal returns *(CAAR)* were calculated as follows:

$$\mathrm{CARt} = \Sigma\, AR\mathrm{t} \quad (10)$$

$$\mathrm{CAAR_t} = \Sigma\ \mathrm{A}AR_{\mathrm{t}} \quad (11)$$

CAR measures investors' total return over a period, starting from before the event of the share repurchase program to after the event day. A positive *(CAR)* indicates that the repurchase of shares adds to shareholders' value by conveying good news to the market. *(CAAR)* is the sum of average abnormal returns it may be positive or negative. If *(CAAR)* is negative in periods after the share repurchase event, this suggests that the events do not carry information about future earnings and cash flows of the companies.

T-values of the estimated *(ARs)* and *(CARs)* are calculated using (Körner & Wahlgren, 2006):

$$\mathrm{t} = \frac{\mathrm{AAR_t}}{\left[\frac{\sigma\ \mathrm{AR}}{\sqrt{\mathrm{n}}}\right]} \quad (12)$$

In the aforementioned formula: *(AAR_t)* is the average abnormal return at time *(t)*, *(σ_{AR})* is the cross-sectional standard deviation of the abnormal returns for the sample of *(n)* firms.

In conclusion, a point to note is that the methodology and formulae utilised for the section on share repurchases, was adopted from the paper written by Kapoor (2006), (Körner and Wahlgren, 2006) and (Axelsson and Brissman, 2011). This was mainly due to the fact that these studies were very similar to the study at hand. In relation to the section on dividends, the formulae applied were taken from the paper written by Wolffe and Auret (2009). The reason behind this was that both studies had similar objectives when addressing the issue of dividend pay-outs.

CHAPTER 4

4. RESULTS AND DISCUSSIONS

4.1. Summary Statistics for Changes in Dividends and Changes in Earnings

The summary statistics for changes in dividends and changes in earnings are presented in Table 1. According to the results obtained, the data set possesses non-normal properties. The value of the means and the medians, across all the variables, differ from each other. Furthermore, the distribution for changes in dividends appears to be negatively skewed (-0.9695), while the distribution for changes in earnings appears to be positively skewed (0.8700). The kurtoses for changes in dividends is (3.2740) and (2.7339) for changes in earnings. The distribution for changes in dividends is leptokurtic since the kurtosis is larger than the number (3). This further indicates that the data is not normally distributed. On the other hand, the distribution for changes in earnings seems to be platykurtic since the kurtosis is smaller than the number (3). Platykurtosis is associated with distributions that are simultaneously less peaked and have thinner tails. This too suggests that the data is not normally distributed. This implies that non-parametric tests would have to be used.

Table 1: Basic Statistical Measures

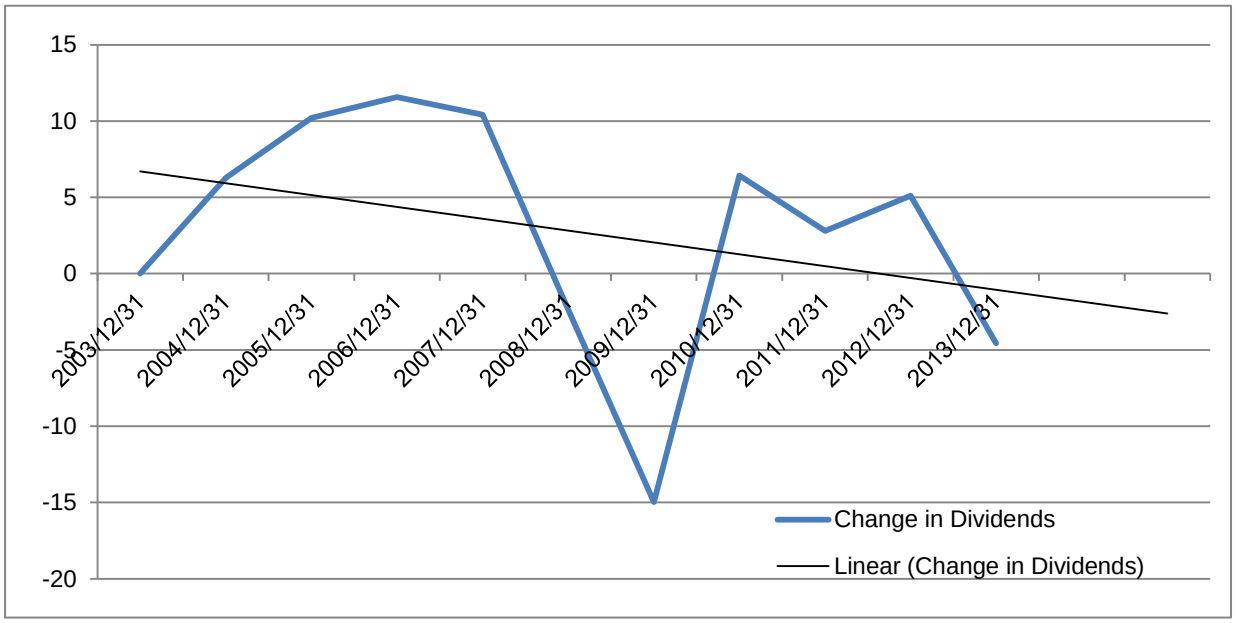
Descriptive Statistics	Changes in Dividends	Changes in Earnings
Mean	2.8143	0.6012
Median	5.1189	0.1654
Standard Deviation	7.9047	1.1417
Sample Variance	62.4844	1.3036
Kurtosis	3.2740	2.7339
Skewness	-0.9695	0.8700
Minimum	-14.9642	-0.7584
Maximum	11.5713	2.9254
Jarque-Bera	1.7576	1.4202
Probability	0.4152	0.4916

source: I-Net BFA and Author's own estimates

Figure 1, depicts the change in dividends and the linear forecast trend line. According to this graph there is a negative trend in the change in dividends. This indicates that companies are reducing dividends instead of increasing them. It could

also indicate that there are fewer new listing companies that are issuing dividends. The linear forecast trend line predicts further declines in dividend changes, post the sample period. The results of the paper written by Fama and French (2001) show that even after controlling for firm characteristics, firms then had a lower propensity to pay dividends. Furthermore, Grullon and Michaely (2002) highlight the fact that dividend payments had grown at an average rate of 7.5 percent per year, while share repurchase volume had grown at an average rate of 28.3 percent. The question that comes to mind is: what are the reasons for the change in corporate pay out policy. Some of the main drivers behind the declines in the propensity to pay-out dividends include the high taxes imposed on dividend pay-outs. According to the theory on tax clientele, different tax rates are applied on dividends and share repurchases. This causes an average shareholder to favour companies that do not pay large dividends because taxes on dividends are generally higher than on capital gains. Therefore, companies may reduce their propensity to pay dividends in order to satisfy the needs of their clientele (Dhanani & Roberts, 2009).

Figure 1: Changes in Dividends and the Linear Forecast Trend Line



source: I-Net BFA and Author's own estimates

The forecast that dividends will continue to decline could not be rejected, as depicted in Figure 1. Large companies such as: Kumba, Glencore, Sasol and Anglo American all cut their dividends in the year 2015. The rationale behind these dividend reductions seems to be poor company performance, which was caused by the sluggish growth of the South African economy (Janse van Vuuren, 2015; McDonald and Patterson, 2015; Stoddard, 2015; Yeomans, 2015). An additional explanation for the decline in the forecasted trend line may be that the pace at which companies are willing to buy back their own shares has increased dramatically Wesson (2015). Companies such as Anglo America and Sasol are labelled as the big spenders when it comes to share repurchase programs in South Africa. South African shareholders have approved of this growing trend, without any questions. This could be partly explained by the belief that share buy backs generally increase the share price, which benefits the remaining shareholders Wesson (2015).

4.2. Earnings Changes following Dividend Changes

Table 2 presents changes in earnings in the year of and the years following the dividend changes. Three firm-years in the sample were slotted into one of the dividend increasing quintiles (quintile one represents the group with the lowest dividends increases and quintile five represents the group with the highest increase in dividends), no change in dividends group, or the dividend reduction group. Dividend changes are defined as the difference between the annual dividend at (T0) and the annual dividend at (T-1), divided by the annual dividend in at (T-1). Raw earnings change is defined as the difference between the annual change in earnings per share in at (T0) and earnings per share in (T-1), divided by market value at the beginning of (T-1).

When examining Table 2, it was considered that if dividends have information content about earnings, two hypotheses should hold. Firstly, an increase (decrease) in dividend change at (T0) is followed by an increase (decrease) in earnings change at (T1) and (T2) and onwards. Secondly the greater the increase in dividend change, the greater the increase in earnings changes in the following years. The

methodology shown in the aforementioned was adopted from the studies conducted by authors Benartzi *et al*. (1997) and Wolffe and Auret (2009).

Table 2: Earnings changes following dividend changes

Dividend Change	**Mean Dividend Change**	**T 0**		**T 1**		**T 2**	
		Mean	Median	Mean	Median	Mean	Median
Raw Earnings Changes (n = 226)							
Decreases	-1.036	* -0.022	-0.007	0.041	0	-0.002	0
No Change	0	-0.002	0	0.020	0	0.015	0
Increases: Quintile 1	0.126	* 0.006	0	-0.007	0	-0.009	0
Increases: Quintile 2	0.287	* 0.084	0.083	0.028	0.029	0.022	0.020
Increases: Quintile 3	0.489	* 0.160	0.162	0.063	0.061	* 0.067	0.060
Increases: Quintile 4	0.680	* 0.219	0.212	0.120	0.122	* 0.119	0.109
Increases: Quintile 5	0.994	* 0.279	0.281	* 0.298	0.206	* 0.292	0.282

source: I-Net BFA and Author's own estimates
** represents the means that are significantly different from the no-change group at the 5% significance levels respectively using a two-tailed Student's t-test*

According to results obtained, the firms that elected not to change dividends at (T0) experienced negative earnings with a mean change of (-0,002 or -0.2%). In contrast, firms that increase their dividends at (T0) perform well in that year, excluding the firms in quintile one. Furthermore, all the dividend-increasing firms have significantly larger increases in earnings than the no-change group, with the firms in the largest increase group experiencing a mean earnings rise of (0.279 or 27, 9%). The results of Table 2 also indicate that firms which cut dividends suffer a mean earnings decline of (-0,022 or -2.2%) at (T0). This value is significantly different from the no-change group at the 5% level. Therefore it is strikingly clear that the relationship between dividend changes and concurrent earnings changes is positive and strong. Similar results were obtained in the study conducted by Benartzi *et al*. (1997) and Wolffe and Auret (2009).

The scene changes slightly at (T1). According to results obtained, firms that elected not to change dividends at (T1) experience positive earnings with a mean change of (0,020 or 2%). All the firms that had increased their dividends (excluding those in the first quintile) continue to experience positive earnings, with firms in the largest

increase group (quintile five) displaying the largest earnings with a mean that is significantly different from the no-change group at a 5% level. None of the other dividend increasing groups reflect earnings with means that are significantly different from the no-change group at a 5% level. Although significance is lacking, it should be pointed out that the second implication of the dividend-signalling hypothesis is satisfied at (T1), namely that firms with the largest dividend increases (quintile five) experience higher earnings growth than the firms in the lower dividend increasing group (quintile one). Interestingly, the decrease group shows positive earnings growth (though insignificant) which exceeds that of the increase groups in quintile one and two. In sum, there are some contradictions to the signalling theory, at (T1). Firms that decrease dividends experience positive earnings, furthermore certain firms that increase their dividends show declines in their earnings. Similar results were obtained in the study conducted by Benartzi *et al*. (1997).

At (T2) the no-change group, which achieved earnings growth of (0.015 or 1.5%), reflected higher positive earnings growth than the increase group in quintile one and the decrease group. All increase group earnings (excluding the group in quintile one) are positive at (T2), with three of the five dividend increase groups reflecting earnings with means that are significantly different from the no-change group at a 5% level. Table 2 further indicated that firms which cut dividends suffer a mean earnings decline of (-0,002 or -0.2%) at (T2). In the paper written by Benartzi *et al*. (1997), one of the dividend increase groups also experienced negative earnings growth. It was then held that while there is a strong past and concurrent link between earnings and dividend changes, the predictive value of changes in dividends seems minimal. Therefore there is a strong inference that managers of consistent dividend-paying companies on the JSE do not use dividends to signal future earnings.

According to the agency theory, managers that are left with some free cash flow can easily waste company funds on perquisites or bad projects because as a part owner, they do not bear all the costs the firm incurs. By paying out dividends managers' powers over the cash flow of a firm are limited. The agency theory may be used to explain the presence of the dividend increase groups in Table 2. Nonetheless,

previous research has shown that mixed empirical evidence exists as to whether dividends are actually successful at reducing agency costs among the firm's stakeholders (Easterbrook, 1984; Crutchley and Hansen, 1989; Chaplinsky and Niehaus, 1993). This is not unexpected given that agency costs are not directly observable and difficult to relate with a firm's dividend policy. Another theory that may explain the issuance of dividends is the catering theory, which states that managers give investors what they currently want. According to Gordon (1963), shareholders prefer cash dividends as they are more certain than capital gains. When a particular firm makes high dividend pay-outs, that firm is able to maximize its firm value and get a higher rating from rating agencies. Table 2 shows that, from the dividend increasing firms, positive earnings are experienced for all the groups except the group found in quintile one. Nonetheless, the highest dividend increasing group experiences the highest growth in earnings. An interesting point however, is that firms in the no-change and dividend cut groups also experience positive earnings at(T1) and (T2). This re-iterates that notion that the dividend puzzle remains a mystery. In conclusion, it can be said that there is a strong concurrent relationship between dividend changes and earnings changes in South Africa. This makes sense, given that earnings and dividend events are made on the same day in South Africa. The results do not provide evidence that dividends convey information content with respect to earnings at (T1) or (T2).

4.3. Test for Causality and Correlation

Bhattacharya (1979), Miller and Rock (1985) and John and Williams (1985) provide empirical evidence which suggests that dividend policy changes, signal a firm's future expectations. If a particular firm experiences a dividend cut, that firm will later experience a decline in average earnings per share (Howatt *et al*., 2009). To test this proposition, the Granger test for causality and the correlation matrix were adopted. The results displayed in Table 3 indicate that the null hypotheses cannot be rejected at a 5% level of significance, a change in earnings does not granger cause changes in dividends (0.1153 > 0.05). In addition, a change in dividends does not granger cause changes in earnings (0.5484 > 0.05). These results were not surprising as numerous researchers have developed strong arguments against the idea of changes in dividends causing changes in earnings. Miller and Modigliani (1961) were

among the first to support the notion that dividends had no effect on shareholder wealth. Watts (1973), then established that unexpected dividend changes, contained little information on the future earnings of a firm. At a later stage, Wolff and Auret (2009) found absolutely no support for dividend changes being capable to predict future changes in earnings. The results obtained in this section highlight the fact that there is an on-going debate around the idea of changes in dividends causing changes in earnings researchers cannot seem to find a common ground, when it comes to this matter.

Table 3: Granger Causality Tests

Pairwise Granger Causality Tests		
Lags: 2		
Null Hypothesis:	F-Statistic	P-values
Changes in Earnings does not Granger Cause Changes in Dividends	2.6463	0.1153
Changes in Dividends does not Granger Cause Changes in Earnings	0.6349	0.5484

source: I-Net BFA and Author's own estimates

Table 4 presents the correlation matrix of changes in dividends and changes in earnings. According to the findings, there is a positive correlation (0.4236) between changes in dividends and changes in earnings. This relationship may be caused by the fact that dividend and earnings events are made on the same day in South Africa, therefore when current dividends are high, current earnings are likely to be high as well.

Table 4: Correlation Matrix

	Change Dividends	**Change Earnings**
Change in Dividends	1	0.4236
Change in Earnings	0.4236	1

source: I-Net BFA and Author's own estimates

4.4. Summary Statistics for Share Price Returns- Share Repurchases Data

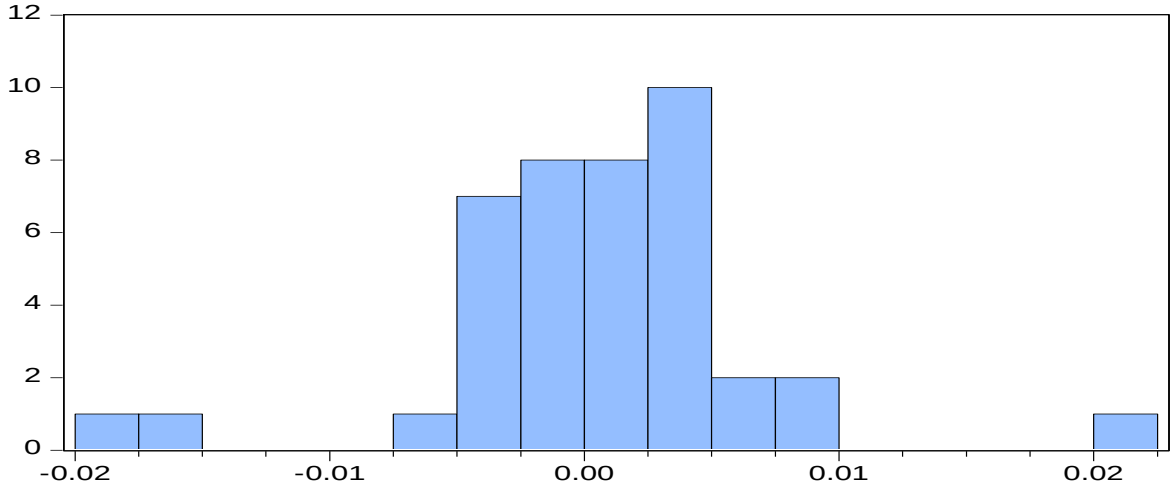
The summary statistics for share returns (20 days before and 20 days after the share repurchase events) are presented in Table 5. According to the results obtained, the data set possesses non-normal properties. The value of the means and the medians, across all the variables, differ from each other. Furthermore, the distribution of the data (-0.1376) is negatively skewed and the kurtoses (6.3992) is higher than the value of (3), which is required for data to be normally distributed. Therefore, the distribution for share price returns is leptokurtic. A leptokurtic distribution is similar to a normal distribution but has a sharper peak around the mean and fatter tails. This is evident in Figure 2, which clearly shows that the daily returns do not follow a normal distribution. Leptokurtosis is an indication of volatility clustering. The Jarque-Bera test statistic examines the skewness and kurtosis, where H_0: S=0 and K=0 and H_1: S $\neq$0 and K$\neq$0. The probability is less than (5%), therefore the null hypothesis is rejected and it is concluded that the series is not normally distributed. This is not surprising as the histogram did indicate this.

Table 5: Basic Statistical Measures

Descriptive Statistics	**Share Price Returns**
Mean	0.0003
Median	0.0002
Standard Deviation	0.0064
Kurtosis	6.3992
Skewness	-0.1376
Minimum	-0.0191
Maximum	0.0214
Probability	0.0000
Jarque-Bera	19.8684

source: I-Net BFA and Author's own estimates

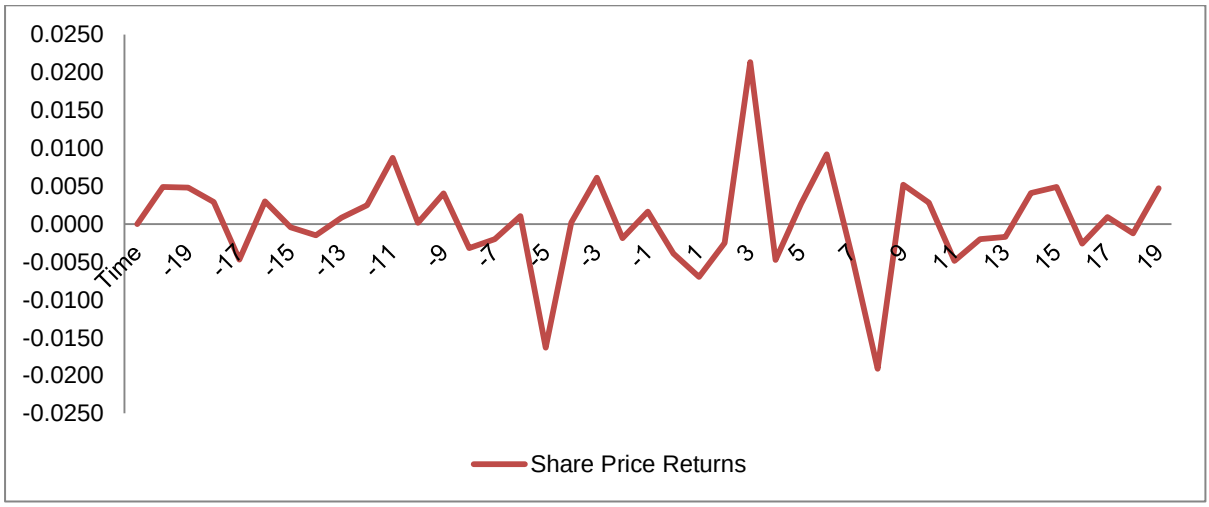
Figure 2: Histogram for Share Price Returns



source: I-Net BFA and Author's own estimates

It is indicated in Figure 3 that the mean for the sample is not constant. , Greater volatility can be seen 6 days before the share repurchase event and 9 days after. In particular, share price returns decline to (-0.0163) at (T-5) then increase to (0.0214) from (T0) to (T3). The returns decline again, to (-0.0192) from (T4) to (T9). According to this data set, it seems as though companies repurchasing their shares were signalling undervaluation to the market as share price returns are negative up until the repurchase event. Lee *et al*. (2010) show that management will repurchase shares for reasons such as: signalling to the market that the shares are undervalued, distributing cash to shareholders, warding off potential takeover raiders, distributing excess cash when there are no profitable investment opportunities, adjusting financial leverage and avoiding dilution. However, signalling stands as the biggest motivator for repurchasing shares. Research shows that investors generally perceive share repurchase programmes as having a positive impact on the share price, hence the share return increases experienced during the time of the event (Dhanani & Roberts, 2009).

Figure 3: Daily Share Price Returns

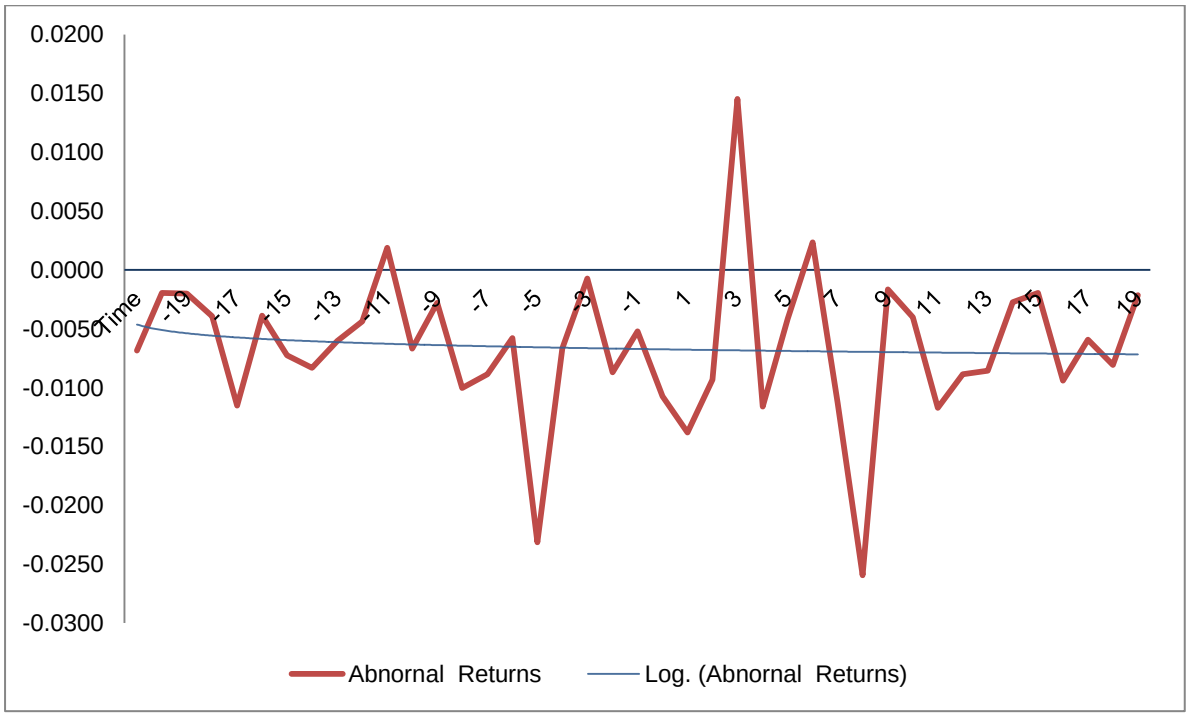


source: I-Net BFA and Author's own estimates

4.5. Abnormal Share Returns

Figure 4 demonstrates abnormal share returns. From this graph, one can ascertain that there are numerous moments where abnormal returns (which are the firm's returns after subtracting out returns attributable to overall movements of the share market) are negative, even though share price returns are positive. In fact, the findings show that pre-event abnormal returns are negative and significant at a 95-percent level since the p-value (0.00001) is smaller than (0.05). Yook (2010) lends support to this finding as he shows significant negative pre-event returns in the 6 months preceding the share repurchase event. A possible explanation could be that share repurchase programs seem to be a signal of share undervaluation. Therefore, managers use share repurchases as an instrument for stabilising a company's share price, which is undervalued at the time and has been following a downward trend for many consecutive days. Figure 4 and Table 6 show positive abnormal returns at T4 (1.454%) and T7 (0.235%), nonetheless, the p-values for T4 (0.0769) and T7 (0.4077) are not significant at a 95-percent level. According to Bukalska (2014), results of this nature indicate the presence of the 'event effect': which is the impact that certain information on changes that will occur at some future date, can have on financial markets. Further support for this notion was displayed in the paper written by Schweitzer (1989). The findings of that study show that news of a significant event has the potential of altering the patterns of share returns of a firm or industry.

Figure 4: Abnormal Share Returns



source: I-Net BFA and Author's own estimates

Table 6: Abnormal Returns, Cumulative Abnormal Returns and T-Statistics for Event Window T-20 to T20

Time	Abnormal Returns	Cumulative Abnormal Returns	Standard Deviation	T-statistic	N
-20	-0.684%	-0.684%	0%	-	41
-19	-0.195%	-0.879%	0.054%	-0.397	41
-18	-0.202%	-1.081%	0.044%	-0.603	41
-17	-0.394%	-1.475%	0.018%	-2.037	41
-16	-1.153%	-2.627%	0.078%	-0.816	41
-15	-0.387%	-3.014%	0.069%	-1.070	41
-14	-0.727%	-3.741%	0.060%	-1.523	41
-13	-0.832%	-4.572%	0.036%	-3.073	41
-12	-0.603%	-5.175%	0.018%	-7.050	41
-11	-0.438%	-5.613%	0.031%	-4.434	41
-10	0.187%	-5.426%	0.065%	-2.033	41
-9	-0.667%	-6.093%	0.069%	-2.151	41
-8	-0.281%	-6.374%	0.067%	-2.326	41
-7	-1.002%	-7.376%	0.056%	-3.191	41
-6	-0.886%	-8.261%	0.060%	-3.331	41
-5	-0.579%	-8.841%	0.034%	-6.325	41
-4	-2.315%	-11.155%	0.145%	-1.881	41
-3	-0.665%	-11.821%	0.153%	-1.887	41
-2	-0.073%	-11.894%	0.181%	-1.599	41
-1	-0.870%	-12.764%	0.065%	-4.820	41
0	-0.522%	-13.285%	0.062%	-5.198	41

Table 6: Abnormal Returns, Cumulative Abnormal Returns and T-Statistics for Event Window T-20 to T20 (continued)

Time	Abnormal Returns	Cumulative Abnormal Returns	Standard Deviation	T-statistic	N
1	-1.074%	-14.359%	0.044%	-8.035	41
2	-1.381%	-15.740%	0.068%	-5.643	41
3	-0.933%	-16.673%	0.036%	-11.354	41
*4	1.454%	-15.219%	0.238%	-1.560	41
5	-1.160%	-16.380%	0.226%	-1.767	41
6	-0.416%	-16.796%	0.210%	-1.948	41
*7	0.235%	-16.560%	0.109%	-3.704	41
8	-1.129%	-17.689%	0.107%	-4.049	41
9	-2.593%	-20.282%	0.221%	-2.239	41
10	-0.165%	-20.446%	0.191%	-2.612	41
11	-0.402%	-20.849%	0.209%	-2.432	41
12	-1.173%	-22.022%	0.082%	-6.525	41
13	-0.885%	-22.907%	0.061%	-9.190	41
14	-0.855%	-23.762%	0.027%	-21.152	41
15	-0.274%	-24.036%	0.054%	-10.904	41
16	-0.194%	-24.231%	0.056%	-10.490	41
17	-0.941%	-25.172%	0.064%	-9.587	41
18	-0.592%	-25.764%	0.058%	-10.768	41
19	-0.807%	-26.572%	0.027%	-23.579	41
20	-0.214%	-26.786%	0.047%	-13.931	41

source: I-Net BFA and Author's own estimates
** represents postive abnormal returns on the table*

Assuming that an event is taken as good news, that is, investors believe the event signifies a bright future for the company the firm's share price will increase. This price increase represents a capital gain, which raises the return on the firm's share, post the share repurchase event. Moreover, the findings show strong support for the

existence of abnormal returns. Bhana (2007) confirmed the presence of these abnormal returns in the South African market and maintained that share repurchase events had a similar effect to that experienced in the United States. In the study at hand, initial abnormal returns (following a share repurchase event) increase to (4, 38%) between the period (T-2) and (T+2).

With the knowledge that the event day will yield positive abnormal returns, it is highly likely for insider traders to take positive positions in the share, before the event. This action would result in positive abnormal returns on the days before the event. The results of this study show negative abnormal returns for the days before the event. Therefore there seems to be no evidence of insider trading before the share repurchase event. An interesting observation made from Figure 4, is that the trend line illustrates a declining tendency of abnormal share returns. The question as to why this trend extends over the entire period is intriguing and requires further work and research be done. Some answers to this conundrum are provided by Shleifer and Vishny (1990) who discuss how market inefficiencies can occur during long horizons. According to these authors, managers of firms are typically averse to severe pricing of their equity because they risk getting fired or getting taken over. A short-term asset is one where mispricing must disappear in the near future, whereas mispricing of a long-term asset can persist over a long period. Examples of short-term assets are options, futures and other instruments that have a fixed and relatively short expiration time. Examples of long-term assets are shares and foreign exchange, where mispricing can take a long time to correct. Nevertheless, shares can sometimes be a short-term asset. For example an arbitrageur betting on the outcome of a takeover bid, or an event of an imminent earnings, or other public event can expect the mispricing that he is betting against, to disappear quite fast. Such an arbitrageur can liquidate his position even if he believes that the share is still under-priced and does not have to wait until that mispricing is corrected.

In relation to the study at hand, there is evidence of a slight correction in the undervaluation of the share prices, in the short run. This price adjustment is as a result of the share repurchase event. Nonetheless, the correction is short lived, as

reflected by the trend line. A possible explanation for the long-drawn-out period of mispricing is that a share is also perceived as a long term asset therefore mispricing can persist for extended periods. Unfortunately, the sample period is not long enough to reflect when the share mispricing will disappear.

Cumulative Abnormal Returns measure investors' total return over a period, starting from before the event of the share repurchase program to after the event day. In the period leading up to the share repurchase event (see Table 6), the short horizon event study shows negative cumulative abnormal returns of (-12.764%). These results provide supporting evidence relating to the argument that managers time the event of share buybacks, and only repurchase shares in periods of undervaluation. On the other hand, it should be noted that firms also repurchase shares in times of falling markets. The sample period covered in the study at hand, also includes the period pertaining to the financial crisis (2007 to 2009). During this time the global economy went into a recession. This resulted in numerous shares losing market value. In an attempt to stabilise share prices, managers repurchased shares. However, from a South African perspective it should be noted that the economy entered a recession in late 2008 and early 2009, when the South African GDP declined for three consecutive quarters (Statistics South Africa, 2015).

The results of the study at hand show that post the share repurchase event day (T0), a run-up in share prices can be observed. This increase is depicted by the positive abnormal returns which are witnessed post the event day. These findings imply that investors in South Africa interpret share repurchase events as good signals sent by management, and react positively to these events. However, under the assumption of efficient markets, the market's investors should discount the new information that the event gives and the share price should adjust immediately. The subsequent new share price equilibrium should thereby fully reflect the new information. According to the results of the study at hand, positive abnormal returns are witnessed three to four days after the event. A possible explanation proposed by Ikenberry *et al*. (1995) suggests that the market underreacts to share repurchase events. In fact, these authors highlight that there may be instances where significant positive abnormal

returns are only observed days or even years after an event of a share repurchase program. When observing cumulated abnormal returns, the results of this study show that, while there may be an increase in abnormal returns, post the event day, the summation of these positive values is not high enough to change the direction of the trend. Yook (2010) raises an interesting point. He states that the risk of the announced share repurchase program not being completed is a contributing factor when it comes to investors not reacting in a manner that is expected by managers. Investors know that the share repurchase announcement is not a commitment from the company to repurchase shares. The company may choose to buy back only a part of the shares announced or even cancel the entire repurchase program. Therefore, investors may under react to share repurchase announcements and events, when compared to dividend pay-out announcements and events.

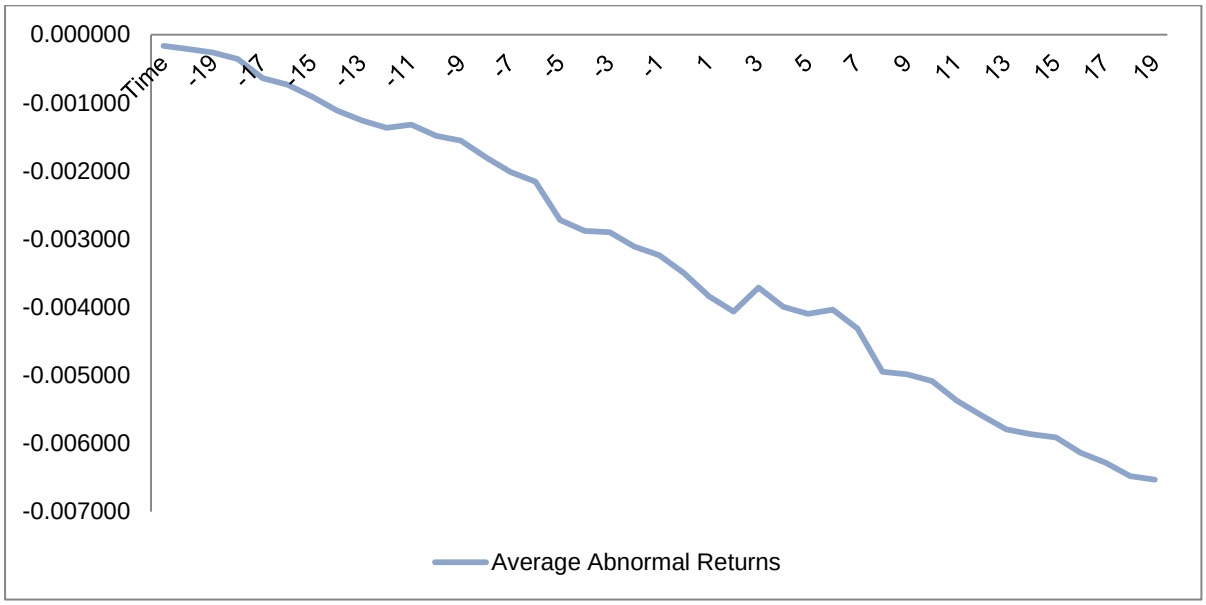
The results obtained by Axelsson and Brissman (2011) indicate that the cumulated abnormal returns for the period before the event, are (-4, 17%) and (2, 84%) ten days after the event. Nonetheless, the positive returns post the share repurchase event, are not significant on conventional levels. These findings are different to those obtained in the study at hand, when it comes to post event cumulative abnormal returns. A possible explanation for the differences may be the fact that the study conducted by Axelsson and Brissman (2011) only focuses on listed real estate companies. The results reported in the study at hand demonstrate that, announcing a share repurchase program generates a positive abnormal return to shareholders. However, when summing up the negative values with the positive values, the final outcome becomes negative accumulated abnormal returns. The positive values are not high enough to change the direction of the returns.

The cumulative abnormal returns methodology does not allow clear assessment of how returns change post the share repurchase. Nonetheless, it should be noted that the investors' reaction to news on a share repurchase event, is not always completed over short time periods. This is an assumption made in many event studies. The current trend may be subject to change, whereby the full impact of corporate events extends over several years.

4.6. Average Abnormal Returns

Abnormal returns have a tendency of being positive or negative as per the response of investors to share repurchase events. In certain instances, firms may show a negative abnormal return around the event when a positive figure is expected. Therefore, it is of interest to see whether the return averaged across all firms or whether this was the case for a specific individual firm. According to Figure 5, average abnormal returns are fairly negative prior to the share repurchase event. The average abnormal returns for the period (T-20) to (T-1) are (-0.0001). These results reiterate the notion that share repurchase events are a signal of undervaluation and support the findings obtained in the section on abnormal share returns. On average, managers will repurchase shares if the firm's share price has been experiencing consistent declines for a particular period of time.

Figure 5: Average Abnormal Returns



source: I-Net BFA and Author's own estimates

In Figure 5, it is further indicated that returns only increase three days after the share repurchase event. According to the findings of the paper written by Chan *et al*. (2007), if investors cannot, ex-ante, sort through this potentially misleading behaviour, an under reaction (in terms of returns) will be experienced following a share repurchase event. The market does however correct this under reaction over

time as additional information arrives, resulting in positive information shocks. Another explanation could be that, prior to the share repurchase event share prices had been falling anyway. The event causes an uptick in the share prices, thus leading to a gradual increase in share returns. Once the hype around the share buyback event stops, share prices return to their falling state. The results of the study at hand show that average abnormal share returns eventually go back to negative territory, post the share repurchase event. The average event returns are consistent with the interpretation that share buybacks are generally viewed in a positive light. Punwasi (2012) observed positive initial abnormal return of (0.51%) in the two days following the event. Vermaelen (1981) examined the price behaviour of shares repurchased by companies. From (T-2) to (T0), the two-day average abnormal share return was (3, 37%). In the study conducted by Axelsson and Brissman (2011) it was found that positive average returns had a value of (1,96%) on the event day. Furthermore the average abnormal returns, for the 10 days following the event, were (0, 26%) per day. Nevertheless, not all the studies illustrated conclusive results. Nittayagasetwat and Nittayagasetwat (2013) found that after three days of the share repurchase event, the average abnormal returns were mixed between positive and negative values. The results of Daly's (2002) study were also inconclusive owing to the short period under consideration.

4.7. Cumulative Average Abnormal Return

Cumulative average abnormal returns are the sum of average abnormal returns. If the equities market does not anticipate an event, the cumulative average abnormal returns up to the event date, should be approximately zero. If the event is anticipated, the returns would move up several days before the event. According to the findings of the study at hand, the cumulative average abnormal returns are negative before the event date (as shown in Table 7). A value of (-2.899%) can be observed at (T-1). This negative value is not surprising as it was established in the previous sections that share repurchase events are either a response to a trend of falling share prices, or a signal of undervaluation. What is of particular interest is the continuation of negative cumulative average abnormal returns post the share repurchase event. At (T+20), a cumulative average return value of (-13.278%) is observed. While this result may be an indication of the market’s under reaction to

share repurchase events, it is particularly strange when compared to other studies of a similar nature.

Table 7: Average Abnormal Returns and Cumulative Average Abnormal Returns for Event Window T-20 to T+20

Time	Average Abnormal Returns	Cumulative Average Abnormal Returns
-20	-0.017%	-0.017%
-19	-0.021%	-0.038%
-18	-0.026%	-0.064%
-17	-0.036%	-0.100%
-16	-0.064%	-0.164%
-15	-0.074%	-0.238%
-14	-0.091%	-0.329%
-13	-0.112%	-0.441%
-12	-0.126%	-0.567%
-11	-0.137%	-0.704%
-10	-0.132%	-0.836%
-9	-0.149%	-0.985%
-8	-0.155%	-1.140%
-7	-0.180%	-1.320%
-6	-0.201%	-1.522%
-5	-0.216%	-1.737%
-4	-0.272%	-2.009%
-3	-0.288%	-2.298%
-2	-0.290%	-2.588%
-1	-0.311%	-2.899%
0	-0.324%	-3.223%

Table 7: Average Abnormal Returns and Cumulative Average Abnormal Returns for Event Window T-20 to T+20 (continued)

Time	Average Abnormal Returns	Cumulative Average Abnormal Returns
1	-0.350%	-3.573%
2	-0.384%	-3.957%
3	-0.407%	-4.364%
4	-0.371%	-4.735%
5	-0.400%	-5.135%
6	-0.410%	-5.544%
7	-0.404%	-5.948%
8	-0.431%	-6.380%
9	-0.495%	-6.874%
10	-0.499%	-7.373%
11	-0.509%	-7.882%
12	-0.537%	-8.419%
13	-0.559%	-8.977%
14	-0.580%	-9.557%
15	-0.586%	-10.143%
16	-0.591%	-10.734%
17	-0.614%	-11.348%
18	-0.628%	-11.977%
19	-0.648%	-12.625%
20	-0.653%	-13.278%

source: I-Net BFA and Author's own estimates

According to the study conducted by Manconi, Peyer and Vermaelen (2014), results showed that the total average cumulative abnormal returns were (2.05%) in English common law countries, (1.40%) in Germany, (1.08%) in Scandinavian countries and (0.37%) in French civil law countries. Over the entire event window, no significantly negative cumulative average abnormal returns were recorded. In a South African

study conducted by Wesson *et al*. (2014) prior to the event date, the cumulative average abnormal returns remained marginally below zero at about (-1 %). In the days surrounding the share repurchase event, (T-3) to (T+3), a small increase of about (1%) was observed. In the period following the event, from (T+10) to (T+22), the cumulative average abnormal returns declined a further (2%). The findings obtained in the conducted by Wesson *et al*. (2014) are similar to those displayed in Table 7. Following the share repurchase event, slight increases to the value of (0.035%) at (T+4) and (0.006%) at (T+7) can be observed, nonetheless these increases are not large enough to change the declining trend of the returns. Post (T+7), the results show that returns revert back to negative territory. The main difference between the results obtained in the study at hand and the results obtained by Wesson *et al*. (2014) is that, the values by which the returns increase and decrease by are much lower in the study at hand. Furthermore, the sample period covered is slightly shorter, therefore one cannot see the full effect of the share repurchase event. As discussed in the previous section, a share is also perceived as a long term asset therefore mispricing can persist for extended periods and later correct itself. In the study carried out by Wesson *et al*. (2014), a longer event window was observed to obtain a better idea of the long-term effects. Looking at the period (T-60) to (T+720), that is approximately three months prior to the event, the following long-term effects were observed: from (T+50) the cumulative average abnormal returns steadily increase to about (35%) at (T+600), then the trend dissipates for the equal-weighted sample. In the weighted sample the cumulative abnormal average returns follow a similar pattern where there is an increase of (48%) at about (T+550) thereafter the trend is almost flat. From the information in the aforementioned, it can be concluded that, on average, the market underreacts to share repurchase events, nevertheless the full impact of the share repurchase events can extend over several years.

4.8. The Relationship between Share Repurchases and Changes in Earnings

A linear regression model was employed in testing whether share repurchases are useful in predicting changes in earnings. According to the results reported in Table 11, the R^2 (0.5001) and adjusted R^2 (0.4376) measures are fairly low. This implies that there might be a lack of linearity between share repurchases and changes in

earnings. Nonetheless, the coefficient for share repurchases (0.07214) is positive and significant in predicting changes in earnings as it has a p-value less than 5% (0.0222 < 0.05). The intercept is also significant (0.0231 < 0.05). These results (as shown in Table 8), indicate that from the regression model, share repurchases are a good predictor of future changes in earnings.

Table 8: Summary Statistics from Regression of Change in Earnings

Dependent Variable: Changes in Earnings			
Method: Linear Regression Model			
Root MSE	1.25338	R-Square	0.5001
Dependent Mean	0.99506	Adjusted R-Square	0.4376
Coeff Var	125.96		
Variable	Parameter Estimate	T-Value	Pr > |t|
Intercept	-102.03	-2.8	0.0231
Share Repurchases	0.07214	2.83	0.0222

source: I-Net BFA and Author's own estimates

The traditional signalling hypothesis relating to share repurchases, is motivated by asymmetric information between the managers of a firm and the market (Vermaelen & Dann, 1981). If the managers of the firm have superior information about the future prospect of the firm, and know that the firm is undervalued, they can initiate a repurchase plan to convey this information. Due to the new information about future earnings, implied by the event, a positive price impact on the event day is expected, as prices adjust to the new information. The results of the study conducted by Hirtle (2003) indicate that higher repurchases by a bank holding company are associated with enhanced earnings and better asset quality in the year following the repurchases, especially for publicly-traded firms. There are two potential explanations for this relationship: first, that bank holding company managers have private information about the bank's future prospects that leads them to return profits to shareholders in the form of repurchases, possibly as a way of signalling to market about improved future performance. In this scenario, repurchases are essentially a

proxy for this private information. In the second explanation, managers choose to make repurchases when cash flow is abundant relative to outside investment opportunities. An alternative argument states that for firms which only make repurchases, pay-outs are more likely to be driven by non-earnings factors, such as signalling that their share is undervalued (Ikenberry *et al*., 1995), distributing transitory cash windfalls (Guay and Harford, 2000; Jagannathan *et al*. (2000), funding acquisitions (Fama and French, 2001), or offsetting the dilutive effects (Kahle, 2002). In support of the afore mentioned, Jagannathan *et al*. (2000) show that firms with more volatile cash flows tend to prefer more flexible share repurchases over dividends, suggesting that firms use repurchases to distribute temporary profits and increase dividends only when they believe earnings have risen permanently. From this evidence, it is clear that there seems to be two very strong arguments. According to some authors, share repurchases are a predictor of future earnings (Van Eaton, 1999). On the other hand, share repurchases come about as a result of temporary changes in earnings. The findings of the study at hand indicate that share repurchases are a good predictor of earnings

4.9. Test for Correlation

The correlation matrix for share repurchases and changes in earnings indicates that there is a strong, positive correlation (0.70719) between share repurchases and changes in earnings. This is not surprising as repurchases models by Vermaelen (1981), Ofer and Thakor (1987), Grundy (1989), McNally (1999) and others, show that a share repurchase event may be a valuable signal to investors about current undervaluation and the future prospects of the firm, which should command a higher share price. Due to the new information about future earnings, implied by the event, a positive price impact on the event day is expected, as price adjusts to the new information. From the aforementioned, it can be said that there is asymmetric information between the managers and outside investors. Therefore, share repurchase events communicate valuable information about current earnings and the future prospects of the firm. Bhattacharya (1979), Miller and Rock (1985) and Vermaelen (1984) suggest that the repurchase decision can reveal information about future earnings and profitability to the market. Nonetheless, Jagannathan *et al*. (2000) raise an interesting argument that share repurchases are more sensitive to a

transitory shock in cash flows while cash dividends respond to changes in permanent components of earnings. Therefore, the positive correlation between share repurchases and changes in earnings, may relate to temporary changes in earnings as opposed to permanent changes. In the findings of the study at hand, one cannot say whether the relationship relates to temporary or permanent changes in earnings. Further investigation would have to be done in order to establish the true nature of changes in earnings.

CHAPTER 5

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

The objectives of this study were to: determine whether changes in dividends reflect past or future earnings change and examine the market's reaction to share repurchase events in the short-run. Using INET BFA, data for 226 dividend paying companies and 55 share repurchasing companies, trading on the JSE during the period 2003 to 2013, was collected. Regression equations and graphs adopted from the papers written by Auret and Wolffe (2009) and Benartzi *et al*. (1997), were used to test whether dividend changes were useful in predicting earnings changes or not. In addition, several event study tests were performed in order to get an understanding of how the South African market reacts to share repurchase events. Through investigating the market reaction, one was able to establish whether there was an announcement effect. This question was answered by examining the AAR and CAAR when a share repurchase announcement was made.

A Table illustrating changes in earnings in the year of and the years following the dividend changes, was constructed. The results showed that a strong positive dividend-earnings relationship was present. This meant that, when current dividends increased (decreased), current earnings increased (decreased) simultaneously. These results were not surprising given that earnings and dividend events are made on the same day in South Africa. Nonetheless, the regression analysis did not produce any evidence that dividends conveyed information content with respect to earnings in years 1 or 2. This was due to the fact that there were instances where firms had reduced dividends, yet earnings were positive in the years that followed. In addition, earnings were negative for some of the dividend increase firm groups. Therefore, no results in favour of signalling were found. These findings corroborate those reported by Auret and Wolffe (2009) and Benartzi *et al*. (1997).

As an extension to the investigation, Granger causality tests were also conducted. These tests showed that changes in dividends did not Granger cause changes in

earnings and changes in earnings did not Granger cause changes in dividends. Therefore, there is no causal relationship between these two variables. A feasible explanation may be that there were numerous factors that may have caused a firm to issue dividend pay-outs. While earnings may have influenced the issuance of dividends, they were not the sole contributing factor when making this decision.

An interesting observation however, was that made from the correlation matrix. Results showed that changes in earnings were positively correlated to changes in dividends. Therefore as earnings increased, dividends also increased and vice versa. This relationship may have been caused by the fact that dividend and earnings announcements occur on the same day, in South Africa. From an international perspective Howatt *et al*. (2009) stated that if a particular firm experienced a dividend cut, that firm would later experience a decline in average earnings per share. This confirms the results of the correlation matrix. In conclusion it can be said that the topic on whether changes in earnings signal changes in dividends or vice versa, remains contentious. The study at hand refutes the notion that changes in dividend pay-outs signal future changes in earnings. Therefore, managers in South Africa do not use dividends to signal future earnings. The study does however confirm that earnings changed first, before management decided to change dividend pay-outs. Nonetheless, changes in earnings did not Granger cause changes in dividend pay-outs. There were other factors (including earnings) that managers looked at before changing dividends.

The paper written by Fama and French (2001) shows that after controlling for firm characteristics firms now have a lower propensity to pay dividends. Several explanations have been offered as to the reason(s) for a declining propensity of firms to pay dividends. Grullon and Michaely (2002) suggest that there is evidence which indicates that share repurchases serve as substitutes for dividends. Some arguments hold that improved corporate governance has reduced the need for dividends as a mechanism to control the agency problems of free cash flows. One of the objectives of the study at hand was to analyse the trend of dividend changes, over the past years. According to the results obtained in the study at hand, dividend

changes seemed to follow a negative trend. This indicated that companies were either changing their dividends at lower rates or reducing their dividend pay-outs. Furthermore, the forecast that dividends will continue to decline could not be rejected. This was supported by evidence showing that large companies such as: Kumba, Glencore, Sasol and Anglo American had all cut their dividends in the year 2015. The rationale behind these dividend reductions seems to have been poor company performance, which was caused by the sluggish growth of the South African economy (Janse van Vuuren, 2015; McDonald and Patterson, 2015; Stoddard, 2015; Yeomans, 2015). An additional explanation was that dividend pay-outs were actually being replaced by share repurchases. Therefore, there were more companies that were substituting cash dividends with share repurchases. The study conducted by Wesson (2015), showed that the pace at which companies were willing to buy back their own shares had increased dramatically over the past few years. Investors seemed to have welcomed this, as the share value of the remaining shareholders increased.

Previous studies have always looked at dividends and share repurchases in isolation. Nevertheless, these two methods of distributing cash to shareholders form part of pay-out policy. As a result, a lot of value is added to existing literature when both dividend pay-out policy and share repurchases are examined in one research paper. Following the discussion on the findings obtained on dividend pay-outs, the study then went on to investigate the relationship between earnings and share repurchase events. A linear regression model was used in testing this. According to the results of the model, the coefficient for share repurchases was positive significant in predicting changes in earnings. Therefore, share repurchases were a good signal of future changes in earnings. The results of the correlation matrix confirmed the findings in the aforementioned. There was a strong, positive correlation between changes in earnings and share purchases. When firms repurchased their shares, it caused a positive change in earnings. Therefore, the results showed that share repurchases were a good predictor of changes in earnings. This was particularly interesting as most South African studies had not researched the relationship between these variables. .

In addition to the aforementioned, the study at hand investigated what the market's reaction was, following a share repurchase. According to the results, daily share prices returns followed a declining trend before the share repurchase event. However, (6) days prior to the share repurchase event there was a great deal of volatility. From (T0) to (T3) the returns increased drastically, indicating that the event had taken place. These increases are short lived as the returns decline again between (T4) to (T9) and then normalised after this time. Based on the aforementioned, it can be said that companies repurchased their shares to signal undervaluation to the market. Firms that repurchased their shares often experienced share price declines before this event took place. The market therefore, perceived share repurchases positively as share price returns started to increase after the shares were repurchased. These findings were not surprising as they are in line with results obtained by Chan *et al*. (2010). Their study showed that management repurchased shares for reasons such as: signalling to the market that the shares are undervalued, distributing cash to shareholders, warding off potential takeover raiders, distributing excess cash when there are no profitable investment opportunities, adjusting financial leverage and avoiding dilution. However, signalling stood as the biggest motivator for repurchasing shares. In addition to the above mentioned, the research conducted by Dhanani and Roberts (2009) showed that investors generally perceived share repurchase programmes as having a positive impact on the share price, hence the share price return increase. From a South African perspective, results of a similar nature were obtained by Wesson *et al*. (2014)

The scope of the investigation on the market's reaction to share repurchases was broadened when tests on: abnormal share returns (which are the firm's returns after subtracting returns attributable to overall movements of the share market), average abnormal returns (which are the returns averaged across all firms) and cumulative average abnormal returns (which is the sum of average abnormal returns) were conducted. The findings showed that pre-event abnormal returns were negative and significant at a 95-percent level. Positive abnormal returns can be witnessed at (T4) and (T7), post the share repurchase event. Nonetheless, these positive returns were

short lived as returns moved back to negative territory, a few days after the event. According to Bukalska (2014), results of this nature suggested the presence of the 'event effect': which is the impact that certain information can have on financial markets. It can therefore be concluded that managers use share repurchases as an instrument for stabilising a company's share price, which is undervalued at the time and has been following a downward trend for many consecutive days. A significant event (such as a share repurchase event) has the potential of altering the patterns of share returns of a firm or industry. In this case the share repurchase event was taken as good news, that is, investors believed that the event signified a bright future this led to an increase in the share price.

The results relating to average abnormal returns were fairly similar to the above mentioned. Returns started off in negative territory, prior to the share repurchase. Once the shares have been repurchased, the market reacted positively and returns increased at (T4) and (T7). These findings reiterated the notion that managers repurchased shares when a firm's share price had been experiencing consistent declines. Nonetheless, what was interesting was that returns were negative for at least three days after the share repurchase event. Under the assumption of efficient markets, the market's investors should have discounted the new information that the event gives and the share price should adjust immediately. Chan *et al*. (2007) stated that if, investors could not ex-ante sort through potentially misleading behaviour, an under reaction (in terms of returns) would be experienced following a share repurchase event. The market would however correct this under reaction over time as additional information arrives, resulting in positive information shocks. Another explanation could be that, prior to the share repurchase event share prices had been falling anyway. The event causes an uptick in the share prices, thus leading to a gradual increase in share returns. The results of the average abnormal returns did however indicate that once the hype around the share buyback had stopped, share price returns moved back to the negative region. A possible explanation for the long-drawn-out period of mispricing was that a share is perceived as a long term asset therefore, mispricing can persist for extended periods. In the study carried out by Wesson *et al*. (2014), a longer event window was observed. According to the results

of that paper, the full impact of the share repurchase event can extend over several years.

Interestingly, the test on cumulative average abnormal returns showed slightly different results. According to these findings, share returns were negative and close to zero, before the event date (T0). However instead of an increase in returns, post the share repurchase event, there was a continuation of negative cumulative average abnormal returns. According to Manconi *et al*. (2014), total average cumulative abnormal returns should be positive post the share repurchase event. This was not the case in the study at hand and similar results were obtained in the South African study conducted by Wesson *et al*. (2014). Their results showed that cumulative average abnormal returns remained marginally below zero before the share repurchase. In the days surrounding the event, (T-3) to (T3), a small increase was observed, however in the period following the event, from (T10) to (T22), the cumulative average abnormal returns declined. Since their study observed a longer period, cumulative average abnormal returns steadily increase from (T50). Had the study at hand examined a longer period, a comparison could have been done between the two studies.

In conclusion, it can be said that the market reacted positively to share repurchase events, even though the effect of the event may take a long time before the benefits are fully realised. Furthermore, share repurchases are a good predictor of changes in earnings.

5.2. Recommendations

The study at hand indicated that, changes in dividends do not granger cause changes in earnings. In addition, changes in earnings do not granger cause changes in earnings. Therefore dividends are not able to predict changes in earnings. This is an extremely important point to note for investors that only want to invest in companies that issue dividends or investors that sell their shareholdings in

companies that cut dividends. A dividend cut is not an indication that a company's earnings will decrease in the future.

Managers of JSE listed companies should not only focus on the short-term benefits of share repurchase events. These benefits are generally short lived as shares do return to their falling state, however authors such as Wesson *et al*. (2014) have shown that the benefits of share repurchase events can also be observed in the long- run. In their study, shares showed immense positive returns in the long-run

A further point to note for both investors and managers of JSE listed companies is that share repurchases are a good predictor of future earnings. Therefore, it is very confusing for investors when a company announces a share repurchase event but does not follow through with it. In addition, shareholders should not place dividend pay-outs above share repurchase events, especially because share repurchases are a good predictor of future changes in earnings.

More research is however needed to understand even the basic elements of the corporate financial 'eco-system', which include financing, investment, and pay-out policies. Moreover, there seems to be a lack in the availability of South African literature that investigates the effects of share repurchases and dividend pay-outs on shareholder wealth. In particular, future studies should look at share repurchases changes, their determinants and effect on earnings changes. This investigation should extend over several years as significant results may only be seen after many years.

During the sample period of the study at hand, there were more firms that were issuing dividends than those that were repurchasing shares. It would be very useful to investigate whether: there are still more firms that are issuing dividend pay-outs, relative to those repurchasing shares or are dividends disappearing. If there is a decline in the propensity to pay-out dividends, what are the drivers behind this

decline and the increase in share repurchases (from a South African perspective). With regard to those managers that continuously pay-out dividends, it would be interesting to establish why managers continue to pay-out dividends when they are costly, yet the market reacts positively to share repurchase events. In the paper written by Wesson (2015) it was mentioned that open market repurchases need to be reported by the company via the Securities Exchange News Service (SENS) of the Johannesburg Securities Exchange once it has cumulatively acquired (3%) of its initial number of issued shares (of that class, as at the date of the resolution) and on each (3%) thereafter. Companies repurchasing less than the cumulative (3%) therefore need not announce their open market share repurchases. The (3%) rule however seems to be interpreted as (3%) cumulatively per annum by many companies. While the official stance of the JSE is that the (3%) disclosure requirement is not limited to a specific year, it appears that JSE sponsors advise their clients that the (3%) threshold runs from one annual general meeting, at which shareholders provide the necessary authorisation, to the next (Wesson, 2015). The (3%) event rule on open market share repurchases therefore results in significant understatement of actual open market share repurchase activities. In fact Bester *et al*. (2010) show that open market repurchases represent about (61%) of total share repurchases in value and only (49%) of open market repurchases in value are announced *via* SENS. Future research needs to investigate whether there is a better system of capturing the total number of open market share repurchases that take place in South Africa. This would ensure that the correct data is correct and comparable to international studies. It would also be ground breaking research as this method could be utilised by the JSE.

6. Reference List

Abdulkadir, R., Abdullah, N., & Wong, W. (2014). Implication of Catering Theory of Dividend: Evidence from Financial Firms Listed on the Nigerian Stock Exchange. *Research Journal of Finance and Accounting, 5*(18), 211-215.

Aharony, J., & Dotan, A. (1994). Regular Dividend Announcements and Future Unexpected Earnings: An Empirical Analysis. *The Financial Review, 29*(1), 125-151.

Aharony, J., & Swary, I. (1980). Quarterly Dividend and Earnings Announcements and Stockholdstockholders' Return: An Empirical Analysis. *Journal of Finance, 35*, 1-12.

Allen, F., & Michaely, R. (2003). Payout Policy. In G. Constantinides, M. Harris, & R. Stulz, *Handbook of the Economics of Finance* (Vol. 1, pp. 337-429). Pennsylvania: North-Holland Handbooks of Economics.

Allen, F., Bernardo, A., & Welch, I. (2000). A Theory of Dividends Based on Tax Clienteles. *Journal of Finance, 55*, 2499-2536.

Al-Malkawi, H., Rafferty, M., & Pillai, R. (2010). Dividend Policy: A Review of Theories and Empirical Evidence. *International Bulletin of Business Administration, 9*(9), 171-200.

Al-Malkawi, H., Rafferty, M., & Pillai, R. (2010). Dividend Policy: A Review of Theories and Empirical Evidence. *International Bulletin of Business Administration, 9*(9), 171-200.

Amidu, M. (2007). How Does Dividend Policy Affect Performance of the Firm on Ghana Stock Exchange. *Investment Management and Financial Innovations, 4*(2), 103-112.

Amidu, M., & Abor, J. (2006). Determinants of Dividend Payout Ratios in China. *The Journal of Risk Finance, 7*(22), 136-145.

Amihud, Y., & Li, K. (2006). The Declining Information Content of Dividend Announcements and the Effects of Institutional Holdings. *Journal of Financial and Quantitative Analysis, 41*(3), 637-660.

Arnott, R., & Asness, C. (2003). Surprise! Higher Dividends = Higher Earnings Growth. *Financial Analyst Journal, 59*(1), 70-88.

Asquith, P., & Mullins, D. (1983). The Impact of Initiating Dividend Payments on Shareholders' Wealth. *The Journal of Business, 56*(1), 77-96.

Axelsson, L., & Brissman, P. (2011). *Share Repurchase Announcements and Abnormal Returns for Swedish Listed Real Estate Companies.* Stockholm: Department of Real Estate and Construction Management.

Babenko, I. (2009). Share Repurchases and Pay-Performance Sensitivity of Employee Compensation Contracts. *Journal of Finance, 64*, 117-150.

Bagwell, L. (1991). Shareholder Heterogeneity: Evidence and Implications. *American Economic Review, 81*(2), 218-221.

Bagwell, L. (1992). Dutch Auction Repurchases: An Analysis of Shareholder Heterogeneity. *The Journal of Finance, 47*(1), 71-106.

Bagwell, L., & Shoven, J. (1989). Cash Distributions to Shareholders. *Journal of Economic Perspectives, 3*(3), 129-140.

Baker, H. (2009). *Dividends and Dividend Policy.* Hoboken, NJ: John Wiley & Sons.

Baker, H., & Kapoor, S. (2015). Dividend Policy in India: New Survey Evidence. *Managerial, 41*(2), 182-204.

Baker, H., & Powell, G. (1999). How Corporate Managers View Dividend Policy? *Quarterly Journal of Business and Economics, 38*(2), 17-27.

Baker, H., & Smith, D. (2006). In Search of a Residual Dividend Policy. *Review of Financial Economics, 15*(1), 1-18.

Baker, H., & Weigand, R. (2015). Corporate Dividend Policy Revisited. *Managerial Finance, 41*(2), 126-144.

Baker, H., Singleton, J., & Veit, E. (2011). *Survey Research in Corporate Finance: Bridging the Gap between Theory and Practice.* Oxford: Oxford University Press.

Baker, H., Veit, E., & Powell, G. (2001). Factors Influencing Dividend Policy Decision of Nasdaq Firms. *Financial Review, 36*(3), 19-38.

Baker, M., & Wurgler, J. (2004a). A Catering Theory of Dividends. *The JOournal Of Finance, 28*(3), 1125-1166.

Baker, M., & Wurgler, J. (2004b). Appearing and Disappearing Dividends: The Link to Catering Incentives. *Journal of Financial Economics, 79*, 293-316.

Baker, M., Nagel, S., & Wurgler, J. (2007). The Effect of Dividends on Consumption. *Brookings Papers on Economic Activity, 38*, 231-292.

Bargeron, L., Kulchania, M., & Thomas, S. (2010). *Accelerated Share Repurchases.* Pittsburg: University of Pittsburgh.

Barman, P. (2007). *An Evaluation of how Dividend Policies Impact on the Share Value of Selected Companies.* Port Elizabeth: Nelson Mandela Metropolitan University.

Baumol, W. (1956). *Business Behavior, Value and Growth.* New York: Wiley.

Ben-David, I. (2010). Dividend Policy Decisions. In H. Baker, & J. Nofsinger, *Behavioral Finance: Investors, Corporations and Markets* (pp. 435-452). New Jersey: John Wiley & Sons, Inc.

Ben-David, I., Harvey, C., & Graham, J. (2007). *Managerial Overconfidence and Corporate Policies.* National Bureau of Economic Research.

Bender, R., & Ward, K. (2002). *Corporate Financial Strategy* (2nd ed.). Oxford: Butterworth-Heinemann.

Bender, R., & Ward, K. (2009). *Corporate Financial Strategy* (3 ed.). Burlington: Elsevier Butterworth-Heinemann.

Benhamouda, Z., & Watson, R. (2010). A Research Note on the Determinants of UK Corporate Share Repurchase Decisions. *Applied Financial Economics, 20*(7), 529-541.

Bernartzi, S., Michaely, R., & Thaler, R. (1997). Do Changes in Dividends Signal the Future or the Past. *The Journal of Finance, 52*(3), 1007-1034.

Bernheim , D. (1991). Tax Policy and the Dividend Puzzle. *Rand Journal of Economics, 22*, 455-476.

Bester, P. (2008). *Shareholder Distribution Choices for Industrial Companies Listed on the JSE: Share Buybacks vs Dividends.* Bellville: University of Stellenbosch.

Bester, P., Hamman, W., Brummer, L., Wesson, N., & Steyn-Bruwer, B. (2008). Which Number of Shares Should be Used by JSE-listed Companies when Publishing Market Capitalisation in Annual Reports? *South African Journal of Business Management, 39*(4), 51-61.

Bester, P., Wesson, N., & Hamman, W. (2010). Share Buy-backs for a Selection of JSE-listed Companies: An Exploratory Study. *South African Journal of Business Management, 41*(4), 47-58.

Bhana, N. (1997). Price Adjustments on the JSE for Announcements of Share (Stock) Dividends. *Investment Analyst Journal, 46*, 35-44.

Bhana, N. (2007). The Market Reaction to Open Market Share Repurchases Announcements: The South African Experience. *Investment Analysts Journal, 65*, 25-36.

Bhargava, A. (2010). An Econometric Analysis of Dividends and Share Repurchases by US Firms. *Journal of the Royal Statistical Society, 173*(3), 631-656.

Bhattacharya, S. (1979). Dividend Policy, and The Bird in the Hand Fallacy. *The Bell Journal of Economics, 10*(1), 259-270.

Bhattacharya, U., & Dittmar, A. (2004). *Costless Versus Costly Signaling: Theory anf Evidence.* Unpublished Working Paper.

Bildik, R., & Fatemi, A. (2009). *Yes, Dividends Are Disappearing: Worldwide Evidence.* Chicago: DePaul University.

Bildik, R., & Fatemi, A. (2009). Yes, Dividends Are Disappearing: Worldwide Evidence . *Journal of Banking & Finance, 36*(3), 625-922.

Billett, M. (1996). Targeting Capital Structure: The Relationship Between Risky Debt and the Firm's Likelihood of Being Acquired. *The Journal of Business, 69*, 173-192.

Black, F. (1976). The Dividend Puzzle . *Journal of Portfolio Management, 2*(2), 5-8.

Black, F., & Scholes, M. (1974). The Effect of Dividend Yield and Dividend Policy on Common Stock Prices and Returns. *Journal of Financial Economics, 1*, 1-22.

Black, S. (2013). *Global Dividend-Paying Stocks: A Recent History.* Austin: Dimentional Fund Advisors LP.

Bodnaruk, A., Massa, M., & Simonov, A. (2009). Investment Banks as Insiders and the Market for Corporate Control. *The Review of Financial Studies, 22*(12), 4990-5026.

Bonaimé, A., Hankins, K., & Jordan, B. (2013). Financial Flexibility, Risk Management and Payout Choice. *The Review of Financial Studies*, 1-28.

Bootle, R. (2009). *The Trouble with Markets: Saving Capitalism From Itself.* London: Nicholas Brealey Publishing.

Bouwman, C. (2009). *Managerial Optimism and the Market's Reaction to Dividend Changes.* Cleveland: Case Western University.

Bradley, M., & Wakeman, L. (1983). The Wealth Effects of Targeted Share Repurchases. *Journal of Financial Economics, 11*, 301-328.

Brav, A., Graham, J., Harvey, C., & Michaely, R. (2005). Payout Policy in the 21st Century. *The Journal of Economics, 77*, 483-527.

Brealey, R., & Myers, S. (1996). *Principles of Corporate Finance.* New York: McGraw Hill.

Brealey, R., Myers, S., & Allen, F. (2008). *Principles of Corporate Finance* (9 ed.). New York: Mc-Graw-Hill Education.

Brennan, M., & Thakor, A. (1990). Shareholder Preferences and Dividend Policy. *Journal of Finance, 45*, 993-1019.

Breuer, W., Rieger, M., & Soypak, K. (2014). *The Behavioral Foundations of Corporate Dividend Policy: A Cross-Country Empirical Analysis.* Aachen: RWTH Aachen University.

Brickley, J. (1983). Shareholer Wealth, Information Signaling and the Specially Designated Dividend: An Empirical Study. *Journal of Financial Economics, 12*(2), 187-209.

Brigham, E., Gapenski, L., & Ehrhardt, M. (1999). *Financial Management: Theory and Practice* (6th ed.). Fort Worth: Dryden Press.

Brook, Y., Charlton, W., & Hendershott, R. (1998). Do Firms Use Dividends to Signal Large Future Cash Flow Increases? *Financial Management Association International, 27*(3), 46-57.

Brooks, R. (1996). Changes in Asymmetric Information at Earnings and Dividend Announcements. *Journal of Business Finance, 23*(3), 359-378.

Brown, S., & Warner, J. (1985). Using Daily Stock Returns. *Journal of Financial Economics, 4*, 3-31.

Brunzell, T., Liljeblom, E., Löflund, A., & Vaihekoski, M. (2014). Dividend Policy in Nordic Listed Firms. *Global Finance Journal, 25*(2), 1-30.

Bukalska, E. (2014). Information Content, Signalling, Hypothesis and Share Repurchase Programs in Poland. *Management, 9*(3), 173-185.

Bulan, L. (2010). To Cut or Not to Cut a Dividend. 1-53.

Bulan, L., & Hull, T. (2013). The Impact of Technical Defaults on Dividend Policy. *Journal of Banking abd Finance, 37*(3), 814-823.

Bulan, L., Subramanian, N., & Tanlu, L. (2007). On the Timing of Dividend Initiations. *Financial Management, 36*(4), 31-65.

Chan, K., Ikenberry, D., & Lee, I. (2007). Do Managers Time the Market? Evidence from Open-Market Share Repurchases. *Journal of Banking & Finance, 31*(9), 2673-2694.

Chan, L., Ejara, D., & Gleason, K. (2010). An Empirical Analysis of European Stock Repurchases. *Journal of Multinational Financial Management, 20*((2-3)), 114-125.

Chaplinsky, S., & Niehaus, G. (1993). Do Inside Ownership and Leverage Share Common Determinants? *Quarterly Journal of Business and Economics, 32*(4), 51-65.

Chivaka, R., Siddle, A., Bayne, L., Cairney, C., & Shev, J. (2009). Reasons for Share Repurchases in South Africa: Theory versus Practice. *SA Journal of Accounting Rsearch, 23*(1), 1-30.

Constantinides , G., & Grundy, B. (1989). Optimal Investment with Stock Repurchase and Financing as Signals. *Review of Financial Studies, 2*(4), 445-466.

Cordeiro, L. (2009). *Managerial Overconfidence and Dividend Policy.* London: London Business School.

Crowley, K., & Riseborough, J. (2015). *AngloAmerican Seen Cutting Dividends as Commodities Retreat.* New York: Bloomberg.

Crutchley, C., & Hansen, R. (1989). A Test of the Agency Theory of Managerial Ownership, Corporate Leverage and Corporate Dividends. *Financial Management, 18*(4), 36-46.

Da, Z., Engelberg, J., & Gao, P. (2011). In Search of Attention. *The Journal of Finance, 66*(5), 1461-1499.

Dahlquist, M., Robertsson, G., & Rydqvist, K. (2007). *Direct Evidence of Dividend Tax Clienteles.* Stockholm: Institute for Financial Research.

Daly, K. (2002). *Share Returns of Companies Announcing Share Repurchases Under a General Authority.* Johannesburg: University of the Witwatersrand.

Daniel, N., Denis, D., & Lalitha, N. (2010). *Sources of Financial Flexiblity: Evidence from Cash Flow Shortfalls.* West Lafayette: Purdue University.

Dann, L. (1981). Common Stock Repurchases: An Analysis of Returns to Bondholders and Stockholders. *Journal of Financial Economics, 9*(2), 113-138.

Davis, A., Offenbach, D., Stevens , R., & Grant, N. (2013). *Takeovers and the Public Interest.* London: Policy Network.

DeAngelo, H., & DeAngelo, L. (2006). Dividends Policy and the Earned/Contributed Capital Mix: A Test of the Life-cycle Theory. *Journal of Financial Economics, 81*(2), 227-254.

DeAngelo, H., DeAngelo, A., & Stulz, R. (2006). Dividend Policy and the Earned/Contributed Capital Mix: A Test of the Lifecycle Theory. *Journal of Financial Economics, 81*(2), 227-254.

DeAngelo, H., DeAngelo, L., & Skinner, D. (1992). Dividends and Losses. *Journal of Finance, 47*(5), 1837-1863.

DeAngelo, H., DeAngelo, L., & Skinner, D. (1996). Reversal of Fortune: Dividend Signaling and the Disappearance of Sustained Earnings Growth. *Journal of Financial Economics, 40*, 341–371.

DeAngelo, H., DeAngelo, L., & Skinner, D. (2000). Special Dividends and the Evolution of Dividend Signaling. *Journal of Financial Economics, 57*(3), 309-354.

DeAngelo, H., DeAngelo, L., & Skinner, D. (2004). Are Dividends Disappearing? Dividend Concentration and the Consolidation of Earnings. *Journal of Financial Economics, 72*(3), 425-456.

Deepte, P., & Roshan, B. (2009). Signalling Power of Dividend on Firms' Future Profits: A Literature Review. *International Interdisciplinary Journal*, 1-9.

Deloitte. (2016). *International Tax: South Africa Highlights 2016.* Johannesburg: Deloitte.

Denis, D., & Osbov, I. (2008). Why Do Firms Pay Dividends? International Evidence on the Determinants of Dividend Policy. *Journal of Financial Economics, 89*(1), 62-82.

Denis, D., & Setpanyan, G. (2009). Factors Influencing Dividends. In H. Baker, *Dividends and Dividend Policy* (pp. 214-238). Hoboken, NJ: John Wiley & Sons.

Deshmukh, S., Goel, A., & Howe, K. (2009). *CEO Overconfidence and Dividend Policy: Theory and Evidence.* Chicago: DePaul University.

Dhaliwal, D., Erickson, M., & Trezevant, R. (1999). A Test of the Theory of Tax Clienteles for Dividend Policies. *National Tax Journal, 52*, 179-194.

Dhanani , A., & Roberts, R. (2009). *Corporate Share Repurchases: The Perceptions and Practices of UK Financial Managers and Corporate Investors .* Edinburgh: The Institute of Chartered Accountants of Scotland.

Dhanani, A., & Roberts, R. (2009). *Corporate Share Repurchases: The Perceptions and Practices of UK Financial Managers and Corporate Investors.* Edinburg: Institute of Chartered Accountants of Scotland.

Dittmar, A. (2000). Why Do Firms Repurchase Stock? *Journal of Business, 73*(3), 331-355.

Dizkirici, A. (2013). Stock Repurchases in Turkey. *International Journal of Business and Social Sciences, 4*(11), 76-82.

Doan, D., Yap, C., & Gannon, G. (2012). Takeover Deterrent Effect of On-market Share Buyback in Australia. *Australasian Accounting Business and Finance Journal, 5*(4), 65-84.

Donaldson, G. (1961). *Corporated Debt Capacity.* Boston: Harvard University.

Easterbrook, F. (1984). Two Agency-Cost Explanations of Dividends. *American Economic, 74*(4), 650-659.

Easterbrook, F., & Fischel, D. (1981). The Proper Role of a Target Management In Responding to a Tender Offer. *Harward Law Review, 94*, 1161-1204.

Fama, E. (1980). Banking in the Theory of Finance. *Journal of monetary Economics, 6*(1), 39-57.

Fama, E., & Babiak, H. (1968). Dividend Policy: An Empirical Analysis. *Journal of the American Statistical Association, 63*(324), 1132-1161.

Fama, E., & French, K. (2001). Disappearing Dividends: Changing Firm Characteristics or Lower Propensity To Pay. *Journal of Financial Economics, 60*, 3-43.

Farre-Mensa, J., Michaely, R., & Schmalz, M. (2014). *Dividend Policy.* Michigan: Ross School of Business.

Feldstein, M., & Green, J. (1983). Why Do Companies Pay Dividends? *American Economic Review, 73*(1), 17-30.

Fenn, G., & Liang, N. (2001). Corporate Payout Policy and Managerial Stock Incentives. *Journal of Financial Economics, 60*, 45-72.

Field, L., & Karpoff, J. (2002). Takeover Defenses of IPO firms. *Journal of Finance, 57*, 1857 -1890.

Filbeck, G. (2009). Asymmetric Information and Signaling Theory. In H. Baker, *Dividends and Dividend Policy* (pp. 163-77). Hoboken, NJ: John Wiley & Sons, Hoboken.

Firer, C., Gilbert, E., & Maytham, A. (2008). Dividend Policy in South Africa. *Investmnet Analyst Journal, 68*, 5-20.

Fried, J. (2001). Open Market Repurchases: Signaling or Managerial Opportunism. *Theoretical Inquiries in Law, 2*, 865-894.

Froot, K., Scharfstein, D., & Stein, J. (1993). Risk Management: Coordinating Corporate Investment and Financing Policies. *Journal of Finance, 48*, 1629-1658.

Garrett, K. (2010). *Takeovers, Mergers and Managing Business Units.* Glasgow: Association of Chatered Certified Accountants.

Gordon, M. (1959). Dividends, Earnings and Stock Prices. *The Review of Economics and Statistics, 41*(2), 99-105.

Gort, M. (1969). Economic Disturbance Theory of Mergers. *Quarterly Journal of Economics, 83*, 624-642.

Graham, B., & David, D. (1934). *Security Analysis* (6th ed.). Whittlesey House: McGraw-Hill Book Co.

Grullon , G., & Ikenberry, D. (2000). What Do We Know about Stock Repurchases?". *Journal of Applied Corporate Finance, 13*, 31-51.

Grullon , G., Michaely, R., & Swaminathan, B. (2002). Are Dividend Changes a Sign of Firm Maturity. *Journal of Business, 75*(3), 387-424.

Grullon, G., & Michaely, R. (2004). The Information Content of Share Repurchase Programs. *The Journal of Finance, 59*(2), 651-681.

Grullon, G., Michealy, R., Bernatzi, S., & Thaler, R. (2005). Dividends Changes Do Not Signal Changes in Future Profitability. *The Journal of Business, 78*(5), 1659-1682.

Guay, W., & Hartford, J. (2000). The Cash Flow Permanence and Information Content of Dividend Increases Versus Repurchases. *Elsevier, Journal of Financial Economics, 57*, 385-415.

Handary, A., Lukviarman, N., & Febrianto, R. (2006). *The Correlation of Catering Incentives to Stock Return: A Test of Catering Theory of Dividend.* Padang: Andalas University.

Hillier, D., Grinblatt, M., & Titman, S. (2008). *Financial Markets and Corporate Strategy.* Europe: Mc-Graw Hill.

Hirshleifer, D., & Thakor, A. (1998). Corporate Control Through Board Dismissals and Takeovers. *Journal of Economics and Management Strategy, 7*, 489-520.

Hirtle, B. (2003). *Stock Repurchases and Bank Holding Company Performance.* New York: Federal Reserve Bank of New York.

Hoberg, G., Phillips, G., & Prabhala, N. (2012). Product Market Threats, Payouts and Financial Flexibility. *Journal of Finance*, 1-48.

Howatt, B., Zuber, R., Gandar, J., & Lamb, R. (2009). Dividends, Earnings Volitality and Information. *Applied Financial Economics, 19*(7), 551-562.

Ikenberry, D., & Vermaelen, T. (1996). The Option to Repurchase Stock. *Financial Management, 25*(4), 9-24.

Ikenberry, D., Lakonishok, J., & Vermaelen, T. (1995). Market Underreaction to Open Market. *Journal of Financial Economics, 39*(2), 181-208.

Information Services Group. (2016). *Information services Group Announces Comment of Dutch Auction Tender Offer for up to $12 Million of its Common Stock .* Atlanta: PR Newswire.

Isa, M., Ghani, Z., & Lee, S. (2011). Market Reaction to Actual Share Repurchases in Malaysia. *4*(2), 27-46.

Iyer, S., & Rao, R. (2015). *Share Repurchases and the Flexibility Hypothesis.* New Mexico: Social Science Electronic Publishing Incorporated.

Jagannathan, M., Stephens, C., & Weisbach, M. (2000). Financial Flexibility and the Choice between Dividends and Stock Repurchases. *Journal of Financial Economics, 57*(3), 355-384.

Janse van Vuuren, A. (2015). *Kumba Iron Ore Cuts Dividends as Profit Drops Amid Price Fall.* Johannesburg: Bloomberg.

Jensen, G., Lundstrum, L., & Miller, R. (2010). What Do Dividend Reductions Signal? *Journal of Corporate Finance, 16*(5), 736-747.

Jensen, M. (1986). Agency Costs of Free Cash Flow, Corporate Finance and Takeovers. *American Economic Review, 76*, 323-329.

Jensen, M. (1993). The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *Journal of Finance, 48*, 831-880.

Jensen, M., & Meckling, W. (1976). The Theory of the Firm: Manaerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*(3), 305-360.

Joh, S., & Ko, Y. (2007). *Ownership Structure and Share Repurchases in an Emerging Market: Incentive Alignment or Entrenchment?* Seoul: Seoul National University.

John, K., & Knyazeva, A. (2008). *Payout policy, Agency Conflicts, and Corporate Governance.* Rochester: University of Rochester.

John, K., & Williams, J. (1985). Dividend, Dilution and Taxes: A Signaling Equilibrium. *The Journal of Finance, 40*(4), 1053-1070.

Julio, B. (2013). *Coporate Investment and the Option to Repurchase Debt.* London: London Business School.

Kahle, K. (2002). When a Buyback isn't a Buyback: Open-Market Repurchases and Employee Options. *Journal of Financial Economics, 63*, 235-261.

Kaplan , S., & Reishus, D. (1990). Outside Directorships and Corporate Performance. *Journal of Financial Economics, 27*, 389-410.

Kapoor, S. (2006). *Impact of Dividend Policy on Shareholders' Value: A Study of Indian Firms.* Noida: Jaypee Institute of Information Technology.

KCG Holdings. (2015). *KCG Announces Preliminary Results of its Modified Dutch Auction Tender Offer.* Jersey City: PR Newswire.

Keown, A., Martin, J., Petty, J., & Scott, D. (2002). *Financial Management: Principles and Applications* (9th ed.). New York: Prentice Hall.

Kim, K., & Byun, J. (2013). *Dividend Catering, Investor Protection, and Investor Sentiment: A Cross-country Analysis.* New Jersey: Social Sciences Electronic Publishing.

Knight, F. (1921). *Risk, Uncertainty, and Profit.* Boston: Houghton Mifflin Company.

Knoeber, C. (1986). Golden Parachutes, Shark Repellents, and Hostile Tender Offers. *American Economic Review, 76*, 155-167.

Körner, S., & Wahlgren, L. (2006). *Statistisk Dataanalys.* Lund: Studentlitteratur.

Kuttner, R. (2002). *The Case of the Disappearing Dividend.* New York: Bloomberg.

Laing, J. (2002, July 1). After the Bubble. *Barron's*, p. 1.

Lakonishok, J., & Vermaelen, T. (1990). Anomalous Price Behavior around Repurchase TenderOffers. *Journal of Finance, 45*(2), 455-477.

Lamba, A., & Ramsay, I. (2000). *Share Buy-Backs: An Empirical Investigation.* Melbourne: Centre for Corporate Law and Securities Regulation.

Lambert, R., Lanen, W., & Larcker, D. (1989). Executive Stock Option Plans and Corporate Dividend Policy. *Journal of Financial and Quantitative Analysis, 24*, 409-425.

Lang, L., & Litzenberger, R. (1989). Dividend Announcements: Cash Flow Signaling vs. Free Cash Flow Hypothesis. *Journal of Financial Economics, 24*, 181–192.

Laux, P., Starks, L., & Yoon, P. (1998). The Relative Importance of Competition and Contagion in Intra-Industry Information Transfers: An Investigation of Dividend Announcements. *Financial Management, 27*(3), 5-16.

Le Roux, H. (2006). Share Buybacks can Scare Investors, Leading Analyst Warns. *Creamer Media Engineering News*, 1-5.

Leary, M., & Michaely, R. (2011). Determinants of Dividend Smoothing: Empirical Evidence. *Review of Financial Studies, 24*(3), 197–249.

Lease, R., John, K., Kalay, A., Loewenstein, U., & Sarig, O. (2000). *Dividend Policy: Its Impact on Firm Value.* Boston: Harvard Business Review Press.

Lee, C., Ejara, D., & Gleason, K. (2010). An Empirical Analysis of European Stock Repurchases. *Journal of Multinational Financial Management, 20*(2), 114-125.

Lee, C., Schleifer, A., & Thaler, R. (1991). *The Journal of Finance, 16*(1), 75-110.

Lewellen , J., & Lewellen , K. (2005). *Taxes and Financing Decisions.* Cambridge: National Breau of Economic Research.

Li, K., & McNally, W. (2007). The Information c$ontent of Canadian Open Market Repurchase Announcements. *Managerial Finance, 33*(1), 65-80.

Lie, E. (2000). Excess Funds and the Agency Problems: An Empirical Study of Incremental Disbursements. *Review of Financial Studies, 13*, 219–248.

Lie, E., & Lie, H. (1999). The role of personal taxes in corporate decisions: An Empirical Analysis of Share Repurchases and Dividends. *Journal of Financial and Quantitative Analysis, 34*(4), 533-551.

Lin, S., Lin, H., & Liu, Y. (2011). Stock Repurchase Announcements and Stock Prices Evidence from Taiwan. *International Journal of Business and Finance Research, 5*(1), 1-12.

Lintner, J. (1956). Distribution of Incomes of Corporations Among Dividends, Retained Earnings and Taxes. *The American Economic Review, 46*(2), 97-113.

Ma , T. (2012). *Corporate Dividend Decisions.* London: Unpublished Doctoral thesis, City University London.

MacKinlay, C. (1997). Event Studies in Economics and Finance. *Journal of Economic Literature, 35*(1), 13-39.

Madubela, A. (2011). *What Shareholder Information on the Shareholder Spread is Disclosed in the Financial Statements of JSE Listed Entities in Accordance with Listing Requirements of the JSE.* University of Stellenbosch.

Madubela, D. (2011). *What Shareholder Information on the Shareholder Spread is Disclosed in the Financial Statements of the JSE Listed Entities in Accordance with Listing Requirements of the JSE.* Stellenbosch: Stellenbosch University.

Manconi, A., Peyer, U., & Vermaelen, T. (2014). *Buybacks Around the World.* Rotterdam: European Corporate Governance Institute.

Manos, R. (2002). *Dividend Policy and Agency Theory: Evidence on Indian Firms.* Manchester: University of Manchester.

Marsh, T., & Merton, R. (1987). Dividend Behavior for the Aggregate Stock Market. *Journal of Business, 60*, 1-40.

Martynova, M., & Renneboog, L. (2006). *Mergers and Acquisitions in Europe.* Tilburg: Social Sciences Electronic Publishing.

Marx, J. (2001). Empirical Findings on Directors' Views on Dividend Policy. *Management Dynamics, 10*(2), 50-66.

Maung, M., & Mehrotra, V. (2011). *Disappearing Dividends:A Rational Explanation and Implications.* Alberta: University of Alberta.

Maxwell, W., & Stephens, C. (2003). The Wealth Effects of Repurchases on Bondholders. *Journal of Finance, 58*(2), 895-920.

McDonald, A., & Patterson, S. (2015). *Glencore Scraps Dividends, Raises Cash to Cut Debt.* London: The Wall Street Journal.

McNally, W. (1999). Open Market Stock Repurchase Signaling. *Financial Management, 28*, 55-67.

Michaely, R., & Grullon, G. (2002). Dividends, Share Repurchases and the Substitution Hypothesis. *The Journal of Finance, 57*(4), 1649-1684.

Mikkelson, W., & Partch, M. (1997). The Decline of Takeovers and Disciplinary Managerial Turnover. *Journal of Financial Economics, 44*, 205-239.

Miller, M., & Modigliani, F. (1961). Dividend Policy, Growth and the Valuation of Shares. *The Journal of Business, 34*(4), 411-433.

Miller, M., & Rock, K. (1985). Dividend Policy under Asymmetric Information. *The Journal of Finance, 40*(4), 1031-1051.

Minnick, K., & Zhao, M. (2006). *Levered Repurchases: Who Benefits?* Waltham: Bentley College.

Mitchell, J., & Robinson, P. (1999). Motivations of Australian Listed Companies Effecting Share Buy-Backs. *Abacus, 35*(1), 91-119.

Mitchell, J., Dharmawan, G., & Clarke, A. (2001). Managements' Views on Share Buy-backs: An Australian Survey. *Accounting and Finance, 41*, 93-129.

Morscheck, J. (2014). *Share Repurchases and Wealth Transfer Among Shareholders.* Washington: Washington State University.

Mueller, D. (1972). A Life Cycle Theory of the Firm. *Journal of Industrial Economics, 18*(1), 75-88.

Murphy, K. (1998). *Handbook in Labor Economics* (Vol. 3). Amsterdam: Elsevier.

Myers, S. (1977). Determinants of Corporate Borrowing. *Journal of Finacial Economics, 5*(2), 147-175.

Myers, S. (1984). Capital Structure Puzzle. *Journal of Finance, 39*(3), 575-592.

Myers, S. (2001). Capital Structure. *Journal of Economic Perspectives, 15*(2), 81-102.

Myers, S. (2003). Financing of Corporations. In G. Constantinides, M. Harris, & R. Stulz, *Handbook of the Economics of Finance* (1st ed., pp. 1-1612). North Holland: Elsevier .

Naser, K., Nuseibeh, R., & Rashed, W. (2013). Managers' Perception of Dividend Policy: Evidence from Companies Listed on Abu Dhabi Securities Exchange. *Issues in Business Management and Economics, 1*(1), 001-012.

Nell, A., Hammen, W., & Smit , E. (2001). Dividendveranderings in Suid-Afrika – Tekenend van die Verlede of Toekoms? *Studies in Economics and Econometrics, 25*(2), 50-66.

Neves, M. (2009). *The Catering Theory of Dividends: The Moderating Role of Firm Characteristics, Corporate Governance factors and Corporate Ownership.* Salamanca: Universidad De Salamanca.

Nikolaos, E., Evangelos, P., & Dimitrios, V. (2010). *The Dividend Policy of the Greek Listed Firms Prior the Economic crisis: A Comparative Analysis.* Athens: European Economics and Finance Society.

Nishikawa, T. (2003). *Does Wealth Expropriation Really Exist In Corporate Decisions? Re-Examination of Stock Repurchases.* Texas: Texas Tech University.

Nissim, D., & Ziv, A. (2001). Dividend Changes and Future Profitability. *Journal of Finance, 61*(6), 2111-2134.

Nittayagasetwat, W., & Nittayagasetwat, A. (2013). Common Stock Repurchases: Case of Stock Exchange of Thailand. *International Journal of Business and Social Science, 4*(2), 76-82.

Nohel, T., & Tarhan, V. (1998). Share Repurchases and Firm Performance: New Evidence on the Agency Costs of Free Cash Flow. *Journal of Financial Economics, 49*, 187-222.

Ofer, A., & Thakor, A. (1987). A Theory of Stock Price Responses to Alternative Corporate Cash Disbursement Methods: Stock Repurchases and Dividends. *Journal of Finance, 42*(2), 365-394.

Ooms, L., Archer, A., & Van der Merwe Smit, E. (1987). The Informational Content of Dividends on the Johannesburg Stock Exchange: An Empirical Analysis. *South African Journal of Business Management, 18*, 187-197.

Pacheco, L., & Raposa, C. (2007). *The Determinants of Initial Stock Repurchases.* R. de Diogo Botelho: Catolica Porto Busiess School.

Palepu, K. (1986). Predicting Takeover Targets : A Methodological and Empirical Analysis. *Journal of Accounting and Economics, 8*, 3-35.

Parker, M. (2016). *SARS Ruling on a Share Subscription Transaction followed by a Share.* Johannesburg: ENS Africa.

Pearce, J., & Robinson, R. (2004). Hostile Takeocer Defenses that Maximize Shareholders Wealth. *Business Horizons, 47*(5), 15-24.

Persons, J. (1994). Signaling and Takeover Deterrence wit Stock Repurchases: Dutch Auctions versus Fixed Price Tender Offers. *The Journal of Finance, 49*(4), 1373-1402.

Persons, J. (1997). Heterogeneous Shareholders and Signaling with Share Repurchases. *Journal of Corporate Finance, 2*(3), 221-249.

Pettit, R. (1972). Dividend Announcements, Security Performance, and Capital Market Efficiency. *Journal of Finance, 27*(5), 993-1007.

Peyer, U., & Vermaelen, T. (2005). The Many Facets of Privately Negotiated Stock Repurchases. *Journal of Financial Economics, 75*, 361-395.

Pienaar, H., & Krige, J. (2012). Market Reaction to Open Market Share Repurchases on the Johannesburg Stock Exchange Over the period 2000 to 2007. *Studies of Economics and Econometrics, 36*(3), 101-122.

Prisacariu, M., & Sandu, R. (2012). *The Dividend Disappearing Phenomenon – A Theoretical Approach.* Brasov: Henri Coanda Air Force Academy.

Punwasi, K. (2012). *An Event Study: The Market Reactions to Share Repurchase Announcements on the JSE.* Pretoria: Unpublished MBA Research Report.

Punwasi, K. (2012). *An Event Study: The Market Reactions to Share Repurchase Announcements on the JSE.* Pretoria: University of Pretoria's Gordon Institute of Business Science.

Ramadan, I. (2015). The Jordanian Catering Theory of Dividends. *International Journal of Business and Management, 10*(2), 226-230.

Rapp, M., Schmid, T., & Urban, D. (2012). The Value of Financial Flexibility and Payout Policy. *Journal of Corporate Finance, 29*, 288-302.

Rashid, M., Nor, F., & Ibrahim, I. (2013). Evidence of Dividend Catering Theory in Malaysia: Implications for Investo rSentiment. *Contemporary Economics, 7*(4), 99-110.

Roberts, M., & Michaely, R. (2006). *Dividend Smoothing, Agency Costs, and Information Asymmetry: Lessons from the Dividend Policies of Private Firms.* University of Pennsylvania: The Wharton School.

Rock, K., & Miller, M. (1985). Dividend Policy under Asymmetric Information. *The Journal of Finance, 40*(4), 1031-1051.

Schumpeter, J. (1934). *The Theory of Economic Development.* Cambridge: Harvard University Press.

Schweitzer, R. (1989). How Do Stock Returns React to Sopecial Events. *Business Review*, 17-29.

Sealy, N., & Knight, R. (1987). Dividend Policy, Share Price and Return: A Study on the Johannesburg Stock Exchange. *The Investment Analyst Journal, 29*, 33-47.

Sènéque, P., & Gourley, B. (1983). Dividend Policy and Practice in South Africa. *Investment Analysts Journal, 21*, 35-41.

Shapiro, D., & Zhuang, A. (2014). *Dividends as Signaling Device and the Disappearing Dividend Puzzle.* North Carolina: University of North Carolina Charlotte.

Sharma, S. (2001). Do Dividend Initiations Signal Firm Prosperity? *Working Paper, Massachusetts Institute of Technology*, 1-36.

Shefrin, H. (2009). *How Psychological Pitfalls Generated the Global Financial Crisis.* Califonia: Santa Clara University-Leavey School of Business.

Shefrin, H., & Statman, 1. (1984). Explaining Investor Preference for Cash Dividends. *Journal of Financial Economics, 13*, 253-282.

Shefrin, H., & Thaler, R. (1988). The Behavioral Life-cycle Hypothesis. *Economic Inquiry, 26*(4), 609-643.

Shleifer, A., & Vishny, R. (1986). Large Shareholders and Corporate Control. *Journal of Political Economy, 94*(3), 461-488.

Shleifer, A., & Vishny, R. (1997). A Survey of Corporate Governance. *Journal of Finance, 52*, 737-783.

Skinner, D. (2008). The Evolving Reaction between Earnings, Dividends and Stock Repurchases. *The Journal of Financial Economics, 87*, 582-609.

Skjeltorp, J., & Ødegaard, B. (2004). *The Ownership Structure of Repurchasing Firms.* Oslo: Norwegian School of Management.

Smith, N. (2016). *The JSE Limited Listings Requirements.* Johannesburg: LexisNexis.

Snajdr, J. (2009). *Why Do Firms Pay Dividends?* Prague: Charles University in Prague.

Statistics South Africa. (2015). *South Africa's Economy Narrowly Avoids Recession.* Johannesburg: Statistics South Africa.

Stepanyan, G. (2009). Do Managers Cut Dividends Because They Have To? 1-66.

Stoddard, E. (2015). *Sasol Say H1 Profit Falls 24%, Cuts Dividend Amid Low Oil Prices.* Johannesburg: Reuters.

Strydom, B. (2012). *Dividends Tax: The Basics.* Johannesburg: Bowman Gilfillan Africa Group.

Sudarsanam, P. (1995). *The Essence of Mergers and Acquisitions.* London: Prentice Hall.

Teng, M., & Hachiya, T. (2011). The Impact of Regulatory Reform on Stock Repurchases: Evidence from Japan. *Journal of Applied Finance and Banking, 1*(3), 159-187.

Thaler, R., & Shefrin, H. (1981). An Economic Theory of Self-Control. *Journal of Political Economy, 89*(2), 392-406.

The Wendy's Company. (2014). *The Wendy's Company Announces Commencement of $275.0 Million Modified Dutch Auction Tender Offer fir its Common Stock.* Dublin: PR Newswire.

Tsuji, C. (2010). A Test of the Catering Theory of Dividends: The Case of the Japanese Electric Appliances Industry. *Journal of Management Research, 2*(2), 1-16.

Uwuigbe, U., Jafaru, J., & Ajayi, A. (2012). Dividend Policy and Firm Performance: A Study of Listed Firms in Nigeria. *Accounting and Management Information Systems, 11*(3), 442-454.

Van Eaton, D. (1999). Corporate Announcements: What the Insiders are Signalling. *AAII Journal*, 1-4.

van Vuuren, A. (2015). *Kumba Iron Ore Cuts Dividend as Profit Dros Amid Price Fall.* Johannesburg: Bloomberg.

Vermaelen, T. (1981). Common Stock Repurchases and Market Signaling. *Journal of Financial Economics, 9*(2), 139-183.

Vermaelen, T. (1984). Repurchase Tender Offers, Signalling and Managerial Incentives. *Journal of Financial and Quantitative Analysis, 19*, 163-181.

Villamil, A. (2008). The Modigliani-Miller Theorem. *The New Palgrave Dictionary of Economics, 6*, 1-7.

Viviers, S., Firer, C., & Muller, C. (2013). A Review of the Dividend Payments of South African Listed Companies During the Period 1977-2011. *Management Dynamics: Journal of the South African Insitute for Management Scientists, 22*(4), 2-19.

Von Eije , H., & Megginson, W. (2008). Dividends and Share Repurchases in the European Union. *Journal of Financial Economics, 89*(2), 347-374.

Voss, J. (2012). Why Do Firms Repurchase Stock. *Major Themes in Economics*, 55-75.

Watts, R. (1973). The Information Content of Dividends. *The Journal of Business, 46*(2), 191-211.

Weisbenner, S. (2000). *Corporate Share Repurchases in the 1990s: What Role Do Stock Options Play?* Washington DC: Federal Reserve Board.

Wesson, N. (2015). *An Empirical Model of Choice between Share Repurchases and Dividends for Companies in Selected JSE-listed Sectors.* Stellenbosch: Stellenbosch University.

Wesson, N., Bruwer, B., & Hammen, W. (2015). Share Repurchases and Dividend Payout Behaviour: The South African Experience. *South African Journal of Business Management, 46*(3), 43-54.

Wesson, N., Muller, C., & Ward, M. (2014). Market Underreaction to Open Market Share Repurchases on the JSE. *South African Journal of Business Management, 45*(4), 59-69.

Williams, J. (1938). *Theory of Investment Value.* (Cambridge, Ed.) Cambridge : Harvard University Press.

Wilson, C. (2016). *Chesapeake Suspends Preferred Dividend as Natural Gas Lags.* New York: Bloomberg.

Wolff, J., & Auret, C. (2009). Do Dividend Changes in South Africa Signal Earnings Changes? *Economy Journal for Studies in Economics and Econometrics, 33*(3), 19-38.

Yeomans, J. (2015). *Anglo American Cuts Dividend and 85000 Jobs in Radical Restructuring.* London: The Telegraph.

Yook, K. (2010). Long-run Stock Performance Following Stock Repurchases. *The Quarterly Review of Economics and Finance, 50*(3), 323-331.

Yoon, P., & Stark, L. (1995). Signalling, Investment Opportunities and Dividend Announcements. *The Review of Financial Studies, 8*(4), 995-1018.

Zare, R., Moradi, J., & Valipour, H. (2013). Dividend Policy and Information Asymmetry from the Signaling Perspective. *Asian Economic and Financial Review, 3*(4), 445-463.

Zhou, P., & Ruland, W. (2006). Dividend Payout and Future Earnings Growth. *Financial Analyst Journal, 62*(3), 58-69.

Zhu, Z., & Rong, F. (2012). *The Impact of Open Market Share Repurchases On Bondholders and Shareholders.* Burnaby: Simon Fraser University.