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**THE EFFECT OF SHARE REPURCHASES AND SPECIAL DIVIDENDS ON THE
SHARE PRICES IN SOUTH AFRICA**

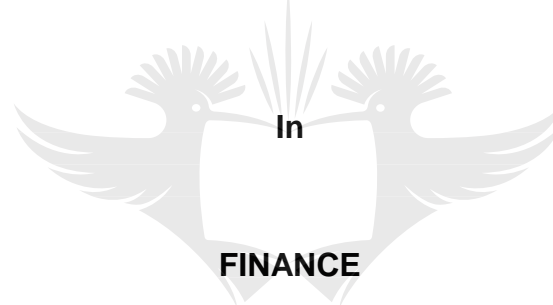
By

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MINOR DISSERTATION

Submitted in partial fulfilment of the requirements for the degree

MASTER COMMERCE



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Abstract

The study investigates the impact of share repurchase and special dividend announcements on the share price of JSE listed companies for the period 1999-2015. On the announcement day of share repurchases negative average abnormal returns of 0.108% were observed. The market delayed by a day to react to the share repurchase announcement as abnormal returns of 0.439% were observed on the 1st day after the announcement. Positive abnormal returns of 1.213% were observed on the announcement day of special dividends. Average positive abnormal returns of 0.154% were observed 25 days before the announcement. Negative abnormal returns of 0.202% were observed on average 25 days after the announcement. The results for share repurchases and special dividends were tested for significance at 95% confidence level and were found to be insignificant.



Key words

Share repurchase, Special dividends, Market reaction, Abnormal returns, Cumulated abnormal returns, Cumulated average returns, Financial tools, Signalling; Undervaluation.



DECLARATION OF ORIGINAL WORK

I, **Lesle Sibanda** declare that this minor dissertation is my own unaided work. Any assistance that I have received has been duly acknowledged in the dissertation. It is submitted in partial fulfilment of the requirements for the degree of Master of Finance at the University of Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

Signature

Date: 13 December 2018



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CONTENTS

Chapter 1

Introduction and background to the study	1
1.1 Introduction.....	1
1.2 Background and factors identified from literature	3
1.3 Problem statement	4
1.4 Research questions.....	5
1.5 Purpose of the study	5
1.6 Research methodology	5
1.7 Collecting and analysing the information.....	6
1.8 Limitations of the study.....	6
1.9 Chapter outline.....	6

Chapter 2

Literature review.....	9
2.1 Introduction.....	9
2.2 Differences between share repurchases and dividends	10
2.3 Reasons behind share repurchases and special dividends.....	10
2.3.1 Signalling.....	11
2.3.2 Agency problem	11
2.3.3 Tax considerations	11
2.3.4 Capital structure	11
2.4 Theoretical background.....	12
2.4.1 Free cash-flow theory.....	12
2.4.2 Efficient market hypothesis.....	13
2.4.2.1 Weak form.....	13

2.4.2.2	Semi-strong.....	14
2.4.2.3	Strong form.....	15
2.4.3	Agency cost theory.....	15
2.4.4	Miller and Modigliani theory.....	16
2.4.5	Signalling theory.....	16
2.4.6	Management share options.....	17
2.5	Methods of share repurchase.....	18
2.5.1	Tender offer.....	18
2.5.2	Dutch auction.....	19
2.5.3	Open market.....	19
2.5.4	Share repurchase legislation.....	20
2.6	Previous studies.....	21
2.6.1	Signal theory.....	21
2.6.2	Agency cost and free cash flow.....	23
2.7	Dividend policy.....	25
2.7.1	Dividend policy theories.....	25
2.7.2	Dividend irrelevance theory.....	25
2.7.3	Bird in hand theory.....	26
2.7.4	Tax preference theory.....	26
2.8	Dividend signals.....	26
2.8.1	Information signals.....	27
2.8.2	Incentive signals.....	27
2.8.3	Dividend stability.....	27
2.9	Disappearing dividends.....	28
2.10	Previous studies on dividends.....	28
2.10.1	Impact of special dividends on the share price.....	31

2.10.2	Comparison: developed markets versus emerging markets.....	32
2.10.3	South African studies	33
2.11	Summary	35

Chapter 3

Research methodology.....	36	
3.1	Introduction..... 36	
3.2	Research question	37
3.2.1	Research objectives	37
3.3	Research strategy	37
3.3.1	Research paradigm	37
3.3.2	Research method	38
3.4	Research Instrument.....	38
3.5	Sampling strategy.....	38
3.5.1	Target population	38
3.5.2	Sample selection	39
3.5.3	Data collection method.....	40
3.6.1	Event study.....	40
3.6.2	Event window	42
3.7	Data analysis.....	43
3.7.1	Mean adjusted return	43
3.7.2	Market adjusted return	44
3.7.3	Market model adjusted return.....	44
3.7.4	CAPM adjusted return	44
3.7.5	Calculation of abnormal returns.....	45
3.8.	Validity and reliability of data.....	47

3.8.1	Validity of measurement	47
3.9.	Ethical considerations	48
3.9.1	Anonymity and confidentiality	48
3.10	Limitations	48
3.11	Summary	48

Chapter 4

Results and findings	50
4.1	Introduction..... 50
4.2	Description of the population 50
4.2.1	Share repurchase population 50
4.2.2	Special dividends population..... 53
4.2.3	Comparison of share repurchases and special dividends 56
4.3	Description of the sample 57
4.3.1	Share repurchase 57
4.3.2	Special dividends 57
4.4	Analysis of data 59
4.4.1	Share repurchase..... 59
4.4.1.1	Average abnormal returns..... 60
4.4.1.2	Cumulated average abnormal returns 61
4.4.1.3	Significance of share repurchase AAR results 62
4.4.2	Special dividends 63
4.4.2.1	Average abnormal returns..... 65
4.4.2.2	Cumulated average abnormal returns 66
4.4.2.3	Significance of special dividends announcements AAR results 69
4.5	Summary 69

Chapter 5

Findings, conclusion and recommendation	71
5.1 Introduction.....	71
5.2 Reasons for undertaking research	71
5.3 Summary of the findings.....	72
5.4 Discussion of the findings.....	72
5.4.1 Average abnormal returns.....	73
5.4.2 Cumulated average abnormal returns	74
5.4.3 Significance of results	75
5.5. Contribution of the study	75
5.6 Limitations	76
5.7 Recommendations for further research	76
5.8 Final remarks.....	76
References.....	78
Appendices	88

LIST OF FIGURES

Figure 1: Event Window Period.....	43
Figure 2: Capital Asset Pricing Model	45
Figure 3: Share repurchases announcements	52
Figure 4: Exchange Rate ZAR/USD.....	53
Figure 5: Special Dividend Announcements.....	55
Figure 6: Abnormal returns analysis	62
Figure 7: Average abnormal returns	63
Figure 8: Cumulated average abnormal returns.....	64
Figure 9: Average abnormal returns.....	65
Figure 10: Abnormal returns	67
Figure 11: Cumulated average abnormal returns	68

LIST OF TABLES

Table 1: Chapter Outline	6
Table 2: Share repurchases population	51
Table 3: Special Dividend Population.....	54
Table 4: Share repurchase announcements sample.....	58
Table 5: Special dividends final sample	59
Table 6: Abnormal returns analysis for share repurchases announcements.....	60
Table 7: Significance analysis	64
Table 8: Average abnormal analysis	66
Table 9: 4 day window period.....	69
Table 10: Significance analysis	69

LIST OF ABBREVIATIONS

US	United States of America
JSE	Johannesburg Stock Exchange
SENS	Stock Exchange News Service
CAPM	Capital Asset Pricing Model
MM	Miller and Modigliani
AAR	Average Abnormal Returns
CAAR	Cumulative Average Abnormal Returns



Chapter 1

Introduction and background to the study

1.1 Introduction

Corporate entities have the goal of maximising shareholder's wealth. Shareholder's wealth is maximised by reinvesting cash in positive net present value projects to stimulate growth (Chowdhury & Hamid, 2005). Profitable projects improve company's performance, future earnings and the potential for sustainable long-term results and as a result shareholder's value is maximised. Shareholders' wealth is also maximised through distribution of free cash flow to investors in the absence of profitable projects. Free cash flow is distributed to investors through dividends; special dividends and share repurchase programmes rather than investing in unprofitable projects (Lee & Suh, 2011).

There has been an escalation in the use of share repurchase programmes over the years and the programme has become one of the most important financial tools of distributing free cash flow (Bhana, 2007; Fama & French, 2001; Lee & Suh, 2011). Grullon and Michaely (2004) suggest that American firms historically distributed free cash flow through dividends but a dramatic shift happened in the years 1980-2000 as share repurchases increased 26.1% as compared to the dividends increase of 6.8%. Share repurchase programmes have surged due to a number of reasons stated empirically. Jagannathan, Stephens, and Weisbach (2000) indicated that agency cost, signalling, market timing and pecking order explain the rise in share repurchases. Ginglinger and Harmon (2007) observe that due to the relaxation of laws prohibiting share repurchase programmes; a number of countries including Taiwan, Germany, Finland and Britain started utilising share repurchase programmes. As a result share repurchase programmes have been used as a tool to fight off raiders and avoid takeover attempts of an undervalued company (Ejarab, Kimberly & Lee, 2010). The takeover attempts were overturned or delayed by companies repurchasing a huge number of shares from the major investor attempting a takeover. Abnormal returns experienced after the announcement is a result of the increase in the company's share

price which makes the buyout more expensive and more difficult to implement (Ejarab et al., 2010).

Improving earnings per share is also considered as one of the reasons share repurchase programmes are implemented especially as a tool to dilute the effects of employee share options (Grullon & Ikenberry, 2000). Gould (2008) added that the positive impact of share repurchases on earnings per share would be possible if the after tax rate forgone by share repurchases is not higher than the return on equity capital. In addition, Lee and Rui (2007) reported that though share repurchases have been on the rise in United States of America (US) dividends have not been replaced by share repurchases as they are complements. Gelb (2000) also concurs in that dividends have not been substituted by share repurchases as the markets still reacted favourable when dividends comprised of a high total pay-out ratio. Docking and Koch (2005) also reported a greater change in the share price when dividends were announced. Chetty and Saez (2005) reported that after the US tax reform in 2003 dividend paying companies surged by 20% indicating that the tax environment plays a huge role in deciding on the method to distribute free cash flow. Moreover, Chetty and Saez (2005) suggested that companies were not substituting dividends with share repurchases as it was a result of the favourable environment for distribution policies. Aharoni, Brown and Wang (2011) reported a decrease in the number of companies paying dividends and an increase in share repurchases due to the substitution effect. Substitution effect is the impact caused by a company when it changes its existing payout policy and adopts an alternative policy. Empirical evidence in America indicates that firms gradually replaced dividends with share repurchases (Fama & French, 2001; Grullon & Michaely, 2002; Skinner, 2008).

Bhana (2007) conducted a study in South Africa to determine if share repurchases have an impact on the share price. In his findings, he indicates that companies that distributed free cash flow through dividends declined while share repurchase programmes increased in the period 1999-2003. He states that the substitution effect is one of the reasons that have led to the increase in share repurchases and the reduction in special dividends.

1.2 Background and factors identified from literature

There were a number of factors that led to companies announcing share repurchases and special dividends as tools to distribute free cash flow. These factors include agency cost, signalling, market timing, and increasing earnings per share, avoiding takeover attempts, taking advantage of the tax environment, free cash flow and capital structure (Ejarab et al., 2011).

Signalling is regarded as one of the main reasons in share repurchases and special dividends announcement as the programmes communicate the undervaluation of the share price to the investor (Ejarab et al., 2011). Signalling suggests that managers are able to correct the undervalued share price as share repurchase and special dividends announcements lead to positive abnormal returns (Yook, 2010). Ikenberry, Lakonishok, Vermaelen (1995) added that share repurchases are a better signal to convey managers' opinions about the future prospects of companies to investors as positive long-run abnormal returns were observed in companies that engaged in share repurchases. Brav, Graham, Harvey and Michaely (2004) also alluded that undervaluation of shares leads managers to engage in share repurchases. Lee and Suh (2011) concurs in that management announce share repurchases when shares are undervalued to communicate to investors that the company's shares are the best investment option. Aharoni et al. (2011) also added that firms undertaking share repurchase are signalling to the market that the current negative trend in earnings is unlikely to continue in the future. As a result companies, through share repurchase, signal a lower probability of deterioration in the firm's future prospects. The surge in share repurchases has led to the reduction of companies paying special dividends to distribute free cash flow (Floyd, Nan & Skinner, 2013).

There were inconclusive results empirically regarding the impact share repurchases have on the share price. De Cesari, Espenlaub, Khurshed & Simkovic (2013) reported a negative impact on the share price after the announcement of share repurchases. Almeida, Fos and Kronlund (2014), however, reported positive abnormal returns due to the announcement of share repurchases. Ginglinger and Hamon (2007), in their study, reported that share repurchases have no impact on the share. The results are inconclusive as Grullon and Ikenberry (2000) also reported that there were no positive

abnormal returns observed after share repurchases announcements indicating that share repurchases are not always a positive signalling tool.

Lie (2000) conducted a study and reported positive abnormal returns on the companies that announced special dividends. Lie (2000) argued that abnormal returns observed during special dividend announcement are positively correlated to the size of the special dividend. Hu and Kumar (2004) reported that investors will prefer special dividends over share repurchases when they age as it becomes part of their income. Grinstein and Michaely (2005) concluded that companies that pay special dividends consistently attract institutional investors who rely on dividend income like endowments. As a result after paying dividends share prices tend to increase as the market believes it is a signal about the direction of future earnings.

The problem faced by investors is that the impact of share repurchases and special dividends announcements are inconclusive (De Cesari et al., 2013; Ejarab et al., 2010; and Ginglinger & Hamon, 2007). If results were conclusive investors would alter their investment strategies when the programmes are announced. The aim of the study was to determine the impact of share repurchases and special dividends announcements on the Johannesburg Stock Exchange (JSE) listed companies.

1.3 Problem Statement

A number of studies on share repurchase and special dividend announcements have been conducted in developed markets such as America, Britain, Canada and Australia (Zhang, 2005; Lee & Suh, 2011). The reaction in developed markets was likely to be different from developing markets due to the differences in size, rules and regulations (Lee, 2010).

South Africa is an emerging market and its practices are likely to be different from developed markets. South African studies have been conducted on small samples and for short periods due to lack of data. Bhana (2007) conducted a study on share repurchases in South Africa with a sample period of 30 months. The purpose of this study was to therefore compare and contrast the impact of share repurchases and special dividends on the share price in the South African market with other studies, and to include a broader time frame from 1 October 1999 to 30 June 2015. The study

also focused on share repurchases and special dividends on the share price during the global recession in 2008.

1.4 Research Question

The shortfall in the problem statement led to the research question: What is the impact of share repurchase and special dividends on the share price of Johannesburg Stock Exchange (JSE) listed companies?

1.5 Purpose of the study

The purpose of the study was to evaluate the presence of abnormal returns in the days surrounding the announcements of share repurchases and special dividends of JSE listed companies from 1 October 1999 to 30 June 2015. The study investigated the presence of abnormal returns during announcements of share repurchases and special dividends before, during and after the global recession in 2008. South African investors will benefit from the study as they will be able to anticipate the impact caused by the announcements of such programmes. The study also compared share prices before and after the initial announcements.

1.6 Research Methodology

The research study focused on the JSE listed companies that announced share repurchases and special dividends from 1 October 1999 to 30 June 2015. This was a very long period that covered different phases of the economy in South Africa namely expansionary phase, contraction phase and the depression. The period was also long enough to eliminate small sample bias. The population included all share repurchases and dividend announcements in the period 1 October 1999 to 30 June 2015.

The study was of quantitative nature as it focused on the impact of share repurchase and special dividend announcements on the share price. The Event Study approach was used to determine the impacts of the programmes. An econometric package was used to test the significance of the results. The research methodology will be discussed in detail in Chapter 3.

1.7 Collecting and analysing information

All JSE listed companies are obliged to disseminate information to shareholders that might positively or negatively affect the share prices. The dates of the announcement of share repurchases and dividend announcements were collected from the Stock Exchange News Service (SENS).

The historic share prices for the JSE listed companies were collected from the databases I-net Bridge and McGregor BFA. The databases contain historic information of all companies listed on the JSE.

1.8 Limitations of the study

The research paper focussed on share repurchases and special dividend announcements by JSE listed companies in the period 1999 to 2015. The study focussed on general share repurchases rather than the specific type of share repurchases which is Open Market, Dutch auction and Tender Offer repurchases due to lack of data.

The results are likely to be different if the research was done on a specific type of share repurchases. The study is likely to be affected by survivorship bias as only companies that were listed on the JSE throughout the sample period were considered. There was also limited data on special dividend announcements and the sample was very small.

1.9 Chapter Outline

CHAPTER	CONTENT
Chapter 1:	Introduction and background to the study In the first chapter the study is introduced. The background to the study which resulted in the research problem is explained.

<p>Chapter 2:</p>	<p>Literature review</p> <p>In the second chapter a critical review of the current literature on the research problem is presented.</p>
<p>Chapter 3:</p>	<p>Research methodology</p> <p>The research design and methodology used in the study is explained in the third chapter. The chapter commences with a discussion of the issues of research design, the methods for collecting and measuring the data. Techniques to ensure the validity and reliability of the data are also considered.</p>
<p>Chapter 4:</p>	<p>Results and findings</p> <p>The results of the study are presented in the fourth chapter. The data is presented and interpreted in various statistical formats like graphs and tables, etc.</p>
<p>Chapter 5:</p>	<p>Findings, conclusion and recommendation</p> <p>Conclusions are drawn on the basis of the results of the study. Limitations and recommendations for further study are also addressed.</p>

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Table 1: Chapter outline

Source: *Own deductions*



Chapter 2

Literature review

2.1 Introduction

Share repurchases have increased in the past years and have been an imperative tool in financial management (Ejarab, Kimberly & Lee, 2010). Fama and French (2001) observed that the companies that used to distribute free cash flow through special dividends switched to share repurchase programmes. As a result companies' distributing free cash flow through share repurchases increased and special dividends declined (Fama & French, 2001).

There are a number of reasons that support the use of share repurchases over special dividends in distributing free cash flow. The reasons will be discussed in detail in section 2.3 as most reasons advocating share repurchases are embedded in the theoretical background. Ejarab et al. (2010) stated that the reasons behind the surge in share repurchases include the signalling power to the market, agency costs, management share options, market timing, capital structure and tax considerations. The literature review focused on the empirical conclusions in regards to share repurchases and special dividends announcements.

Section 2.2 will focus on the differences between share repurchases and dividends. Section 2.3 will discuss the main reasons that lead companies to engage in share repurchases. In section 2.4 the theoretical background of share repurchases and special dividends will be discussed. The different methods of share repurchase will be discussed in section 2.5. Previous studies on share repurchases will be discussed in section 2.6. Section 2.7 will cover the dividend policy and special dividends. Section 2.8 will cover dividend signals while section 2.9 covers disappearing dividends. Empirical evidence on dividends will be discussed in section 2.10. The summary will conclude the chapter in section 2.11.

2.2 Differences between share repurchases and dividends

Share repurchases are more flexible than dividends. Dividends paid should comply with a dividend policy set by the company and managers will not just cut dividends as that might send a wrong signal to the market that will affect the share price (Butler, Cornaggia, Grullon & Weston, 2011). Therefore companies need to smooth out dividends in order to avoid unnecessary negative impact on the share price in the market (Lintner, 1956). Share repurchases on the other hand are very flexible as they can be altered even after announcement (Jagannathan et al., 2000). It might take years before open market share repurchases are completed unlike dividends.

Empirical evidence suggests that the market reacts positively when both dividends and share repurchases are announced however they differ in the amplitude of reaction (Gelb 2000, Jensen & Smith, 1985; Dan, 1981; Jagannathan et al., 2000). Gelb (2000) reported that dividends convey a more positive signal about future earnings compared to share repurchases. As a result dividends paid-out lead to a more positive reaction than share repurchases. However, Jensen and Smith (1985) found that on average share repurchases leads to a huge positive share price reaction than dividends. Ofer and Thakor (1987) explained that the difference in market reaction is due to information content. Share repurchases are a once off event while a dividend increase is a firm commitment of forecasted future earnings.

Share repurchases are paid from temporary free cash flow while dividends are paid from permanent cash flow which makes them a better signal (Gelb 2000). Gelb (2000) further indicated that firms will pay dividends if its cash flow is permanent and share repurchases when the company has a temporary non-operating cash flow. Guy and Harford (2000) added that the market's perception of companies announcing share repurchases is positive after announcements.

2.3 Reasons companies engage in share repurchases and special dividends

There are many reasons that have been suggested as the motive behind the surge in share repurchases announcements and executions. The sections below will briefly discuss the reasons.

2.3.1 Signalling

Managers possess insider information than shareholders, as a result due to information asymmetry the share price might be undervalued as investors only have access to public information (Vermaelen, 2010). Therefore managers will engage in share repurchase programmes to signal to the market that the share price of the company is undervalued.

2.3.2 Agency problem

Open market share repurchases are used as a tool to solve the agency problem of free cash flow in the hands of managers. In the absence of profitable opportunities managers would rather distribute free cash flow to investors than waste funds in negative NPV projects. Jensen (1986) reported that firms will reduce agency costs through special dividend payments and share repurchases. As a result the agency problem will also be reduced through disbursing free cash flow through share repurchases and special dividends.

2.3.3 Tax considerations

Managers who act as agents on behalf of investors have the mandate to increase the investors' wealth (Jensen, 1986). In instances where managers find themselves with free cash flow, they would rather distribute free cash flow through share repurchases than special dividends to reduce personal taxes on dividends. Therefore firms will engage in share repurchases in order for shareholders to benefit from the tax advantage that share repurchases bring. In the US the tax rate is higher for dividends compared to capital gains (Barclay, Holderness & Sheehan, 2009).

2.3.4 Capital structure

Share repurchases might be used by managers as a tool to adjust the company's capital structure. When companies repurchase shares, equity proportion to debt is reduced and the leverage ratio is increased. Therefore managers would repurchase shares when firms are below their target leverage ratio. Chang, Chen & Chen (2010) published that companies timed share repurchases to be implemented on the same date with the execution of executive share options. Liang (2000) reported that share

repurchases were implemented to avoid the dilutive impact of share options on the outstanding shares and adjusting the firm's capital structure.

2.4 Theoretical Background

This section focuses on the theoretical background of share repurchases. The theories covered in the section are efficient market hypothesis, agency cost theory, free cash-flow theory, Modigliani theory, signalling theory and management share options. These theories explain why companies prefer share repurchases to special dividends.

2.4.1 Free cash flow theory

Free cash flow theory emanates from the agency theory where the principal and the agent have different objectives and intentions. Agents are legally appointed individuals who act on behalf of principals who are the owners of companies. The agent might not act in the best interests of the principal as a result the agent will engage in non-profitable or risky projects in order to be awarded perks (Jensen 1986). To counteract the principal agent problem, Jensen (1986) suggested that free cash flow in the hands of managers can be reduced through special dividends and share repurchases. Peyer and Vermaelen (2005) added that a strong board is needed that will compel management to distribute free cash flow in the absence of profitable projects.

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Free cash flow is the surplus cash after the company has accounted for its daily operations and capital expenditure (Wang, Lin, Fung, & Chen, 2013). Free cash flow can be used for expansion, debt reduction or distributed to investors through special dividends and share repurchases programmes (Wang, Lin, Fung, & Chen, 2013).

Jensen (1986) added that shareholder value can be maximised when companies engage in profitable projects by utilising free cash flow. On the other hand shareholder value can be compromised if companies engage in non-profitable projects to create a perception of hardworking in order to receive incentives.

Zhuang (2015) reported that firms with high free cash flow distribute surplus cash to investors when there is scarcity of profitable projects. The distribution of cash can be done through share repurchase and special dividends. Firms with high free cash flow and cheaper marginal costs will distribute cash to the investors (Zhuang, 2015). Fenn and Liang (1997) added that firms with low marginal costs will distribute free cash flow when profitable projects are scarce. As a result firms with low marginal cost will engage in share repurchases and special dividends knowing that if profitable projects arise in the future funds can be obtained cheaper externally.

Peyer and Vermaelen (2009) indicated that share repurchases are a tool used by shareholders of companies to mitigate agency costs. Free cash flow can also be distributed through a special dividend but this might create expectations of future special dividends (Fenn & Liang, 1997). Fenn and Liang (1997) suggest that companies end up utilising share repurchases programmes compared to special dividends.

2.4.2 Efficient Market Hypothesis (EMH)

The Efficient Market Hypothesis (EMH) is a theory developed by Fama, Fisher, Jensen and Roll (1969) who stated that prices fully reflect all available information in efficient capital markets. As a result the share price will always be equal to its fundamental value in efficient markets. Fama et al. (1969) added that in efficient markets no strategy can earn above average returns on a risk adjusted basis. As a result if this theory stood in South Africa, share repurchases and special dividends would not have any impact on the share prices on announcements.

2.4.2.1 Weak form

The current share price reflects historical prices and the trading volume of a share in weak form efficient market hypothesis. Therefore technical analysis cannot predict the future and generate positive abnormal returns (Yook, 2010). Only insider trading and

public information can lead to abnormal returns (Yalcin, 2010). Lo, Mamaysky, and Wang (2000) argued that technical analysis has a predictive power about future movements of the share price and lead to positive abnormal returns. The theory contributes to the study positively as the announcements of share repurchases and special dividends are both public information.

Kothari, Lewellen & Warner (2006) stated that the positive abnormal returns observed around the announcement days of share repurchases and special dividends are in support of the weak form hypothesis. In the weak form hypothesis managers will achieve the goal of correcting the undervaluation of a share to its true value as public information can be used to achieve superior gains. However this is not conclusive as Grullon and Michaely (2002) observed the absence of abnormal returns after share repurchases announcements.

2.4.2.2 Semi-strong form

The semi-strong efficient market hypothesis implies that all public information and historical information is reflected in the current share price (Hussin, Ahmed, & Ying, 2010). Fundamental and technical analysis cannot be applied to accomplish superior gains. The semi-strong form violates the most propagated assumption that share repurchases will be the best tool used to correct the share price (Vermaelen, 1981).

Only insider knowledge can generate positive returns in the semi-strong hypothesis (Yalcin, 2010). However Malkiel (2003) argues that even in the semi-strong market efficient hypothesis positive abnormal returns can be generated from irrational pricing caused by the market's participants. Rasches (2001) added that in the very last years of the dotcom bubble any company with the name "dot com" experienced positive abnormal returns even when the company's fundamental value was very low. These results are contrary to the semi-strong form as it highlights that fundamental or technical analysis cannot achieve abnormal returns. In a semi-strong form, managers would not be able to communicate the positive future of the company through share repurchase as the market would have already incorporated all public information (Bodie, Kane & Marcus, 2007).

2.4.2.3 Strong form

The market is in the strongest form when the share prices reflect all information that is historical, public and private (Yalcin, 2010). Malkiel (2003) highlighted that share prices in the strong form market efficiency are very unpredictable and follow a random walk. Technical analysis, fundamental analysis and insider trading cannot achieve superior returns in semi-strong form efficient market hypothesis (Laopodis, 2009). If the South African economy is in the strong form, special dividends and share repurchase announcements would not have an impact in the share price.

Different conclusions were reached when the strong form efficient market hypothesis was tested for abnormal returns. Fredriksson, Nilfjord and Peterson (2003) argued that the companies that announced share repurchase experienced positive abnormal returns. Guidi (2010) indicated the presence of abnormal returns in a strong efficient market hypothesis. Mittal and Jain (2009) found that there were no abnormal returns due to historic, public and private information. Floros and Vougas (2009) also supported the strong form as they found the absence of abnormal returns in their study.

2.4.3 Agency cost theory

The agency cost theory implies that managers of organizations act as agents to the shareholders of organizations. The theory adds that agents should perform these duties in the best interest of the principals (Lee & Suh, 2011). Officer (2011) added that conflict of interests is experienced when agents cease to act in the best interests of the principals and engage in unprofitable projects to create a perception that they are productive. Share repurchases and special dividends are one of the solutions to the principal-agent problems. Jun, Jung & Walkling (2009) stated that the methods of distributing free cash flow to the shareholders can mitigate the agency costs as overinvestment is avoided. Share repurchases and special dividends will avoid overinvestment as free cash flow is distributed to shareholders and shareholders value is maximised.

2.4.4 Miller and Modigliani theory (MM)

The theory implies that in a world without taxes, non-existent of bankruptcy costs and absence of agency costs the capital structure of a firm does not increase its value assuming that the markets are efficient (Miller & Modigliani, 1961). The authors explain further that companies that engage in share repurchases programmes increase financial leverage and its costs. On the other hand organizations that repurchase their shares with borrowed money do not increase in value because the discount rate applied in the value also increases due to the increased risks (Miller & Modigliani, 1961).

Miller and Modigliani (1961) stated that share repurchases and dividends serve as the same signal and as a result investors will be indifferent between the two. The authors further stated that the capital structure is irrelevant and that dividends and share repurchases could be substituted without causing any effects in the organisation. Jensen (1986) adds that the method used to signal the undervaluation does not matter as both methods relay the message to the stake holders. The finding does not, however, explain the surge in share repurchases that has been observed in finance studies (Bhana, 2007; Fama & French, 2001; Ejarab et.al, 2011; Khan, 2009).

2.4.5 Signalling theory

The theory implies that in a world without taxes and non-existent bankruptcy costs, share repurchase are used as one of the instruments to convey the intentions of the firm. According to the theory share repurchases are undertaken to take corrective action on how markets value its shares and also to signal the future earnings potential of the company. Ginglinger and Hamon (2007) reported that managers announce share repurchases but time the execution of the event when the share prices are lower than its fundamental value.

The theory is made possible by the fact that management is better informed on the direction of the company and its intrinsic value than the market (Hennessy, Livdan & Miranda, 2010). The intentions of the management on the share price are made possible through a credible signal. The signal to be credible must be expensive as free signals would fail to achieve the purpose of conveying the message to the market (Hennessy, Livdan & Miranda, 2010). Brav et al. (2004) indicated that dividends are

sticky and as a result companies would rather distribute free cash flow through share repurchases than adjusting dividends that cannot be supported in the future. Share repurchases are a once off event and cannot be repeated in the future. As a result companies preferred share repurchases to correct undervalued share price compared to increasing dividends through a credible signal.

Hennessy et al. (2010) stated that the signalling theory is one of the main reasons firms engage in share repurchases and special dividends. Special dividends and share repurchase programmes signal to the market the quality of the shares and the futures' prospects of the organization (Hu, 2014). Crawford, Franz and Lobo (2005) argues that share repurchases and special dividends are the best signals of manager's optimism if there is a reduction in retained earnings.

Signalling is also considered a very imperative tool because it conveys the message to investors that the share price of the company is undervalued (Hennessy et al., 2010). Due to asymmetry information managers engage in share repurchases to correct the undervaluation error (Crawford et al., 2005).

2.4.6 Management share options

Management share options have been suggested to have a significant influence in the managers' choice between dividends payment and share repurchases (Fenn & Liang, 1997). The author went further to indicate that managers will consider paying low dividends in order to increase share repurchases in a world without information and taxes. Managers will act in such a manner because there is a negative relationship between management share options and dividends (Kahle, 2002).

Brav et al. (2004) reported that most companies prefer share repurchases to dividends as share repurchases increase earnings per share. Share options dilute earnings per share while share repurchases are used as a tool to diffuse the dilution. Managers will time share repurchases to be implemented soon after management share options to diffuse the dilution. Chen (2008) also added that firms will opt for share repurchases than dividends as the former increases managers' wealth by not diluting earnings per share as the shares outstanding decrease. This finding explains why share repurchases have been on the rise compared to special dividends. Kahle (2002)

concluded that firms with management share options experience lower returns than companies that do not have these options when they engage in share repurchase programmes. This could be due to the market being rational and recognizing the motive.

2.5 Methods of repurchases

There are three main methods of executing share repurchases in South Africa namely tender offer, open market share operations and the Dutch auction. The three repurchasing methods vary significantly in the length of the share repurchase period, premiums paid to the shareholders and the way the number of share bought back are determined. The market also reacts differently to each method used. The three methods are discussed briefly below.

2.5.1 Tender offer

A tender offer is whereby a company makes a proposal to buy share from every shareholder at a given price at a certain period in time. Repurchasing shares using tender offer is executed by relaying the offer to the shareholders through the prospectus.

The offer is accompanied with the offering price, the number of the shares the company intends to purchase and the period of the offer (Oded, 2011). In most cases the price offered by the firm is normally higher than the trading price of the company's shares. At the end of the share repurchase offering period, the company will buy back the total number of shares offered by the shareholders (Oded, 2011).

In some cases the number of shares offered by the stakeholders in a tender offer can be more than the proportion required by the company. In such cases it is the company's discretion to buy all the shares offered or still stick to the initial intended proportion of shares to be bought back as stated on the prospectus but on a pro rata basis. Grullon and Ikenberry (2000) stated that companies will change their capital structure through engaging in share repurchase programmes. Tender Offers are preferred in implementing share repurchases as the number of shares bought is much larger and quicker to execute than in open market operations.

The offering company can extend the offering period if the desired number of shares are less than the amount offered by the shareholders. The company may also choose not to proceed with the share repurchase if the prospectus sent to the shareholders indicated a minimum clause (Caudill, Hudson, Marshall & Roumantzi, 2006). The markets respond to tender offered shares as the markets consider such repurchases to be a firm commitment and the signal might be well received by the market.

2.5.2 Dutch auction

The Dutch auction method supplies a range of prices within which the shares offered will be purchased (Vermaelen, 2010). The invitation is sent to the shareholders to tender the share at the price they desire within the range offered. At the end of the offer period the firm will create a share supply curve (Vermaelen, 2010).

The firm will use the share supply curve to identify the shares it will purchase at the lowest price and the number of shares it requires. If the number of shares offered by the investors exceeds the number required by the firm, the company can choose to buy the intended shares at the tendered price or below the purchase price on a pro rata basis (Ikenberyy et al., 1995).

Lo (2013) stated that in a Dutch auction method the company has an option to disband the programme if the shares tendered did not meet the conditional minimum acceptance or it can chose to repurchase all shares at the maximum price. The firm will execute the share repurchase programme if all conditions are met (Lo, 2013). As a result share repurchases conducted through Dutch auction are considered a firm commitment by the market.

2.5.3 Open market

In open market share repurchases companies make no commitments about the price, timing and the execution of the programme. However companies will announce the authorised number of shares to be re-purchased at the prevailing market prices when the programme is executed (Jagannathan et al., 2000). As a result companies are not obliged to announce the exact date when the programme will be implemented. Therefore share repurchases can only be implemented when market conditions are favourable and it can take years before the programme is completed.

In the US share repurchases implemented through open market have surged as only 129 open market share repurchases were announced in 1985 compared to 1319 open market share repurchase announced in year 1999 (Jagannathan et al., 2000). This is the most utilised method in share repurchasing programmes because it is one of the most flexible methods (Skinner, 2008). This method is used in quite a number of countries including both developed markets and emerging markets (Grullon & Michaely, 2002).

There is no range of prices or fixed price that is given to the shareholders but the trading share price (Lee Roux, 2008). Costs are also reduced in open market operations as the firm is not obliged to compile a prospectus for the shareholders. This method is very flexible because the company is not obliged also to announce the period of the share repurchase, its volume, price and its motive (Grullon & Michaely, 2002).

Bhana (2007) indicated that some repurchases can be conducted after 3 years of announcements of the share repurchase programme. Firms might not even engage in the share repurchase programme if the share price increases or buy a small proportion of the shares intended.

The flexibility of the method explains the reason behind a number of companies executing share repurchases use open market operations. The impact of share repurchases executed through open market is less than the Dutch auction and tender offer share repurchases (Ginglinger & Hamon, 2007). This is due to the fact that tender offers and Dutch auction share repurchase announcements are regarded as firm commitment by the market. Grullon and Michaely (2004) argued that though empirically it has been reported that tender offer share repurchases offer a credible signal however open market share repurchases relayed a credible signal in their study as abnormal returns were reported.

2.5.4 Share repurchase legislation

Share repurchases were prohibited in South Africa because of the South African Companies Act 61 of 1973. The capital maintenance concept indicated that share repurchases were prohibited because the issued shares are regarded as a permanent

fund to guarantee the payment claims of the creditors. As a result no issued capital was allowed to be returned to the shareholders as the issued share capital was not allowed to be reduced. However the Act considered that the issued share capital could be spent and lost in the daily operations of the company but could not be returned to the shareholders through share repurchases.

Share repurchases were only allowed in South Africa in 1999. The repurchases were made possible in South Africa through the amendment of section 9 of the Companies Act 37 of 1999. South Africa was one of the few countries that still prohibited share repurchases. The Amendment Act 37 of 1999 permitted companies to buy back shares provided that they were authorised in the articles of association and approved by the members of the company. The act further states that such an approval is valid until the next general meeting unless it is withdrawn by the members of the company. The South African Amendment Act 37 of 1999 stipulated the procedure of how share repurchases should be conducted. The two methods that are provided in South Africa are the tender offer and the share repurchases conducted in the open market. The procedure was provided in the act in order to prevent any abuse that might be exerted to the shareholders. Share repurchases could be purchased on a pro rata basis so that every shareholder is given an equal share in the programme.

2.6 Previous studies

Many studies have been conducted on the impact of share repurchases and special dividends in developed markets. Various number of journals, articles and theses have been reviewed to determine whether share repurchase and special dividends announcements have an impact the share price. The studies previously done will be discussed in the next section.

2.6.1 Signal theory

The most widely discussed explanation for using share repurchases is that managers relay their optimism about the future prospects to the market (Ikenberry et al., 1995). There are two different versions of the signalling theory (Grullon & Ikenberry, 2002). The first version of the signalling theory is to relay the company's future increase in earnings and cash flow of the firm. Due to information asymmetry, managers are

sharing views that are not revealed to the market. Bhana (2007) added that corporate managers do not need the excess cash to cater for the future commitments as they would have forecasted the future cash flows.

The second version of the signalling theory is based on management insider knowledge that is in disagreement with how the market has valued the share price (Ejarab et al., 2010). Management considers the share price to be undervalued and aim to correct the error through share repurchases. This is because managers possess insider information and are better informed about the true value of the share price. Chan, Ikenberry & Lee (2004) reported significant evidence indicating that value and growth firms repurchased shares because they were undervalued.

Ghani, Isa and Lee (2011) highlighted that the undervaluation assumption is logical because corporate managers of the firms have superior knowledge about the market value of the share and the future prospects of the company. If the signalling hypothesis holds, undervalued companies will successfully convey the message and experiencing abnormal returns after share repurchases announcements. McNally and Smith (2007) reported abnormal returns for all the firms that repurchased shares in their study. The result is in support of the signalling hypothesis as it indicates that managers can correct the undervaluation of shares.

However Ejarab et al. (2010) reported a contrary view. The authors observed negative returns after the share repurchase announcement. Ejarab et al. (2010) alluded that the signalling tool failed because shareholders interpreted share repurchases as a clear sign of failure to find projects that might add value to the shareholders. Grullon and Ikenberry (2000) also reported that there were no positive abnormal returns observed after share repurchases indicating that share repurchases are not always a positive signalling tool. A number of studies advocate the undervaluation hypothesis. Asquith and Mullins (1986), Bhana (2007) and Ejarab et al. (2010) all reported positive abnormal returns indicating that firms repurchase shares when shares are undervalued.

Ejarab et al (2010) suggested a new dimension to the signalling hypothesis. They added that share repurchase programmes can be used as a tool to dismay raiders and evade takeover attempts of undervalued firms. The takeover attempt will be

derailed by managers when they repurchase a number of shares from the threatening major shareholder. Ejarab et al. (2010) further stated that the shareholder attempt maybe hindered by the increase in share price after the announcements hence making the company expensive to buy out. De Jong, Dutordoir & Verwijmeren (2006) stated that share repurchases can only prevent takeover attempts when the market monitoring is high. If the market is not monitored, the firm's managers may not be influenced by outsiders to release information and as a result share repurchases may not affect the share price. Due to less market monitoring, the raiders may find no incentive to take over an undervalued firm because the share price will not change as a result of share repurchases programmes. Even though the market does not respond to the signals, firms might still go ahead with share repurchase programmes because of free cash flow available in the company (De Jong et al., 2006).

Companies might not be influenced by takeover attempts, undervaluation theory or signalling theory but by high free cash-flow levels. Companies with high levels of free cash flow faced with non-profitable projects will distribute surplus cash through share repurchases and special dividends (Chan et al., 2010). The authors indicated a strong positive correlation between the level of cash flow in the business and share repurchases. The higher the level of free cash-flow the higher the chances companies will distribute excess cash through special dividends and share repurchases.

2.6.2 Agency cost and free cash flow

Companies with free cash-flow and without any positive net present value projects to invest in will engage in share repurchases and special dividends to reduce agency costs (Jiraporn, 2006). Jensen and Meckling (1976) added further that agency costs are likely to be experienced by firms when there are high free cash flow levels.

With high free cash flow levels managers are tempted to invest in inefficient projects. As a result special dividends and share repurchases play a huge role in mitigating overinvestment and in the process reducing agency costs (Lee & Sung, 2011). A number of studies were conducted to determine whether companies that distributed free cash-flow to investors' experienced abnormal returns and in the process reducing agency costs (Lee & Sung, 2010; Young & Oswald, 2008; Laporta, Lopez, Shleifer & Vishny, 2000; Clifford, 2005).

Jensen (1986) emphasised that companies with excess free cash flow end up wasting company funds through taking excessive perquisites and also through unprofitable projects. Jensen (1986) went further suggesting that companies will either pay special dividends to the shareholders or repurchase shares to reduce agency costs. Oswald and Young (2008) reported that companies with scarce investment projects and high free cash flows are likely to engage in share repurchase programmes. Li and McNally (2007) observed that the majority of companies that engaged in special dividends and share repurchases had high levels of free cash flow. Clifford (2005) concluded that free cash flow theory partially explain the reason managers opt to return cash to shareholders.

Jiraporn (2006) indicated that share repurchases and special dividends have been used to reduce the agency. He added that through share repurchases overinvestment is mitigated as it reduces free cash flow hence limiting the agency costs. Jiraporn (2006) went further indicating that firms repurchasing shares are likely to acquire new equity that leads to effective monitoring by security exchanges, investment banks and suppliers of capital hence reducing agency costs. Dittmar and Dittmar (2008) reported that companies will repurchase share or announce special dividends with the reduction of agency costs in mind as the primary goal than to signal undervaluation of their share prices.

Nohel and Tarhian (1998) reported that companies that previously experienced overinvestment observed positive returns after the announcement to distribute cash to the investors. The method used did not matter because investors interpreted the move positively as it was concluded as maximising shareholder's wealth than wasting funds on unprofitable projects. Howe, Jia and Kao (1992) however reported a contrary view stating that the returns observed after share repurchase announcements were insignificant. Howe et al. (1992) went further highlighting that free cash flow was not the reason leading to the surge in share repurchases.

Perfect, Peterson, & Peterson (1995) reported abnormal results after studying share repurchases offered through tender offers. They found strong positive results indicating that previous overinvestment led companies to distribute excess free cash flow to the investors. Lin, Lin, and Liu (2011) also observed a positive significant abnormal return in the aftermath of the share repurchases announcements. The

authors strongly indicated that the results were more likely to be positive especially when firms had overinvestment issues. This is also in support of the fact that shareholders interpret share repurchase as good move as agency costs are minimized in the process.

However Grullon and Michalek (2004) investigated a total number of 4 443 American companies that announced share repurchase in a period of 17 years. Grullon and Michalek (2004) reported a significant reduction in abnormal returns 3 years after the announcement period due to agency costs and huge amounts of available free cash flow. This indicates that the companies were punished by the markets for failing to source out profitable projects.

2.7 Dividend policy

Dividend policy is a set of guidelines that managers follow to determine the payment to be distributed to shareholders in return of their investments. Dividends are important to investors as they are a source of income. Dividends are paid on a per share basis and the more shares an investor has the more dividend income they will receive (Van, 2001). Dividends are not standardized as they differ from other companies and companies in other industries (Monogbe, 2015). Dividend policies of companies are used by investors to assess the possibility of positive future earnings. The dividend policy that leads to the lowest cost of equity will be optimal and when implemented will lead to higher share price.

2.7.1 Dividend policy theories

The section below will discuss three types of investor preference theories namely the dividend irrelevance theory, the bird in hand theory, the tax preference theory, signalling hypotheses, clientele effect and dividend stability. The aforementioned theories focus on the effects of dividend policy on the cost of equity.

2.7.2 Dividend irrelevance theory

Miller and Modigliani (1961) argued that in a world without taxes and costs dividend policy does not affect the cost of equity and the share price of the distributing company. As a result this argument led to the dividend irrelevance theory. Miller and Modigliani

(1961) further highlighted that the value of a company is a result of income produced by its assets and its business risk.

In reality taxes and brokerage costs exist and they nullify the dividend irrelevance theory. As a result dividend policy is relevant and it might affect the share price on the announcement day. Therefore special dividends announcement might affect the share price of the announcing companies.

2.7.3 Bird in hand theory

Gordon (1963) argues that as the dividend payout is increased, the cost of equity decreases as investors perceive the payout as a positive signal of receiving dividends in the future than capital gains. Gordon (1963) also states that investors value dividends over capital gains as they are less risky. Therefore when companies announce dividends policies the market will react as investors' value them (Dorel & Siminica, 2009), and are likely to lead to positive abnormal returns. However Miller and Modigliani (1961) argued that dividend policy is independent from cost of equity as a result investors will be indifferent between capital gains and dividends as investors preferring dividends tend to re-invest their dividends.

2.7.4 Tax preference theory

Dorel and Siminica (2009) stated that investors might prefer low dividend paying companies as they are taxed when dividends are received. On the other hand capital gains are taxed when the share is sold. Therefore time value of dollar paid today is more expensive than the dollar paid in the future. Taking taxes into account companies might opt to distribute free cash flow through share repurchases than dividends (Dorel & Siminica, 2009).

2.8 Dividend signals

This section discusses the different signals that are conveyed from dividends announcement. The section will also cover the stability of dividends as it conveys a signal to the market.

2.8.1 Information signal

An increase in the share price has been observed after a high dividend announcement and a share price decline when a dividend cut is announced. A higher than expected dividend announcement is perceived by investors as a positive signal of forecasted future good earnings (Ross, 1977). Contrariwise an unexpected reduction in dividends leads to a decline in the share price. As a result most companies will distribute free cash flow through special dividends as this will be perceived as good news by the market of future good earnings ahead. A struggling company will not distribute free cash flow as it will need the funds in the years ahead (Grullon and Michalek, 2004).

2.8.2 Incentive signal

Special dividends are distributed to the investors when the company is exposed to free cash flow and there are no positive projects that the company can invest in (Jouhahn & Zhang, 2010). Dividends will also be distributed to investors through debt and this leads to a capital structure that is heavily funded by debt. Such capital structures are perceived positively by investors as companies with weak future earnings prospects will not be able to cope without a strong future cash generating power to maintain the announced dividends (Jouhahn & Zhang, 2010).

Investors have different objectives and needs when they invest in companies as a result they prefer different payout dividend policies. Shareholders such as endowment funds and retired individuals will prefer high paying dividend companies while young investors might prefer reinvestments. Shareholders relying on dividend income will be negatively affected if companies don't pay dividends. As a result special dividends by dividend paying companies are likely to be perceived as positive news and lead to higher share repurchases (Peyer & Vermaelen, 2005).

2.8.3 Dividend stability

Profits generated by companies vary overtime and it is expected that dividend payments should also vary. It is expected that dividend payments will increase in good years and decrease in bad years. Empirically it has been reported that companies prefer dividend stability than constantly changing dividend policy (Al-Yahyaee & Walter, 2010). Firms will announce dividends adjustment that they are able to maintain and sustain in the future based on the future earnings projection (Lintner, 1956).

As a result a dividend increase is perceived as a positive signal of greater earnings ahead as dividends are smoothly increased. Al-Yahyaee and Walter (2010) further added that investors prefer a firm with a stable predictable dividend policy. As a result companies would rather pay a special dividend as it is a once off event than increasing dividends that will have to be maintained in the future.

2.9 Disappearing dividends

There has been a reduction in number of companies paying dividends in the same period share repurchases have been on the rise. Fama and French (2001) reported that dividend paying companies declined by 50% since 1978 to year 1999. Companies paying cash dividends declined by 45.7% from 1978 to 1999. The authors added that the decline in dividends is due to poor profitability forecasts and less investment opportunities.

Amihud and Li (2002) also reported that the reduction of dividend paying firms is due to the ineffectiveness of the information content in dividends. Grullon and Michaely (2002) also reported a decline in dividend paying firms from 1980 to 2000. Share repurchases increased by 45.3% while dividends only increased by 7.5% on average. Grullon and Michaely (2002) also published that the dividend forecast errors were negatively correlated with share repurchase programmes. As a result Grullon and Michaely (2002) concluded that share repurchases have substituted dividends in distributing free cash flow. However Gelb (2000) had a contrary view of the substitution effect by stating that markets reacted favourable when regular dividends comprised of a higher total pay-out ratio. As a result share repurchases could not be a substitute of dividend paying firms. Lee and Rui (2007) refuted the substitution effect by stating that dividends and share repurchases were not substitutes but complements.

2.10 Previous studies on dividends

The dividend policy is set up by firms to determine dividend payments to shareholders and retained earnings for investing in new profitable projects (Copeland, Shatri & Weston, 1983). Companies are faced with a dilemma of determining the profit proportion that must be paid to shareholders and the proportion to be invested in the profitable projects identified (Khan, 2009). This study will investigate if special dividends announcements have an impact on the share price.

Studies have been conducted to determine if dividend policy affect share prices positively or negatively. The question has not been fully answered and it still remains a debacle within the field of finance as managers, lenders, investors, policy and researchers have different views towards the subject. Dividends are not only considered a way of cash distribution to shareholders but also as a way of assessing the future of the company (Boudoukh, Michaely, Richardson & Roberts, 2007). Shareholders track the dividend policy through the dividend yield. A low dividend yield implies that the companies' share price is relatively high as the market perceives that the company has a promising future and can easily pay its dividends. As a result companies with low dividends yield will possible experience positive abnormal returns when special dividends are announced (Boudoukh et al., 2007).

A high dividend yield indicates that the company's share price is depressed and might even fail to pay dividends in the future (Andres, Doumet, Fernau, & Theissen, 2013). Therefore a company with a high dividend yield might even not make special dividends announcements. Dividend yield is imperative in mature companies than in growing companies as growing companies are most likely not to pay dividends but reinvest profit to cater for future profitable projects (Andres et al, 2013). Lenders are also critical of the companies' dividend yield as declaring high dividends might affect the ability of the company to honour its obligation (Andres et al, 2013).

Miller and Modigliani (1961) indicated that investors would not be bothered by whether firms pay dividends or the total profit is retained in the organization. Miller and Modigliani (1961) assumed the markets to be perfect of which in reality the markets are imperfect. This warrants the investigation of special dividends being distributed to the shareholders as yielding positive returns or negative returns. Miller and Modigliani (1961) highlighted that the dividend policy was irrelevant in the world of no taxes or bankruptcy costs. Miller and Modigliani (1961) indicated that there were no effects observed from dividends announcements on the share price or the capital structure of an organization and that the value of the firm is only increased by business risk and its earnings power.

There are two different views in regards to special dividends and retained earnings in the dividend policy. Joshi (2011) indicated that there are investors who hold the view

that dividends will strongly impact the share price due to the fact that shareholders prefer current payments than the delayed payments. The author also indicated that special dividend payments to shareholders are also an indication of positive earnings in the future. As a result Joshi (2011) indicates that special dividends announcements should lead to positive abnormal returns on the days surrounding the announcement. Dennis and Osobov (2008) stated that special dividends will impact share prices negatively due to the fact that shareholders treat retained earnings as an indicator of future profitable projects that the company plans to invest in. As a result shareholders perceive profitable future years and would rather support retained earnings instead of special dividends. Dennis and Osobov (2008) went further indicating that the shareholders will experience tax advantages in retained earnings as retained earnings are not considered income until they have been realised.

Black and Scholes (1974) conducted a study on the impact of dividend policy on the share price between the years 1966 to 1974. In order to test the relationship between the dividend yield and the expected returns, Capital Asset Pricing Model (CAPM) was used and an insignificant relationship was observed. It was concluded that dividend policies do not impact the share price and dividend irrelevance theory is valid (Miller & Modigliani, 1961). Chowdhury and Uddin (2005) emphasized the dividend policy irrelevance theory by investigating 137 Dhaka listed stock exchange companies to determine the association between dividend payments and share prices. Chowdhury and Uddin (2005) reported that dividend announcements do not increase the share price. The result is in support of the dividend irrelevance theory.

Amihud and Murgia (1997) supplied a different view of the MM theory. The authors studied 200 firms in German to determine the association between dividends and the share price. Amihud and Murgia (1997) reported positive abnormal returns of 0.965 when firms announced dividends increases. Amihud and Murgia (1997) also reported that when firms reported dividends cuts companies experienced negative abnormal returns of 1.73. These results indicate that dividends affect the share prices. This might also suggest that dividends increases or decreases act as a tool to signal the future years of companies.

Monogbe (2015) supported the signalling power of dividends in financial markets. Monogbe (2015) studied Nigerian companies that distributed free cash flow through cash dividends. Monogbe (2015) observed abnormal returns indicating the presence of the signalling hypothesis in both cash dividends and dividend increase events. D'Souza and Saxena (1999) focused on the association between the dividend policy and the agency costs theory. The author investigated 333 companies listed on the New York Stock exchange for the period 1981 to 1990. D'Souza and Saxena (1999) reported significant negative relationship between insider ownership and dividend pay-out. The results indicate that agency cost theory plays a huge role in dividends pay-outs. Chen and Dhiensiri (1999) studied Indian companies between the period 1991 to 1999 to determine whether the association between dividends pay-outs and insider ownership was existent. They reported a negative relationship between insider ownership and dividends pay-out. The findings were in support of the agency cost theory.

2.10.1 Impact of special dividends on share price

Lie (2000) focused on the impact special dividends have on the share price of companies. The author analysed 570 special dividends, 7 417 regular dividends and 207 share repurchases conducted through tender offers and observed the impact of the events. The author highlighted that all companies that distributed cash to the investors in the study had high levels of free cash flow.

Lie (2000) reported positive abnormal returns on the companies that announced special dividends. The author further indicated that of all the three segments under study, share repurchases through tender offer and special dividends yielded higher abnormal returns compared to regular dividends. The favourable response is a result of the companies experiencing agency costs and such a move is interpreted by the market as noble than to invest in unprofitable markets (Lie, 2000). Lang and Litzenberger (1989) reported positive abnormal returns around the announcements of regular dividend increases. Lang and Litzenberger (1989) reported positive results because most of the companies in the sample were over investing and shareholders interpreted such a decision as good news. However Howe et al. (1992) reported results that were contrary to the previous researchers as his conclusions were

insignificant. Howe et al. (1992) concluded that agency costs and free cash flow hypotheses in special dividends do not lead to abnormal returns.

Denis and Osobov (2007) focused on the relations between the cash flow characteristics and the announcement by companies that a special dividend will be declared to the shareholders. The authors found positive abnormal returns due to the fact that the companies had overinvested. The authors used the Tobin q in order to determine the effects of cash flow in the share buy-backs programme. Denis and Osobov (2007) also indicated that companies that suffered from underinvestment experienced negative returns during the announcement of special dividend. Yoon and Starks (1995) also reported similar observations as they observed that companies with no free cash flow did not respond to dividends special announcement. The majority of studies as indicated above indicates that companies announcing special dividends are likely to experience abnormal returns during the days of the announcement period.

2.10.2 Comparison: Developed markets versus Emerging Markets

Developed markets tend to differ in structural components as compared to the emerging markets. Developed markets are well developed in terms of technology, data availability, and the markets tend to be continuous unlike some of the markets in the emerging markets. The differences in these markets can lead to different conclusions that will be valuable to the investors. A number of studies in America report positive abnormal returns during announcement days of the event. Peyer and Vermaelen (2005) reported abnormal returns of 3.53% in American companies that announced share repurchases. An Italian study reported positive abnormal returns confirming the signalling theory that share repurchases convey messages about future good days.

A number of studies were also conducted in India, a country that is classified as an emerging market. India is also a member of the BRICS, a block of emerging markets countries. Mohanty (2002) focused on a very small sample of 12 announcements. Mohanty (2002) found cumulated average abnormal returns of 3.86%. The sample used in the study was very small and it could have influenced the results of the study. As a result Kaur and Singh (2003) studied a larger sample by considering 77 announcements of share repurchase. The authors observed positive abnormal returns of 1.5% during the announcement day.

A number of studies have been conducted in comparing the effects dividends and retained earnings have on the share price. Most of the results reported in the literature indicate that dividends have a more positive impact on the share price as compared to the retained earnings hence supporting the signalling hypothesis. Khan (2009) indicated that dividends had a positive relationship with the market share. Pradhan (2003) also reported that the dividends announcement yielded positive results as compared to retained earnings. The author went further in highlighting that retained earnings had a very weak impact if not close to none. The author went further indicating that dividends yielded positive results because of the information they are conveying in the markets.

Chhetri (2008) conducted a study in India by comparing high dividend paying companies and low dividend paying companies. The author indicated that there is a positive relationship between dividends and the share price. Chhetri (2008) concluded that dividends convey information to the markets that is valuable about the future.

Hyderabad (2009) focused on 70 share repurchase announcements and reported a different result. The author observed 2.771% abnormal returns during the days surrounding the announcements and that these abnormal returns are short lived as share prices fall back to their normal levels. These results indicate that during the days surrounding the announcements the firms' experience positive abnormal returns. A study will be done in South Africa to determine if the results are different from the Indian market.

2.10.3 South African studies

Most of the special dividends and share repurchases studies were done in developed markets such as America and the rest of Europe. The results from the international studies are inconclusive as some studies reported positive gains, negative returns and zero returns in the announcements of share repurchases and special dividends. The results of these studies might not be applicable to the emerging markets. This could be the fact that in emerging markets the exchanges are not as organized as in the developed markets. Lack of data could also lead to different results in the emerging markets.

Bhana (2007) focused on the companies that announced share repurchases listed in the JSE between year 2000 and 2003. Bhana (2007) observed the reaction of the market for a 40 day period; 20 days before the share repurchase announcement and 20 days after the announcement. Bhana (2007) reported positive abnormal returns of 4.38% in the time of the initial announcement.

The evidence of the study conducted in South Africa was in support of the Signalling theory. However the results should be treated with care as the sample was very small and it covered a 30 month period. Bhana (2007) analysed only 117 companies that were included in the final sample.

Potgieter (2015) conducted a study on JSE listed companies on whether management repurchase shares when the shares are undervalued. Potgieter (2015) considered a sample of 183 share repurchase announcements from 83 JSE listed companies. She reported that managers strategically time share repurchases as insider information indicates that announcements were made when shares are undervalued. She further stated that management would return excess cash to shareholders regardless of whether shares are undervalued. The time period was long enough, however the sample was fairly small.

Brijlal and Punwasi (2016) focused on market reactions on JSE listed companies that announced share repurchase from the period 2003 to 2012. A final sample of 167 share repurchase announcements from 62 companies was considered. Significant abnormal returns of 0.46% and cumulative abnormal returns of 3.81% were reported. However, the authors found that the ability of managers to time their share repurchases were insignificant. The study excluded the initial years after share repurchase were legalised in South Africa.

This study improved the sample and covered a period of 15 years from 1999 to 2015. The study will add value as the period under study experienced a global recession and results will be compared with the rest of the studies in the finance literature. Empirically it was observed that the signalling theory is considered as the most dominant reason behind share repurchases. It should be noted however that there were studies that did not support the signalling theory as a result further studies should be conducted.

2.11 Summary

As indicated above there are many theories that lead companies to engage into share repurchase programmes and special dividends. Agency cost, signalling, management share options and free cash flow theories were discussed in detail and how they affected the share price. The literature examined does not suggest that share repurchase programmes have replaced dividend payments as all methods of cash distribution still affect the markets.

There are inconclusive results on the impact of share repurchases and special dividends on the share price. Based on the literature examined, it was found that most countries in emerging markets exhibit positive abnormal returns during the announcement days of share repurchases and special dividends. South African studies were examined and they also indicated inconclusive results on the effects of share repurchase and special dividends on the share price. This research paper added value to the existing literature by focusing on share repurchases from the day they were legalised in South Africa in October 1999 to the 30th of June 2015. The study also focused on special dividends on the same period and the results were compared.

Chapter 3

Research methodology

3.1 Introduction

This section will outline the research approach that will be applied in gathering data, analysis of data and the results generated from the study. The Event Study method will be discussed at length as it is the best suitable method for analysing share repurchase and dividends announcements as they are once off events (Zhang, 2005; Bhana, 2007; Chang, Chen, & Chen, 2010).

The study was of a quantitative nature because of the type of research conducted on share repurchases and special dividends announcements. An econometric package and the critical values was used to test the significance of the hypotheses indicated below.

H₀: Average Abnormal Returns (AAR) = 0 in share repurchase announcement days

H₁: Average Abnormal Returns (AAR) ≠ 0 in share repurchase announcement days

H₀: Cumulated Average Abnormal Returns (CAAR) = 0 in share repurchase announcement days

H₁: Cumulated Average Abnormal Returns (CAAR) ≠ 0 in share repurchase announcement days

H₀: Average Abnormal Returns (AAR) = 0 in Special dividend announcement days

H₁: Average Abnormal Returns (AAR) = 0 in Special dividend announcement days

H₀: Cumulated Average Abnormal Returns (AAR) = 0 in Special dividend announcement days

H₁: Cumulated Average Abnormal Returns (AAR) = 0 in Special dividend announcement days

The Capital Asset Pricing (CAPM) model was applied in calculating abnormal returns. The model will be discussed in detail below. The abnormal returns were tested for

significance by using the paired sample test as it is the appropriate in calculating and observing the impact of events. The study was based on secondary data. This information was obtained from the existing databases of the JSE, I-net Bridge and McGregor BFA. The study covered a 15 year period from 1 October 1999 to 30 June 2015. The next section will focus on the research questions considered in the study.

3.2 Research question

The research study attempted to answer the following question: What is the impact of share repurchase and special dividends on the share price of Johannesburg Stock Exchange (JSE) listed companies?

3.2.1 Research objectives

The objective of the study was to evaluate the presence of abnormal returns in the days surrounding the announcements of share repurchases and special dividends of JSE listed companies.

The study investigated the presence of abnormal returns during announcements of share repurchases and special dividends during the global recession of 2008. South African investors will benefit from the study as they will be able to anticipate the impact caused by the announcements of such programmes. The study also compared share prices before and after the initial announcements. South African studies have been conducted on small samples and for short periods, the longest period was recorded at 30 months (Bhana, 2007). The study covered share repurchases and special dividends for a period of 15 years and 9 months.

3.3 Research strategy

3.3.2 Research paradigm

The research paper was of a quantitative nature as it focused on the impact of share repurchases and special dividends in South Africa. Econometric package and critical values were applied to draw conclusions and how significant the results are. Statistical models for non-parametric data were applied for both share repurchase announcements and special dividends announcements.

3.3.2 Research method

The research gathered historical share prices for the JSE listed companies through I-net Bridge and McGregor BFA data bases. All JSE listed companies are obliged to announce any material information that is likely to impact on the share price. Material information for JSE listed companies is recorded in SENS and the announcement dates of the events were collected from SENS. Historical share prices were collected for 51 days for each event.

3.4 Research instrument

The research study used the event study technique to determine the impact of share repurchase and special dividends on the share price. The method focussed on the performance of shares before the announcement and after the announcement. The critical levels and p-values were calculated to draw the conclusions.

3.5 Sampling strategy

This section will focus on the target population and the sample selection. Sample selection will be discussed in detail below in section 3.5.2.

3.5.1 Target population

Share repurchases were only allowed in South Africa in October 1999. The research covered all share repurchase and special dividend announcements from the period 1 October 1999 to 30 June 2015 on a daily time series. This period was used also to study the impact of share repurchases and special dividend announcements on the share price. As a result the population included all share repurchases and dividends announced in the study period for JSE listed companies.

The 15 year period was selected for a number of reasons. Firstly the data needed to test the presence of abnormal returns in share repurchase announcements is readily available from October as share repurchases were only allowed in South Africa in October 1999. Secondly the scholarly study that could be found in South African market was done by Bhana (2007) and it covered a very short period. As a result the study investigated the 15 year period from the beginning of the millennium to determine if the results will be different.

Thirdly the period was long enough not to be swayed by small sample bias when conducting research. Finally the period was long enough as it includes the different phases of the economic cycles in South Africa and on the international stage. The South African economy experienced periods of expansion, recession and periods of very slow growth. The global market experienced a recession that affected South Africa due to subprime lending. As a result the study most likely supply unbiased results that resembled the markets at large with different economic phases. The population included share repurchases and special dividend announcements that were announced by JSE listed companies. This included all announcements regardless of whether share repurchases were actually conducted after the announcement or not. It was a different case with dividend announcements because after the announcement, payments should be remitted to the shareholders of the company. As a result all dividend announcements in the period mentioned formulated the target population.

3.5.2 Sample selection

Non-probability sampling was used in the study because of the limited data in the South African market. Subjective judgement was used to produce the best sample as probability sampling might lead to selecting companies with no continuous data in its trading. In probability sampling all units in the population have an equal chance of being selected.

Probability sampling might also lead to the selection of companies that had a lot of material announcements close to the event which might prove to be difficult in ascertaining the impact of share repurchase announcements and dividends announcements on the share price. Finally probability sampling could lead to a selection of companies that delisted on the JSE. Bhana (2007) added guidelines that will assist in generating a representative sample. The guidelines are as follows:

- There must not have been any other major announcements from the company 30 days prior to the announcement and 30 days after the announcements of special dividends and share repurchases. Any other major announcements would make it difficult to trace the reaction of the share price to share

repurchases. As a result share repurchase announcements analysis will be erroneous.

- The company must have available data of the daily share price 200 days before the announcement and 25 days after the announcement.
- The company must not reduce dividends during the announcement year of share repurchases. The main reason for excluding such companies is to eliminate the notion that companies are substituting share repurchases for dividends (Grullon and Michaely, 2002); and
- The companies that delisted in the period will be excluded in generating the sample as only JSE listed companies till the end of the period will be included and generate better comparable results. The companies were excluded as the sample should be a representative of JSE listed companies.

3.5.3 Data collection method

The study focused on the companies listed on the JSE. As a result all companies listed on the JSE are obligated to inform shareholders of any material information that might cause movement in the company's share price. Such information is made available by the SENS. SENS was used to gather the announcements dates of share repurchases and special dividends made by companies (Bhana, 2007; Rasches, 2001; Kothari et al., 2006; Chivaka, Bayne, Siddle, Cairney & Shev, 2009).

When the announcements dates were determined, the historical share price of the companies was collected from JSE through I-net Bridge and McGregor BFA databases. These two databases have been largely used in South Africa by Chivaka et al. (2009); Halfar and Ward (2011) to collect verifiable data for research purposes. I-net Bridge and McGregor BFA have been largely preferred for easy access and simplicity in collection of data. As a result all closing share prices for the study period 1 October 1999 to 30 June 2015 were collected through these data bases.

3.6.1 Event study

Event Study is a tool that has been and is still used in academic studies in determining the impacts of different events on the share price. McWilliams and Siegel (1997) highlighted that the method is preferred because of its simplicity in observing the impact of announcements on the share price. The technique only requires historic

prices, the date of the announcement and the name of the company. The method is also reliable because it does not use accounting data that might be manipulated by accountants to meet their expectations. The method applies the data it obtains from the market hence making it more reliable.

The Event Study method is used to measure three different impacts on a phenomenon. When financial markets are efficient, event studies are used to evaluate the speed of the impact and the market's reaction. The second scenario where the event study method is applied is where researchers are evaluating the impact of new information on the firm's returns. The research study will focus on the second type as it is relevant to the study conducted. The efficient market hypotheses indicate that the impact of an event in the market will eventually be reflected in the share price. Event study methodology is an answer to solve such issues by measuring the impact of the events to determine whether positive or abnormal returns were experienced as a result (McWilliams & Siegel, 1997).

The event study methodology dates back to 1969 as Fama et al. (1969) made the primary presentation of the event study methodology. They used the methodology to ascertain the impact of the share splits announcements on the share price. Since then event studies have been used as an essential tool in the analysis of material announcements on share prices of organizations (Seiler, 2000). There have been some significant suggestions in modifying the methodology as indicated in the paper well documented by Brown and Warner (1985).

Campbell, Lo and MacKinlay (1997) discussed the steps involved in the event study methodology. These steps include choosing the interested event of which in this case the event refers to dividends and share repurchase announcements. Campbell et al. (1997) also indicated that an event window will be analysed also eliminating the confounding events during the event window. Campbell et al. (1997) also indicated that the time issue is of vital importance as well as forecasting the normal return in the event window period without the material event. Some of these major steps that were applied in this study will be discussed in the next section.

3.6.2 Event window

Event Study method has been applied overtime to determine the impact of events on the share price since 1968 (Ball & Brown, 1968; Fama et al.1969). The tool will unlock the analysis of the dividends and share repurchase announcements on the share price.

The event window period refers to the analysis of an impact caused by the event before the event and the days after the event. There have been quite a number of arguments regarding the length of the window period and there has not been a conclusion on the matter. Brown and Warner (1985) in their modification of the event study methodology indicated that the dangers of having a long event window period are that chances a very high that there will be different events taking place in the same window period. These different events are quite a challenge to eliminate as they have a material impact also on the share price.

Nageswara and Srejith (2014) indicated that most of the compounding events affecting the event window period include joint venture announcements, earnings declarations, administration changes and mergers and acquisitions of a company. These compounding events have a material impact on the share price and might distort the goal of the research. Nageswara and Srejith (2014) indicated that a short event window might eliminate the confounding effects of other major announcements. On the other hand Lin et al. (2011) indicated that a short event window period might be detrimental to the research because it might lessen the predictive power of the forecasting model. Nageswara and Srejith (2014) advised that confounding events in a study can be eliminated by the collection and the analysis of the company's events around the event window period. Through this exercise the events were determined and excluded in the study.

The event window in this research study was 25 days before the announcements and 25 days after the announcement. This is referred to as T-25 and T+25 in the figure below. This announcement referred to the share repurchases and dividends announcements as the study will report the outcomes on both announcements. The announcement day is indicated as day "0" and is indicated by the red bold line in the

diagram below. The event window period that was used in this research study was 51 days and it is shown in figure 1.

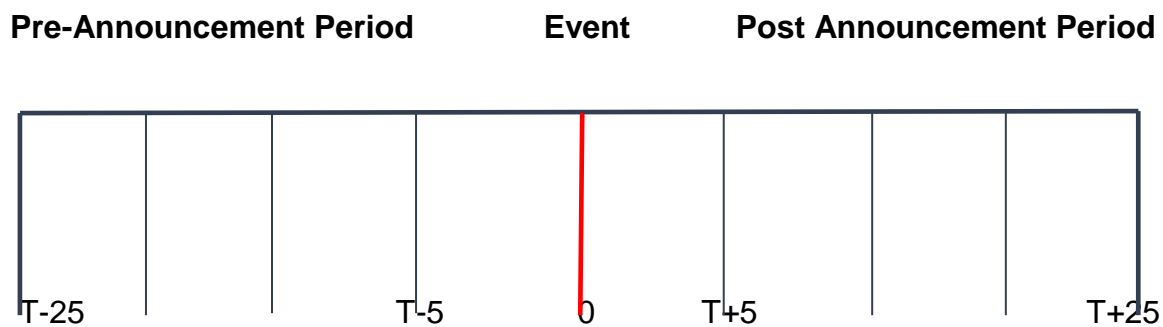


Figure 1: Event Window

Source: *Own Deductions*

3.7 Data analysis

There are three methods documented to calculate expected returns namely the mean adjusted return, market adjusted returns and the CAPM adjusted return (Zhang, 2005). Lin et al. (2011) indicated that the expected return denoted by R_{it} is the yardstick return in a normal situation without any events. The expected return will be compared to the company's actual return during the event window period. The yardstick return represents a normal situation not associated with any events that might interest stake holders. The three models of calculating the expected return will be discussed below.

3.7.1 Mean Adjusted Return

Lambertides (2009) indicated that the mean adjusted return as the term suggests is the average return over the estimation sample period. As a result the mean return calculated was used as the company's normal expected return with no association to material events. The formula is shown below as:

$$E(R_{it}) = R$$

Where $E(R_{it})$ refers to the expected return and R refers to the average return

3.7.2 Market adjusted return

Webber (2009) noted that the market adjusted return is the expected return at the same sample period of time assuming that all shares in the entire exchange on average generates the same return. It should be noted that in the market adjusted return method there is no estimation required. The formula is shown below:

$$E(R_{it}) = R_{mt}$$

Where $E(R_{it})$ refers to the expected return and R_{mt} refers to the market adjusted return.

3.7.3 Market model adjusted return

In the market model adjusted return the expected return is calculated using a single factor model that applies Ordinary Least Squares (OLS) regression analysis over the estimated period. In share repurchases and special dividends announcements this method is used to control the relationship between share returns and market returns (Homan, 2006). Homan (2006) also indicated that the regression analysis method is a preferred method because it allows for the risk associated with the share to vary. The formula for the market adjusted return model is indicated below.

$$E(R_{it}) = a + BR_{mt}$$

Where $E(R_{it})$ refers to the expected return and R_{mt} refers to the market adjusted return.

3.7.4 CAPM adjusted return

This model is also used to calculate the required rate of return for any asset that is risky. In this model the required rate is the increase that is experienced based on the risk that is inherent on the asset (De Cesari et al., 2011). In formula terms the expected return will be the outcome of the risk-free rate return plus market risk premium. It is expressed in the formula below.

$$r_a = r_{rf} + B_a (r_m - r_{rf})$$

r_{rf} = the rate of return for a risk-free security

r_m = the broad market's expected rate of return

B_a = beta of the asset

Graphically the CAPM model is shown below.

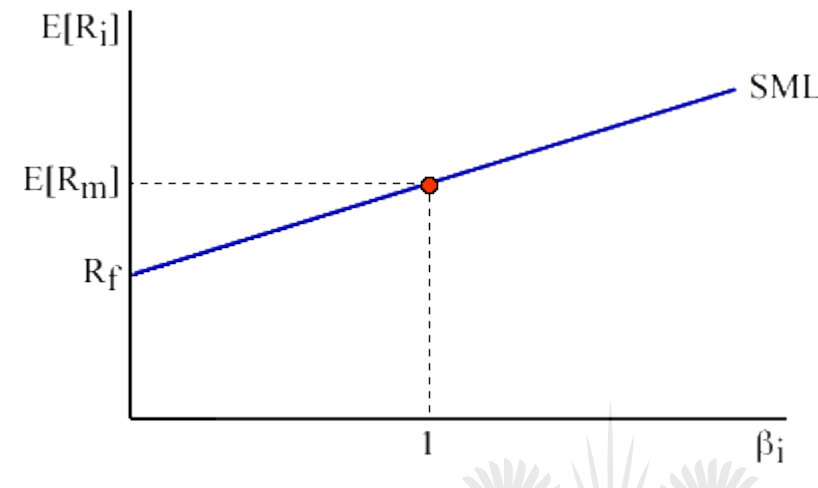


Figure 2: CAPM Model, Source: *Yearmach (1997)*

3.7.5 Calculation of abnormal returns

An abnormal return is the difference between the actual return experienced by a company's share over a certain window period and the return that is normally expected by the market (Santos and Victorio, 2010). The expected return in the study was calculated from the CAPM model as already discussed above. CAPM is a more plausible method to calculate abnormal returns because it adjusts the market value by the risk associated to the share price of a company.

In simple form the normal expected returns are calculated from the JSE All share index's return adjusted for the risk of a particular share. If the abnormal return is positive this implies that the share of the company performed better than the market (Lin et al, 2011). In the study this was most likely caused by the event that caused a material shift in the share price. A negative abnormal return will obviously imply that the share performed badly as compared to the market (Lin et al, 2011).

The return per share was calculated by using the formula indicated below that was also applied by Miller and Ward (2011).

$$R_{it} = \ln [P_t / P_{t-1}]$$

Where R_{it} = the share price return for company i on day t and

P_t = closing share price for company i on day t

P_{t-1} = the closing share price of the company i on day $t-1$

The abnormal return was calculated by deducting the expected or required return (K_t) from the actual return of the share price (R_t). The difference was likely to be positive or negative or no difference at all. The result indicated the impact of the event on the share price.

$$AR_t = R_t - K_t$$

Where:

AR_t = Abnormal return

R_t = the share price return for company i on day t and

K_t = the expected return for company i on day t and

The abnormal returns calculated using the formula above was averaged to determine the average abnormal return of the firms studied in the events being researched in this study by using the formula below.

$$AAR_t = AR_t / N$$

Where:

AAR_t = average abnormal return at time t

N = number of companies

The study analysed the cumulated average abnormal return (CAAR) and it was calculated as indicated below by summing all the average abnormal returns from the beginning of the event till the end of it as suggested by (Serra, 2002).

$$CAAR = \sum_{i=1}^L AAR_i$$

Where:

CAAR = cumulative average abnormal return

L = length of the event window

Nageswara and Srejith (2014) indicated that individual cumulated abnormal returns (CAR) for companies should be calculated and be plotted on the line graph. The author went further indicating that the companies that had cumulated abnormal returns that deviated from the rest of the companies should be eliminated in calculating the CAAR as it is likely that they were influenced by confounding events not part of the study.

3.8 Validity and reliability of data

The study focused on the impact of dividends and share repurchase announcements on the share price. There was a great likelihood that unrelated events might also affect the share price in the days surrounding the announcement days. These unrelated events include financial reports, trade results and corporate actions. Companies affected by these unrelated share price movers were eliminated from the study in order to get unbiased results.

The event window was critically examined to determine such factors and eliminate them. The data is reliable because the companies in the study are listed on the JSE and it is a requirement that the companies announce material information that affect the share price through SENS.

3.8.1 Validity of measurement

The share price of all Johannesburg Stock Exchange listed companies were regarded as the unit of analysis from the FTSE/JSE All Share Index. Companies that delisted on the JSE in the period understudy were excluded from the sample that was used to generate conclusions. Event study was used to measure the impact of the special dividends and share repurchases announcements. Event study method was the valid measurement in this study as it analyses the share prices before the announcement and after the announcement and comparing the two to determine the impact.

3.9 Ethical considerations

Ethics play a pivotal role in research as they lead to reliable results. In this study, codes of ethics were strictly adhered to. The data collection and the analysis process were handled in a professional manner. The results were not mined to reach the conclusion the researcher expected.

3.9.1 Anonymity and confidentiality

Anonymity and confidentiality applied only to the gathered data considered inside information that is not yet public. However in this study there was no company that was singled out in the analysis section but the entire market and industry. The privacy of companies does not apply in this case as data was collected in public institutions as a result confidentiality in this case will not apply. All the companies considered in the population and in the sample were listed on the JSE and the announcements of special dividends and share repurchases was collected through SENS which is a public institution. The share prices of the companies in the study were collected through I-net Bridge and McGregor BFA of which are all public information as a result anonymity and confidentiality does not apply in this study.

3.10 Limitations

The research on share repurchases announcements and dividends announcements focussed on Johannesburg Stock Exchange listed companies. As a result this study might be applicable to only companies that are public listed in South Africa and might not necessarily apply in private companies. The study focussed on the period 1 October 1999 to the 31st of December 2015 and the results might not be applied with certainty for future events. The market dynamics might have changed and different results are likely to be observed as this study focused on historical events.

The data analysis focused on companies that were still listed on JSE for the entire 15 year period of study. This might expose the study to survivorship bias as it is selective. This loophole is for future research to focus on the impact of the events on companies that announced share repurchases and dividends but delisted on the JSE

3.11 Summary

The purpose of the study was to determine the effects of share repurchases and special dividends on the share prices of JSE listed companies. The study was of quantitative nature as historical share prices of companies were gathered through the databases I-net Bridge and McGregor BFA. The study relied on secondary data obtained from SENS. Population in the study referred to all JSE listed companies that announced share repurchases and special dividends from the 1 of October 1999 to 30 of June 2015. A period of 15 years was selected as it reduced small sample bias and it also included different phases of the economic cycles in South African market. The sample was selected through non-probability sampling. Probability sampling could not be used as it posed the risk of selecting companies that had material announcements around the events under study.

A strict guideline in selecting the sample was followed as suggested by Bhana (2007). There were no major announcements from the company 30 days before and after the announcement period was done in order to be included in the sample. All companies included in the sample had data available 200 days before the announcement and 25 days after the announcement. Companies that reduced dividends in the year of announcement were excluded from the sample to eliminate the substitution effect. The event study methodology was used to determine the impact of special dividends and share repurchase announcements on the share price in the South African market. Share price reaction was observed before, on and after the announcements of share repurchases and special dividends. Average abnormal returns were observed and analysed in the days surrounding the announcements of the events. P-values were used to determine the significance of the results observed in the study.

Chapter 4

Results and findings

4.1 Introduction

This chapter analyses the data collected from the companies listed on the JSE in regards to impacts caused by special dividend and share repurchase announcements. The population and the sample will be discussed and how they were generated. Share repurchases and special dividend announcements will be compared and contrasted in this section as they are tools of free cash flow distribution to the shareholders. Previous studies indicated in the literature review section that there has been a surge in share repurchases and a decline in companies distributing free cash-flow through special dividends. The finding will be tested in this section.

4.2 Description of the population

The data was collected from the JSE listed companies from 1 October 1999 to 30 June 2015. The historic share price was collected through McGregor BFA and I-net Bridge. The special dividends and share repurchase announcements dates were gathered from the SENS. The share prices were collected 25 days prior the announcement day and the next 25 days post announcement period. The generation of the share repurchases and special dividends population will be discussed in the next section. A contrast will be done to determine whether share repurchases have replaced special dividend announcements in distributing free cash flow.

4.2.1 Share repurchase population

There were 747 share repurchase announcements from 1 October 1999 to 30 June 2015 as indicated in table 1. The announcements considered in the table are only for companies listed on the JSE. The table indicates that most of the share repurchase announcements were done in the month of June as there were 12% announcements.

Share repurchase population

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
1999	0	0	0	0	0	0	0	0	2	0	3	4	9
2000	0	2	3	1	2	10	5	6	8	7	8	14	66
2001	6	4	12	8	4	12	6	7	7	9	4	3	82
2002	6	10	10	7	8	3	6	5	6	5	6	11	83
2003	4	6	3	5	10	11	2	4	4	1	2	1	53
2004	1	3	2	3	4	5	3	0	2	2	6	2	33
2005	3	1	1	4	2	4	1	3	0	2	4	2	27
2006	2	4	3	1	1	4	5	1	2	1	4	2	30
2007	0	0	3	1	1	7	2	6	2	2	5	4	33
2008	0	12	7	1	3	7	6	5	6	2	3	4	56
2009	0	6	6	1	4	5	2	4	3	2	1	2	36
2010	0	4	0	3	0	1	0	7	2	0	3	6	26
2011	2	3	1	1	2	4	2	3	0	3	2	3	26
2012	0	3	3	1	1	4	10	6	4	1	7	6	46
2013	1	6	6	1	3	6	3	8	3	4	4	7	52
2014	7	8	8	4	2	2	3	5	7	4	4	7	61
2015	1	11	5	2	2	7							28
Total	33	83	73	44	49	92	56	70	58	45	66	78	747

Table 2: Share repurchases population

Source: *Own deductions*

The graph in figure 3 indicates that the highest share repurchase announcements were done in the years 2001 and 2002. The years experienced 82 (1.10%) and 83 (1.11%) share repurchase announcements respectively. The increase observed in the

early years in share repurchase announcements might be that companies were now accustomed to the new method of distributing free cash-flow as share repurchase announcements in South Africa were only legalized in 1999.

One dimension that could be attributed to the surge in share repurchase announcements is the strength of the economy as there is likely to be a surplus in such a period and free cash-flow is distributed to shareholders. The graph in Figure 4 depicts the history of the South African Rand to the US Dollar. In 2001 and 2002 the exchange rate to the US Dollar was between R6 - R7.50

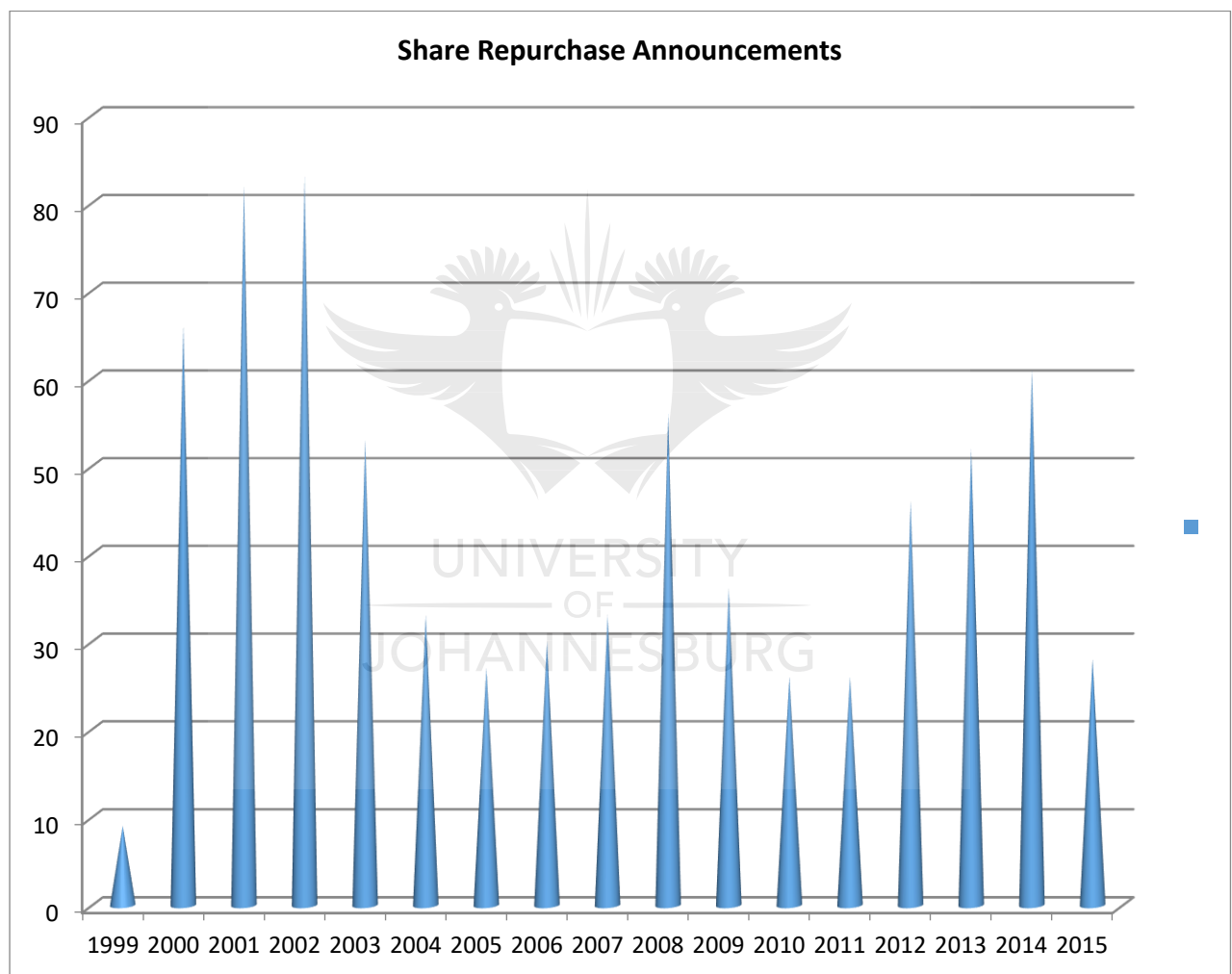


Figure 3: Share repurchases announcements

Source: *Own deductions*

The graph in Figure 4 indicates that share repurchase announcements were in their lowest in the year 2009, 2010 and 2011. The reduction in share repurchase announcements can be due to the subprime lending that affected the world economy

in 2008-2010. The ZAR/US\$ graph also indicates the spike in 2009 when the exchange rate was close to R11.03 to the US\$. In this period only 26 share repurchase announcements were made in the year 2010 and 2011. The observation highlights that when the Rand value was strong compared to the US\$, a huge number of share repurchases were announced. A small number of announcements were observed when the Rand value had depreciated.



Figure 4: Exchange Rate ZAR/USD

Source: *South African Reserve Bank*

4.2.2 Special dividends population

The special dividend announcements for JSE listed companies were collected from the SENS. The announcements covers the period 1 October 1999 to 30 June 2015. The period is the same as a comparison will be done in the next Section 4.2.3 to determine if share repurchases have surpassed or replaced special dividends in distributing free cash-flow.

Table 2 below indicates a total of 211 special dividends announcements in the study period by the JSE listed companies. There were few special dividend announcements in the study period as compared to share repurchase announcements.

Special Dividends Population

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1999								2	2	0	0	0	4
2000	0	0	0	0	0	0	0	0	0	0	3	0	3
2001	0	1	0	1	0	1	0	0	0	0	2		5
2002	0	0	0	0	0	0	1	1	0	0	0	0	2
2003	0	0	0	0	0	0	0	0	0	0	2		2
2004	0	1	0	0	1	0	1	0	0	0	0	0	3
2005	1	2	0	0	0	2	3	5	0	0	1	0	14
2006	1	2	1	0	0	5	2	6	4	0	6	1	28
2007	0	6	1	0	1	7	0	2	2	1	5	5	30
2008	0	0	3	0	5	1	0	3	3	1	6	5	27
2009	1	0	2	5	3	2	2	0	0	0	1	0	16
2010	0	1	0	0	0	4	1	2	1	1	0	1	11
2011	0	0	0	0	2	0	0	1	8	0	0	1	12
2012	0	0	4	5	2	1	4	0	0	0	1	0	17
2013	0	0	2	3	0	1	0	0	0	0	5	1	12
2014	2	2	0	2	0	2	1	3	0	1	5	0	18
2015	2	1	2	1	1								7
Total	7	16	15	17	15	26	15	25	20	4	37	14	211

Table 3: Special dividend population

Source: *Own deductions*

The graph in Figure 5 depicts that special dividends were at their lowest levels in the years 1999-2004. They were in their highest level in the year 2007 where only 30 special dividends were announced. This could be explained by the strength experienced by the South African currency in the years 2004 - 2006.

In 2007 the South African currency was depreciating as compared to the American dollar. Signalling theory could be the answer to this observation. As the currency was losing value, companies would have used special dividends as tool to inform the markets about the brighter future positive economic years to gain confidence from shareholders.

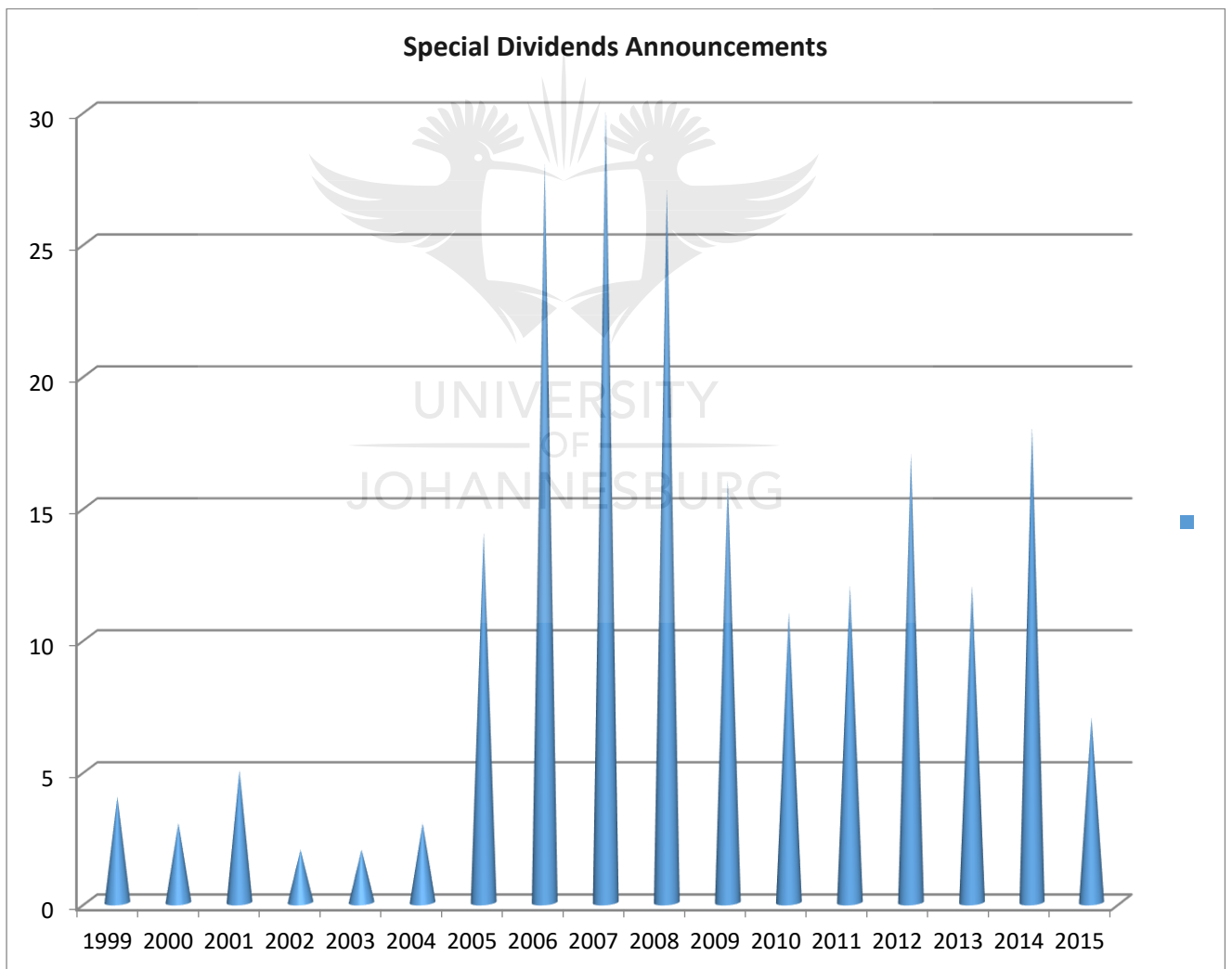


Figure 5: Special dividend announcements

Source: *Own deductions*

4.2.3 Comparison of share repurchases and special dividends

As discussed in the Literature Review section there is quite a number of inconclusive evidence in regards to share repurchase replacing special dividends as a means of distributing free cash-flow surplus. This section will compare and contrast the share repurchase and special dividends announcements by using the population data.

In the study there were a total number of share repurchase announcements of 747 as compared to the total number of 211 special dividends. The highest announcements of share repurchases in a single year were 83 while only 30 maximum special dividends were observed in a single year. This clearly highlights that share repurchases were by a large margin utilized in South Africa in the period October 1999 - June 2015.

The tables above indicate that in the early years after share repurchases were legalized in South Africa there were very few special dividends announcements. Three special dividends on average were announced in the years 1999 to 2004. On the other hand share repurchase announcements experienced a surge in the early years of the study. On average in the year's 1999 to 2004 share repurchase announcements were 54 in South Africa. This is a huge number compared to special dividend announcements of 3.

A large number of companies utilised share repurchase programmes in the years 1999 to 2004. Another reason could be that the share repurchases were a fairly new programme that was only legalized in October 1999. Companies could have been prompted to try the new method of distributing free cash-flow to the shareholders.

The global market experienced a financial crisis in 2007 - 2008 due to subprime lending that also affected South Africa in 2009 to 2010. Share repurchases experienced a huge drop of 55.5 % in 2009 and dropped by 38.4% in 2010. Special dividends were also affected by the recession in South Africa as only 11 special dividends were announced. The observation from the generated population indicated that share repurchases and special dividends announcements are positively related to the Economic cycles. During the years the economy performed well, there was a rise in share repurchases and special dividends and when the economy performed badly they both declined.

From the data gathered, it can be concluded that South African companies utilize share repurchase programmes more than special dividends to distribute free cash-flow. As the economy was on its way to recovery, share repurchases increased in the years 2012 to 2015.

4.3 Description of the sample

The sample was generated as indicated in the research methodology. Non-probability sampling was used because subjective judgement was required in selecting the companies to include in the sample. Subjective judgement was applied in order to select companies with continuous trading data as daily time series was used in this study. All the companies in the generated sample were listed on the JSE for the research period in this study.

4.3.1 Share repurchases

A total number of 197 share repurchase announcements were considered in the sample period between October 1999 and June 2015 as shown in Table 3 below. Most share repurchase announcements in the sample were done in the month of June as there were a total number of 32 announcements. The most number of share repurchase announcements were done in 2001.

On the percentage basis the share repurchase announcements made in 2001 contributed 13% to the sample. Surprisingly the second highest number of share repurchase announcements in our sample was in 2008 with 19 announcements contributing almost 10% in the sample. It is surprising because the subprime lending crisis started in 2007 -2008 in America which affected the markets globally including South Africa. The reason most likely is that the impact was delayed in South Africa.

4.3.2 Special dividends

Special dividend announcements consist of 89 announcements as shown in table 4 below. This is a very smaller sample compared to Share repurchase announcements. There were few special dividend announcements in the early years mainly due to the surge in share repurchases in the same period. There are more special dividend announcements in the year 2006 than any other year in the sample period.

Share repurchase announcements sample

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
1999								1				1	2
2000		1				4	1	1	1	2	2	7	19
2001	1	2	1	3	2	3	2	3	5	3		1	26
2002		1	1	1	2	1	2	1	1		1	2	13
2003	1	1	2	2	4	2	1	1			2	1	17
2004		1	1		2	3	1				2	1	11
2005		1	1	1		2	1	2		2	1		11
2006	1		2	1	1	4	2	1	1			1	14
2007						4		2	1		1		8
2008	3	1		1	1	3	1	2	3	2	2		19
2009			2		1	1		1			1	1	7
2010		2		1		1					2		6
2011		2		1		2		2		1	1	1	10
2012			1				1	1	1		2	2	8
2013		2	3		1	1				1	1		9
2014		3	2	1			1			2		2	11
2015		2	1		2	1							6
													0
Total	6	19	17	12	16	32	13	18	13	13	18	20	197

Table 4: Share repurchase announcements sample

Source: *Own deductions*

4.4 Analysis of data

4.4.1 Share repurchase

The study focused on a sample of share repurchases announcements totalling 197. The table in appendix 1 indicates different sectors that announced share repurchases in the sample study period. The most share repurchase announcements in the sample were in the retail sector with 36 announcements. The financial sector has the second highest number of share repurchases with 23 announcements. The Mining, Transportation and Construction sectors have both 14 share repurchase announcements as indicated appendix 1.

Special dividends final sample

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1999									2				2
2000											1		1
2001		1									1		2
2002													0
2003											1		1
2004		1											1
2005						2	1	3			1		7
2006		2	1			2	1	3	1		3		13
2007					2	2		1		1	2		8
2008					1	1	2	1		1			6
2009	1		1	1	2	1	1				1		8
2010		1				2		2		1		1	7
2011					2			1		2		1	6
2012				1	2	1	2				1		7
2013			1	1		1					2	1	6

2014		1		2		1		1			4		9
2015	1	1	1	1	1								5
Total	2	7	4	6	10	13	7	12	3	5	17	3	89

Table 5: Special dividends final sample

Source: *Own deductions*

4.4.1.1 Average abnormal returns

The initial step in event studies is to calculate the abnormal returns of the sampled companies. The abnormal returns were calculated as indicated in the previous chapter. The study focused on the abnormal returns of share repurchases announced by South African companies that are listed on JSE. As a result the study focussed on the Average Abnormal Returns (AAR) of the sampled companies listed on the JSE.

The abnormal average returns on table 5 highlights positive abnormal returns from the first day after the announcement. Negative abnormal returns were observed two days before the announcement date and the date of the announcement. Negative returns of 0.108% were experienced on the announcement day. On day T+01 positive abnormal returns of 0.439% were experienced indicating the signalling theory.

Signalling theory states that share prices tend to underperform before the announcement day and positively perform after the date of the announcement. However the share prices experienced a negative abnormal return of 0.113% on the second day after the announcement day.

T-02	T-01	T0	T+1	T+2
-0.00419	-0.00263	-0.00108	0.004388	-0.00113

Table 6: Abnormal returns analysis for share repurchases announcements

Source: *Own deductions*

The graph in figure 6 depicts the average abnormal returns on the entire window period from T-25 to T+25. The shares experienced rising abnormal returns from T-25 to T-21 as indicated in the graph below. The shares experienced a decline in abnormal returns from T-11 to T-09. The results are inconsistent from T-25 to T-04 as they oscillate between negative and positive abnormal returns.

As indicated in the table 5 above the shares underperformed from T-02 to T0 which is the announcement day. Positive abnormal returns were experienced on days T+1, T+3, T+4 and T5. A spike of 3.652% in positive abnormal returns was experienced in the 4th day after the announcements. The results are inconsistent from T+6 to T+25.

The 5 day window period indicate increasing abnormal returns which are in support of the signalling theory. The results indicate that South African companies announce share repurchases when share prices are undervalued. In figure the abnormal returns are negative from 2 days prior until the announcement day. From the first day after the announcement till day 5 positive abnormal returns were observed indicting the signalling theory.

On average in the 5 days after the announcement day, 4.962% abnormal returns were observed. The result should be treated with care due to the spike observed on the 4th day after the announcement as indicated in Figure 6. Excluding the 4th day after the announcement, 0.586% average abnormal returns were experienced. The result is consistent with the signalling theory that was discussed above. The significance of the results will be examined below.

4.4.1.2 Cumulative average abnormal returns

The graph in figure 8 indicates the Cumulated Average Abnormal Returns (CAAR) for the sample in the window period from T-25 to T+25. Share prices were slowly increasing before the event day T0 indicating the signalling theory. The share prices decreased from T-06 to T-04 before the announcement day indicating that share prices are undervalued. The share prices drastically increased on the event day and the following day. On day T+3 share price decrease till day T+5 and increase upwards from T+5. It can be concluded that share prices are undervalued before the event and increase after the announcement day indicating the signalling theory.

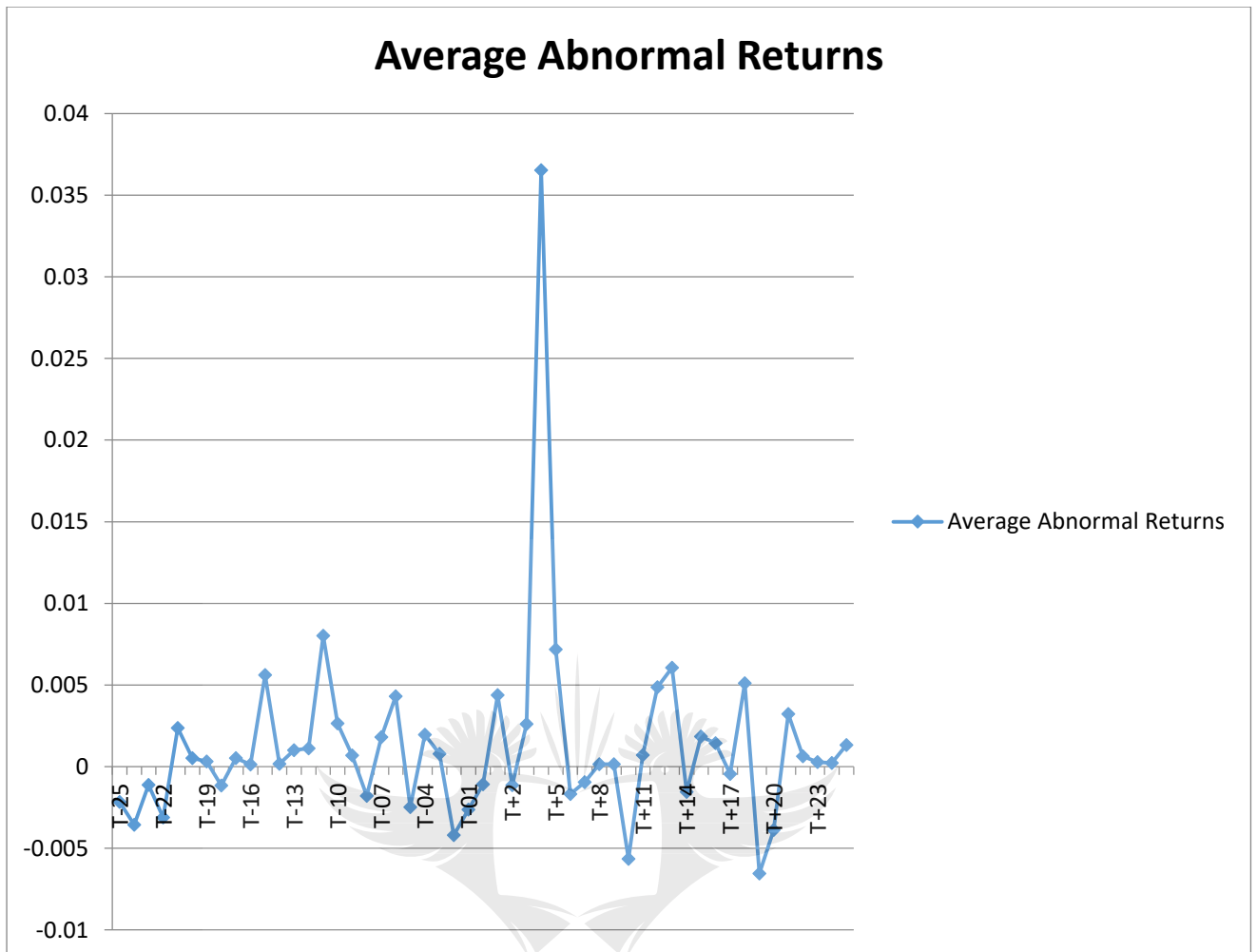


Figure 6: Abnormal returns analysis

Source: *Own deductions*

4.4.1.3 Significance of Share repurchase AAR results

The abnormal returns observed around the announcement day of share repurchase were tested for significance. A paired comparison test was used in the study as it is perfectly applied in observations that are dependent and compare observations before and after a major event. The t-test for mean differences was used to determine the significance of the Average Abnormal Returns (AAR).

The E-views package was also used in getting the p-value to determine for rejection or acceptance level at the significance level of $\alpha=0.05$. If the p-value is less than $\alpha=0.05$ it means that the null hypothesis is rejected at 5% significance level. However if the p-value is more than $\alpha=0.05$ it means that the null hypothesis cannot be rejected.

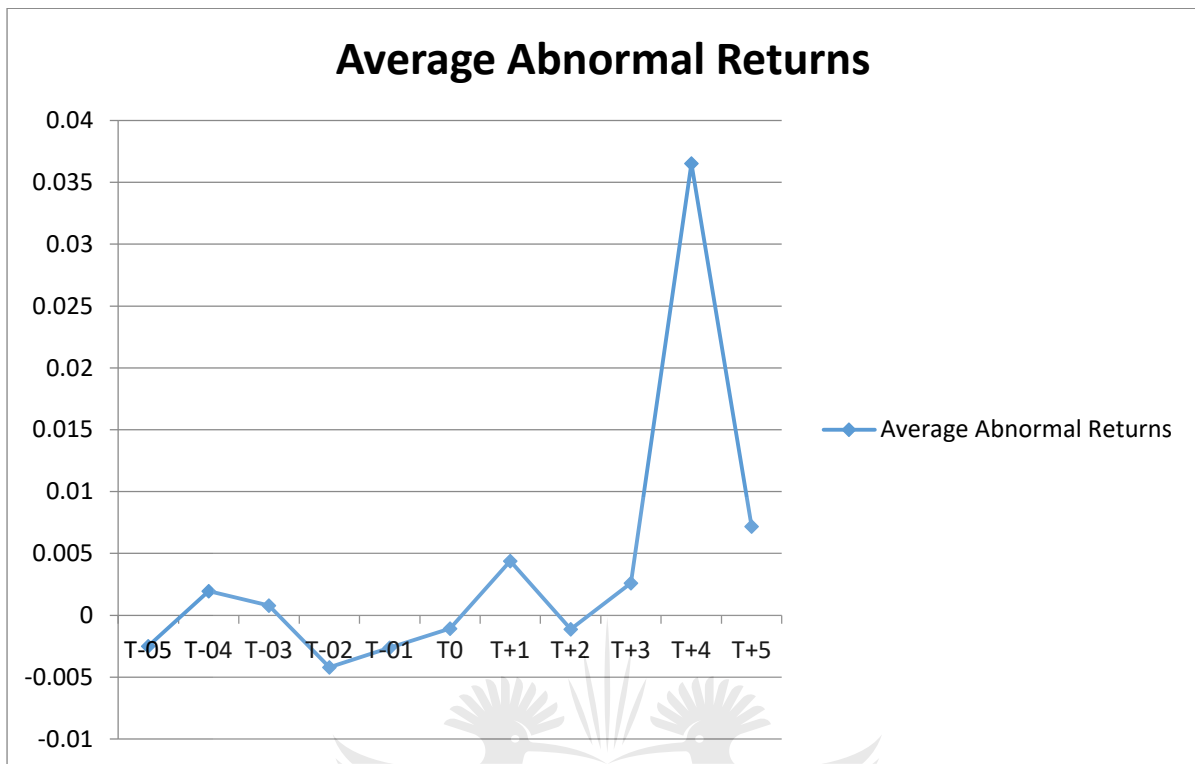


Figure 7: Average abnormal returns

Source: *Own deductions*

Table 7 below displays the output from the t-test calculations. The t-test statistic is less than the critical level of 2.064 at 24 degrees of freedom. This implies that the positive average abnormal returns observed above are not significant at 5% significance level and the null hypothesis cannot be rejected.

4.4.2 Special Dividends

Special dividend announcements consisted of 89 announcements. This is a small sample due to the fact that there were few special dividends announcement on the JSE listed companies. The other contributing factor is that only companies listed on the JSE for the entire study period were considered. Most special dividend announcements were experienced in the financial services sectors with 13 and 12 announcements respectively. The list of all companies on the sample by sector are indicated in Appendix 2.

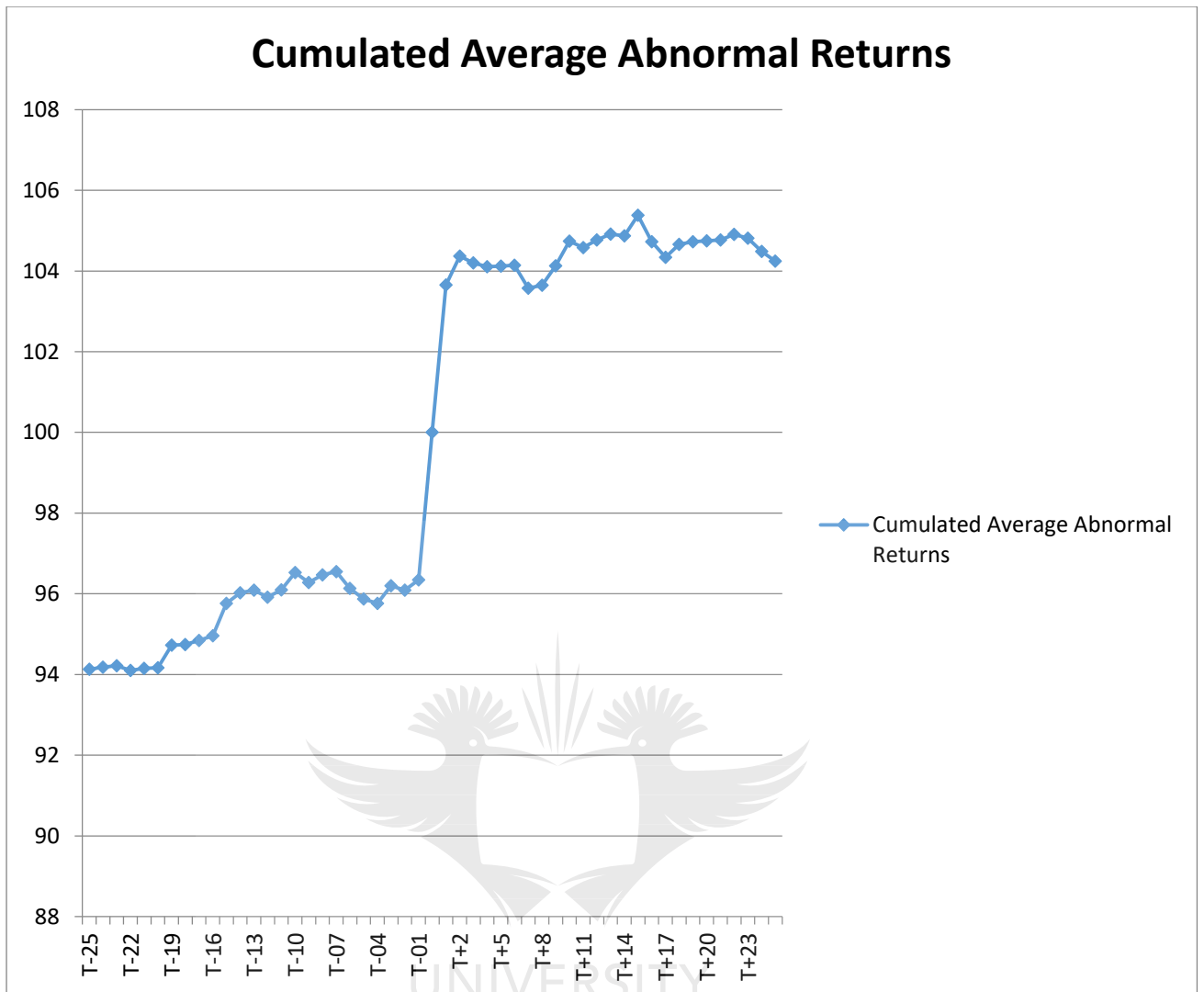


Figure 8: Cumulated average abnormal returns

Source: *Own deductions*

t-statistic	Degrees of freedom	Critical level
0.3594	24	2.064

Table 7: Significance analysis

Source: *Own deductions*

4.4.2.1 Average abnormal returns

The average abnormal returns were calculated for the entire sample and are indicated on the graph in figure 9. Abnormal returns for individual companies could not be interpreted individually as such would be a tedious process as 89 special dividends announcements were sampled. As a result for simplicity of analysis and application AAR was used instead.

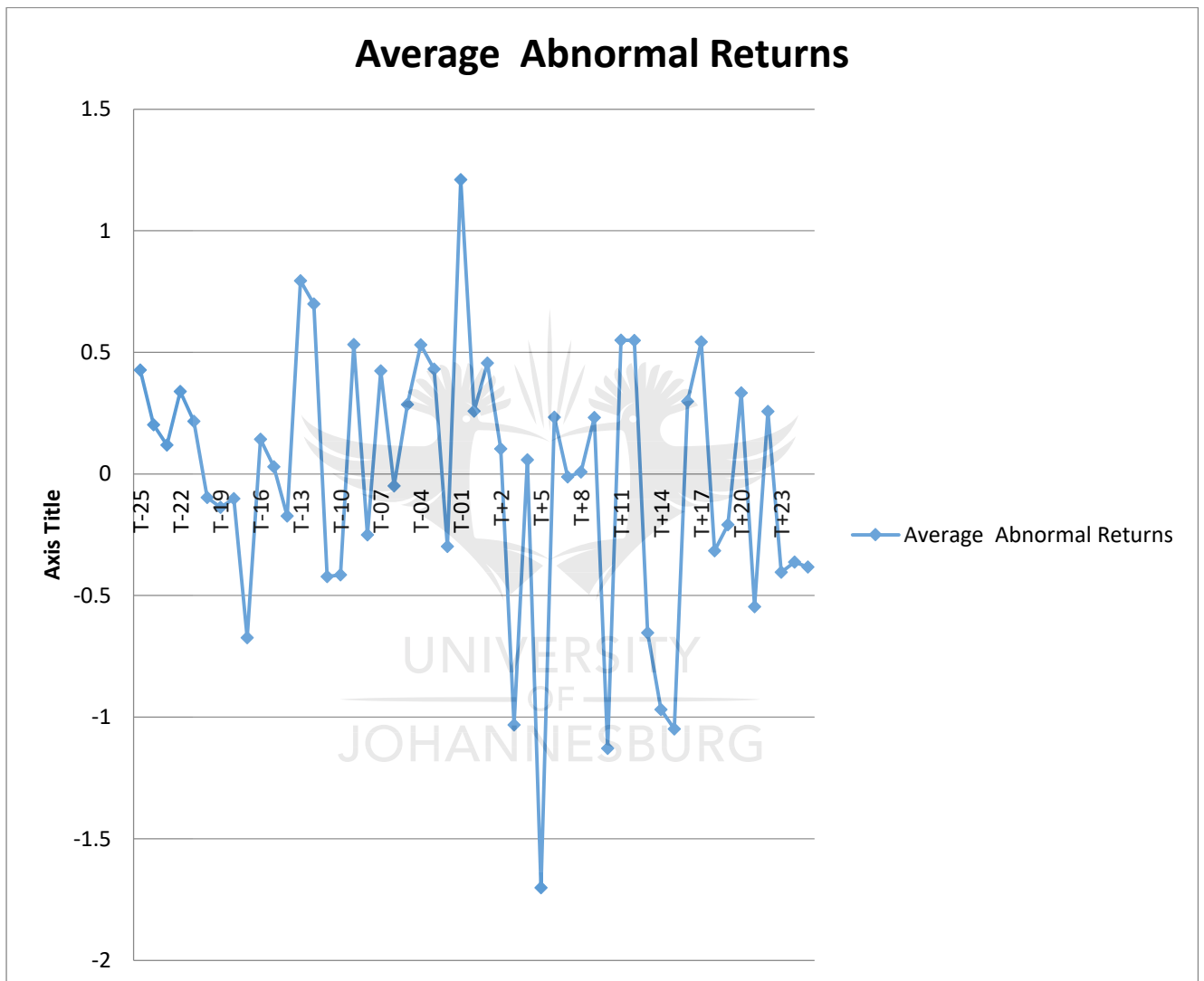


Figure 9: Average abnormal returns

Source: *Own deductions*

The graph in Figure 9 above indicates that shares performed better before the event as compared to after special dividend announcements. On average positive abnormal returns of 0.154% were observed in the 25 days prior to the announcement as compared to the negative abnormal returns of -0.202% 25 days after special dividend

announcement. The results indicate that special dividends in South Africa are contrary to the signalling theory as the shares prior the announcement performed better than the post announcement period.

A 2-day window period was considered to get a closer look at abnormal returns in the days surrounding the announcement day. The results in table 7 are in favour of the signalling theory as shares underperformed prior to the announcement as compared to the post announcement period. Positive abnormal returns of 1.21% were experienced a day before the announcement which might mean that the market could have anticipated the announcement a day before.

T-02	T-01	Event	T+01	T+02
-0.298391565	1.21001627	0.257725499	0.4553553	0.10346

Table 8: Average abnormal analysis

Source: *Own deductions*

On the announcement day positive abnormal returns of 0.26 were experienced. Two days after the announcement also experienced abnormal returns of 0.46% and 0.10% respectively. The graph in figure 10 depicts the performance of shares in the 2 day window period. The shares performed positively and experienced abnormal returns in 4 days as shown in figure. This might be in support of the signalling theory during the days surrounding the announcement day.

4.4.2.2 Cumulated average abnormal returns

Figure 11 below shows the CAAR before and after special dividends were announced in the window period from T-25 to T+25. The cumulated average abnormal returns were on the rise from T-25 to T-22 and slightly decreased from T-21 to T-18. The share price performance rose from T-13 until the special dividend announcement on T-0.

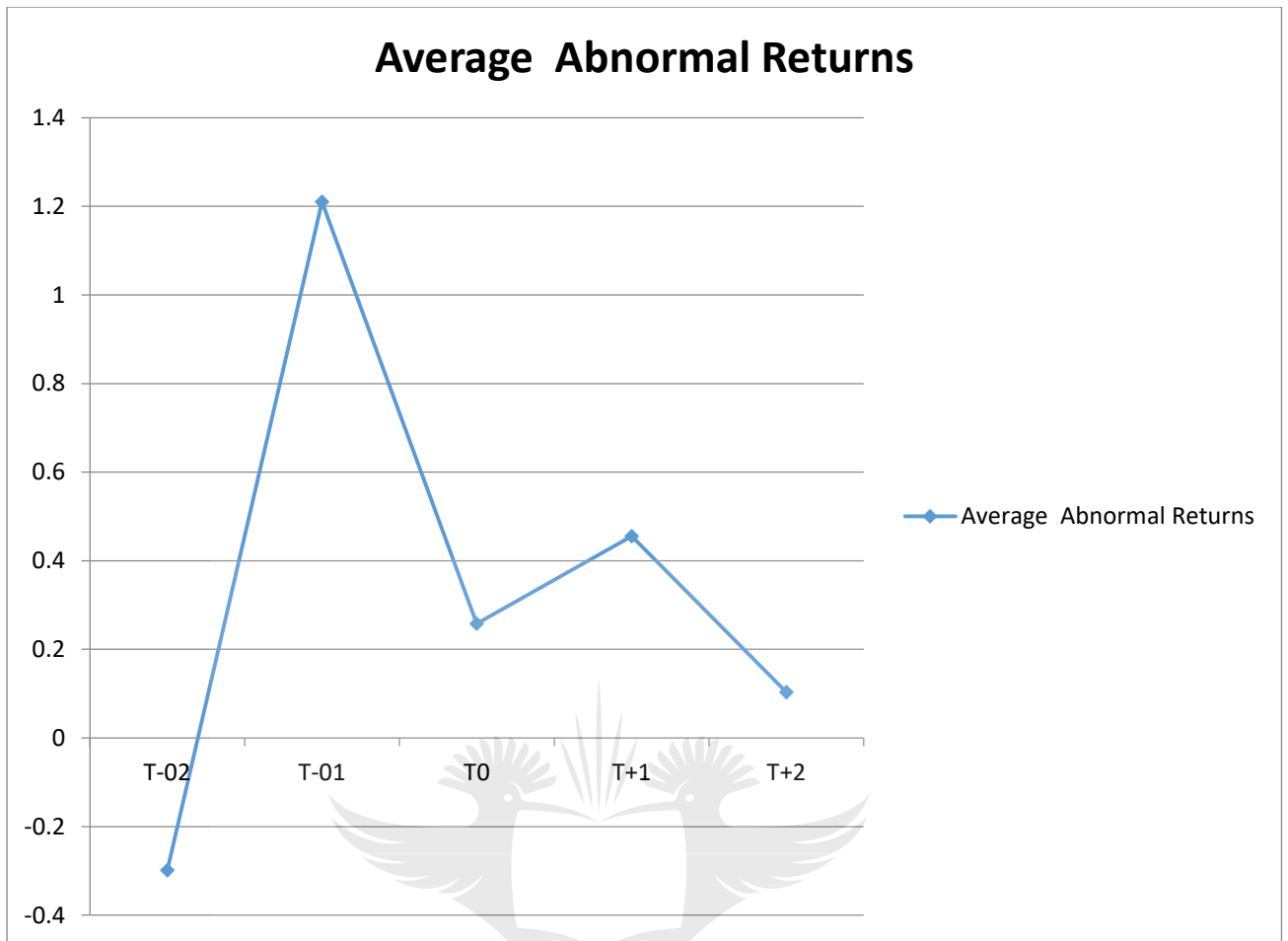


Figure 10: Abnormal returns

Source: *Own deductions*

The positive increase towards the announcement day is consistent with the signalling theory if cumulated average abnormal returns continue to rise even after the announcement date. Surprisingly CAAR start decreasing after the 2nd day after the announcement. CAAR continue decreasing until the end of the window period. CAAR increased on Day T+9, T+13 and T+17 but the increases were temporary as the returns decreased until the end of the window period. The special dividend announcement in the sample period does not indicate the signalling theory as share prices fell gradually after the announcement.

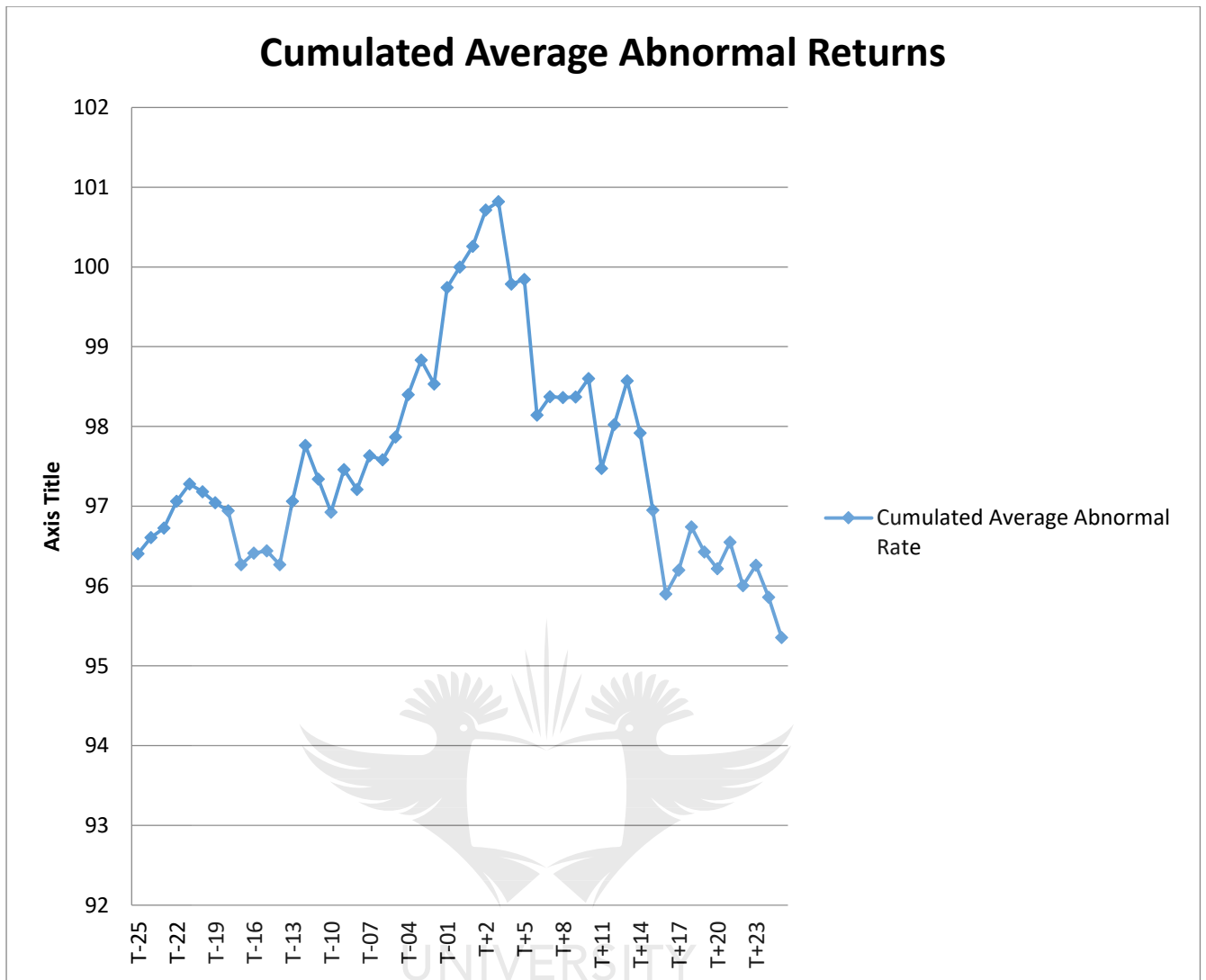


Figure 11: Cumulated average abnormal returns

Source: *Own deductions*

Table 8 below indicates that though special dividend announcement does not validate the signalling theory as explained above positive abnormal returns were experienced around the announcement days of special dividends. A day before the announcement day T-01, 1.351% positive cumulated average abnormal returns were experienced. It should be noted also that on average on the announcement day, 0.250% CAAR were experienced. Two days after the announcement date also experienced positive CAAR of 0.46% and 0.10%. It can be concluded from the study that the share price increase only occurred on the days surrounding the announcement date. The positive returns are temporary around the announcement date.

T-02	T-01	T0	T+1	T+2
-0.298391565	1.210016275	0.257725499	0.455355324	0.10346

Table 9: 4 day window period

Source: *Own deductions*

4.4.2.3 Significance of special dividend announcements AAR results

Figure 11 below shows the CAAR before and after special dividends were announced in the window period from T-25 to T+25. The abnormal returns observed around the special dividend announcement day were tested for significance. A paired comparison test was used to determine if the results were significant. The t-test for mean differences was used to determine the significance of the Average Abnormal Returns (AAR).

The table below indicates the output from the t-test calculations. The t-test statistic is less than the critical level of 2.064 at 24 degrees of freedom. This implies that the positive average abnormal returns observed around the special dividends announcements above are not significant at 5% significance level and the null hypothesis cannot be rejected.

t-statistic	Degrees of freedom	Critical level
1.7690	24	2.064

Table 10: Significance analysis

Source: *Own deductions*

4.5 Summary

In this chapter the population and the sample were discussed in detail. The study on share repurchases focussed on a total of 747 share repurchase announcements of which 197 share repurchases were sampled. The population of special dividend announcements was 211 of which 89 announcements were sampled.

The results from the event studies on share repurchase and dividends announcements were also reviewed and analysed. Abnormal returns, Average Abnormal returns and Cumulated Average Abnormal Returns were also analysed. The AAR was tested for significance using the paired comparison test.

Negative abnormal returns of 0.108% were observed on the announcement day of share repurchases. On the announcement day of special dividends positive abnormal returns of 0.26% were observed. However, at 95% confidence level the results were found to be statistically insignificant.

The AR on share repurchase announcements was positive as well as the CAAR. Both the AAR and CAAR were in support of the signalling theory as shares underperformed before announcement and over performed on the announcement day and after the announcement day. The observations were tested for significance and were found to be insignificant as the null hypothesis was not rejected.

The AR, AAR and CAAR on dividends announcements were generally negative and were in direct opposite of the signalling theory. Share prices performed better on the pre-announcement compare to the post announcement in the sample period. The results were tested for significance and the null hypothesis could not be rejected at 5% level of significance.

Chapter 5

Findings, conclusion and recommendation

5.1 Introduction

The study was conducted to determine the effects of share repurchases and special dividends on the share price of JSE listed companies. A period of 15 years spanning from 1 October 1999 – 30 June 2015 was considered as it eliminated small sample bias. Average abnormal returns before, during and after the global recession were analysed after the announcement of share repurchases and special dividends. In previous studies share repurchases were observed to be on the rise and dividends on the decline (Lee & Suh, 2011). It was observed that many companies in South Africa engaged in share repurchases than distributing free cash flow through special dividends. The signalling theory was more prevalent in the study as companies that underperformed in the JSE announced that they will engage in share repurchases programmes. The tax effect also played a role in companies engaging in share repurchases than special dividends as capital gains tax is less than dividend tax.

The reasons for undertaking the research will be discussed in Section 5.2 and the summary of the findings will be discussed in section 5.3. Discussion of the findings will be covered in section 5.4 as well as the contribution of the study in finance in section 5.5. The limitations and the final recommendations of the study will be discussed in section 5.6 and 5.7 respectively. The final remarks will conclude the chapter and the study in section 5.8.

5.2 Reasons for undertaking the research

The main objective of the study was to determine the impact of share repurchase and special dividends on the share price of JSE listed companies. Studies were conducted previously in South Africa but the sample period was very small. As a result the study focussed on a sample period from 1 October 1999 to 30 June 2015.

The study also compared the number of share repurchase announcements to special dividends as previous studies indicated that share repurchase are now more popular

than special dividends. There has been limited literature in the studies conducted in South Africa comparing share repurchases and special dividends announcements. Most of the studies were conducted in developed countries such as United States, Canada and Europe. The study's objective was to bridge the gap between developed countries and emerging markets on the reaction of the different markets.

5.3 Summary of the findings

The aim of the study was to determine the effects of share repurchases and special dividends on the share price for the JSE listed companies for the period 1999 - 2015. There were 747 share repurchase announcements in the study period while there were 211 special dividends. The event study methodology was utilised to generate the results.

Positive average abnormal returns were experienced in the days around the announcement of share repurchases. The results were in support of the signalling theory as negative average abnormal returns were experienced prior to the announcement of share repurchases. The cumulated average abnormal returns indicated positive abnormal returns. The result was also in support of the signalling theory. However all the observations were insignificant and the hypothesis could not be rejected.

On average negative abnormal returns were observed in the sample event window period for special dividends. Graphically it was noted that shares performed better before special dividends were announced as compared to the post announcement. Positive abnormal returns were observed in the 5 day window period including the announcement day. The CAAR increased until the special dividend announcement and decreased afterwards indicating that shares performed better in pre-announcement than in the post-announcement. The special dividends observations were tested for significance and were found to be insignificant and the null hypothesis could not be rejected.

5.4 Discussion of the findings

The entire population in the study had 747 share repurchase announcements and 211 special dividend announcements. Non probability sampling methods were used to

generate the sample. The samples consisted of 197 share repurchase announcements that were selected and a total of 89 special dividends announcements were considered. The results from the two samples were generated separately. Though the study spanned for a 15 year period, the number of companies that announced share repurchases in the South African market was lower than in the US market. However, it was noted that a number of South African companies distribute free cash flow through share repurchases compared to special dividends. The South African market violated the semi-strong efficient market hypothesis as investors reacted to public material announcements leading to positive average abnormal returns in the days surrounding the announcements. If the semi-strong efficient hypothesis, held the announcements of special dividends and share repurchases would have been incorporated in the market share price not leading to abnormal returns. These results are consistent with the findings reported by Bhana (2007), however when tested for significance they were found to be insignificant.

Most companies that announced share repurchases underperformed before the announcements and outperformed after the announcements indicating the signalling theory. The results are consistent with the findings reported by Hennessy et al. (2010) The results of the study namely CAAR, AAR and significance of the results were discussed in this section. Event study methodology was applied to arrive at the results. The global market in 2007-2008 experienced a financial crisis due to subprime lending which also affected the South African market. The financial crisis was strongly felt in South Africa between 2009 and 2010. Companies engaging in share repurchase during the financial crisis decreased by 55.5% in 2009 and 38.4% in 2010. Special dividends announcements also dropped by 68.75% in 2009 and 45.45% in 2010. Special dividend announcements were largely affected compared to share repurchases announcements. The results indicated that share repurchases and special dividends in South Africa are positively related to economic cycles.

5.4.1 Average abnormal returns

Positive abnormal returns were observed during and after share repurchase announcements. The results indicated that the market responds positively to share repurchase announcements. On the announcement day of share repurchases

negative abnormal returns of -0.108% were observed. The market delayed by a day to react to the share repurchase announcements as abnormal returns of 0.439% were observed a day after the announcement positive. On the 4th day positive abnormal returns of 3.65% were observed. Outliers were checked and the result is valid and reliable. Shares underperformed before the announcement when compared to the post-announcement. The result were in support of the signalling theory indicating that companies utilise share repurchases as a communication tool to inform investors about the greater years ahead.

Negative abnormal returns were experienced in the analysis of special dividends announcements on average in the 25 day window period. Shares performed better before the special dividends as compared to the post-announcement period. However on the announcement day 0.26% abnormal returns were observed. This indicates that the investors react positively to the announcement of special dividends. Positive abnormal returns of 0.439% and negative abnormal returns of 0.113 % were also observed on the first and second day after the announcement day. Negative abnormal returns were observed after the second day indicating that the positive returns are only temporary and around the announcement day.

Special dividends and share repurchase announcements exhibit positive returns on the days surrounding the announcement day. The results from share repurchases are in support of the signalling theory as negative abnormal returns were observed before the announcement and positive abnormal returns were observed after the announcement.

5.4.2 Cumulative abnormal returns

The CAAR reacted positively to share repurchase announcements. The result was in support of the signalling theory as shares performed better after share repurchases were announced. CAAR were also positive on the announcement day also indicating that the market reacts positively to the announcements of share repurchases.

Positive CAAR were observed on the announcement day and the two days after the special dividend announcement. It was depicted in the graph that after the second day negative abnormal returns were observed indicating that the positive abnormal returns

were temporary. Shares performed better in the pre-special dividend announcement. This might be due to the fact that investors interpret it negatively as a sign that companies are not utilising surplus cash in projects that would add value.

5.4.3 Significance of the results

The null hypotheses for both special dividends and share repurchase were tested for significance.

H₀: Abnormal returns on the special dividend announcement day are zero

H₁: Abnormal returns on the special dividend announcement day are not zero

H₀: Abnormal returns on the share repurchase announcement day are zero

H₁: Abnormal returns on the share repurchase announcement day are not zero

Abnormal returns were found to be insignificant indicating that the null hypotheses could not be rejected at 5% significance level for both special dividends and share repurchases. This means that the abnormal returns are zero on the announcement day.

5.5 Contribution of the study

The study adds a new dimension to the financial markets as it compares the impact of share repurchase and special dividends announcements on the share price. A number of studies have been conducted in South Africa on analysing the impact of special dividends and share repurchase announcements on the share price. Based on the observations gathered in the study, investors can alter their investment strategies to reap rewards when companies announce such programmes.

The market reacted positively to share repurchase announcements. The firms can use the share repurchase programmes as a communication tool when they believe the share price is undervalued. On special dividends announcements firms should be wary as in overall the market reacted negatively. The reason could be lack of profitable projects that investors interpret negatively.

5.6 Limitations

The sample focussed only on companies that were listed on the JSE for the entire sample period from 1 October 1999 to 30 June 2015. This criterion might lead to survivorship bias. The special dividend sample was very small due to the lack of data. The result can be different in a larger sample. The study focussed on general share repurchase announcements as data is not readily available as compared to the developed countries. Future studies can focus on specific types of share repurchases namely open market, tender offer and Dutch auction. Finally the study focussed on the impacts of share repurchase and special dividends announcements on the share price. The study did not focus on the reasons why there is a reaction.

5.7 Recommendations for further research

The future studies might focus on all the companies that announced share repurchases and special dividends regardless of whether they were listed on the JSE for the sample period. By eliminating survivorship bias the special dividends sample is likely to be larger than the one used in the study. A larger special dividend sample might yield different results.

5.8 Final remarks

The main aim of the study was to determine the impact of special dividends and share repurchase announcements on the share price. There were a large number of share repurchase announcements as compared to the special dividends. The study indicates that in South Africa companies distribute free cash flow through share repurchases than through special dividends. A huge decrease of companies announcing share repurchases were observed during the global recession of 2008.

Shares underperformed on the announcement day of share repurchases and on the second day after the announcement day. Share outperformed the market from the 3rd day after share repurchases were announced. Abnormal returns of 3.652% were observed on the 4th day after share repurchase announcements. On average abnormal returns of 4.963% were observed in the first 5 days after share repurchase announcements. The results were tested for significance at 95% confidence level and were found to be insignificant.

On average abnormal returns of 0.154% were observed 25 days prior to the special dividends announcements. Negative abnormal returns of -0.202% on average were observed 25 days after the announcements of special dividends. The results indicate that special dividends do not exhibit the signalling power as share outperformed prior the announcement and underperformed after the announcement. However, on the announcement day positive abnormal returns of 1.213% were observed on the announcement day of special dividends. The results were statistically tested for significance at 95% confidence level and were found to be insignificant. As a result the null hypotheses could not be rejected.



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Appendices

Appendix 1

Sector	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Life insurance	1						1				1							3
Pharmaceuticals & Biotechnology	1		1			1				1								4
Software & Computer Service		2	2							1	2					1		8
Mining		1	3				1		1	2				3		2	1	14
Industrial Engineering		3	1			1						1					1	7
Construction & Materials		1	1						1	2	3		4			1		13
Chemicals		3					1			1								5
Technology Hardware & Equipment		1				1							1			1	1	5
Retailers		2	3	7	3	2	3	2	2	3		1	1		6	1		36
Electronic & Electrical Equipment		1	2		1	1				1			1					7
Forestry & Paper		1																1
Equity Investment Instruments		1	2					2	1					1				7
Food Producers		1					2	2	1			1		1		1		9
financial services		2	2	6	5	2		3	1	1		1						23
travel and leisure			1							1								2
support services			2		1					1				1	1			6
transportation and industrial			5		2	2		1		2		1	1					14
Health Care and Equipment Services			1															1
General Industrials					2		1	3	1					2			1	10
Real Estate Investment Trusts					1													1
AltX					1		1			2	1	1			1	1		8
Personal Goods						1	1											2
Fixed Line Telecommunications						1		1		1								3
Tobacco													2		1	1		4
Developmental Capital																1		1
Banks																1	1	2
Non Life Insurance																	1	1
																		0
Total	2	19	26	13	17	11	11	14	8	19	7	6	10	8	9	11	6	197

Appendix 2

Sector	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Chemicals	1						1			1	1						2	6
Electronic & Electrical Equipment	1							2										3
Financial Services		1	1		1	1	1	2		2			1	2				12
Mining			1					4		2		1		1		2		11
Fixed Line Telecommunications							1	1	2		3	1						8
Banks							3	4					1					8
General Industrials							1		1					1				3
Real Estate Investment Trusts								1	2				1	1	1	1	1	8
Industrial Engineering									1	1		1		1		1	1	6
Nonlife Insurance									1									1
Media									1		1	1						3
Construction & Materials											2		1		2			5
AltX														1		1		2
Food Producers												1						1
Equity Investment Instruments															1	1	1	3
Health Care Equipment & Services																1		1
General Retailers																1		1
Software & Computer Services																1		1
Industrial Transportation															1			1
Total	2	1	2	0	1	1	7	14	8	6	7	5	4	7	5	9	5	84

