

**DISTRIBUTION POLICY AND CREATION OF SHAREHOLDERS'  
WEALTH: A STUDY OF FIRMS LISTED ON THE JSE**

Thesis

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## ABSTRACT

Dividend payout decisions remain one of the key functional areas in corporate finance, as it involves the means by which shareholders receive returns on their investments. For many decades, the academic debate on payout decisions has been ongoing as researchers attempted to analyse and explain how these decisions impact on the creation and maximisation of value for shareholders; the fundamental reasons why companies exist. Researchers have not found conclusive answers to put the debate to rest; rather attempts to put together pieces of the dividend dynamics have raised more questions and hence the dividend puzzle. The recognition of share repurchases as payout option (and hence distribution decisions) have made the debate quite complex. The current study, thus sought to contribute to distribution decisions' debate in a number of ways.

The study firstly reviewed the extended dividend payout models of Fama and Babiak (1968), and Andres, Betzer, Goergen and Renneboog (2009) thereby adding further explanatory variables and then tested the extended model in the South African setting. The data of 110 sample companies (Panel 1) which were also disaggregated into 85 value companies (Panel 2) and 25 growth companies (Panel 3) was used. The hypotheses were tested using the ordinary least squares (OLS), difference general method of moments (Diff GMM), system generalized method of moments (Sys GMM) and least square dummy variable correction (LSDVC) estimators.

The study confirmed results of similar previous researches and also identified further trends relating to South African corporate setting. It was found that companies have target payout ratios which they adjust towards, also managers are reluctant to change (increase) dividends which may have to be cut again later and in their endeavours to create and maximise value, may have to sacrifice paying dividends. These trends are evident more with growth companies.

The study secondly, tested the dividend life cycle hypothesis. A sample of 119 companies (Panel 4) were used in this regard, as well as a disaggregated sample of 86 value companies (Panel 5) and 33 growth companies (Panel 6). The hypotheses were tested using the same estimation procedures as mentioned above. The results showed that the dividend life cycle hypothesis is prevalent among South African companies. Specifically, it was observed that the considered companies pursuing growth projects paid less dividends. Furthermore, the growth companies have shown to be more aggressive in their pursuance for growth and hence are able to create more value for shareholders than value companies.

Lastly, the study examined the extent to which share repurchases are used as payout option (i.e., payout flexibility), as well as factors that determine the payout flexibility. The sample number of 52 companies (Panel 7) were used in this regard and hypotheses were tested using the OLS, Diff GMM and Sys GMM. The results indicated that there is inherent flexibility of share repurchases over cash dividends; the size of company has negative and significant correlation with payout flexibility. This implies that larger companies pay out a lower fraction of payout as repurchases, and thus evidence of attitude of managers of these companies relatively different from that of smaller ones; and that share repurchases serve both substitute and complementary roles to cash dividends.

This evidence collectively makes unique contribution to existing body of knowledge, particularly, for emerging economic settings, and managers will be provided with enhanced decision alternatives in their endeavours to maximise value.

*Keywords: Dividend payout decisions, creating and maximising value, share repurchases, value companies and growth companies*

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## ACRONYMS USED IN THE STUDY

CH:	Level of company cash holding
DPS:	Dividends per share
Diff GMM:	Difference generalized methods of moment
DTA:	Dividend tax Act
EPS:	Earnings per share
EVA:	Economic value added
IFRIC:	Internal Financial Reporting Interpretation Committee
IFRS:	Internal Financial Reporting Standards
JSE:	Johannesburg Stock Exchange
LSDVC:	Least square dummy variable correction
MVA:	Market value added
NOPAT:	Net operating profit after tax
NPV:	Net present value
OLS:	Ordinary least square
PF:	Payout flexibility
RE:	Random effects
RETA:	Retained earnings as ratio of total assets
RETE:	Retained earnings as ratio of total equity
RI:	Residual income
ROA:	Return on assets
ROE:	Return of equity

RSA:	Republic of South Africa
SARS:	South African Revenue Services
SD:	Standard deviation
SENS:	Securities exchange news services
SIZE:	Size of company
STC:	Secondary tax on companies
Sys GMM:	System generalized methods of moment
TSR:	Total shareholder return
UK:	United Kingdom
US:	United States
VIF:	Variance inflation factor
WACC:	Weighted average cost of capital
$\Delta$ DPS:	Change in dividends
$\Delta$ TA:	Asset growth rate or change in total assets

# CHAPTER 1: INTRODUCTION

## 1.1 BACKGROUND AND OVERVIEW

The determination of payout policy and its impact on shareholder value maximisation is one of the key functional areas of financial management. Returns to shareholders consist of a dividend payout and/or capital growth. Dividends constitute a direct cash return to the shareholders. Over the decades there have been several unresolved questions, such as: How do companies determine their distribution policies? How do these policies affect shareholder value? Does the payment of a dividend result in the maximization of shareholder wealth? Does the dividend policy affect the price of the shares? The current study uses these questions as the context for specific research objectives outlined in section 1.3 below.

A number of payout theories have been developed in an attempt to resolve these questions, among them are, dividend relevance proposition (Lintner, 1956), dividend irrelevance (Miller & Modigliani, 1961), agency theory (Jensen and Meckling, 1976), residual theory (Myers, 1984), catering theory (Baker & Wurgler, 2004), life cycle hypothesis (Mueller, 1972) and signalling theory (Bhattacharya, 1979; John & Williams, 1985; Miller & Rock, 1985). In addition, many empirical studies have been done in respect of these theories, for example, the pioneer dividend relevance study of Lintner (1956). Although this study was initially discredited by Miller and Modigliani (1961), it has been replicated, modified and in some cases extended as researchers sensed some relevance in it, particularly, in respect of value maximisation for shareholders. Some key issues of relevance from Lintner's (1956) study are that, companies have long-term target payout ratios and that managers increase dividends only and if they believe the increased dividends will be sustained. Some notable studies that extend the Lintner's model are Fama and Babiak (1968:141) who include earnings' partial adjustment model and Andres,

Betzer, Goergen and Renneboog (2009:181) who also add a dummy variable so as to capture the possible effects of time on the payout behaviour of companies.

Another pertinent theory is the dividend life cycle hypothesis (also called maturity hypothesis) which extends from the context of free cash flow and residual theories. The life cycle hypothesis posits that company's payout decisions are determined by stages within its life cycle, so, for example, a recently listed company's priority may be to grow rather than to pay dividends. Its profits thus are likely to be volatile, low and coupled with a high number of investment opportunities requiring high capital amounts. This company, therefore, would likely retain earnings than distribute the same as dividends so that retains are used to finance investments. As the company reaches maturity stage, that is, the stage where market competition increases, profitable sets and growth rates decline, the company will distribute much of its earnings as dividends (DeAngelo, DeAngelo and Stulz (2006:228).

As the theoretical support for the current study, the Lintner (1956) model, among others, is chosen as it is a pioneer study for payout decisions. Furthermore, the theory has formed the context for many payout studies ever since and remain relevant in explaining payout dynamics even in the modern corporate environment. The choice of dividend life cycle hypothesis for this study is mainly due to the minimal research that has been done thus far. The focus of the current study, although three fold, namely, review of extended dividend relevance payout models, dividend life cycle hypothesis and the study of share repurchases, does not disqualify other payout models. This is because the majority of them are to be discussed in terms of their overview and some empirical work, not necessary in detail, but to provide a context for the current study to be undertaken. Furthermore, it is extremely difficult for a single study to examine all payout models and theories.

The recognition of share repurchases as payout alternative places them alongside cash dividends and together they are a means by which wealth can be distributed to

shareholders during the normal corporate operations. In fact, share repurchases have become an integral part of companies' financial strategy (Mitchel & Robinson, 1991:91). The flexibility inherent in share repurchases, that is., the choice they provide as to how much should be paid and when, enhances their recognition in respect of managers endeavours to maximise value for shareholders. The same share repurchases, however, can fuel the already perplexing payout decisions thereby providing further avenues for research as sometimes cash dividends and share repurchases have to be studied comparatively.

## **1.2 PROBLEM STATEMENT**

Payout decisions remain a puzzle to be resolved by researchers and financial managers so as to maximise value for shareholders. Issues on payout decisions to be resolved include, smoothing of dividends, the change in payout decisions during the companies life cycle, or/ and how the utilising of share repurchases relate to the creation and maximisation of values for shareholders. The modern corporate finance theory offers an enhanced platform for quantifying value creation thereby recognising value-based performance towards endeavours to maximise value for shareholders. Although attempts have been made for the last half of century to study payout decisions in relation to value maximisation, the real value-creating measures such as Economic value added (EVA), and residual income (RI), among others, are not being considered, but rather the common (traditional) accounting measures such as return on assets (ROA), return on equity (ROE) are the usual focal points.

The inclusion of measures such as the EVA and RI will enhance endeavours in explaining value created and maximised, when a study of enhanced relationship between payout decisions and creation of shareholder value is to be done. It is important that significant research in the same area be done in emerging market setting so as to confirm whether or not payout dynamics and their impact thereof on shareholder value are the same as

those of developed markets. This will in turn afford financial managers, in such markets the opportunity to make better and more informed decisions regarding matters affecting creation and maximisation of value for shareholders. Specifically, research in emerging markets particularly in South Africa is minimal if any, in the following payout issues:

- Reviewing extended versions and application of dividend relevance payout models.
- The testing of the dividend life cycle hypothesis.
- The extent to which share repurchases are used as a payout choice in relation to cash dividends.

### **1.3 PURPOSE AND OBJECTIVES OF THE STUDY**

The purpose of the study is to investigate the payout debate, for the maximisation of value for shareholders.

Specifically, the objectives of the study are outlined as follows:

- 1) To review extended versions of dividend relevance models, thereby including some company-specific variables and selected key value-based measures of financial performance, as explanatory variables;
- 2) To test the dividend life cycle hypothesis in respect of an emerging market setting such as that of South Africa; and
- 3) To study the extent to which share repurchases are being used as earnings' distribution payout option (that is the payout flexibility). This objective also examines the determinants of payout flexibility.

### **1.4 SIGNIFICANCE OF THE STUDY**

The creation and maximisation of shareholders' value remain an integral part of companies' existence. The endeavours of the current study lie in its potential contribution to the payout debate as it examines specific payout theories, namely, modernised



versions of dividend relevance models, dividend life cycle hypothesis and payout flexibility, as they relate to maximising value for shareholders in a context like South Africa. The contribution of the study will enhance existing literature and provide additional context for future research. The study findings will also facilitate the decision-making processes for financial managers regarding their fiduciary duties (maximising value) for their principals (shareholders).

Specifically, the current study offers a number of benefits for researchers. Firstly, the revision and extension thereof of modern dividend relevance models thereby including value-based measures of value, makes the study unique as it researches payout decisions in respect of one of key aspects of modern corporate finance, that is, 'value creation'. Secondly, studies into both the dividend life cycle hypothesis and payout flexibility have been neglected in the literature and this study will draw attention to these topics. Lastly, the choice of an emerging market setting, such as that of South Africa will bring another dimension to the ongoing debate, emphasising the need for the study.

## **1.5 CHAPTER SUMMARY AND AN OUTLINE FOR THE STUDY**

The purpose of this chapter was to give an overview and context of corporate payout decisions as they relate to the current study. The chapter then uncovered gaps in the literature which were articulated in the problem statement, section 1.2, and continues with an outline of purpose and objectives of the study, section 1.3. The chapter concludes with the significance of the study.

The remainder of the study is outlined as follows:

Chapter 2 presents and discusses the regulatory environment that governs the payout policy in South Africa. Specifically, the chapter outlines and critique the meaning of 'distribution' in terms of application regulations of South African Companies Act, Income Tax and Financial Reporting pronouncements. The chapter then provides detailed review

of the regulatory environment as well as an outline of applicable requirements of Johannesburg Stock Exchange (JSE). The chapter closes with a critical review and summary of South African regulatory environment on payout decisions.

Chapter 3 reviews and discusses a number of major theories of payout decisions as well as the practices of share repurchases. A few of the major theories are discussed in detailed (in line with the specific objectives of the study, see section 1.3), namely, the relevance theory pioneered by Lintner (1956), the dividend life cycle hypothesis pioneered by Mueller (1972) and theories on alternating and complementary share repurchases.

Chapter 4 extends the work presented in Chapter 3, thereby exploring specific company matters as they relate to payout decisions, such as financial flexibility, corporate cash holdings, capital structure and shareholder value

Chapter 5 presents, motivates and discusses the research design and methodology chosen for the current study. Some key topics discussed include, data, sampling, data collection methods, model specifications as well as the research hypotheses.

Chapter 6 presents and discusses the empirical results from the data collected using the research design and methodology chosen. A brief overview and motivation for data estimation procedures chosen are also given at the beginning of the chapter.

Chapter 7 presents the summary and conclusion of the study. The chapter concludes by proposing recommendations for financial managers and provides areas for future research.

## **CHAPTER 2: OVERVIEW OF THE SOUTH AFRICAN REGULATORY ENVIRONMENT AND PAYOUT POLICY**

### **2.1 INTRODUCTION**

Payout decision, one of the key functional areas of corporate finance (together with capital structure and investment decisions), has been debated upon for decades. The recognition by financial economists, of the universal distribution policy, which also includes share repurchases and capitalisation issues has undoubtedly led to the expansion of the debate, thereby drawing more attention from researchers and financial managers. The debate about distribution policy, although global, is without doubt affected by individual country's regulatory environments.

The aim of this chapter is to review a number of South African regulations that govern distribution policy. The chapter begins with the definition of distribution, in terms of its applicable regulations; these definitions are then compared to that corporate finance literature. Secondly, further in-depth aspects of the regulatory framework are discussed in addition to JSE-listing requirements to show the application of the Companies Act No 71 of 2008. The International Financial Reporting Standards' (IFRS') basis for the preparation of financial statements is also presented in respect of the concepts of capital, capital maintenance, and going concern. Lastly, the chapter closes with a critical review of the local regulatory environment on distribution policy.

The structure of the chapter is as follows: Section 2.2 examines South African regulations in respect of the definition of distribution policy; Section 2.3 discusses further aspects of these regulations on distribution policy and Section 2.4 provides a critical review of some pertinent regulatory aspects on distribution policy.

## 2.2. MEANING OF DISTRIBUTIONS

In South Africa, distributions are governed by a number of regulations, namely, Companies Act, the Income Tax Act (No 58 of 1962), the International Financial Reporting Standards (IFRS), the International Financial Reporting Interpretations Committee (IFRIC), and the listing requirements of Johannesburg Securities Exchange (JSE). The Companies Act defines distributions as:

“a transfer by a company of money or other property of a company, other than its own shares to or for the benefit of one or more holders of any of the shares, of that company or of another company within the same group of companies, whether:

- i. In the form of a dividend;
- ii. As a payment in a lieu of a capitalisation issues, as contemplated in section 47;
- iii. As a consideration for the acquisition: -
  - By the company of any of its shares, as contemplated in section 48; or
  - By any company within the same group of companies, of any shares of a company within that group of companies; or .....

But does not include any such action taken upon the final liquidation of the company” (RSA, 2008:7).

This definition is on par with the interpretation of distribution by modern corporate finance literature. This is because the definition recognises normal dividend payments, capitalisation shares and share buybacks as falling within the ambit of the definition, that is, essentially any means by which company's returns and capital are distributed to shareholders. Another observation to make is that the Companies' Act definition excludes distributions which are made in the event of liquidation of the company.

The Income Tax Act does not define 'distributions', but nonetheless define 'dividend' as an amount which the company transfers for the benefit of shareholders in that company (RSA, 1962:11). The definition generally excludes share buybacks/repurchases. This Act may not generally define 'share repurchases', although it nonetheless defines 'bonus shares' as those issued by a company as bonus award or otherwise, such that company's

reserves or profits are applied in the pursuance of such shares (RSA, 1962:8). When this explanation is read with section 64B of Income Tax Act, it can be deduced that distributions mean dividends, and that only dividend approved and paid to shareholders are taken into account when determining the amount that is subject to dividend tax which replaced secondary tax on companies (STC).

IFRS pronouncements recognise distributions or dividends as simply periodic payments to shareholders in return for investments they have in the company; these distributions exclude share repurchases. In fact, these pronouncements do not have set standards for defining and reporting? share repurchases. Supplementary to IFRS, the IFRIC 17 has specific coverage of distributions. IFRIC 17 is concerned more with distributions of non-cash assets to shareholders, although it nonetheless gives shareholders a choice to either receive non-cash assets or a cash alternative (IFRIC, 2013/14: A14-13). One point about the IFRS is that they do not provide guidance on the measurement of distributions (IFRS, 2013/14: A14-13).

In summary, the Companies Act recognises distributions as including dividends, share repurchases and capitalisation issues, whereas the Income Tax Act and IFRS generally view 'distributions' as dividend payments only.

## **2.3 FURTHER ASPECTS OF THE REGULATORY ENVIRONMENT ON DISTRIBUTION POLICY**

### **2.3.1 The South African Companies Act**

The basis of common law regulations for dividends is that they should not be paid out of the share capital of a company. This simply means that during the normal operations of a firm, dividends should be declared and paid only from the realised profits. The broad common law regulations used to appear in the articles of association of the Companies Act 61 of 1973), although these regulations are no more part of this Act, they still appear

in the articles of most companies (Fouche & Barnard, 2014: 651), and are summarised as follows:

- Dividends must be approved by shareholders at an annual general meeting.
- Preference dividends and preference dividends in arrears need to be paid before ordinary dividends can be paid out.
- Dividends may be paid from distributable profits and reserves and not from paid-up statutory and capital reserves.
- After paying dividends, a company should be liquid and solvent.
- Current year profits may be distributed without making good prior year losses.
- Depreciation and losses on current assets must be provided for, but depreciation and losses on fixed assets can be ignored when calculating the profits available for distribution.
- Realised profits from sale of fixed assets may be distributed.

From this summary, there are a number of aspects which equate with some current sections of Companies Act. Firstly, the concise explanations of common law, particularly, the emphasis on utilising realised profits to pay dividends. Secondly, it is confirmed that dividends are subject to approval by shareholders at a general meeting. These aspects are simply the interpretation of section 46. Thirdly, it is stressed that any tests of solvency and liquidity as determined by section 4, have to be complied with. These tests imply that a company cannot pay proposed dividends unless, it is apparent that the company's assets will still exceed liabilities, it will technically trade and also be in a position to pay normal operating expenses when they become due (RSA, 2008: 11).

### **2.3.2. The Johannesburg Securities Exchange listing requirements**

The listing requirements of JSE provide additional criteria and provisions for distributions by listed companies in South Africa. These listing requirements as presented here are grouped into three sections, namely, specific repurchases, general repurchases and those in respect of payment of dividends. Specific repurchases relate to a commitment to repurchase a given number of shares at a fixed date, while a general repurchase refer to

a transaction which is conducted on the open market of the JSE without prior understanding between the company and its counterparts (Bester *et al.* 2008: 53).

Listing requirements of specific repurchases are summarised as follows:

- The company will be able to pay its debts for a period of 12 months after the date of approval of the circular [section 5.69 (c) i)].
- Company's assets will be in excess of the liabilities for a period of 12 months after the date of the approval of the circular [section 5.69 (c) (ii)].
- Share capital and reserves of the company will be adequate for routine business purposes for a period of 12 months after the date of approval of the circular. and
- Once the announcement to make a specific repurchase has been made, the company must pursue the proposal, unless the JSE allows the company not to do so [section 5.69 (g)] (JSE, 2013: 5-15).

Listing requirements of general repurchases are summarised as follows:

- The repurchase must be effected through the order book operated by the JSE trading system and done without any prior understanding or arrangement between the company and the counterparty [section 5.72 (a)].
- Shareholder approval should be sought in terms of a special resolution of the company in a general meeting which shall be valid only until the next general meeting or for 15 months from the date of the resolution, whichever is the earlier [section 5.72 (c)].
- Repurchases may not be done at a price greater than 10 per cent above the weighted average of the market value for the shares for the five business days immediately preceding the date on which the transaction is effected [section 5.72 (d)]. and
- A company may only appoint one agent at any point in time to effect any repurchase on behalf of it [section 5.72 (e)] (JSE, 2013: 5-16).

Lastly, the summary of the listing requirements for payment of dividends to shareholders:

- The approval (which may be general), of shareholders in a general meeting is required for payment to all shareholders which is not pro-rata [section 5.85 (b)];

- Specific approval is required for pro-rata payment to all shareholders which results in the shareholders holding shares in an unlisted entity [section 5.85 (c)]; and
- Ordinary resolution approved by the shareholders in the general meeting is required in order to make a specific payment (section 5.87) (JSE, 2013: 5-20).

### **2.3.3 The South African Income Tax Act**

Taxation on South African dividends has been variable for three decades. Dividends were taxed in the hands of recipients until 28 February 1990. This meant that whenever companies declared and paid dividends, there were no taxes imposed, but only in the hands of recipient. There was also no capital gains tax in force during this period, thus proceeds from earned capital assets were free from tax. This phenomenon suggests that capital gains were favoured over dividends payments. Taxation on dividends was eliminated on 1 March 1990. This change put the capital gains versus dividend tax preference matter in equilibrium, in that both capital gains and dividend payments then became tax-free when earned and received.

The date 1 October 2001, witnessed the introduction of capital gains tax at a rate of 10 per cent effective. As at the introduction of capital gains tax, the period of general equilibrium (1 March 1990 – 30 September 2001) as stated above had already been interrupted by the introduction of STC on 1 April 1993 at a rate of 15 per cent effective. In terms of sections 64B and 64C, STC was introduced to ensure that dividends declared by firms were subject to tax. The dividends which were subject to STC would then be tax free in the hands of investors. During the period of its existence, the STC rate was changed several times, thus forcing the Ministry of Finance to change the normal companies' tax rate in accordance. A change in the STC rate always resulted in an opposite change in the firm's normal tax, understandably so, as both these taxes could not be raised or reduced at the same time. The recent years have also witnessed STC dropping to 12.5 per cent on 1 March 1995, and then 10 per cent on 1 October 2007. The STC was eliminated and replaced by a new dividend tax effective from 1 April 2012. The



new Dividend Tax Act (DTA) (in terms of section 64D), has relatively different effects from that of the STC. With STC, the company declaring dividends had to pay tax at 10 per cent as at 31 March 2012, whereas with new DTA the recipients of dividends (shareholders) have to pay tax at 15 per cent.

Although the shareholders are the ultimate payers of this tax, it is still the responsibility of a company declaring dividends to calculate and withhold the dividend tax and pays it over to South African Revenue Services (SARS). During the STC regime, companies were effectively paying tax twice, that is., normal tax on taxable earnings and tax on dividends declared, that is, STC. It can be argued that the tax burden has now been alleviated for companies; the only direct tax they pay is the normal tax on taxable earnings. This practice effectively motivates companies to declare more dividends than before.

The Income Tax Act section 1 definition generally excludes share repurchases, although the same definition (section 1 (d) (a) (iii)) (RSA, 1962:11), read with the JSE listing requirements, section 5 (67) (B) (a), specifically recognise repurchase of own shares by companies. This then subjects specific share repurchases to STC (dividend tax) implications.

As mentioned above, STC has since been replaced by dividend tax. The new dividend tax is levied at 15 per cent on the receipt of dividends by shareholders, unlike STC which was levied on dividends declared by companies, then a charge which companies had to pay. The new dividend tax is levied on shareholders, although it is still the responsibility of the company to determine dividend tax and then withhold it for eventual payment (on behalf of the shareholders) to the tax revenue collector. Then, the net dividends payable to shareholders become tax exempt in the hands of shareholders who are South Africans by residence.

#### **2.3.4 The International Financial Reporting Standards**

The conceptual framework of the IFRS provides the basis for the preparation of financial statements. The basis to be chosen normally impacts on profits, as it is a reflection of the goals companies' management intends to achieve (IFRS, 2013/14: A41). The concepts of capital and capital maintenance are some of those bases for the preparation of financial statements. With the concept of capital, companies typically choose financial concept and physical concept as their bases. Financial concept relates capital with net assets or equity of the entity, whereas, physical concept links capital with productive capacity of company. This then extends to capital maintenance concept. According to IFRS (2013/14: A41):

“The concept of capital maintenance is concerned with how an entity defines the capital that it seeks to maintain. It provides the linkage between the concept of capital and concept of profit because it provides the point of reference by which profit is measured. It is a prerequisite for distinguishing between an entity's return on capital and its return of capital; only inflows of assets in excess of amounts needed to maintain capital may be regarded as profit and therefore as return of capital. Hence, profit is the residual amount that remains after expenses have been paid.”

From this quotation, it can be deduced that capital refers to the earning power of a company; it means that good profits are simply the fruits of well-maintained capital. Furthermore, the capital forms the basis to settle the company's obligations, in times of liquidations.

Going concern is another concept which sets the tone for the preparation of financial statements. It purports that financial statements should be prepared as if an entity will continue to operate for the foreseeable future, otherwise, an alternative basis to be adopted by the company should be disclosed (IFRS, 2013/14: A31). The choice of the concept reflects the management's goals which then impacts on profitability, and therefore sets the tone for dividend payments.

## **2.4 CRITICAL REVIEW: IMPACT OF THE REGULATORY ENVIRONMENT ON DISTRIBUTION POLICY**

Following discussions of the regulations that govern distribution policy in South Africa (as presented in this chapter), this section presents brief implications of these regulations on the distribution policy.

The presentations in this chapter have shown that South African Companies Act provides for a fair and equitable payout distribution to ordinary shareholders. Firstly, it affords shareholders, particularly the minorities, the opportunity to determine a fair payout in respect of company's situation and their own at an annual general meeting and secondly, it protects the interests of all stakeholders. This is evidenced by the assertion that dividends are paid only from the distributable profits and reserves, and not from the paid-up statutory and capital reserves. This context preserves the company's liquidity and solvency position, which ultimately benefits all stakeholders. The outline of JSE listing requirements provided enhances the regulations contained in the Companies Act.

The Income Tax Act (through the new DTA) was revealed as having different effects from the then STC, in that the latter served as a withholding tax. In other words, the dividend tax is cheaper for companies as they no longer pay related tax like the recipients (shareholders). Furthermore, it is anticipated that parent companies will make more repurchases themselves than before, as these companies had been doing so via subsidiaries in order to avoid paying STC. On this note, one would expect South African companies to declare and pay relatively higher dividends and make more share repurchases than before. It is, however envisaged that, with the passing of time, the growth in the application of the new dividend tax will undoubtedly provide interesting discussion platforms for researchers and financial managers.

The IFRS conceptual framework presents the basis for the preparation of financial statements, which then produce earnings available for distribution to capital providers. Consistent with the Companies Act, the IFRS emphasises the importance of preserving

the company's capital through the 'Concept of Capital and Capital Maintenance', as doing so appropriately results in sound financial performance, and thus the equitable distribution of earnings.

## **2.5 SUMMARY AND CONCLUSIONS**

The aim of this chapter was to review a number of South African regulations that govern the distribution policy. This was achieved by, firstly, defining distributions in terms of applicable regulations, namely, Companies Act, Income Tax Act and IFRS pronouncements, comparing these definitions among themselves, and ultimately to that of corporate finance literature. It emerged that, among these regulations, only the Companies Act recognises distributions the same way as corporate finance literature, in that the definition includes traditional dividend payments, share repurchases and capitalisation issues.

Further aspects of regulations were discussed in relation to distribution policy and the old common law regulations were evaluated as linking with current Companies Act No. 71 of 2008 in the treatment of distributions. Additional listing requirements of listed companies were summarised and evaluated as enhancing the prevailing aspects of Companies Act.

In respect of taxation, the development and practice of STC were presented as well as the transition from STC to the new dividend tax. The impact of the new dividend tax was evaluated as favouring companies now than before, although further debates are anticipated, as a result of the growth in the application of the new dividend tax.

In respect of IFRS pronouncements, the concepts of capital and capital maintenance, as well as that of going concern were evaluated as the basis for preparation of financial statements, the production of profits and ultimately the foundation for distribution policy.

The chapter ended with a relative in-depth review of the regulations governing distribution aspects in South Africa which will also provide a context for this study's empirical work. The next chapter reviews empirical work on major payout theories and share repurchases.

## **CHAPTER 3: REVIEW OF PAYOUT THEORIES AND SHARE REPURCHASES**

### **3.1. INTRODUCTION**

As evidenced by the previous chapters, the recognition of share repurchases brought about the universal distribution policy, which has since further fuelled the payout debate and the tightening of applicable regulations. These regulations provide the basis for the protection of shareholders' interests.

The aim of this chapter is to, firstly, review the major theories of payout policy. This process will be enriched by a further reviewing of the application of pioneering studies, particularly that of Lintner's (1956) model. Secondly, the study will examine the life cycle hypothesis in respect of payout policy. Lastly, the chapter will end with a discussion of share repurchases as they are executed in both developed and emerging markets.

The structure of the chapter is as follows: Section 3.2 reviews major theories of dividend policy. The section starts with two main propositions of dividend policy, namely, dividend relevance proposition pioneered by Lintner (1956), and dividend irrelevance proposition pioneered by Miller and Modigliani (1961), and a number of other dividend theories developed afterwards. Section 3.3 reviews the application of Lintner (1956) model, as is implemented in both developed and emerging markets. Section 3.4 reviews the dividend life cycle hypothesis, both in terms of overview and empirical work. Section 3.5 discusses share repurchases. A distinction is also made, during the discussions of the differences between developed and emerging markets, so as to compare trends and practice of share repurchases between these economies. The section concludes with the presentation of arguments in respect of cash dividends versus share repurchases as substitute components of payout policy.

## 3.2. REVIEW OF MAJOR THEORIES OF DIVIDEND POLICY

### 3.2.1. Dividend relevance proposition – Lintner (1956)

Lintner (1956:98) review over 600 listed and well-established companies in the United States (US). From this number, 28 companies were selected for further detailed investigation. The investigation was inclusive in that it included both an interview of managers and a scrutiny of financial reports. The major findings of this study are summarised by Marsh and Merton (1987:5) as follows:

- Firms have long-term target payout ratios;
- The focus of managers is more on dividend changes than on absolute terms;
- Dividends follow smoothing patterns; and
- Managers are reluctant to make changes to dividends that might have to be reversed later.

These findings are embodied in what Lintner (1956) describes as a “simple theoretical model” as follows:

$$\Delta D_{it} = \alpha_i + c_i (D^*_{it} - D_{it-1}) + \varepsilon_{it} \quad (\text{Equation 3.1.})$$

Where:

$\Delta D_{it}$  is change in dividend payments for company i in period t

$\alpha_i$  is constant term

$D^*_{it}$  is desired dividend payout for company i in period t

$$\text{And } D^*_{it} = r_i E_{it} \quad (\text{Equation 3.2.})$$

$r_i$  is target payout ratio

$E_{it}$  is current earnings for a company  $i$  in period  $t$

$D_{it-1}$  is lagged dividends for company  $i$  in period  $t$

$C_i$  is speed of adjustment coefficient

$\varepsilon_{it}$  is error term

Substitute  $r_i E_{it}$  in *Equation 3.1.*, the following equation is deduced:

$$\Delta D_{it} = \alpha_i + c_i r_i E_{it} - c_i D_{it-1} + \varepsilon_{it} \quad (\text{Equation 3.3.})$$

This model has since been tested by a number of empirical studies. For example, Fama and Babiak (1968:1133) test this model on data of 392 companies covering the period from 1946 to 1964. To provide further explanations for dividend behaviour, they extend the Lintner model to include lagged earnings and application of the model at individual company level. The reason for the inclusion of lagged earnings in the model is based on the implied assumption that the current dividend payouts of companies are a function of current and past earnings (Fama & Babiak, 1968:1133). They further argue that the application of the model at company and industry levels provide better explanations of dividend payments behaviour. Fama and Babiak's results are relative consistent with those of Lintner. Furthermore, they note that replacing lagged dividends with lagged earnings seems to provide some improvement in the predictive influence of the model.

Kwan (1981:193), among others, investigates both Lintner's (1956) model and its extended version as developed by Fama and Babiak (1968:1160). He finds that both models perform relatively equal in recognising potential dividend information. Kwan (1981:194) notes that although the models are widely recognised for periodic dividend changes, they are not suitable for the purpose of identifying quarterly dividend announcement information. Through the survey approach, Baker, Farrelly, and Edelman (1985:78) compare the determinants of dividend policy as viewed by managers, with Lintner's behavioural model of companies' dividend policy. Without notable exceptions, the respondents' views are found to be in agreement with the model. It is noted that, although Lintner's (1956) findings suggest that managers tend to focus on the change in



prevailing rate of dividend over the attached absolute amount, no strong evidence is found to support this view.

To sum up, this section highlights the early development of dividend relevance proposition, and its extended versions. A detailed discussion of Lintner's model, which includes an analysis of both original and extended models, in both developed and emerging markets follows in section 3.3.

### **3.2.2. Dividend irrelevance proposition – Miller and Modigliani (1961)**

Miller and Modigliani (1961) were the first scholars to challenge the simple theoretical model proposed by Lintner (1956). In their seminal paper, they conclude that dividend policy does not affect share price, but investment decisions do. This means that the process of investment which includes the effective utilisation of company's assets seems to affect share price. Additionally, it means that decisions on how much should be paid as dividends and in what form, do not affect share price. It could be argued that this proposition holds some relevance. What is the situation with companies that, for instance, do not pay dividends for a year or more in order to invest earnings in future projects that yield a positive net present value (NPV)? It should, however, be noted that, Miller and Modigliani's proposition above, was based on a number of restrictive assumptions, for example, no taxation and no transactions costs. This means that dividend policy affects share price if these assumptions were to be removed.

In summary, this section has presented some early attempts to discredit (through dividend irrelevance proposition led by Miller and Modigliani (1961)) the dividend relevance propositions originated by Lintner (1956). As proposed by Miller and Modigliani (1961), initially, the basis of dividend irrelevance proposition is on assumptions such as, no taxation and transaction costs. In this situation it can be deduced that indeed dividend policy affects share price if these assumptions were to be removed. This section together with that of dividend relevance (section 3.2.1 above) provides a platform for further in-

depth review of distribution policy as part of the context for the current study. The next section discusses the agency theory.

### **3.2.3. Agency theory**

Managers, being the agents of shareholders, are expected to take decisions which are in the best interests of the latter, thus ensuring that shareholders' wealth is created and maximised. Agency problems arise when managers are seen as not taking decisions that are in the interests of shareholders. Their actions may result in agency costs, which are costs incurred to align the interests of the two parties. Jensen and Meckling (1976:308) define agency costs as the sum of:

- Monitoring expenditures by the principals/shareholders incurring some monitoring costs, in the form of incentives, as a means to minimise possible deviations by agents from the latter's' role of looking after the earlier' interests.
- The bonding expenditures by the agent. Some form of agreement may be entered into between the agent and principal to bind the earlier not participate in or take certain actions that may harm the principal.
- The residual loss. The currency equivalent of the divergence between agent/manager and those that would otherwise maximise the shareholders' wealth.

As discussed under 3.2.2 above, Miller and Modigliani (1961) assume that companies pay 100 per cent of a firm's free cash flow as dividends every year. Their conclusion was also based on the equal treatment of payout choices in respect of share value. These assumptions attract possible conflict of interests between managers and shareholders, hence the agency problems. The crux of the free cash flow hypothesis is that regular payment of surplus cash as dividends increases a firm's value thereby reducing agency costs; this section reviews empirical work on agency theory.

### **3.2.3.1. Managerial duties, corporate governance and other debt capital issues on agency costs**

Consistent with Jensen and Meckling (1976:308), Easterbrook (1984:657) suggests that dividends may serve as an effective tool to monitor managers' duties. He argues that the payment of retained profits as dividends means that a company has to venture into the capital market to raise funding to finance possible investment projects. Payment of dividends on its own shows that the basic activities of monitoring managers is effective, as shareholders expect at least, to receive their investments' returns in the form of dividends. Furthermore, raising finance through external means, particularly through a debt, exposes managers to additional monitoring by debt providers. This is the case, as the latter may seek to ensure that the company complies with the terms of agreement, thereby ensuring that the debt is serviced.

This thus, works to the advantage of company shareholders in that the process of running the business to the expectations of capital providers will ensure the alignment of managers' interests with those of the shareholders. It is therefore argued that keeping a company in the capital market, particularly by issuing new equity, adjust debt-equity ratio and thus boosts the overall company leverage. Consistent with this view, through advocating the use of debt, Jensen (1986:324) recognises that using debt disciplines managers and companies to be more efficient. As Jensen argues, the practice of paying out excess cash as dividends discourages managers from investing excess cash in projects that would otherwise earn low returns. As already indicated, this practice exposes managers to monitoring by debt provider, as the latter, would seek to ensure that the debt is serviced in terms of the agreement. Jensen (1986:324) however cautions that as debt increases, so are the related agency and bankruptcy costs. A noteworthy observation to make from Jensen's study is that, the issue of debt and the eventual relative reduction in agency costs should not be generalised among classes of companies. As he argues, this is more suited to big and mature companies that generate large cash flows, as opposed to rapidly growing companies with big and highly profitable investments, but without free cash flows. One of the reasons, probably, is that companies with large and costly

investment projects may not want to pay large excess cash as dividends, as doing this jeopardises their growth ambitions. Moreover, as some of these companies are relatively small, this means that they may have limited access to external debt finance, thus they use excess cash generated to pursue their growth and investments plans.

In another related study, Harvey, Lins and Roper (2004:3) investigate whether debt capital is able to reduce agency problems, particularly when agency costs are extreme and information asymmetry is severe. The study covers 18 emerging market countries, namely Argentina, Brazil, Chile, Czech Republic, Hong Kong, Indonesia, Israel, Malaysia, Peru, Philippines, Portugal, Singapore, South Africa, South Korea, Sri Lanka, Taiwan, Thailand and Turkey. After employing cross-sectional analysis, time-series tests and event studies analyses on the sampled data, they find that debt creates shareholder value for companies that have high agency costs. Harvey *et al.* (2004) also report that debt mitigates the reduction in shareholder value that accompanies a separation between a management control rights and its proportional cash flow ownership. They observe that emerging markets managers and families regularly employ ownership structures that give them controls that excessively exceed their propositional cash flow ownership. The researchers conclude that in circumstances where managers are most likely to exploit shareholders and there is severity of information asymmetry, well monitored debt may help reduce agency problems Harvey *et al.* (2004).

D'Souza and Saxena (1999:35) examine the effects of agency costs, market risk and investment opportunities on companies' dividend policy. They concentrate on the data of 349 worldwide companies, because (as they say), most studies on dividend policy had used mostly US market. In brief, they find that companies pay dividends to reduce agency costs and that dividend decisions are independent of investment decisions. These findings are consist with early studies on agency theory, namely, those of Jensen and Meckling (1976), Rozeff (1982), Easterbrook (1984), and Collins, Saxena and Wansley (1996).

In summary, this section suggests that the use of external finance, particularly debt, is an effective means to reduce agency costs. The basis of this phenomenon is that raising funds through debt exposes the company to further monitoring by debt providers, as they demand that their debt be serviced in terms of the agreement. Jensen (1986:324) however cautions that an increase in debt brings with it further financial risks.

### **3.2.3.2. Managerial ownership**

Crutchley and Hensen (1989:37) test the agency theory of managerial ownership, leverage and dividend policies. They recognise and build upon the work of Jensen and Meckling (1976), Rozeff (1982) and Easterbrook (1984). They also state that their study is based on the recognition that, leverage is relevant, as it reduces the conflict of using outside equity and that managerial ownership and dividends are relevant because they reduce the conflict of interest between managers and shareholders. The summary of the findings are as follows:

- Managers increase their stakes in the company if ordinary shares provide lower costs of diversification.
- Higher earnings volatility leads to lower leverage.
- Higher earnings volatility is related to greater managerial ownership and larger dividends.
- Larger companies use more debt and payout larger dividends, and their managers have lower equity ownership.

Crutchley and Hansen (1989:46) conclude that ownership, leverage and dividends are chosen simultaneously by managers to control agency costs. Crutchley, Jensen, Jahera Jr and Raymond (1999:177) investigate the simultaneous presence of leverage, dividends, insider ownership and institutional ownership to agency costs. They obtain results consistent with those of Crutchley and Hansen (1989:46) above, namely that these variables are determined simultaneously to affect agency costs.

Ang, Cole and Lin (2000:81) conduct a study on the effect of ownership structures on agency costs. They made a major breakthrough in that they are among the first scholars to attempt to measure the absolute and relative agency costs for companies that are under different ownership and management structures. Another significant observation is that their study makes consistent reference to the main pioneering study on agency theory, that of Jensen and Meckling (1976). Ang *et al.* choose a sample of 4 637 companies representing non-farming and non-financial businesses in the US, at the end of 1992. In structuring their data, two assumptions are made about agency costs, namely, a company whose owners are also managers incurs no agency costs and that agency costs may be the difference between the efficiency of imperfectly aligned company and that of a perfectly aligned company.

Consistent with Jensen and Meckling (1976), Ang *et al.* (2000) obtain the following results:

- Agency costs are higher when a non-owner manages the company.
- Agency costs vary inversely when an owner manages the company.
- When non-managers' shareholding increases, so do the agency costs.
- Monitoring by the providers of debt capital serves as an effective device to reduce agency costs.

Singh and Davidson III (2003) extend the work of Ang *et al.* (2000) outlined above. These authors define agency costs in terms of asset utilisation and alternatively, in terms of discretionary expenses. In contrast, Singh and Davidson III find that in large companies, leverage is negatively related to agency cost. In agreement with Ang *et al.* (2000), and also recognising the use of different measures of agency costs, Singh and Davidson III (2003:815) attribute the negativism of leverage towards agency costs to the following factors:

- Differential intensity of monitoring by bank debt holders in respect of small companies and public debt holders in the case of large companies; and
- The differences on the extent of debt financing between small and large companies.

Fleming, Heaney and McCosker (2005:30) replicate the study of Ang *et al.* in an Australian settings by considering small and medium business. The replication and choice of business size are necessitated by a number of factors. Firstly, small and medium enterprises allow for the zero equity agency cost benchmark owner-managed companies (that is 100% owner-managed businesses. Secondly and lastly, due to differences in product, market factors, political, legal, regulatory framework and internal control systems among countries, replication of this setting to Australian setting is justified.

This study also extended Ang *et al.* study (2000) by including a comprehensive set of equivalent control variables. The study used a sample of 3 800 Australian small and medium businesses over two-yearly periods, namely 1996-1997 and 1997-1998. The researchers reported that agency costs are lower in businesses managed by owners and that they decrease as ownership by managers and families. Another observation from this study is that, Australian-specific factors are likely to influence the impact of separating ownership from control.

Subsequent to the work of Ang *et al.* (2000), Fleming *et al.* (2005) and Berger and di Patti (2006:1067) note with concern that using financial ratios as performance indicators of agency costs may be erroneous as these ratios may not capture the effect of managerial control. Berger and di Patti instead use profit efficiency as performance measure. Profit efficiency is a means by which the proximity of a business is determined in relation to earnings that a best-practice businesses would earn if they were to face the conditions of their earlier business (Berger & di Patti, 2006:1067). In short, they find that higher leverage is related to higher profit efficiency.

McKnight and Weir (2009:139) also test the impact of governance ownership structure on agency costs. This study extends those of Ang *et al.* (2000), Fleming *et al.* (2005), and Berger and di Patti (2006), in that it recognises the need to test the magnitude of agency costs. Furthermore, the use of panel data analysis on agency costs, particularly in the United Kingdom (UK) was significant. They use a sample of 128 UK non-financial

companies for dataset covering the period of 1996 to 2000. They find that having nomination committee increases agency costs but board ownership reduces them.

In summary, this section suggests the simultaneous determination of a number of variables to reduce agency costs. It is proposed that a number of variables, namely ownership structure, leverage and dividends must be used simultaneously in order to reduce agency costs. It is however cautioned that using these variables as indicators of performance in respect of agency costs may be erroneous, as the effect of managerial control might not be captured. This summary thus serves as an introductory discussion to establish the relationship between agency costs and payout policy which is further deliberated upon in terms of agency aspects, through corporate cash holdings policy to later under section 3.6.2.

#### **3.2.4. Residual theory and the free cash flow hypothesis**

Miller and Modigliani (1961:414) propose that investment decisions and the earnings capacity of a company are the only determinants of value, not how earnings are packaged for distribution. The implication of this proposal is that dividends rank second after investments, meaning that dividends should be paid from excess cash after investment opportunities have been pursued, and thus the introduction of the residual theory. A further analysis of Miller and Modigliani's proposal shows that they do not only rank dividends the second, but also as a means through which shareholders may trade-off between dividends and sale of part equity in case they are not satisfied with dividend receipts in any particular period. In situations where more funds are required to pursue investment options, dividends have to be reduced or no dividend payment will be made.

The hierarchy portrayed here implies that investments are firstly financed with internally generated funds, and then external funds. There are advantages that support this phenomenon. Myers (1984:590) develops the pecking order theory which ranks internal finances ahead of external ones. He argues that external finance brings with it transaction costs, declaration of information to external parties and monitoring costs, secondly among



external finance options, debt is preferred over equity. This is because the issuance of new equity generally attracts negative share price reaction, as this may be seen as signalling that shares are overvalued.

Another presumed significant aspect of residual theory is that dividends have to be volatile as both earnings and investments (upon which dividends are based) vary from one year to another (Ma, 2012:50). Furthermore, mature companies are expected to pay more dividends as they have low investments, while growing companies are likely to pay less dividends, because they use cash earnings for investments.

The discussions presented in this section thus far suggest the inverse relationship between investments decisions and dividend decisions. Fama and French (2002:1) test the trade-off and pecking order theories in respect of dividends and debt. Consistent with residual theory, they find that companies with more investments have lower long-term dividend payouts. They, however note that companies do not necessarily change dividends in response to short-term change in investments. This is consistent with Lintner's (1956) proposal that companies smooth dividends. DeAngelo and DeAngelo (2006:314 & 2007:24) are of the view that companies pursue investment opportunities that generate positive net present values and then distribute excess cash to shareholders as dividends.

Grullon, Michaely and Swaminathan (2002:387) investigate if dividend changes may signal that companies are reaching maturity stages or that they are at the maturity stages. Specifically, they find that companies that increase dividends experience a significant decline in their market risk, that the same companies do not increase capital expenditure, and that they experience a decline in profitability in the years subsequent to dividend changes. Grullon *et al.* (2000) interpret these results as being consistent with a trend of companies that have reached their maturity stage (shown by low investments and payment of high dividends), and those that are at the growth stage (shown by high investments and low dividends).

Some scholars do not seem to accord recognition to the residual theory in respect of payout decisions. Yoon and Starks (1995:995) investigate some explanations of wealth effects in respect of dividend changes. They then find more support for the cash flow signal hypothesis than the free cash flow hypothesis. Specifically, they document that an increase or decrease in dividends are related to subsequent increases or decreases in capital expenditure, three years following dividend changes. Moon and Starks, additionally, do not find an explanation of wealth effects surrounding dividend changes in respect of cash flow hypothesis. They, however, note that the predictions of the free cash flow hypothesis could explain the cross-section differences in dividend policy in their analysis.

To summarise, the discussions presented above indicate an inverse relationship between dividend and investment decisions. The discussions illustrate that the cash flow signalling hypothesis somehow overlaps with the free cash flow hypothesis (and residual theory) when the predictions of the latter are being tested. This section serves as a background for further deliberations of dividend life cycle hypothesis presented in section 3.4.

### **3.2.5. Catering theory**

Corporate finance literature has argued that the main objective of a company is to maximise shareholders' wealth (Atrill, 2012:450). This means that managers are expected to prioritise their decisions in respect of the needs of shareholders. Behavioural finance studies have attempted to explain why shareholders may prefer cash dividends over capital gains. Shefrin and Statman (1984:280) argue that investors may prefer dividends because, for example, self-control reasons, the desire to segregate and/or to avoid regret at a later stage.

Baker and Wurgler (2004:1160) present an analysis through which they explain why shareholders should be given what they want, thus proposing the catering hypothesis. Their analysis implies that managers tend to initiate or pay dividends when dividend demands are high and omit or cut dividends when demands are low. Li and Lie

(2006:3007) extend the catering analysis in this regard on two fronts, that is, firstly, through studying the relationship between share price reaction and dividend premium, and, secondly, testing the applicability of catering theory to dividend changes, over and above dividend initiations and omissions.

Consistently they report that share price reaction depends on dividend premium and that catering hypothesis extends to dividend changes the same way it does to dividend initiations and omissions. Kale, Kini and Payne (2012:368) observe similar trends to Baker and Wurgler's (2004) extended catering analysis.

Prior to Baker and Wurgler's catering hypothesis, some empirical research had already done similar investigations. La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000:27) had investigated the influence of legal protection on payout policies of over 33 countries around the world. In summary, they find that:

- Companies in countries with better protection of minority shareholders pay higher dividends. In these countries, consistent with residual theory, fast-growing companies pay lower dividends; and
- Poorly protected shareholders simply accept dividend payouts decided upon by managers. In this case shareholders may have to play by the dynamics of catering hypothesis to force managers to cater for what they want. In this way, the market may place a large premium on companies that pay dividend over those that do not.

Following up on the study of La Porta *et al.* (2000) above, Ferris, Jayaraman and Sabherwal (2009:1737) discover that, common law countries provide more extensive set of rights and protections to shareholders, than civil law countries do. This, thus requires managers of common law countries to be more responsive to the shareholders' needs for dividends, resulting in better catering practices in these countries. Furthermore, managers in civil law countries are overpowered by controlling shareholders, who seem to have little interest, if any, to cater for the needs of minority shareholders.

In summary, this section emphasises the necessity for catering for the needs of shareholders. The shareholders' preferences of dividends over, for example, capital gains may arise from self-control reasons and attempts to avoid regret later. The essence of Baker and Wurgler (2004:1160) proposal is that failure to cater for the needs of shareholders could result in a negative reaction from the market. La Porta *et al.* (2000:27) report that companies operating in countries with better protection of shareholders, particularly the minorities, enjoy better catering practices in respect of dividend payments. This section therefore serves as introductory review of topical aspects of the current study which will be continued under topics in sections 3.3, 3.4 and 3.5, namely, review of Lintner's model and related payout patterns, dividend life cycle hypothesis and share repurchases.

The next section provides an overview of other recognised models of dividend payout policy. This is done in relationship to signalling theory and the effect of asymmetric information.

### **3.2.6. The effect of asymmetric information and the signalling model**

The effect of asymmetric information on the financial decision making process has been deliberated upon for decades. Lintner (1956) discover that companies set dividend payout targets, that dividend changes follow long-term sustainable change in earnings, and that managers are reluctant to make dividend changes that may be reversed later. This has been argued as suggesting that companies may either smooth dividends or that current dividends reflect past and current experiences of company managers, or that company's future prospects look good; this gave rise to the signalling model.

Miller and Modigliani (1961) challenge the dividend relevance proposition by testing its impact on share price. They conclude that dividend payouts do not have an effect on a company's share price. Their proposition is, however, made on the basis that all market participants have the same information about the prospects of the company. From the same analysis, Miller and Modigliani (1961) acknowledge that dividend payouts may

affect share price, although they attribute this phenomenon to the information content of dividends, not on the dividend payout choices.

In practice, information asymmetry, however, exists. Managers possess more information about the company than shareholders and other market participants. Managers therefore use this information to their advantage, thus, financing decisions they make may attract market reactions. It is against this background that this section provides a brief discussion of signalling models that were developed in recognition of the existence of information asymmetry.

#### **3.2.6.1. The Bhattacharya model**

Bhattacharya (1979:259) developed a year to year period analysis through which he shows that companies commit themselves to their dividend payouts. This is done by announcing at the beginning of the current year that the company will pay a higher level of dividends when the period ends. The implication of this is that, if a company fails to achieve the expected level of dividend, it may have to raise external finance to cover the dividend shortfall. As discussed under agency costs above, raising external finance is costly, particularly if it is done through issues of new shares; Bhattacharya also notes this in his article. He emphasises, additionally, that only mature and large companies can afford the propositions of his model.

While acknowledging the applicability of Bhattacharya's model, one could argue that asserting the announcement of dividends as some form of binding commitment on the company may be misleading, as payment of dividends is generally not mandatory. Be that as it may, payment of cash dividends is a means by which shareholders at least can expect to receive returns from their investments.

#### **3.2.6.2. The John and Williams model**

John and Williams (1985:1064) developed a multi-equilibrium model detailing why companies prefer to pay dividends even under conditions of adverse consequences. The overall implication of this study is that signalling may be pursued even if it brings with it considerable costs, provided the message is conveyed in respect of future prospects of the company. On the basis of recognising the credibility of dividends as an effective signalling device, the model of this study contains the assertions that companies may pay dividends and still raise new equity externally or repurchase shares; and as well the fact that dividend payments are a means to raise the price of shares which has fallen as a result of new issues to external parties.

### **3.2.6.3. The Miller and Rock model**

Miller and Rock (1985:1047) design a two-year period equilibrium model of signalling. In this model, they suggest that a company invests in a project at period  $t_0$ , during which outside shareholders do not have access to operational information until such time that earnings are generated at  $t_1$ . At  $t_1$ , earnings made are used to finance dividend payouts, new investments or share repurchases.

In summary, this section discussed the fundamental aspects of the recognised signalling models in corporate finance. This section, together with others, thus form the context for the execution of methodology so as produce relevant findings for the current study.

## **3.3. REVIEW OF DIVIDEND RELEVANCE MODELS AND RELATED PATTERNS OF DIVIDEND PAYOUT POLICY**

### **3.3.1. Overview**

The seminal work of Lintner (1956) set the tone for the dividend policy debate. Attempts by Miller and Modigliani (1961) to criticise Lintner's work above, made dividend debate rather more interesting, thereby attracting reactions from scholars and researchers. Lintner (1956:113) finds that companies set payout targets which they adjust towards and

that dividend changes tend to follow sustainable changes in earnings. These findings suggest that companies indeed smooth dividends. A considerable number of studies (to be discussed individually in later in this section) have been undertaken to test Lintner's model. Firstly, studies have attempted to apply the original model. Secondly, some have attempted to apply some extended versions of the model. In the process, other related patterns of payouts have emerged. The next section thus, discusses the application of Lintner (1956) model in detail with distinctions being made in the application of the model between developed and emerging countries.

### **3.3.2. Review of dividend relevance and related models – empirical evidence from developed markets**

As discussed in section 3.2.1, Fama and Babiak (1968:1133) extend Lintner's model by including lagged earnings and application of the model at individual company level. Although they find relatively similar results to those of Lintner, they argue that their extended version provides some improvement in the predictive influence of the model. Kwan (1981:194) tests the original models of Lintner, and Fama and Babiak at quarterly intervals, treating each period as a full year. He finds results consistent with those of the original versions of these studies, although he claims that his revised model is able to identify some useful potential dividend information. Through testing the original model of Lintner and also expanding the survey (thereby including specific questions on signalling and clientele), Baker *et al.* (1985:78) provide results relatively consistent with those of Lintner.

Nakamura and Nakamura (1985:606) extend Lintner's model, the same way as Fama and Babiak. The notable difference is that their expected sign of the coefficient of lagged earnings is positive (opposed to a negative sign, as predicted by Fama and Babiak (1968:1142)). The reason for this treatment, they argue, is based on their understanding of the rational expectations hypothesis of management attitude towards payout changes. After applying their extended model to the US and Japanese companies, they find that it, relatively, provides a better predictive model than that of Lintner's.

In a relatively different platform but following in the path of Lintner, Marsh and Merton (1987:1) develop an aggregate dividend model, which is a function of change in sustainable earnings. To justify the choice of the model, they argue that demand for dividends is at an aggregate level rather than at company specific level, as shareholders are concerned about the portfolio information in respect of the dividend-capital gain relationship mix. Marsh and Merton (1987) also acknowledge the common characteristics which Lintner finds. They summarise these characteristics as stylised facts (as listed under section 3.2.1 above). Contrary to similar earlier studies, notably, Lintner (1956) and Fama and Babiak (1968), which use accounting earnings, Marsh and Merton (1987:5) argue that economic earnings are better determinants of dividend payout decisions. Finally, Marsh and Merton (1987:37) deduce that their dividend aggregation model shows some systematic time-series behaviour, which may be interpreted as indicating that company's specific theories such as signalling, do not, by themselves explain the dividend puzzle.

Lending support to testing dividend at aggregate level, Garret and Priestley (2000:182) propose a model which assumes that managers minimise costs associated with being away from payout target. They argue that modelling dividend behaviour at aggregate level provides a platform for the detection of payout factors that may not have been identified at individual company level. On testing the robustness of the model, they find that in respect of dividend behaviour, the model is able to explain the results of other models, such as those of auto regression, partial adjustment and error correction models, although these models are unable to do the same for the results of the aggregation model.

Models that aggregate dividend payouts seem to be acceptable, as documented by Marsh and Merton above, although recognition and support for models that capture for dividends at relative company level, still hold some ground. Ang (1998:83) develops what he terms "the analytical solution dividends". He shows that his analysis provides for the basis for the introduction of new concepts of dividend equilibrium which also recognised payout behaviour at company specific level.



Using a survey, Allen (1992:9) investigates the perceptions of UK companies' executives in respect of target payout ratios; his study is simply testing the Lintner's model in the UK setting. He finds that executives in the UK recognise the importance of maintaining stable dividends and that previous dividends are key determinants of current dividends.

Goergen, Renneboog and Correia da Silva (2005:375) investigate the patterns of dividends changes for German companies. Consistent with Lintner (1956), they document that earnings are major determinants of payout changes. They however find that German companies have relatively more flexible payout policies than their US counterparts. They claim that German companies do not necessarily smooth dividends. Goergen *et al.* (2005:376) argue that the reason for this phenomenon is that the corporate governance system for German companies differs from that of US, and that the role of stock exchange in providing finance is less prominent in Germany. Lending support to the findings of Goergen *et al.* (2005:375), Andreas, Betzer, Goergen and Renneboog (2009:175) also conclude that German companies prefer more flexible payouts than their US and UK counterparts and that German companies tend to base their payout decisions on cash flow rather than earnings.

Leary and Michaely (2011:3197) investigate the determinants of dividend smoothing and the evolution of this smoothing over time in the US. Their study makes reference to other models that seem to affect dividend models; these models are agency costs and information asymmetry. Their study is unique in that it explores smoothing behaviour over a longer period than was ever done before. Firstly, they note some trend among different groups of companies. That is, they find that younger companies, low dividend yielding companies, high earnings volatility and return volatility companies and those with less predictor following do not necessarily smooth dividends. Secondly, companies that are exposed to more agency costs, smooth more. Thirdly, they document that there is substantial increase in the extent of smoothing over the past century.

As Leary and Michaely (2011:3197) argue that although the use of share repurchases as a means to distribute cash to shareholders may have contributed to this trend, most increases occurred before the widespread of share repurchases. With reference to above mentioned dividend models, the study finds that companies that experience most uncertainties and asymmetric information smooth the least. Consistent with agency cost theory, Leary and Michaely document that smoothing is prevalent among companies that have access to external capital finance and high payout levels.

Lambrecht and Myers (2012:1761) develop what they call a “dynamic agency model”, in which managers make dividend payout, investment and financing decisions in order to maximise the managerial rents<sup>1</sup> they receive from a company. They find that managers tend to smooth dividend payout to then smooth the flow of managerial rents. Secondly, risk-averse managers tend to underinvest, although the extent of underinvestment is observed to be mitigated by habit formation.

Lie and Chen (2015:194) test the signalling and free cash flow hypotheses in respect of US companies. They discover that managers use dividends to signal their previous earnings and also for catering clientele and that free cash flow and investment sets are not key determinants of payout policy

In summary, the application of Lintner’s 1956 model and its extension thereof confirms that the model holds very strong relevance in the developed markets even after more than 6 decades of its proposition. This is confirmed by extended versions of, among others, Fama and Babiak (1968:1133), Nakamura and Nakamura (1985:606) and Andres *et al.* (2009:181). Marsh and Merton (1987:1) and Ang’s (1998:83) aggregation and company specific models, respectively, follow the same pattern.

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<sup>1</sup> Managerial rents are defined as above the average incentives which managers advance through inclusive coalition between them and employees. E.g., above average salaries and job security (Lambrecht & Myers, 2012:1763)

Although the German situation shows relatively less smoothing, the systematic Lintner's payout behaviour seems to prevail. Goergen *et al.* (2005:397) lend support to the German case by documenting that earnings are major determinants of decision to change payouts. Additionally, there are questions as to whether emerging markets share similar empirical evidence or not, particularly on the extension of the model. The next section discusses related empirical evidence from the emerging markets, and thus attempts to answer the questions posed here.

### **3.3.3. Review of dividend relevance and related models – empirical evidence from emerging markets**

Seneque and Gourley (1983:35) survey dividend payout policies in South Africa. Their study notably recognises the earlier survey of Lintner (1956) conducted in the US. From these survey, some common factors are identified as influential in determining dividend payout policy, namely current earnings, company's future prospects, dividend payout stability, cash flow, current liquidity, future cash needs, expectations of shareholders and maintenance of long-term target payout ratio. Consistent with their US counterparts, Seneque and Gourley document that the dividend policies of South African companies are influenced by these factors.

Specifically, South African companies' payouts are influenced by current earnings and continuity and stability of payouts. Wolmarans' study (2003:244) is more focused as he investigates whether Lintner's (1956) model could be used to explain payout pattern of South African companies. He recognise that Lintner's model does not seem to provide a reliable fit for the South African payout policy situation. Wolmarans (2003:251) however acknowledges that the small sample size he used may have influenced the generalisation of the results. That is, the sample had aimed at largest 200 JSE listed companies on 31 December 2000, but due to some not listed for sufficient period only 97 made the final sample.

Through a survey, Firer, Gilbert and Maytham (2008:18) conclude that South African managers exhibit attitudes similar to those of their counterparts in the US (as documented by Lintner (1956)). That is, they have target payout ratio and are reluctant to increase dividend which they may be forced to cut in future. Furthermore, they note that South African managers tend to focus more on payout targets, as opposed to their US counterparts who prefer maintaining the growth in nominal value of payouts.

Erasmus (2013:14) examines the relationship between dividend payouts, their stability and share returns. His study recognises some shortcomings in respect of sample sizes and survivorship bias experienced by similar studies, notably Wolmarans' (2003:251) study. Erasmus (2003) finds that the stability of dividend payouts influences share returns as much as the dividend payouts themselves. This suggests that South African shareholders perceive the importance of stable payouts, relatively, the same way as their managers; an argument which is shared by Firer *et al.* (2008) above.

Firer and Viviers' (2011:2) research the dividend policies of 95 South African listed large companies for over 23 years (1989 to 2010). They note that similar patterns of dividend payout ratios among nine investigated sectors except in the basic resources sector. They also note complete association between dividends, investments and financing decisions. Lastly, they report that South African managers are more conservative than their US counterparts when they pay dividends, and that they target a specific payout ratio. Viviers, Firer and Muller (2013:2) review the dividends payments of South African listed companies over a 36 years' period (1977-2011). They then report consistent results, specifically, among others, they uncover that fewer companies are paying dividends and that those paying tend to be larger.

Sibanda (2014:333) examines payout policies and appropriateness of Lintner's smoothing pattern for South African 45 non-financial listed companies, for over 18 years. He discover, among others, that South African companies indeed smooth dividends and they have target dividend levels which they adjust towards

Naceur, Goaid and Belanes (2006:2) test whether Tunisian companies smooth dividends. The results show that Tunisian companies tend to rely more on both current earnings and previous dividends to determine their current dividends. In addition, they document that dividends tend to be more sensitive to current earnings than previous dividends. Waweru (2010:8) discover relatively similar payout patterns in respect of the Kenyan situation; specifically, a strong positive relationship between payouts and share returns.

Omet (2004:289) examines whether Jordanian companies smooth dividends, and also the sensitivity of current dividend to current earnings and previous dividends. He notices that companies follow stable payout policies and that current payouts are more sensitive to previous payouts than current earnings. Zurigat and Gharaibeh (2011:170) provide support for Omet's evidence above as they suggested that Jordanian companies have a target dividend payout, with low target rate of adjustment.

Ahmed and Yavid (2008:1) undertake a study on the dynamics and determinants of dividend policy for 320 non-financial companies over six years (2001 – 2006) in Pakistan. Using Lintner (1956) model as baseline for their data modelling, they conclude that profitable companies' stable net earnings seem to have larger free cash flow and thus are more able to pay larger dividends. They also note a negative correlation between investment sets, leverage and payout policy, which is interpreted as an indication of Pakistan companies' prefer to reinvest in their assets rather than paying higher dividends. This practice further confirms the reluctance of managers to increase dividends even when earnings increase and hence the dividend smoothing pattern.

Musa (2009:564) explores whether selected variables, namely, current earnings, previous dividends, cash flow, investment opportunities and net current assets have an impact on dividend policies of companies listed on the Nigerian Stock Exchange. In line with smoothing pattern of payout model as proposed by Lintner (1956), he finds that current earnings, previous dividends and cash flows have significant impact on dividends policies of companies. Furthermore, although he had predicted that bigger companies

should be more liquid, have low growth rates and thus should be able to pay higher dividends, he realises that his final model's results do not seem to capture the size effect of companies.

Bodla and Kumar (2012:1148) examine the financial management practices of Indian service industry on aspects such as financing pattern, capital structure and payout choices. Their conclusion was that the Lintner model applies to Indian companies, specifically, that current payouts are determined by current earnings and previous payouts. Hu and Chen (2012:101) observe with similar payout pattern for Chinese companies. According to them, Chinese companies have long-term payout target ratio, and that they adjust to target level and the smoothing is related to company value. Jeong (2013:76) identify similar smoothing pattern for the Korean market when he also observes that Korean companies smooth less than their US counterparts.

Musiega, Alala, Musiega, Maokomba and Egessa (2013:253) examine the determinants of payout policy of 30 non-financial companies listed on Nairobi Stock Exchange for over five years (2007-2011). They establish a positive correlation between ROE, investment sets and payout policy. These results are consistent with those of Ahmed and Yavid (2008) discussed above.

In summary, as documented above, empirical evidence on the Lintner model, from emerging markets has largely been on the model's application and related payout behaviour. There is, however minimal review of modernised versions of the same model, a gap which this study seeks to fill. The variables current earnings and size of company are shown to have a relative positive correlation with decisions to change dividends. Furthermore, It has been confirmed that companies have target payout ratios which they adjust towards overtime.

### **3.4. REVIEW OF LIFE CYCLE HYPOTHESIS**

#### **3.4.1. Overview**

This section extends the agency theory discussed in section 3.2.3 and the cash flow hypothesis presented in section 3.2.4 above. The free cash flow hypothesis can simply be defined as cash remaining after investments in value adding projects (that is, positive net present value projects). The residual theory posits that dividends should only be paid after investments are made in value adding projects. The agency costs of free cash flow may add fuel to the dilemma on the relationship between the agents (managers) and the principals (shareholders). That is, the theory on agency costs of free cash flow indicates that the availability of free cash flow may prompt managers to invest in value-reducing projects so as to preserve resources under their control. In order to avoid investments in these projects, managers have to be motivated to pay the free cash flow as dividends. This is an outline of pioneer agency costs study of Jensen (1986:323) which builds on the life cycle proposal of Mueller (1972).

The life cycle hypothesis proposes that a company goes through stages in its life cycle and this impacts on both its strategic and operational decisions. For example, a new company survival in the business environment is a difficult one. Firstly, the company has limited resources both in terms of internal funds and access to external finance due to information asymmetry and hence the higher cost of finance. Within this realm, the company has to develop its products (for manufacturing entity), market and position itself in respect of market dynamics. Upon passing this stage, a company then enters the growth stage. In this stage, the company maximises investment opportunities, reaches out to potential clients, improves production, marketing and strategic business positioning. The earnings are volatile and low, and payment of dividends is not a priority.

The next stage is maturity wherein a company stabilises its market position, relaxes growth and investment pursuance, has relatively good internal funds and enhanced

access to external finance and hence lower cost of finance, as well as high earnings which may be paid as dividends. This overview provides a starting point for examining related empirical work on dividend life cycle as presented hereunder.

### **3.4.2. Empirical evidence**

Fama and French (2001:3) study companies' propensity to pay dividends. They identify three factors that affect companies' decisions to pay dividends, namely profitability, investment opportunities and company size. Specifically, they note that larger and more profitable companies are more likely to pay dividends, and companies with more investment opportunities are less likely to pay dividends. This phenomenon is consistent with companies going through maturity and growth stages respectively in their life cycles. They also note that previous dividend payers seem to be in financial distress, and that they have low earnings and a few investments. On the other hand, companies that are yet to pay dividends are more profitable than previous dividend payers and the pursuance of growth opportunities is among their key priorities showing that dividend payers are more profitable than those that have never paid any.

As presented in section 3.2.4, Grullon *et al.* (2002:387) contribution is consistent with the findings of Fama and French (2001). Specifically, they conclude that systematic risk of dividend-increasing companies declines significantly which in turn results in a decline in the cost of capital by, relatively, the same margin. Grullon *et al.* (2002) concede that the potential for over-investment is high during the company's life cycle, particularly at maturity stage. This means that, at maturity stage the company earns large amounts in free cash flow, and managers may be tempted to invest it even if it is not necessary (overinvestment) so as to maintain or increase resources under their control.

DeAngelo *et al.* (2006:227) study the payout policy together with earned or contributed capital mix so as to test the life cycle hypothesis. Their results are consistent with those of Fama and French (2001), Grullon *et al.* (2002) and Grullon *et al.* (2005). Explicitly, the authors establish that a fraction of listed industrial companies that pay dividends is high



when retained earnings constitute a significant portion of total equity or total assets. They note on the other hand, that the fraction of companies that pay dividends is low or close to zero when large portion of equity is contributed and earned. Brockman and Unlu (2011:1624), Coulton and Ruddock (2011:381) and Banyu and Kahle (2014:364) also discover evidence consistent with dividend life cycle hypothesis, precisely the noticeable relationship between the decision to pay dividends and the proportion of retained earnings to total capital. Banyu and Kahle provide a close analysis of the association between retained earnings as ratio of total assets (RETA) and the propensity to pay dividends. They report that over a very prolonged period (39 years), there is a positive correlation between RETA, profitability, size and propensity to pay dividends, although the relationship weakens over time.

In summary, this section starts by providing an overview of dividend life cycle hypothesis supported by empirical evidence. The free cash flow hypothesis was discussed as inherent in explaining dividend life cycle hypothesis. It appears that there is minimal empirical work, if any, that has been done to test the dividend life cycle hypothesis in an emerging market setting, and thus the need for the current study. A number of variables just above are reported to have a positive relationship with propensity to pay dividends.

### **3.5. POLICIES ON SHARE REPURCHASES**

#### **3.5.1. Overview**

During the 1990s, share repurchases have not only become a dividend alternate in respect of distributing cash to shareholders, but also an integral part of corporate financial strategy (Mitchel & Robinson, 1999:91). As Brav, Graham, Harvey and Michaely (2005:483) argue, repurchases are more flexible, thus some managers prefer them over cash dividends. Share repurchase research has been undertaken for various reasons such as, enhancement of value, change in shareholding and control, administrative and compensation related reasons (Chivaka, Siddle, Bayne, Cairney & Shev, 2009:4). In South Africa, share repurchases were only allowed from mid-1999 onwards. This section reviews global share repurchases trend by discussing among others, the determinants of

share repurchases. Attempts are made to compare the determinants between developed and emerging markets. In addition, the substitution hypothesis in respect of cash dividends and share repurchases are discussed.

### **3.5.2. Determinants of share repurchases – empirical evidence from developed markets**

Vermaelen (1981:139) examines the share price behaviour of companies that repurchase their own shares in the US. He makes a distinction between open market and tender offers. This distinction is done on the premise that share pricing behaviour may be relative between the above-mentioned contexts. In order to explain the share pricing behaviour, a number of reasons for share repurchases are identified and tested for their relevance. Those reasons include the signalling hypothesis, the dividend substitution hypothesis<sup>2</sup>, capital structure adjustment hypothesis<sup>3</sup> and bondholder hypothesis<sup>4</sup>. To test pricing behaviour, Vermaelen (1981) employs the cumulative abnormal returns method and identifies significant support for the signalling hypothesis in respect of tender offers. Specifically, he observes that companies repurchase shares at a premium, to signal positive future earnings.

Wansley, Lane and Sarkar (1989:97) conduct a survey on managers' views on share repurchases, particularly in respect of tender offer premiums. These authors advocate for their research method (the survey), and are also highly critical of other methods used in similar research prior to theirs, notably, the cross-sectional comparisons and event studies. In favour of a survey, they argue that it provides direct evidence from the primary source (in this case, the managers). They, however, acknowledge that a survey has weaknesses such as non-response and sometimes incorrect response bias. Critical of other methods, they believe that methods such as cross-sectional comparisons and event

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<sup>2</sup> The premise that due to historical tax regulations favouring share repurchases, share repurchases may be a preferred alternative to cash dividends (Wansley *et al.* 1989:97).

<sup>3</sup> The proposition that share repurchases may be financed through acquiring debt (Vermaelen, 1981:141).

<sup>4</sup> The proposition that share repurchasing reduces the companies' assets and effectively the value of the bondholders claims (Vermaelen, 1981:141).

studies are confined to indirect evidence and thus do not provide motivational reasons for share repurchases. In addition to reasons tested by Vermaelen (1981:141), Wansley *et al.* (1989:97) provide further reasons, namely, the reissue hypothesis<sup>5</sup>, investment hypothesis<sup>6</sup> and wealth transfer hypothesis<sup>7</sup>. On the premise that repurchase reasons, particularly signalling hypothesis favour tender offer over open market offers, Wansley *et al.* (1989:98) further propose a number of factors that may determine the size of the tender offer premium, namely, dividend substitution hypothesis, the leverage, capital adjustment hypothesis, the price pressure hypothesis, the anti-takeover hypothesis and the signalling hypothesis.

Consistent with Vermaelen's work, they found that managers use share repurchases to signal their confidence in the future prospects of the company.

In another survey, Baker, Powell and Veit (2002:499) confirm signalling hypothesis as key driver of share repurchases. The interviewed managers / respondents also provide additional motivational drivers, namely, the best use of excess cash, boosting share price and earnings per share.

Lie and Lie (1999:534) test whether managers consider situation of shareholders when they decide on the means by which cash is distributed to shareholders. This is carried out by evaluating data samples in respect of identified four distribution forms, namely, self-tender offer, open market offer (both for share repurchases, special dividends and regular dividend increases). A distinction is made among these distribution options on the basis of them being a once-off event or routine events. Thus, self-tender offer and special dividends are compared with each other, as they are both occasional events. Open

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<sup>5</sup> The premise that share repurchase programmes may be used to provide for a number of employee empowering schemes, such as retirement programmes, bonuses and share options (Wansley *et al.* 1989:98).

<sup>6</sup> The proposition that share repurchases may be undertaken to distribute available net cash flow, in cases where the companies do not currently have potential investment opportunities (Wansley *et al.* 1989:98).

<sup>7</sup> The proposition that when shares are undervalued, repurchase transaction may be undertaken to transfer wealth from shareholders wanting to sell their shares to those who would like to buy them (Wansley *et al.* 1989:98).

market repurchases are compared with regular dividend increases, as both events are routine.

The results document tax-related factors (dividend or personal tax hypothesis), as important determinants of payout choice. precisely, it is observed that managers prefer self-tender offers over special dividends, and open market offer over dividend increases. This observation is made in respect of circumstances where cash dividends are taxed relatively higher than capital gains. For example, as Lie and Lie (1999:535) argue that in circumstances where the company's shares have experienced a significant capital gain, share repurchase through tender offer would require the payment of higher capital gains tax. Thus managers, would prefer special dividends or/and regular dividend (dividend increases). Table 3.1 shows the four components of payout choice, in terms of the comparison criteria explained above. Table 3.2 shows the effect of tax on the choice between the two components types of repurchases and their respective traditional dividend counterparts.

**Table 3. 1: Decision matrix for payout choice**

	Frequency of payment	
	Occasional events	Routine events
Dividends	Special dividend	Regular dividends
Share repurchases	Self-tender offer	Open market offer

Source: Lie and Lie (1999:534)

**Table 3. 2: Decision matrix- the effect of tax**

Tax circumstances	Likely payout choice
Share repurchases taxed lower than dividends	<ul style="list-style-type: none"><li>• Self-tender offer preferred over special dividend.</li><li>• Open market offer preferred over regular dividends (dividend increases).</li></ul>
Company recently earned significant (higher) capital gain	<ul style="list-style-type: none"><li>• Special dividend preferred over self-tender offer.</li><li>• Regular dividends (dividend increases) preferred over open market offer.</li></ul>

Adapted from Lie and Lie (1999:534)

In a trend setting investigation, Grullon and Ikenberry (2000:31) contribute to the debate on the drivers of share repurchases. Firstly, they confirm information signalling as key driver in respect of tender offers. They however, caution that this phenomenon may not be generalised in respect of the open market offers, as the empirical evidence does not seem to be clear in respect of these offers. They also lend support for other drivers, namely agency costs of free cash flow, capital reallocation, dividend substitution hypothesis and capital structure adjustment.

Tsetsekos, Kaufman Jr and Gitman (2011:21) provide support for signalling hypothesis as key driver for share repurchases. They also confirm capital structure adjustments and the best use of excess free cash flow. Voss (2012:73) confirms the somewhat less popular driver of repurchasing, namely managerial incentives, thereby stressing that incentives are key factors that influence share repurchase decisions. He achieved this through extensive review of literature of a number of factors, which include signalling hypothesis, substitution hypothesis, cash flow permanence, employee compensation, managerial incentives and the enhancement of value (with the emphasis on earnings per share).

Share repurchase activity may serve as defence mechanism against hostile company takeover. Bagwell (1991:74) develops a model in which he shows that a company can

prevent a hostile takeover by making the potential cost of acquisition unattractively high. As Bagwell argue, the vital element of this defence tactic is to eliminate the shareholders with the lowest reserves, thus leaving the bidder to face those shareholders with high reserves. Dittmar (2000:354) also observes that through repurchase activity, a company may alter its leverage level such that the capital structure makes the company unattractive, thus discouraging the bidder.

Among developed countries, Canada has witnessed considerable cash distribution via repurchases. Li and McNally (2007:66) examine the determinants of share repurchasing in this country. This is achieved by testing five hypotheses identified from related literature, namely, signalling, capital structure adjustment, dividend substitution and agency costs of free cash flow. Li and McNally (2007:67) argue that testing these hypotheses in the Canadian setting is motivated by a number of reasons. Firstly, after the US, Canada has a long history of share repurchase activity. Secondly, Canadian repurchases are more regulated than those of US. Lastly, to use Canadian setting as a platform allowed a comparison with the US experience. The results are consistent with others obtained in the US setting, particularly support for the signalling hypothesis. Furthermore, capital structure adjustments are recognised as motivations for repurchases. Kooli and L'Her (2010:57) provide support for dividend substitution hypothesis in Canada while Baker, Dutta and Saadi (2013:182) do not find support for the dividend substitution hypothesis, but rather for signalling and the use of excess cash hypothesis.

Although share repurchases were legalised in 1981 in the UK, related activities only took off in the 1990s (Rees, 1996:353). Rees was the first researcher to empirically show the share price impact of repurchases in the UK. He reveals a positive reaction of share price to repurchases, on the announcement date. This evidence suggests that the UK corporate situation supports signalling hypothesis as a reason for repurchases. Rau and Vermaelen (2002:292) scrutinise the effect of regulations and taxes on share repurchase activities, also in the UK setting. They document that the tax system in the UK is the key

determinant of share repurchases. In arriving at this conclusion, Rau and Vermaelen (2002:28) observed the following:

- When the tax authorities decided that they were no more assuring that pension funds shareholders would be entitled to tax credit in tender offers, then tender repurchase activity disappeared; and
- Share repurchases had taken off again afterwards when investment bankers developed a somewhat legal means by which pension funds would be entitled to some related tax credit again. When tax authorities changed the rules again, repurchase activity declined.

Oswald and Young (2004:259) re-examine the findings of Rau and Vermaelen (2002). The need for re-examination, as Oswald and Young argue, is because the methodologies used appear to show some sample biases (in respect of the database used, namely, the Securities Data Corporation). As they further argue, although the said database is an established data source for share repurchases in the US, not much is known as to their accuracy in capturing the repurchase activity in the UK setting. Specifically, Oswald and Young then, firstly, obtain the share repurchase data from it for the period 1995 to 2000, and then compare the data of the same period to that of a number of sources, namely, London Stock Exchange Regulatory News Service, The Financial Times and the companies published financial statements. Interestingly, the comparison reveals that there are more than 100 per cent of open market repurchase announcements that were reported by these sources but not by Securities Data Corporation. Eventually, Oswald and Young find that although, applicable regulations seems to discourage open market repurchase activity in respect of undervalued shares, underpricing is observed as a key driver of share repurchases in the UK.

Hackethal and Zdantchouk (2006:124) examine the determinants of share repurchases in another developed country, Germany. They report that German companies undertake share repurchase activities to signal that share prices are undervalued. Recently, Andriosopoulos and Hogue (2013:65) evaluate the determinants of share repurchases of three developed European countries, namely UK, Germany and France. They find that,

firstly, in all these countries, large companies whose shares are widely held and those that pay dividends prefer announcing share repurchases through the open market option. Secondly, that in the UK, excess cash flow seems to be a key determinant of share repurchases. Thirdly, dividends and share repurchases in the UK and Germany seem to be complementary, but they serve as substitutes in France.

Isagawa (2000:96) observes the behaviour of share price in response to open share repurchases in Japan. In his study, he is critical about the assumption that by announcing open share repurchase programme, companies commit themselves to the eventual repurchase execution. He argues, and understandably so, that open repurchases are not binding in their own rights, nonetheless, he provides some support for the signalling hypothesis. Additionally, he supports the investment hypothesis while observing that announcements of open market repurchases reveal some information about private benefits of managers in respect of new investments. This means that, if private benefits are large, managers would invest excess cash in new investments, even if they may not be profitable. On the other hand, if the benefits are small, the investments would instead be made in the form of open market repurchases.

Zhang (2002:288) identify support for signalling hypothesis in the Japanese setting. He however, makes some interesting observations in respect of ownership structures and corporate governance processes in this country. He observes that Japanese companies have long-term stable shareholders, in some cases, cross-shareholding and interlocking directorships. This phenomenon allows for an easier flow of information between managers, directors and shareholders; Hatakeda and Isagawa (2004:288) also find same evidence for the signalling hypothesis.

The Oceanian developed markets also contribute to share repurchase practice. Mitchell and Robinson (1999:91) study motivations for share repurchases in Australia during which they recognised the differences between the applicable regulations in the US and in Australia. They also note that although share repurchases were allowed from 1 November 1989 in Australia, it took more than five years for effective repurchase activities



to take off. Mitchell and Robinson (1999:92) attributed this lack of share repurchase activity to a number of factors, namely, lack of understanding in respect of corporate and market benefits of share repurchases, costs of complying with previous repurchase legislation, presumed share repurchase tax complications from the perspective of the seller of share repurchases, and an intrinsic lack of some flexibility in implementing capital restructuring via share repurchases.

Firstly, they find support for signalling hypothesis showing that managers undertake repurchase activity to signal that shares are undervalued by the market. Secondly, repurchases are undertaken to boost earnings per share and net asset backing per share. Thirdly, selective repurchases are undertaken to remove some shareholder (s) from the share register (which may serve as hostile takeover defence tactics). Lastly, employee repurchases are pursued to reduce the burden on employees whose market share price is significantly lower than their par values, and the affected employees cannot sell their shares on the open market.

Through a survey, Mitchell, Dharmawan and Clarke (2001:93) discover that, enhancing earnings per share and net asset backing per share are motivations for share repurchases in Australia. They observed that approximately five years after the reluctance period (that is, from 1995 onwards), Australian managers have become aware of the potential benefits and the legislative matters of repurchases. Worryingly, as Mitchell *et al.* (2001:93) noted, shareholders seem not to understand or are not favourably placed to understand share repurchase events. Otchere and Ross (2002:528) and Mitchell and Dharmawan (2007:165) also recognise the signalling hypothesis as a key motive for repurchases.

Brown and Norman (2010:768) study managers' motives for the choice between on-market share repurchase and off-market share repurchase. They document that, firstly, managers tend to prefer off-market repurchase when they repurchase larger number of shares and when they have excess credit to distribute to shareholders. Secondly, they note that leverage level seem to also influence the preference of off-market repurchases.

Then, signalling that shares are undervalued is observed to be the reason for choosing open market share repurchases.

Recently, Akyol and Foo (2013:33) and Yarram (2014:269) confirm the superiority of signalling hypothesis over other share repurchase motives in Australia. Yarram (2014:269) also identified capital structure adjustments as a motive for share repurchases.

Koerniadi, Liu and Tourani-Rad (2007:481) investigate the share repurchase reaction to on-market and off-market repurchases. They lend support for investment and signalling hypothesis. As a summary, Table 3.3 presents the reasons for share repurchases in the developed markets as discussed above.

**Table 3. 3: Reasons for share repurchases in the developed markets**

Study	Country	Reasons for share repurchases
Vermaelen (1981)	US	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Wansley <i>et al.</i> (1989)	US	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> <li>• Dividend substitution hypothesis</li> </ul>
Grullon and Ikenberry (2002)	US	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> <li>• Dividend substitute hypothesis</li> <li>• Capital structure adjustments</li> <li>• Wealth transfer</li> </ul>
Baker <i>et al.</i> (2002)	US	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> <li>• Agency costs of free cash flow</li> </ul>
Tsetsekos <i>et al.</i> (2011)	US	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> <li>• Capital structure adjustments</li> <li>• Agency costs of free cash flow</li> </ul>
Voss (2012)	US	<ul style="list-style-type: none"> <li>• Managerial incentives</li> </ul>

Bagwell (1991)	US	<ul style="list-style-type: none"> <li>• Defence tactics in against hostile takeover</li> </ul>
Dittmar (2000)	US	<ul style="list-style-type: none"> <li>• Defence tactics in against hostile takeover</li> </ul>
Li and McNally (2007)	Canada	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> <li>• Capital structure adjustments</li> </ul>
Kooli and L'Her (2010)	Canada	<ul style="list-style-type: none"> <li>• Dividend substitution hypothesis</li> </ul>
Baker <i>et al.</i> (2013)	Canada	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> <li>• Agency costs of free cash flow</li> </ul>
Reed (1996)	UK	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Rau and Vermaelen (2002)	UK	<ul style="list-style-type: none"> <li>• Dividend substitution hypothesis</li> </ul>
Oswald and Young (2004)	UK	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Andriosopoulos and Hogue (2013)	UK	<ul style="list-style-type: none"> <li>• Agency costs of free cash flow</li> </ul>
Hackethal and Zdantchouk (2006)	Germany	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Isagawa (2000)	Japan	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Zhang (2002)	Japan	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> <li>• Investment hypothesis</li> </ul>
Hatakeda and Isagawa (2004)	Japan	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Mitchell and Robinson (1999)	Australia	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> <li>• Earnings per share</li> <li>• Net asset value backing per share</li> <li>• Managerial incentives</li> <li>• Defence tactics against hostile takeover</li> </ul>
Mitchell (2001)	Australia	<ul style="list-style-type: none"> <li>• Earnings per share</li> <li>• Net asset backing per share</li> </ul>
Otchere and Ross (2002)	Australia	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Brown and Norman (2010)	Australia	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Akyol and Foo (2013)	Australia	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Koerniadi <i>et al.</i> (2007)	New Zealand	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>

Source: Author's own summary

### **3.5.3. Determinants of share repurchases – empirical evidence from emerging markets**

Emerging economies' contribution to share repurchase research has been noteworthy, although far less compared to those of developed economies. In South Africa, share repurchase activity and related research followed their legalisation in 1999. Through investigating share price reaction to open market repurchases, Bhana (2007:34) provides support for signalling hypothesis. That is, South African managers use share repurchases to signal that shares are undervalued and that a company's future prospects are promising. Chivaka *et al.* (2009:1) were the first scholars to investigate reasons for share repurchases in South Africa in detail. In fact, their study specifically points out that the vast interest and significance of repurchase activity warrant some considerable research in South Africa. They find three major reasons for share repurchases, namely, enhancement of shareholder value, changes in shareholding and control, and administrative matters.

In respect of enhancing shareholder value, Chivaka *et al.* (2009:26) note with concern that this reason relates to profitability accounting ratios such as, earnings per share, net asset value per share and return on equity. These authors argue that this phenomenon is worrisome as it reflects a departure from the usual finance theory which advocates for value-driven performance measures. They also record that the reasons cited for South African situation theoretically, match those in practice.

Lee, Jung and Thorntorn Jr's (2005:192) research into the long-term share price performance in response to open-market repurchases in Korea. They identify strong support for efficient market hypothesis: that share prices are always generally fairly valued, such that it is unlikely for managers to buy overvalued shares or sellers to sell overvalued shares. This evidence relates to the signalling hypothesis which challenges the information asymmetry concept. The basis of information asymmetry is that managers possess superior information over the outsiders and they use it to their advantage, hence

through share repurchases, managers' signal their confidence in the future prospects of the company.

Isa, Ghani and Lee (2011:42) note that Malaysian managers use share repurchases to signal their confidence in the future prospects of their companies. These researchers argue that Malaysian managers also repurchase shares to stabilise share prices. Dol (2013:36) is very particular in his study (for the Malaysian situation as well), as he evaluates accounting ratios, then deduced motivations for share repurchases. He observes that variables, namely, return on equity, return on assets, earnings per share, market to book value of equity, all show some improvements in the operating performance of companies that repurchase shares. Dol (2013:49) is, however, cautious in interpreting these results as he concludes that the general improvement across a number of these variables seem to be attributed to the decline in their denominator number, for example, the number of shares outstanding.

Huang (2005:41) compares the motivation and effect of signalling via share repurchases between the US and China. He notices that managers in China exhibits fairness, openness and justice in this regard, in particular, that Chinese managers undertake share repurchases for the purpose of signalling their confidence in the future of their company. In a Chinese study, Jiang, Kim and Yang (2013:36) observed that share repurchase and cash dividends serve as substitutes.

Brockman and Chung (2001:418) study the impact of open market repurchases on a company's profitability in Hong Kong. They find evidence to support the signalling hypothesis, support also provided by Zhang (2005:1990) and Firth, Leung and Rui (2010:376) for the same country. In summary, Table 3.4 presents the reasons for share repurchases in a number of emerging markets.

**Table 3. 4: Reasons for share repurchases in emerging markets**

Study	Country	Reasons for share repurchases
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Bhana (2007)	South Africa	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Chivaka <i>et al.</i> (2009)	South Africa	<ul style="list-style-type: none"> <li>• Enhancing shareholder value ( in the form of improving earnings per share, Net asset value per share and return on equity)</li> <li>• Managerial incentives (administrative measures)</li> <li>• Change in shareholding and control</li> </ul>
Lee <i>et al.</i> (2005)	Korea	<ul style="list-style-type: none"> <li>• Advocating for efficient market hypothesis</li> </ul>
Isa <i>et al.</i> (2011)	Malaysia	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Dol (2013)	Malaysia	<ul style="list-style-type: none"> <li>• Enhancing shareholder value (in the form of improving return on assets, return on equity, earnings per share and market to book value of equity.</li> </ul>
Huang (2005)	China	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Jiang <i>et al.</i> (2013)	China	<ul style="list-style-type: none"> <li>• Dividend substitution hypothesis</li> </ul>
Brockman and Chung (2001)	Hong Kong	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Zhang (2005)	Hong Kong	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>
Firth <i>et al.</i> (2010)	Hong Kong	<ul style="list-style-type: none"> <li>• Signalling hypothesis</li> </ul>

Source: Author's own summary

To conclude: the reasons for share repurchases as prevailing in the emerging markets are consistent with those of the developed markets. By comparing Tables 3.3 and 3.4 it is noticeable that not much research has been done in the emerging markets compared to developed markets. For example, a number of reasons have been cited for developed markets, namely, capital structure adjustments, agency cost of free cash flow and defence tactic against hostile takeovers but not for emerging markets, indicating the need for further research in this area on the emerging markets. Such research should seek to explore the mismatch in the determinants of share repurchases between developed and emerging markets as the recognition of share repurchases between the two markets may

be different. The next section elaborates on this issue, while also investigating whether flexibility inherent in share repurchases plays a role in this regard.

#### **3.5.4. Further empirical evidence on the choice between cash dividends and share repurchases**

Share repurchases have become a highly regarded cash distribution component, the same way as the traditional dividend payments. In fact, they seem to serve both a complementary and substitute roles to cash dividends. This suggests that share repurchases have become an effective means through which companies can maximise shareholders' wealth. The popularity and growth in repurchase activity have been attributed to their flexibility (Brav *et al.* 2005:483). This section contributes to the share repurchase debate by discussing whether dividends have become substitutes for share repurchases or the two complement each other in terms of perceived flexibility.

Jagannathan, Stephens and Weisbach (2000:356) research into companies' decisions to distribute cash flows, and also reasons for the choice between cash dividends and share repurchases in the US. They recognise the growing repurchase activities and that repurchases are more volatile than cash dividends. This phenomenon is interpreted as suggesting that dividends are paid from sustainable cash flow, whereas repurchases are made from temporary cash flow. They also note that repurchases are complements to dividends, not substitutes. Lastly, they interpret their results as confirming the flexibility inherent in share repurchases. Guay and Harford (2000:412) give full support for the above findings as they conclude that companies increase dividends to distribute permanent cash flow shocks, while repurchases are for the distribution of transitory shocks and that share repurchases are flexible. Through a survey methodology, Brav *et al.* (2005:485) also scrutinise, among others, the choice between dividends and repurchases, as well as the flexibility of the latter. They confirmed repurchases' flexibility, as this method of distribution help managers to time the market thereby responding to share under or over valuation. Of importance to note here is that the interviewed executives believed that cash dividends are enticing to individuals, but that institutional

shareholders seem indifferent to how cash should be distributed to them (that is, whether as cash dividends or share repurchases).

Some increase in share repurchases has been occurring at the expense of a decrease in dividends. Grullon and Michaely (2002:1650) examine a number of issues in respect of dividends and repurchases, namely, the trend repurchases and substitution hypothesis and also the motives for companies not substituting for repurchases earlier. They note that, firstly, in the 15 year period preceding their report, cash distribution to shareholders was initiated more through repurchases than cash dividends. Secondly, the rate of growth in dividends is observed as being significantly lower than before, while companies' spending on repurchases are shown to have increased since mid-1980s. Thirdly, that companies finance their repurchase programmes through funds that would otherwise be used to finance cash dividends and that large and more mature companies only use part of this financial option.

These results suggest that dividends can be substitutes for share repurchases. On the basis of the fact that tax effect may not explain the reason for substitute hypothesis up to the acceptable level, it appears that repurchases could explain this phenomenon better. Lastly, the reason why companies did not substitute repurchases for dividends earlier is that, as Grullon and Michaely (2002:1652) argue, companies "were simply wrong for paying so much in dividends".

Another reason is that companies in the US (because the US is the only country which allowed repurchases before mid-1980s), were sceptical about repurchasing shares as they did not want to risk violating the provisions of the Security Exchange Act of 1934. In another study, Skinner (2008:583) examines the relationship between earnings, share repurchases and cash dividends. His study identifies three groups of companies in respect of distribution policy which emerged after 1980, namely, a small group that pays dividends and makes repurchases, another small group that does not pay dividends but makes repurchases, and large group that occasionally makes repurchases.



In respect of the first group, he finds that the companies continue to pay dividends because of their history, that is, they somehow feel obliged to do so. He also observed that much of the companies' earnings are absorbed by repurchases rather than by dividends, thus explaining substitution hypothesis and that repurchases adjust quicker to earnings than dividends do. For the second and third groups, there was no significant history of paying dividends, hence for these companies, paying dividends was no longer economically important (Skinner, 2008:583). Consistent with selected previous research, Skinner notes that although dividends have become substitutes for repurchases, not all repurchases serve this purpose. He concludes by suggesting that repurchases have, however, become a dominant distribution policy option. Recently, some studies have confirmed the recognition of the flexibility concept in respect of repurchases. Bonaimé, Hankins and Harford (2014:1099) report that more flexible distribution favours repurchases. Rapp, Schmid and Urban (2014:289) find that companies for which shareholders advocate for flexibility pay lower dividends and prefer repurchases. This finding is also consistent with substitution hypothesis.

In summary, there is considerable empirical support globally that share repurchases have, to a certain extent, become a preferred cash distribution option for shareholders. There is also an overwhelming assertion for the inherent flexibility of share repurchases. There is evidence that share repurchases serve both substitute and complementary roles to cash dividends. This section thus confirms the need to study the extent to which share repurchases are used as means to distribute cash (payout flexibility<sup>8</sup>) as well as factors that determine this flexibility, as there is minimal research that has been done in this regard. The choice of an emerging market setting would further enhances the value of this research.

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<sup>8</sup> Bonaimé *et al.* (2014:1082) define payout flexibility as a ratio of the value of share repurchases to total payout.

### **3.6. SUMMARY**

The purpose of this chapter was to review empirical studies on major payout decisions and share repurchases. The review was done through examining, among others theories, dividends relevance, dividends irrelevance, agency theory, residual theories, catering theory, signalling theory and life cycle hypothesis and the global practice of share repurchases. Among these theories, dividend relevance (pioneered by Lintner in 1956) and dividend life cycle hypothesis (pioneered by Jensen in 1986) were reviewed extensively in line with the problem statement, section 1.2 and specific objectives, section 1.3, both of chapter 1. Share repurchases were also explored and discussed particularly their role in maximising value for shareholders. Share repurchase as payout option was confirmed as serving both the roles of alternating with and complementary to cash dividends.

The next chapter explores these issues further, particularly a review of selected specific aspects related to payout decisions, namely financial flexibility, corporate cash holdings, capital structure and shareholder value.

## **CHAPTER 4: DISTRIBUTION POLICY, COMPANY SPECIFIC DECISIONS AND SHAREHOLDER VALUE**

### **4.1. OVERVIEW**

The purpose of this chapter is to further review the payout policy through discussing selected specific matters and shareholder value. The previous chapter discussed, among other matters, the speed of adjustment of the dividend relevance payout policy, the dividend life cycle hypothesis and share repurchases as an alternative or complementary to cash dividends. The review in this chapter will also focus on the speed of adjustment, other payout decisions and payout flexibility as being influenced by some specific variables.

As part of conducting the overview, the chapter, firstly, will explore broadly the concept of payout flexibility as discussed in section 3.5, and the notion of 'financial flexibility'. The chapter, secondly, will discuss the concept of corporate cash holding, its determinants and impact on payout policy (section 4.2). Thirdly, the chapter will give concise details on financial flexibility and capital structure so as to provide a context for the current research (section 4.3 and section 4.4). Fourthly, the chapter discusses the shareholder value created as it relates to payout decisions (section 4.5). Lastly, the chapter gives a critical comment on the distinction between value and growth companies (section 4.6). Then the chapter closes with a summary (section 4.7).

Financial flexibility refers to a company's ability to respond to unexpected changes in its cash flows and investment needs, timeously and in a manner which maximises shareholder value (Denis, 2011:667). A company achieves financial flexibility through its own cash holding policy and access to external finance. This phenomenon is consistent with the argument of Keynes (1936, cited in Almaeida, Campello & Weisbach, 2004:177) as they stress that the importance of a liquid balance sheet is influenced by the extent to which the company has access to external finance. Denis (2011:668) lends support to

this argument as he proposes a model in recognition of costly external finance and the importance of financial flexibility.

Although the past few decades have witnessed a considerable research on financial flexibility, it is not a new concept, particularly in relation to corporate finance. To confirm this, Keynes (1936 in Almaeida *et al.*, 2004:1777) proposes that a liquid balance sheet is advantageous in that it allows a company to respond to investment needs timeously, when they arise. A few decades later, Fazzari, Hubbard and Peterson (1988:142) also propose that, in respect of financially constrained companies, investment spending depends on the available internal funds rather than identified investment opportunities. Graham and Harvey (2001:189) suggest that financial flexibility is one of the most important determinants of debt policy.

Central to financial flexibility is the company's ability to conserve cash. It is common knowledge that a company should keep a certain level of cash so as to operate optimally, although there is empirical evidence for both advantages and disadvantages of holding large cash. Jensen (1986:329) documents that managers may be inclined to invest free cash flow in value reducing investments. He thus, proposes that free cash may be distributed as dividends in order to reduce the agency costs of free cash flow. DeAngelo and DeAngelo (2007:24) conclude that managers need to distribute the present value of free cash flow as dividends in order to work towards maximisation of shareholders' value.

The literature also explores the effect of financing constraints on investment and cash flows. Fazzari *et al.* (1988:142) propose that in light of the view that external finance is costly, investment opportunities are sensitive to current internal cash flow (thus, the cash flow sensitivity of investment). Alternatively, Almaeida *et al.* (2004:1778) propose that in recognition of costly external finance, financially constrained companies should show propensity to save cash from current cash flow in order to respond to future investment needs in a value-adding manner (thus, the cash flow sensitivity of cash).

The concept of financial flexibility extends to corporate distribution policy. Brav *et al.* (2005:483) observe that share repurchases have become popular, as they provide managers with some operational flexibility in respect of payout policy. That is, how much should be distributed and when.

Following the above context, this chapter discusses, firstly, the determinants of corporate cash holdings since it is being proposed that a company's level of cash holdings has an impact on the payout policy and the speed of target dividend adjustment. Secondly, the extent of financial flexibility as determinant of capital structure is also deliberated upon as it is observed that among the three major functional areas of corporate finance, namely capital structure, investment decisions and dividend decisions, more significant empirical studies have been done on the relationship between financial flexibility and capital structure, than between financial flexibility and other functional areas. Thus with the long-standing relationship between capital structure and dividends decisions, a discussion, therefore of the relationship between financial flexibility and capital structure should provide a good platform to relate financial flexibility and distribution policy. Thirdly, the role of distribution policy in providing flexibility is explored with a section on shareholder value and payout policy concluding the chapter.

#### **4.2. DETERMINANTS OF CORPORATE CASH HOLDINGS AND PAYOUT POLICY**

On the premise that external finance is costly, companies, particularly those that are financially constrained, have to show some propensity to save cash from current cash flow to take advantage of future investment opportunities which may arise, thus, pay less dividends. Jensen (1986:329) documents that this may not always be the case, hence he asserts that holding large cash brings with it agency costs of free cash flow as managers may be inclined to invest in low-return investments. This is possible, particularly if by so doing, they stand to gain individually or collectively as managers. This argument suggests that agency considerations, particularly, free cash flow is a main determinant of cash holdings.

Harford (1999:1970) examines whether excess cash entices managers into investing in value-reducing investments. His study, although a follow-up to that of Jensen (1986), also extends it by focusing on acquisitions by cash-rich companies. Harford argues that the choice of cash-rich companies is based on the premise that large cash brings with it agency problems. Studying cash-rich companies and agency problems together, thus, provides a relevant context to explore the holding and use of cash. Harford then finds that cash-rich companies behave in accordance with the predictions of the free cash flow hypothesis, specifically, that these companies' bid for acquisitions, controls the share price performance and revenue growth. Harford further argues that the behaviour of these companies (through their acquisition bid announcements) results in a negative reaction in the form of abnormal share price, with the target companies unlikely to attract other bidders. Lastly, the operating performance of the bidder/target combination group (after successful bid) seems to decline. This evidence points directly to the predictions from Jenkins' (1986) study, that entrenched managers have a tendency of investing excess cash in value-reducing investments.

Dittmar, Mahrt-Smith and Servaes (2003:112) examine data of more than 11 000 companies in over 45 countries, to ascertain the role of corporate governance cash holdings. The authors argue that the decision to study international data in their project was based upon the recognition of possible considerable variation in agency costs of equity among countries. Furthermore, the recognition of differences in the capital markets among countries allows for the disclosure of relevant trends in different countries. Dittmar *et al.* (2003) then document that companies in countries with a high level of shareholder protection hold less cash and vice versa for countries with low protection of shareholders. This means that in regimes that provide environment for high protection of shareholders, shareholders may force companies to dispense cash. This is consistent with agency costs of free cash flow.

Dittmar and Mahrt-Smith (2007:600) extend the argument of Jensen (1986) by focusing on cash reserves to examine the effect of corporate governance on the value of cash holding by concentrating on the use of cash rather than the cash holdings. Consistent

with free cash flow hypothesis, they find that poorly managed companies waste cash resources thus reducing shareholders' value. In respect of value of cash, they document that well-managed companies preserve their resources well. Kalcheva and Lins (2007:1109) provide support for free cash flow hypothesis (that is, agency costs as determinant of cash holdings), as they explain that weak shareholder protection, a combination of managerial establishment and reluctance to pay cash as dividends, negatively, affect value. Similarly, Harford, Mansi and Maxwell (2008:537) examine how governance structures affect the use of cash; their findings were consistent with previous ones, that weaker governance structures combined with holding excess cash negatively impact on shareholders' value.

In their study on whether the policy of holding persistent large cash hinders company's performance, Mikkelsen and Partch (2003:276) recognise that holding large cash, in some instances coupled with weak governance structures, impact negatively on share value. Companies with large cash, however grow faster, spend money on good investments, and have better market to book value of assets ratios. The researchers did not find evidence which link large cash companies with some oversight of managers as against related studies which focus on the cash balances at a particular point in time, and relate them to managers-shareholders conflicts. Mikkelsen and Partch (2003), therefore recognise the need to observe the policy of persistent holding of cash over a period of time, rather than simply looking at a particular point in time.

In another study, Tong (2011:741) studies the effect of company diversification on the value of corporate cash holdings. Tong recognises the presence of agency problems in diversified companies, in that investment decisions in these companies focus on variety of issues among divisions. Rajan, Servaes and Zingales (2000:76) also argue that internal capital funds in diversified companies are allocated across investment opportunities among divisions, resulting in possible misallocations (allocating too high (too low) funds to low (high) investment opportunities, respectively). Consistent with the free cash hypothesis, Tong concludes that company diversification reduces the value of corporate cash holdings.

In addition to agency problems, empirical evidence identifies a number of other factors that affect corporate cash holdings. Opler, Pinkowitz, Stulz and Williamson (1999:3) examine the determinants and implications of corporate cash holdings. They recognise the trade-off assumptions<sup>9</sup> between the cost and benefits of holding cash and find that companies with strong investment opportunities and those with riskier operations hold more cash. Furthermore, they report that companies that have maximum access to capital markets, namely, large companies and those with good credit ratings hold less cash. Then, beyond the predictions of trade-off theory, the authors observe that companies that perform well still hold high levels of cash, but produce limited evidence in support of the view that excess cash prompts managers to invest substantially on investments or/and acquisitions; this was interpreted by them as a precautionary motive for holding cash.

Bates, Kahle and Stulz (2009:2019) also find support for precautionary motive for holding cash, although they acknowledge that due to holding large cash, their findings may be interpreted as suggesting agency problems, but they do not find evidence that agency problems contribute to their aggregate findings.

Ozkan and Ozkan (2004:2103) also probe into the determinants of corporate cash holdings and discover that companies' growth opportunities, cash flows, leverage and liquid assets are influential determinants of cash holdings.

Denis and Sibilkov (2009:2) question why financially constrained companies hold more cash and some hold less cash. They document that greater cash holdings are associated with higher levels of investments by constrained companies with high hedging needs. Furthermore, that there seems to be a significantly stronger association between investment and value for cash in financially constrained than unconstrained companies. They interpret these results as being consistent with a view that holding large cash,

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<sup>9</sup> The presumption that the optimal capital structure exists for companies to maximise value. Thus, the companies will choose a debt/equity combination that allows for a favourable balance between debt benefits and other costs, namely, distress costs and agency costs (De Wet, 2006:4).



particularly by financially constrained companies enable these companies to respond to investment needs while recognising the effect of costly external finance. The researchers note that some financially constrained companies hold little cash. They link this phenomenon to the cash flow problems, showing that financially constrained companies exhibit low cash holdings due to possible persistent cash flow problems.

Subramaniam, Tang, Yue and Zhou (2011:761) attempt to establish the effect of company's governance structure on corporate cash holdings and find that holding low cash by a diversified company can be attributed to complementary growth opportunities across various company divisions and the availability of dynamic internal capital markets. In a study on company characteristics that might affect cash holdings in emerging markets' setting, Uyar and Kuzey (2014:1035) determine that previous year cash holdings serve as determinant of current year cash holdings, thus suggesting the use of target cash flows levels. Furthermore, they identify cash flow and investment opportunities as determinants of cash holdings, although capital expenditure, assets liquidity, debt ratios and leverage significantly and negatively impact on cash holding.

Foley, Hartzell, Titman and Twite's (2007:580) work on the effect of repatriation tax on cash holdings with a focus on international companies (with foreign operations). They choose the US setting apparently as it has some noteworthy trend to report in this regard. The authors also note that the US tax regime generally taxes foreign operations' income earned abroad when it is transferred to the local parent company or group. When this happens, some tax credit is granted in respect of taxes already paid on the same income abroad. This repatriation tax thus forces company to hold cash abroad until such time when attractive investment opportunities are identified, otherwise, cash will be held further. Foley *et al.* (2007) explain that companies whose income would attract large tax costs if repatriated, have higher combined cash holdings and the burden of repatriation tax increases cash held abroad. As they note further, the burden of repatriation tax has since been significantly reduced to a tax rate of 5.25 per cent (from 35) made possible through the introduction of American Job Creation Act of 2004, which is designed to boost economic growth through local investments and job growth. This relaxation of in the Act

allows for improved repatriation of foreign income, although Foley *et al.* (2007) conclude that it is still early to tell if this Act would have the intended effects.

In a political setting, Caprio, Faccio and McConnell (2011:333) attempt to determine whether threats of political interference, through assets extraction affect corporate cash holdings. They find that companies operating in countries, where there is a likelihood of political extraction invest more and pay higher dividends, showing that companies deliberately alter the structure of the assets such that they avoid or minimise losses associated with political extraction. Caprio *et al.* (2011) likewise note that the threat of political extraction and associated companies' deliberations therefore result in companies operating less efficiently than at their normal level.

In summary, empirical evidence above confirms agency costs of free cash flow as key determinant of corporate cash flow holdings. The prevalence of agency costs of free cash flow in this regard extends to corporate investments in the form of acquisitions, protection of shareholders (particularly minorities), and the diversified companies. A closer look at this evidence suggests that the severity of agency costs of free cash flow, weaker corporate governance structures and investment decisions in diversified companies have a negative impact on shareholders' value while in contrast, holding large cash for precautionary motives is reported as an important determinant. Opler *et al.* (1999:3) conclude that companies with strong growth opportunities and those with riskier operating cash flows hold larger cash.

Foley *et al.* (2007:580) identify tax effect to be an influential determinant on decisions to repatriate income from foreign operations due to the costly repatriation tax involved, when transferring income from foreign operations, which may cause some companies to rather keep cash abroad. Lastly, the threat of political interference in the form of extraction of assets is also identified as a determinant of corporate cash holdings. A closer look at the empirical evidence reviewed here suggests that there is a link between a company's level of cash and payout policy. Empirical work in this area is minimal, thus, the current research seeks to explore this gap by testing the level of cash holding as impacting on

payout policy and the speed of target dividend adjustment, with positive relationship expected.

### **4.3. FINANCIAL FLEXIBILITY AND CAPITAL STRUCTURE**

Thus far the role of corporate cash holdings in corporate finance, particularly in providing financial flexibility has been emphasised. As indicated above, financial flexibility is achieved through corporate cash holdings and access to external finance. This suggests the importance of financial flexibility as a key determinant of corporate financing policy. Graham and Harvey (2001:232) identify financial flexibility and credit ratings as determinants of company capital structure noting that companies value financial flexibility and credit ratings when raising debt finance and are concerned about the increase in share price, earnings per share dilution when issuing new shares.

Sufi (2009:1057) investigates the use of revolving credit facilities to enhance corporate liquidity management and came out with the point that revolving credit facilities are a viable substitute for cash, particularly for companies that exhibit high cash flows. The point then is that companies with low cash flow seem to have limited access to revolving credit facilities. Sufi additionally notes that companies need to maintain a certain level of cash flow in order to comply with credit covenants, otherwise access to future credit will be limited or denied.

Lins, Servaes and Tufano's (2010:160) answer to the question whether companies use revolving credit lines and cash holdings to hedge for the same risks, and suggest that non-operating cash is held as an insurance against possible poor cash flows that may be encountered. On the other hand, they observe that revolving credit lines are employed when anticipated future investment needs are high and managers are of the view that shares are undervalued. The revolving credit lines are also found to be key source of liquidity for most companies around the world although the authors also note that revolving credit lines tend to be larger when country's credit markets are less developed.

In a survey of empirical evidence, Demiroglu and James (2011:781) offer a support for the above arguments indicating that revolving credit lines are an imperfect substitute for cash in respect of corporate liquidity management.

Marchica and Mura (2010:1339) research into the interaction among financial flexibility, investment decisions and company value. In recognition of financial constraints on external finance they hypothesise that companies that anticipate good future investment opportunities should conserve some debt capacity, so as to respond to investment needs in a value-maximising manner. They find robust support for their hypothesis that after a period which exhibits a conserved debt capacity, financially flexible companies seem to invest more. Confirming the significance of financial flexibility, they observe that companies they classify as 'financially flexible' tend to perform above-market averages and even in operating performance in subsequent years.

DeAngelo, DeAngelo and Whited (2011:235) in their contribution to the debate on the use of spare debt capacity to respond to investment needs suggest that companies temporarily deviate from their leverage targets by raising more debt to respond to investment needs. As a noteworthy observation, they acknowledge the role and effect of the transitory debt on both leverage and investment decisions, pointing out that the deviation to a more geared financing level reduces the availability of debt capacity to use to raise debt in future. Denis and McKeon (2012:1926) lend support to the use of reserve debt capacity to respond to investment needs documenting that through raising more debt, a company experiences a large leverage increase away from its long-term leverage targets. de Jong, Verbeek and Verwijmeren (2012:243) identify some support for the need for financial flexibility in shaping the capital structure. They report that financial flexibility has a key role to play on a company's future investment needs, however also cautiously acknowledge that other variables (beyond financial flexibility), may also explain why companies have less leverage than it is expected in respect of the trade-off between tax shield and bankruptcy costs.

Recently, Rapp, Schmid and Urban (2014:288) and Arslan-Ayaydin, Florackis and Ozkan (2014:211) report consistent results on the role of financial flexibility on corporate finance. Rapp *et al.*, (2014) document that companies whose shareholders show high regard for financial flexibility have lower leverage and also show some propensity to accumulate cash. Arslan-Ayaydin *et al.* (2014) observe that companies that were financially flexible prior to the Asian financial crisis in the 1997-1998 period, are able to invest more, rely significantly less on internal financing and perform better than the less financially flexible companies while also noting that financial flexibility is achieved mainly through conservative leverage policy and then, by holding large cash. They conclude that the value of financial flexibility is country/region specific, hence driven by macroeconomic policies adopted by the different countries/regions and the legal environments within which companies operate.

In summary, the discussions show revolving credit lines as playing a key role in providing financial flexibility as they are used all over the world to provide flexibility in respect of liquidity management. Their role includes that of substituting for cash, therefore their flexibility has been reported as being very prevalent, thus that it allows companies to deviate, temporarily, from their long-term leverage targets, in order to respond to investment needs.

#### **4.4. FINANCIAL FLEXIBILITY AND PAYOUT POLICY**

Financial flexibility extends to corporate payout policy. A company has a choice of using cash flow generated in excess of the current investment opportunities as distribution to shareholders or retain cash for future investment needs (Denis, 2011:672). As discussed above, in view of costly external finance, companies have an incentive to hold large cash, which results in low dividend payout. This is particularly the case for financially constrained companies (that is those which probably have limited access to external finance), as they have to retain cash so as to respond to future investment needs in a value-maximising manner. On the other hand, holding large cash brings with it the agency

costs of free cash flow, as managers have an incentive to invest in low value-adding investment opportunities.

The concept of financial flexibility has been debated in respect of cash distribution through dividends and share repurchases. There is evidence that managers are reluctant to cut dividends, therefore when faced with excess cash, they opt for share repurchases rather than increasing dividends, as raising dividends commits companies to future obligations, in the form of higher dividends.

Jagannathan *et al.* (2000:356) scrutinise the decisions by companies to distribute cash flow between cash dividends and share repurchases. To achieve their objectives, their first hypothesis is that cash dividends represent an on-going commitment by a company, thus they should be used to distribute permanent cash flow, while share repurchases are used to pay out temporary free cash flows and the second is that share repurchases provide financial flexibility in respect of payout choice, in that they do not commit the company to future distributions. These hypotheses are supported as the researchers show dividends are paid by companies with high permanent cash flow, while share repurchases are made by companies with high temporary non-operating cash flows.

Consistent with this, Brav *et al.* (2005:520) later report that companies that consider increasing or initiating dividends are those with stable and sustainable increase in earnings. Additionally, that repurchases allow managers some flexibility to respond in a value-maximising manner to a number of issues, namely, investment opportunities, boosting earnings per share and share price, or simply to return capital to shareholders. Denis and Osobov (2008:80) also lend support to the notion of financial flexibility by documenting that dividends are initiated and paid by large and more profitable companies.

Bonaimé, Hankins and Harford (2014:1075) research into the relationship between payout decisions and risk management enable them to relate payout choices and to reach a decision that a more flexible distribution choice favours share repurchases over

dividends. In conclusion, they document that both the payout decisions and risk management contribute to financial flexibility and furthermore serve as substitutes. Recently, Rapp *et al.* (2014:288) confirm the preference of share repurchases over dividends, due to flexibility considerations which is in contrast to the point of Opler *et al.* (1999) that when excess cash increases, so does the dividends to shareholders and that increase in excess cash results in low dividend payout.

In summary, this section has shown that in order to provide flexibility in respect of distribution choice, two options awaits the company, namely, cash dividends and share repurchases. When faced with excess cash from increase in earnings, increasing cash dividend option is chosen, provided there is evidence that earnings increases are stable and sustainable. Share repurchases are typically chosen when managers do not want to commit to future increased dividends or where a company earns excess cash from volatile earnings. This section has further deliberated on the complementary nature of share repurchases to cash dividends as discussed in section 3.5 above showing the need to test empirically the extent to which share repurchases are used as payout choice in the South African case. The next chapter discusses the financial performance measures particularly the creation of value, in relation to payout decisions.

## **4.5. MANAGING SHAREHOLDER VALUE**

### **4.5.1. Overview**

Modern corporate finance recognises the quest for shareholder value as a key component of company's strategic and operational decisions. It is argued that the main objective of a company is to maximise shareholder's value which starts with financial performance (Atrill, 2012:450). It is also argued that corporate financial performance should be measured in terms of value created for shareholders and that this should be a long-term process (Atrill, 2012:450).

There has been a criticism of this business objective for its focus on shareholder value, but not all stakeholders. Barsky, Hussein and Jablonsky (1999:602) argue that this may lead to exploitation of other company stakeholders. Kumar and Sharma (2011:105) however argue that this approach also results in the catering for the needs of other stakeholders as well, that is, the stakeholder maximisation..

Corporate financial performance in the form of value created may be measured through the use of traditional accounting metrics. Lately, value based performance measures seem to have gained some superiority in this regard, thus, this section examines the role of value based performance measures in creating shareholders' value, and their perceived superiority over traditional measures. The discussion also attempts to relate value based performance measures with corporate distribution policy.

#### **4.5.2. The value-based performance measures in creating value and distribution policy**

The value-based performance measures gained momentum with the introduction of EVA by Stern Stewart Consulting Services in 1991. This development was a response to the gap that had been identified in corporate finance about criticism of the traditional performance measures that traditional performance measures seem to be unreliable as measures of financial performance. It is widely accepted that traditional measures are short-term oriented, ignore risk and capital invested, and are also influenced by accounting policies adopted (De Wet, 2012:63). To overcome these weaknesses, appropriate measures are needed such as the NPV analysis which has all the attributes required in this regard. The NPV analysis simply discounts the future cash flows generated by the asset over its useful life; a negative NPV indicates that the cash flows generated by the asset do not meet the minimum required rate of return (Atrill, 2012:453). For a business to create value for shareholders, it should invest in a positive NPV.

The EVA builds on the NPV analysis as it is a modernised version of residual income which simply determines whether the returns generated exceed the returns required by



shareholders. A positive EVA indicates that the shareholder value has been created, by a given figure. To complement EVA, the market value added (MVA) was also developed by Stern Stewart Consulting services to motivate managers so that they are able to track changes on the shareholder value created, over time (Atrill, 2012:471). The MVA is the difference between the company's total market value (comprises of loan capital and share capital), and total capital invested in the business (Hall, 1999:129). The other value-based measure is the total shareholder return (TSR) which is used by shareholders to assess the value created for them. It comprises of dividends distributed in a period and an increase or decrease in share price during the same period.

There is considerable literature on the use of these performance measures. Chen and Dodd (1997:321) investigate the claimed perfect correlation between EVA and share return, as well as EVA's superiority over accounting profits in respect of their relation with share returns. They, firstly, support the fact that indeed maximising EVA is associated with higher share returns. They however note that this association is not as strong as argued by EVA advocates. They thus caution managers about unrealistic expectations when implementing EVA. Secondly, they nonetheless, document that EVA provides more meaningful information than traditional accounting measure, although they caution that EVA should not completely replace traditional measures; rather the two sets of measures should be used together.

Attesting to the effectiveness of EVA, Lehn and Makhija (1997:97) agree that EVA and MVA are significantly and positively correlated with share returns. Through the relative information content tests, Chmelíková (2008:49) asserts that although the information content tests regard EVA as superior over traditional measures, both sets of measures are effective in creating shareholder value.

Hall (1999:124) investigates the performance measures that correlate best with the creation of shareholder value. He explicitly distinguishes between the internal measures (being the EVA) and the external measure (being the MVA), as they are used by managers and shareholders, respectively to assess the value created. The scope of this

study also includes the comparisons of value based measures with traditional accounting measures. Hall (1999) finds extensive support for existing literature about value based measures versus accounting measures in respect of shareholder value created.

Specifically, he documents that there is a strong positive correlation between the company's discounted EVA and MVA which also exists between nominal EVA and MVA. A positive correlation is also established between traditional accounting measures and MVA; a concept interpreted as showing that shareholders and the market regard accounting measures as important indicators of shareholder value created as well. The study also lends support to the effect of increasing a company's EVA in order to enhance the shareholder value created. Worthington and West (2004:201) evaluate the information content of EVA in the Australian setting thereby confirming the superiority of EVA over other measures, namely, residual value, earnings and net cash flow.

There is, however a section of empirical work that questions the claimed superiority of value-based measures over traditional measures. Biddle, Bowen and Wallace (1999:69) indicate that the introduction of EVA and other value based measures is regarded as one of the most significant managerial development in respect of shareholder value. Like other similar studies, Biddle *et al.* (1999) investigate, firstly, the claim that EVA better explains the share returns than traditional accounting measures, and secondly, that it motivates managers to increase shareholder value. Their results testify that earnings generally outperform EVA in explaining relevant information regarding share performance to market participants. They suggest two possible reasons for this phenomenon, namely, adjustments to accounting earnings when calculating net operating profits seem to undo some very informative accounting accruals embodied in earnings and EVA seems to contain little information beyond that which is contained in earnings. Furthermore, some evidence is documented in respect of perceived notion that adopting EVA motivates managers better. That is because companies that adopt EVA tend to improve operating efficiency by increasing asset turnover, dispose of some assets, provided these assets where not adding any value and repurchase more shares, so as to distribute excess cash reserves to shareholders.

Turvey, Lake, Duren and Sparling (2000:399) examine the relationship between EVA and share performance in the Canadian food sector. They report that there is no evidence that link EVA and share performance. The authors acknowledge that their findings are surprising, particularly when one considers the volume of empirical evidence that links EVA and share performance. They suggest that a key reason may be that EVA is based on book value asset and worth of asset, whereas share prices are influenced by cash flows and future growth prospects (Turvey *et al.*, 2000:415).

Consistent with Biddle *et al.* (1999) in an emerging market setting, Kyriazis and Anastassis (2007:72) conclude that traditional accounting measures correlate more with share returns than EVA and that major components of EVA, namely, capital charge and other adjustments proposed by Stern Stewart Consulting services do not seem to provide significant incremental information content, and thus do not add any value to the relevance of EVA as a performance measure.

In a South African study, Erasmus (2008:70) evaluates the information content of nominal and adjusted EVA and also compares them with other measures, in an emerging market situation. His results are consistent with the notion that inflation-adjusted EVA does not outperform accounting earnings in explaining variation in market-adjusted share returns. Through this argument, Erasmus is simply indicating that adjustments to accounting earnings and also on EVA do not add any significant incremental information content. He however cautions generalisation of these results across other sectors, as his study focuses on industrial companies only.

In another emerging market setting, Kumar and Sharma (2011:105) investigate the superiority of EVA over a number of traditional accounting measures. They find that net operating profit after tax (NOPAT) and cash flow from operations outperform EVA in explaining variation in share performance. Furthermore, the incremental information content reveals that EVA has no significant effect on the market value of the sampled companies.

As highlighted above, another pertinent value based measure of shareholder value is TSR. It is common knowledge that shareholders expect returns on their investments which may take the form of dividends or/and secondarily, increase in share price. TSR is able to provide both these components as it can serve as complementary to EVA and MVA, particularly through its inclusion of dividend distributed during the period. As Crowther, Davis and Cooper (1998:12) argue, dividend returns are a key source of wealth creation for shareholders. They further suggest that it is necessary to compare MVA and TSR, as the former although important, does not provide information in respect of dividends distributed.

In agreement, De Mortanges and Van Riel (2003:523) claim that shareholders regard TSR as the most important measure of corporate performance. They also suggest that the components of TSR, namely, dividend distributed and share price depend on the company's ability to consistently generate surplus cash. On the other hand, Stewart (2014:47) seems to challenge TSR in that he notes that it does not provide much in respect of returns beyond dividend yield and percentage change in share price. He concludes that through NPV analysis, TSR is a function of EVA and MVA, and also advocates for more empirical work on the factors that influencing.

In summary, the evidence suggests that both value-based measures and traditional measures are important sets of performance metrics in explaining shareholder value. It appears that there is relatively similar evidence from developed and emerging markets in this regard. Among the value based measures, TSR was commended for its key role in providing total returns on investment. Some variables were identified as determinants of TSR, namely, company's level of cash holdings, EVA and MVA. TSR consists of dividends distributed and capital gains, thus EVA and MVA have an impact on both the company's payout policy and the speed of target dividend adjustment. There is minimal empirical work that explores the impact of value based measures of performance on the distribution policy and hence another focus area of the current study. In line with discussion outlined in this section, a positive correlation is expected between EVA, ROA,

EPS and payout decisions, namely, change in dividends, propensity to pay dividends and payout flexibility. Furthermore, the inclusion of explanatories such as EVA and CH in respect of change in dividends seem to necessitate a further explanatory variable, the current dividend, that is, to serve as control variable.

#### **4.6. CRITICAL COMMENT ON SOME PRELIMINARY METHODOLOGY ISSUES**

The crux of dividend relevance payout model have been the smoothing pattern of dividends as well as reluctance of managers to change dividends that may not be sustainable. In furtherance of dividend relevance model, some researchers (e.g., Ahmed and Yavid (2008:1), Leary and Michaely (2011:3197), Hu and Cheng (2012:101) and Viviers *et al.* (2013:2)) also test if the evidence in this regard is the same between large and small companies, and this greatly overlaps into the dividend life cycle hypothesis (See Fama and French (2001:3) and DeAngelo *et al.* (2006:227)). In fairness, endeavours by researchers in this regard should be understood in the context that payment of dividends wholly or in part or non-payment thereof impacts on the maximisation of value for shareholders, and that the basic means by which shareholders gain from their investments is through sharing in the distribution of profits.

The issue of sustaining payment of dividends is crucial to an extent that potential shareholders who would survive on dividend receipts will be interested in consistent dividend-paying companies as opposed to those preferring reinvestment of earnings. The ability of a company to pay dividends consistently to an extent that the payout represent a significant portion of earnings has been attributed to factors, among them, the size of company (see Leary and Michaely (2011:3197)), and such companies may be considered mature. Barclays and Smith (2005:10), and Smith, Ikenberry, Nayar, McVey and Stewart (2005:39) define same as 'value' companies, that is, those that exhibit features such as paying significant portion of their earnings as dividends consistently, and that they do not aggressively pursue investment opportunities. The companies that do not exhibit these features are then classified as 'growth'. The distinction of companies in this regard is relative to an extent that a company that has been in existence for many decades or even

a century may still be classified as 'growth', that is, if it does not possess attributes of 'value' company.

In line with the outline of this section, the trend of companies listed on the JSE has been observed closely for the purpose of the current study. That is, since listing on the JSE is onerous, companies that have consistently listed on its Main Board for more than 20 years are considered to have shown maturity thereby withstanding the everchanging business and economic dynamics, and related regulations, hence are classified as value companies. On the other hand, and together with preliminary scrutiny by authors of the current study, companies that have only listed since 2006 may be classified as 'growth' as they exhibit features in contrast to those of value companies, that is, they seem to pursue growth opportunities aggressively and do not prioritise paying dividends. The listing referred to here is of the Main Board of JSE as transfers from JSE's AltX listing or directly from non-listing.

#### **4.7. SUMMARY**

The purpose of this chapter was to explore specific corporate financial aspects, namely, financial flexibility, corporate cash holding, capital structure and shareholder value in relation to payout policy. The major payout theories and practices of share repurchases were reviewed in Chapter 3, through which the need for research in the three key focus areas of the current study, namely, review and extension of dividend relevance payout models, the test of dividend life cycle and the extent to which the share repurchases are used as means to distribute cash to shareholders was justified. The research gaps were uncovered in Chapters 3 and this one following the study's problem statement, purpose and objectives outlined in sections 1.2 and 1.3 respectively of Chapter 1. The current chapter, thus further confirmed the need for research, particularly in respect of some specific variables, among others, the level of cash holdings and EVA and as they impact on payout policy. Lastly, the chapter gave a critical comment on some methodological issues particularly in respect of distinction between value ad growth companies. The next chapter presents the research design and methodology chosen for the current study.

## CHAPTER 5: RESEARCH DESIGN AND METHODOLOGY

### 5.1. INTRODUCTION

Chapter 2 presented an overview of regulatory environment governing distribution policy in South Africa, and served as context for the review of literature presented in Chapter 3. The literature reviewed in Chapters 3 and 4 confirmed the research gaps identified through the introduction and study justification sections of Chapter 1, and thus provided the context for hypotheses development.

The purpose of this chapter is to discuss the design and methodology approach selected for the current study. The chapter starts with development of hypotheses (section 5.2), then outlines the research design and approach adopted (section 5.3), as well as data sources, collection, sampling methods and model specifications (section 5.4).

The study objectives are restated here for ease of reference:

1. To review extended versions of dividend relevance models, thereby including some company-specific variables and selected key value based measures of financial performance, as explanatory variables;
2. To test the dividend life cycle hypothesis in respect of emerging market setting (South Africa); and
3. To study the extent to which share repurchases are being used as earnings distribution payout option (that is, the payout flexibility). This objective also examines the determinants of payout flexibility (PF).

The chapter concludes with identification of variables and classification (see section 5.5), and then the chapter summary (section 5.6).

## 5.2. HYPOTHESES DEVELOPMENT

The hypotheses are developed on the basis of the relationship between dependent and explanatory variables. The basis of this relationship was discussed in Chapters 3 and 4. The developed hypotheses apply to respective objectives (that is, the correlation between individual explanatory variables with the dependent variables). Thus, hypotheses H<sub>1</sub> to H<sub>6</sub>, H<sub>7</sub> to H<sub>11</sub> and H<sub>12</sub> to H<sub>18</sub> are for objectives 1, 2 and 3 respectively. The hypotheses are stated as follows:

Hypothesis 1 (H<sub>1</sub>): The current EPS is positively correlated with changes in DPS.

Hypothesis 2 (H<sub>2</sub>): The current DPS is positively correlated with changes in DPS.

Hypothesis 3 (H<sub>3</sub>): The size of the company (SIZE) is positively correlated with changes in DPS.

Hypothesis 4 (H<sub>4</sub>): The level of cash holdings (CH) is positively correlated with changes in DPS.

Hypothesis 5 (H<sub>5</sub>): Companies have target payout ratios which they adjust towards overtime

Hypothesis 6 (H<sub>6</sub>): The EVA is positively correlated with changes in DPS.

Hypothesis 7 (H<sub>7</sub>): The change in assets ( $\Delta TA$ ) is positively correlated with current DPS.

Hypothesis 8 (H<sub>8</sub>): The ratio of retained earnings to total equity (RETE) is positively correlated with current DPS.

Hypothesis 9 (H<sub>9</sub>): The return on assets (ROA) is correlated with current DPS.



Hypothesis 10 (H<sub>10</sub>): SIZE is positively correlated with current DPS.

Hypothesis 11 (H<sub>11</sub>): EVA is positively correlated with current DPS.

Hypothesis 12 (H<sub>12</sub>): EPS is positively correlated with payout flexibility (PF).

Hypothesis 13 (H<sub>13</sub>): Lagged EPS is positively correlated with PF.

Hypothesis 14 (H<sub>14</sub>): SIZE is positively correlated with PF.

Hypothesis 15 (H<sub>15</sub>): EVA is positively correlated with PF.

Hypothesis 16 (H<sub>16</sub>): CH is positively correlated with PF.

Hypothesis 17 (H<sub>17</sub>): Share repurchases serve a substitute role to cash dividends.

Hypothesis 18 (H<sub>18</sub>): Share repurchases serve a complementary role to cash dividends.

### **5.3. RESEARCH APPROACH AND DESIGN**

The current study is categorised as applied, descriptive and quantitative research. It is 'applied' as it seeks to investigate specific research questions that are of relevance and value to companies' managers and shareholders (Saunders, Lewis & Thornhill, 2012:11); 'descriptive' as it attempts to explain the nature of problem and how it is formed (Zikmund, Babin, Carr & Griffin, 2013:53); 'quantitative' as it structures numerical data, identifies and quantifies variables as means to explain the nature of a problem under consideration (Kumar, 2014:14; Creswell, 2014:4). All these features are relevant as is justified in the three objectives restated above.

The study data is panel structured as the objectives are applied among companies in different sectors as well as between value and growth companies (that is, cross sectional analysis) and over a number of years (that is, time series analysis).

## **5.4. DATA SAMPLING, COLLECTION AND MODEL SPECIFICATIONS**

### **5.4.1. An overview**

The researcher utilised secondary data. The data is drawn from the published financial statements of South African listed companies which are stored by IRESS. These financial statements are prepared in respect of the requirements of IFRS and South African Companies Act. The IRESS has been used in South Africa successfully for the past few decades, by researchers and other professionals to report reliable financial information.

The sample companies are those listed on the main board of JSE. The sample periods differ relatively in respect of the 3 study objectives. The sample period for objectives 1 and 2 is 10 years (2006 – 2015). For the other 2 objectives, a 10 year period is justified on the basis of their nature – a fundamental study of the extended versions of Lintner models and study of life cycle. The sample period for objective 3 is 17 years (1999 – 2015), that is, from the year when share repurchases were allowed in South Africa until the most recent year possible for the current study to be conducted, as this will assist in getting the overall trend share repurchases through the period they have been in practice.

### **5.4.2. Data modelling for the extended version of the dividend relevance policy – Objective 1**

Objective 1 utilises 10 years (2006 – 2015) of data for 110 companies listed on Main Board of JSE. These companies are then grouped between ‘value’ and ‘growth’ as justified in section 4.6. The grouping yields 85 ‘value’ and 25 ‘growth’ companies. This

grouping criteria offers a number of advantages for the current study, for example, companies that make the sample of value are mature and hence offers an excellent opportunity to test data against modernised versions of dividend relevance models progressively in respect of payout policy. As an overview, the pioneers of these models, namely, Lintner (1956), Fama and Babiak (1968) and Marsh and Merton (1985) report that, among others, companies have payout targets which they adjust towards and that they smooth dividends. It is thus argued that these findings can be explored further through data of value companies in an emerging market setting using dynamic panel data estimation procedures so as to test whether the trends mirror those of the developed markets. On the other hand, the growth companies provides a comparative data so as to test whether their payout behaviour in respect of Lintner's extended models is more or less consistent with Lintner findings than value companies.

This objective focuses on the review of extended versions of Lintner payout model. This is achieved by including some company-specific variables and some key value-based measure of financial performance (both sets used as explanatory variables) to the Lintner's payout model and the extended models as justified in chapters 3 and 4.

The pioneer payout model (Lintner, 1956:107) is stated as:

$$\Delta D_{it} = \alpha_i + c_i(D^*_{it} - D_{it-1}) + \varepsilon_{it} \quad (\text{Equation 5.1.})$$

Where:

$\Delta D_{it}$  is change in dividend payments for company i in period t

$\alpha_i$  is constant term

$c_i$  is speed of adjustment coefficient

$D^*_{it}$  is desired dividend payout for company i in period t

$D_{it-1}$  is lagged dividends for company i in period t

The target dividend,  $D^*_{it}$ , can be expressed in basic form as follows:

$$\text{And } D^*_{it} = r_i E_{it} \quad (\text{Equation 5.2.})$$

$r_i$  is target payout ratio

$E_{it}$  is current earnings for a company  $i$  in period  $t$

Substitute  $r_i E_{it}$  in *Equation 5.1.*, the following equation is deduced:

$$\Delta D_{it} = \alpha_i + c_i r_i E_{it} - c_i D_{it-1} + \varepsilon_{it} \quad (\text{Equation 5.3.})$$

Fama and Babiak (1968) extend this model by including lagged earnings. They propose that earnings adjust to dividends by a certain speed and dividends adjust to expected earnings. Specifically, Fama and Babiak (1968:1141) suggest an inclusion of earnings partial adjustment model, which they define as:

$$E_{it} = (1 + \lambda_i) E_{i,t-1} + \varepsilon_{it} \quad (\text{Equation 5.4.})$$

Where:

$(1 + \lambda_i) E_{i,t-1}$  represents partial adjustment term

With Fama and Babiak's proposition above, that dividends adjust to expected earnings, the extended payout model becomes:

$$\Delta D_{it} = \alpha_i + (1 - c_i) D_{it-1} + c_i r_i E_{it} + r_i \lambda_i (1 - c_i) E_{it-1} + \varepsilon_{it} \quad (\text{Equation 5.5.})$$

Andres *et al.* (2009:181) extend this model by including a dummy variable, so as to capture for possible effects of time on the payout behaviour of companies. The simplified model in this regard is:

$$\Delta D_{it} = \alpha_i + (1 - c_i) D_{it-1} + b_i E_{it-1} + YEAR_{it} + \eta_i + \varepsilon_{it} \quad (\text{Equation 5.6.})$$

Where:

$YEAR_{it}$  is dummy variable for company  $i$  in period  $t$

$\eta_i$  is company-specific unobserved effect

As discussed in the literature review, the speed of adjustment may also be influenced by a company's size (SIZE), EVA and level of cash holdings (CH). The basis of this argument is in line with the theme of this study: the creation of shareholder value. These variables have been identified, particularly in Chapter 4 that they have an impact on the creation of value. In addition to inclusion of lagged earnings by Fama and Babiak (1968:1141), the current study lags dividends and EVA so as to minimise the problem of endogeneity. In addition to endogeneity as a likely error in model building, further related problems and how they are dealt with are discussed in section 6.2 of Chapter 6 alongside model estimators chosen for the current study. The current study ignores the application of dummies dynamics adopted by Andres *et al.* (2009), as the existence of any possible time and unobserved company effect, may be controlled through management of errors in model building (see section 6.2 of Chapter 6 for management of these errors). Furthermore, Andres, Doumet and Theissen (2015:62) observe that the model yields relatively similar results even if dummy effects are ignored.

In summary, the basis of the relationship between the dependent and explanatory variables here is more in line and is a contribution to Lintner's (1956) propositions reiterated in the section just above. The final regression model for objective 1 is thus:

$$\Delta D_{it} = \alpha_i + (1 - c_i)D_{it-1} + \beta_1(D_{it}) + \beta_2(E_{it}) + \beta_3(E_{it-1}) + \beta_4(SIZE_{it} + \beta_5(EVA_{i,t}) + \beta_6(EVA_{it-1}) + \beta_7(CH_{it}) + \eta_i + \varepsilon_{it} \quad (\text{Equation 5.7.})$$

Where:

SIZE<sub>it</sub> is size of company i in period t

EVA<sub>it</sub> is EVA for company i in period t

ε<sub>it</sub> is error term

### 5.4.3. Data modelling for test of the dividend life cycle hypothesis – Objective 2

This objective adopts the same sample period and companies as objective 1, but in this case, sample companies have increased to 119 due to different data and variables' specification. Of this total sample, value and growth companies are 86 and 33 respectively. The purpose of this objective is to test and confirm whether or not, in a South African case, value companies pay high fraction of earnings as dividends, consistently, have lower growth rates and do not pursue investments aggressively as do growth companies. That is the test of dividend life cycle hypothesis. The current study advances the work of Fama and French (2001), Grullon *et al.* (2002), DeAngelo *et al.* (2006), Brockman and Unlu (2011) and Coulton and Ruddock (2011), who all extend the pioneering work of corporate life cycle hypothesis by Mueller (1972) and all are done in the developed markets. These researchers find the relationship between companies' life cycles and dividend payout. Fama and French (2001:4) and Grullon *et al.* (2002:389-390) indicate that profitability, investment opportunities and size affect payout decisions. In particular, they note that large and more mature companies are more likely to pay dividends than those with more investments. DeAngelo *et al.* (2006:228) observe that companies with low RETE tend to have more investment sets than those with high RETE. Among the explanatory variables they identify, they also recognise RETE and RETA as key variables for dividend life cycle hypothesis as they measure the extent to which companies rely on internal or external finance. Brockman and Unlu (2011:1624) and Coulton and Ruddock (2011:383) report results consistent with Fama and French, Grullon *et al.* and DeAngelo *et al.*

The current study seeks to, among others, test the dividend life cycle hypothesis in South Africa, an emerging market economy so as to confirm whether or not its corporate payout policy, in this regard mirrors that of developed markets. The proxies for financial performance are EVA and ROA, and other explanatory variables are SIZE, RETE, ROA, EVA and  $\Delta TA$ , i.e., as justified in Chapters 3 and 4. In line with the above-mentioned studies, the current study adopts dividends ( $Div_{it}$ ) as dependent variable. For the reason explained in section 5.4.2 above, lagged RETE and lagged EVA are included here as

further explanatory variables. The essence of the relationship between dependent and explanatory variables in this regard is that company's various stages in its life cycle influence its payout decisions. The regression model specification for the relationship is thus:

$$Div_{it} = \alpha_i + \beta_1(SIZE_{it}) + \beta_2(RETE_{it}) + \beta_3(RETE_{it-1}) + \beta_4(ROA_{it}) + \beta_5(EVA_{it}) + \beta_6(EVA_{it-1}) + \beta_7(\Delta TA_{it}) + \varepsilon_{it} \quad (Equation 5.8.)$$

Where:

$Div_{it}$  is dividend per share for company  $i$  in period  $t$

$RETE_{it}$  is ratio of retained earnings to total equity for company  $i$  in period  $t$

$RETE_{it-1}$  is lagged ratio of retained earnings to total equity for company  $i$  in period  $t$

$ROA_{it}$  is return on assets for company  $i$  in period  $t$

$\Delta TA_{it}$  is growth rate in assets for company  $i$  in period  $t$

#### 5.4.4. Data modelling for the determinants of payout flexibility – Objective 3

Objective 3 tests payout flexibility in South Africa, as well as its determinants. The payout flexibility refers to the extent to which companies use share repurchases to distribute cash to shareholders (that is, value of share repurchases to total payout (Bonaimé *et al.*, 2014: 1082)). The global trend in repurchases is that open market repurchases have been widely used, to an extent of 90 per cent of total repurchases (Ikenberry, Lakonishok & Vermaelen, 1995:182; Banyl, Dyl & Kahle, 2008:460; Chan, Ikenberry, Lee & Wang, 2010:137).

Local studies that examine the trends and practices of share repurchases do so in respect of open market share repurchases; a phenomenon which is relatively similar to that of global practice. Among local studies that examine such trends and practices include those of Bhana (2007) (market reaction to open market share repurchases), Chivaka *et al.* (2008), (reasons for share repurchases) Pienaar and Krige (2012) (market reaction to open market share repurchases), Punwasi (2012) (market reaction to share repurchase

announcements) and Wesson, Bruwer and Hamman (2015) (actual share repurchases in South Africa and whether they mirror global practice).

It is important to indicate that the study of Wesson *et al.* (2015) although exploratory, that is, it predominantly examines the actual share repurchases trends in South Africa, it nonetheless recognises that the open market share repurchases have been highly noticeable and far beyond other forms of repurchases. That is, more so, in respect of their public announcements through JSE's Securities News Services (SENS). In line with the study of Wesson *et al.* (2015), the current study acknowledges that SENS may not necessarily report all open market repurchase information since the JSE listing requirements are that if share repurchases do not exceed 3 per cent of shares in issue in a specific year, they cannot be reported. It is nonetheless argued, in line with studies, such as of Bhana (2006), Pienaar and Krige (2012) and Punwasi (2012), that the SENS announcements have more ability to prompt market reaction than repurchases that could not necessarily be made public. That is, share repurchases not reported because they do not exceed the 3 per cent cut-off rule and hence have some influence on the corporate value, a key theme for the current study.

The current study thus continues the research on open market repurchases in South Africa, particularly the extent to which they are being used as payout option, as well as their determining factors. The choice of open market share repurchases in this regard offers a number of key advantages, namely, that they are able to attract positive reaction from share price, and that they possess some inherent flexibility in that their announcements are not necessarily binding and hence they can be revoked. It is also in this context that the current study adopts the definition of payout flexibility as the value of open market share repurchases over total payout in any given period.

The data on share repurchases for the current study is obtainable through the JSE's SENS which may be accessed on the IRESS database. The definition of payout flexibility as adapted and justified for the current study yields 52 sample companies over a period of 17 years (1999 – 2015). That is, this sample comprises of companies that have made



open market share repurchases for at least two years during the 17 year period. The study results will likely shed some light as to whether or not, among others, in the South African context, share repurchases serve as substitutes or complements to cash dividends or both.

In line with model specification for objective 1 and to some extent for objective 2, that is, relatively same variables have been justified to have an impact on payout decisions and hence payout flexibility. The model specification for the determinants of payout flexibility is thus:

$$PF_{it} = \alpha_i + \beta_1(D_{it}) + \beta_2(E_{it}) + \beta_3(D_{it-1}) + \beta_4(E_{it-1}) + \beta_5(SIZE_{it} + \beta_6(CH_{it}) + \beta_7(EVA_{i,t}) + \beta_8(EVA_{it-1}) + \varepsilon_{it} \quad (\text{Equation 5.9.})$$

Where:

$PF_{it}$  is payout flexibility for company  $i$  in period  $t$

## 5.5. VARIABLE IDENTIFICATION AND CLASSIFICATION

The variables are grouped as either dependents or independents<sup>10</sup>.

### 5.5.1. Dependent variables

The dependent variables for the current study are the change in dividend (objective 1), dividends paid (objective 2) and payout flexibility (objective 3).

**Change in dividends** ( $\Delta D_{it}$ )<sup>11</sup>:  $\frac{D_{it} - (D_{it-1})}{D_{it-1}}$

<sup>10</sup> The words 'independent' and 'explanatory' are used interchangeably throughout this document.

<sup>11</sup>.  $D_{it}$  are represented by dividend per share (DPS). Furthermore,  $\Delta D_{it}$  is written in some parts of this document as  $\Delta DPS$  also standing for change in dividends

**Dividends paid (dividend per share) (DPS):** dividend per share is defined as dividends paid divided by weighted average number of shares in issue (measured in cents).

**The payout flexibility (PF):** value of share repurchases to total payout (Bonaimé *et al.*, 2014:1082).

### 5.5.2. Explanatory variables

The independent variables for the current study are, EPS, Lagged EPS, DPS, lagged DPS, SIZE, EVA, Lagged EVA, ROA, RETE, Lagged RETE,  $\Delta$ TA and CH. The independent variables, namely, SIZE, EVA, ROA, RETE, and CH are balances'-based, thus the current study uses average values as means to align them with the dependant variables, that is, the latter are event or/and movement based.

**Earnings per share (EPS):** earnings attributable to ordinary shareholder as ratio of weighted average number of shares.

**Dividends per share (DPS):** ordinary dividends declared/paid as ratio of weighted average number of shares.

**Company size (SIZE):** natural log of total assets.

**Economic value added (EVA):**  $(\text{Net operating profit after tax} - (\text{Capital employed} \times \text{WACC}))^{12} / \text{Total assets at beginning of the year}^{13}$ .

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<sup>12</sup> . That is, company's spread multiplied by capital employed. EVA in this regard was drawn from IRESS database who uses built-in models to automatically calculate company's key financial models, among them, WACC and Du Pont analysis. See section 5.4.1 on reliability of IRESS database.

<sup>13</sup> The raw EVA may be a huge figure among other explanatory variables, and hence is deflated by, e.g., assets balance at the beginning of the year as is the case here, so as to align it with others.

**Return on assets (ROA):** Earnings attributable to ordinary shareholders as ratio of total assets.

**Ratio of retained earnings to total equity (RETE):**

$$\frac{\text{Earnings attributable to ordinary shareholders} - \text{ordinary dividends paid}}{\text{Total equity}}$$

**ΔTA:** ratio of change in total assets to total assets

**Level of cash holdings (CH):** ratio of cash and cash equivalents to total assets.

## 5.6. SUMMARY

The purpose of this chapter was to present, discuss and justify the approach, design and methodology adopted for the current study. Specifically, the key issues discussed were development of hypotheses, research approach and design, data collection, sampling and model specifications. The chapter closed with identification and classification of variables. The next chapter discusses the empirical results.

## **CHAPTER 6: RESULTS AND DISCUSSION**

### **6.1. INTRODUCTION**

The purpose of this chapter is to present and discuss the empirical results. The chapter applies the research and methodology chosen and justified for the study as outlined in Chapter 5. The purpose of the study is to investigate the distribution policy and creation of shareholders wealth for South African companies. This is done through applying estimation procedures on extended versions of dividend relevance models, testing the dividend life cycle hypothesis and identify determinants of payout flexibility.

The chapter starts with the choice of estimation procedures (section 6.2). Section 6.3 presents and discusses the descriptive and empirical findings for the review and extension of dividend relevance payout models. This section has 110 sample companies. Then, Section 6.4 gives an analysis of the test of dividend life cycle hypothesis on 119 companies, and section 6.5 provides results of the determinants of payout flexibility of 52 companies. In sections 6.3 and 6.4, there are three panels in each, that is, main panel and two comparative panels and this applies to both descriptive and empirical analyses. Section 6.5 has only one panel for the application of descriptive and empirical test. In all these sections, a summary is given at the end. The chapter concludes with the overall summary (section 6.6).

### **6.2. CHOICE OF MODEL ESTIMATION PROCEDURES**

The data for the current study is panel structured as discussed in section 5.2 above, and hence requires data analysis procedures appropriate in the circumstances. Corporate finance research has largely used econometric data estimation procedures to run regressions in this regard. In capital structure and payout decisions, the widely used

estimators have been the ordinary least square (OLS), fixed effects (FE) and random effects (RE). These fundamental estimators have proven to be useful, although they generally lack capabilities to handle common errors, such as heterogeneity and endogeneity, which plague corporate finance research, particularly in the modelling of data.

Some advanced estimators are recommended in the literature so as to address these problems and have proven to be robust. These include the difference generalized methods of moment (Diff GMM) of Arellano and Bond (1991), system generalized methods of moment (Sys GMM) of Blundel and Bond (1998) and the least square dummy variable correction (LSDVC) proposed by Bruno (2005). See Flannery and Hankins (2013:16) and Moyo (2016:224) for justified robustness of these estimators.

Some researchers, among others, Andres *et al.* (2009) and Andres *et al.* (2015), successfully use a combination of these estimators to test modern dynamic panel datasets in payout studies. Of all these estimators, the current study adopts a combination of OLS, Diff GMM and Sys GMM to test the regression models. The LSDVC is superior over these estimators as it is bias-correcting and capable of providing better coefficient estimation consistency in the presence of dynamics in datasets, and hence is used to test for robustness of estimation.

The data winsorisation technique is applied on all variables included in the data analyses at 1% and 99% percentiles so as to manage the possible effects of data outliers. The winsorisation basis of data trimming and at these percentiles is relatively common in dynamic datasets in corporate finance, see studies of Elsas and Florysiak (2011:189), Flannery and Hankins (2013:3) and Moyo (2016:219). All data analyses are generated using the STATA 14 program.

### **6.3. REVIEW AND EXTENSION OF DIVIDEND RELEVANCE PAYOUT MODELS**

This section presents results on review and extended dividend relevance payout models. The results are presented in tables for both the descriptive and regression analyses.

#### **6.3.1. Descriptive analysis – review and extension of the dividend relevance payout models**

Table 6.1 presents descriptive statistics for full sample companies (Panel 1) in respect of all variables identified. This panel comprises of 110 companies as outlined in section 5.4.2 above. The same sample is disaggregated into 85 value companies (Panel 2: Tables 6.2) and 25 growth companies (Panel 3: Table 6.3) as justified in the same section. The presentation of Tables 6.1, 6.2 and 6.3 is followed by their comparative discussion.

The dependent variable is  $\Delta\text{DPS}$  and explanatory variables are EPS, L\_EPS, DPS, L\_DPS, SIZE, EVA, L\_EVA and CH.  $\Delta\text{DPS}$  refers to change in dividends. EPS is earnings per share (in cents) measured as earnings attributable to ordinary shareholders, as ratio of weighted average number of shares. L\_EPS is lagged earnings per share while DPS is dividend per share (in cents) measured as dividend declared or paid as ratio of weighted average number of shares. L\_DPS is lagged dividend per share. SIZE is size of company measured by natural log of assets. EVA is economic value added measured as net operating profit after tax less related capital employed, then deflated by total assets at the beginning of the year. L\_EVA is lagged economic value added. CH is ratio of cash and cash equivalents to total assets. Obs stands for number of observations.

**Table 6. 1: Descriptive statistics for all variables of Panel 1- Full sample**

Variables	Obs	Mean	SD	Min	Max	Skewness	Kurtosis
$\Delta$ DPS	1005	0.1411	0.3230	-0.3800	0.7857	0.4416	2.8032
EPS (Cents)	1015	379.39	392.38	11.90	1181.80	0.9712	2.5804
L_EPS	981	370.05	387.94	12.30	1170.00	1.0064	2.6295
DPS (Cents)	1005	183.28	170.79	9.00	525.00	0.8165	2.3734
L_DPS	998	177.61	165.07	10.00	508.30	0.8393	2.4023
SIZE	1010	15.62	1.5947	13.27	18.10	0.0104	1.8458
EVA	1010	0.2289	0.0656	-0.2676	0.2764	-0.1635	2.9967
L_EVA	982	0.2217	0.0856	-0.2553	0.2645	-0.0953	2.9522
CH	983	0.1064	0.0855	0.0130	0.2805	0.8480	2.5374

**Table 6. 2: Descriptive statistics for all variables of Panel 2– Value companies**

Variables	Obs	Mean	SD	Min	Max	Skewness	Kurtosis
$\Delta$ DPS	815	0.1425	0.3099	-0.3478	0.7700	0.4933	2.8566
EPS	827	466.97	440.30	28.20	1370.00	0.9343	2.5655
L_EPS	816	444.05	425.64	26.40	1312.30	0.9409	2.5339
DPS	815	215.94	181.44	21.00	581.40	0.7936	2.4244
L_DPS	780	204.22	175.03	20.20	560.00	0.8310	2.4643
SIZE	822	15.96	1.4910	13.67	18.30	0.0293	1.8749
EVA	826	0.2545	0.0922	-0.2501	0.2640	-0.3420	2.7241
L_EVA	822	0.2342	0.0854	-0.2323	0.2554	-0.2845	2.9900
CH	811	0.1050	0.0852	0.0135	0.2795	0.8767	2.5674

**Table 6. 3: Descriptive statistics for all variables of Panel 3 – Growth companies**

Variables	Panel 3 - Growth companies						
	Obs	Mean	SD	Min	Max	Skewness	Kurtosis
$\Delta$ DPS	190	0.1416	0.3687	-0.4300	0.8300	0.3633	2.448
EPS	188	69.9682	90.6130	4.8000	71.8500	1.6186	4.2351
L_EPS	165	67.0066	88.5530	5.2000	64.6400	1.7239	4.6252
DPS	190	39.0111	47.2897	2.8000	54.8000	1.3108	3.2501
L_DPS	218	36.2194	41.9273	2.9800	53.4000	1.1893	2.8872
SIZE	188	14.07	1.4310	11.85	16.28	0.0413	1.8737
EVA	184	0.2163	0.0833	-0.2219	0.2154	0.2212	3.0123
L_EVA	160	0.2237	0.0734	-0.2364	0.2234	0.2003	1.9125
CH	172	0.1170	0.0952	0.0105	0.3219	0.9298	2.8915

The  $\Delta$ DPS mean shows not much difference in all panels (Panel 1: 0.1411, Panel 2: 0.1425 and Panel 3: 0.1416). This suggests that managers' (irrespective of company size) were reluctant to make changes in dividends over the respective research periods. The value companies (Panel 2) achieved much higher mean for explanatory variable such as DPS and the EPS, as well as higher standard deviation (SD), than full sample companies (Panel 1) and growth companies (Panel 3). This trend was to be expected as value companies are higher and relatively mature companies compared to full sample panel which includes growth companies the later should have lower DPS and EPS. The higher EPS for value companies over others is an indication of the maturity status of companies on this panel. The higher SD is an indication of higher variation among the sample of value companies.

The growth companies show relatively higher mean than value companies in respect of the CH, that is, Panel 3: 0.117 versus Panel 2: 0.105, which suggests that these companies withhold more cash so as to optimise investment pursuance. Growth companies are mainly smaller companies which, due to information asymmetry, have limited access to external finance and hence utilise internal funds to pursue investments. The SIZE ranges between full sample companies and value is relatively similar, that is, 13.27 – 18.10 and 13.67 – 18.30 respectively as opposed to that of growth companies (11.85 – 16.28). The sample with the biggest SIZE SD is Panel 1 for full sample. This was to be expected as this sample comprises of value companies and growth companies, that is, two sets of companies with different distinguishing features than the disaggregated Panels 2 and 3.

The growth companies achieved a higher EVA mean of 24 707.60 compared to 18 882.72 of value companies. The EVA descriptive analysis is still to be presented and discussed in the related sections 6.4.1 and 6.5.1.



### 6.3.2. Regression analysis – review and extension of the dividend relevance payout models

The regression results are presented in Tables 6.4 (full sample, Panel 1), 6.5 and 6.6 as disaggregated comparative analyses for Panels 2 and 3 respectively. The grouping of panels here follows that of the descriptive analysis. All these tables present results on a number of explanatory variables on their impact on the change in dividends, more importantly for SIZE, EVA, L\_EVA and CH as they are additional variables that this study adds to the extended models by Fama and Blahnik (1968) and Andres *et al.* (2009). The Tables also present an estimation of the speed of adjustment coefficients. The OLS, Diff GMM, Sys GMM and LSDVC were used to perform the regressions. After the presentation of Tables 6.4, 6.5 and 6.6, a comparative discussion of same follows. This is preceded by the discussion of tests for model fitness, validity of model estimation procedures and multicollinearity.

The tested model specification for the extended model of dividend relevance payout is restated here from section 5.4.2 above for ease of reference:

$$\Delta D_{it} = \alpha_i + (1 - c_i)D_{it-1} + \beta_1(D_{it}) + \beta_2(E_{it}) + \beta_3(E_{it-1}) + \beta_4(SIZE_{it} + \beta_5(EVA_{i,t}) + \beta_6(EVA_{it-1}) + \beta_7(CH_{it}) + \eta_i + \varepsilon_{it}$$

**Table 6.4: Regression results for the dividend relevance payout model and determinants of change in dividends – Panel 1**

	<b>OLS</b>	<b>Diff GMM</b>	<b>Sys GMM</b>	<b>LSDVC</b>
<b>EPS</b>	(1.83) 0.000179*	(-0.02) -0.000112	(1.66) 0.0001434*	(-3.83) 0.000245***
<b>DPS</b>	(12.12) 0.002582**	(0.95) 0.064098	(11.44) 0.0026159**	(12.91) 0.0023716***
<b>L_DPS</b>	(-12.79) -0.002807***	(-1.09) -0.090069	(-10.28) -0.002361***	(13.42) -0.002557***
<b>SIZE</b>	(0.02) 0.000134	(-1.78) -4.249772*	(-2.21) -0.072679**	(-3.47) -0.099569***
<b>EVA</b>	(1.72) 1.96E-08*	(-2.09) -9.27E-07**	(-2.83) -5.65E-08***	(-1.68) -3.30E-11*
<b>L_EVA</b>	(1.65) 1.96E-08*	(-0.40) -6.78E-07	(1.88) 2.30E-08*	(-0.10) 9.66E-11
<b>CH</b>	(0.97) 0.107731	(-0.67) -12.65027	(1.77) 0.472770*	(1.67) 0.355840*
<b>Obs</b>	739	531	634	634
<b>Lag coef of dependent variable</b>		-0.0186	-0.0208	-0.4951
<b>Adj. speed</b>		1.0186	1.0208	1.494
<b>R<sup>2</sup></b>	0.40			
<b>Wald Chi2</b>		3.49	293.27	8.74
<b>Prod&gt;Chi2</b>		0.0000	0.0000	0.0001
<b>Sargan</b>		0.34 (35)	51.70 (43)	

Notes: the speed of adjustment coefficient is computed as 1 minus lagged coefficient of dependent variable. The Wald, R<sup>2</sup>, and Sargan tests are satisfied for model fitness and applicability of regression estimators respectively. The '( )' for each variable in this table as determined by estimators denotes t-statistics, and accompanying values outside brackets show correlation coefficients between dependent and corresponding explanatory variables. Parentheses \*\*\*, \*\*, \* on coefficient estimations are significant at 1, 5 and 10 percent respectively.

**Table 6.5: Regression results for the dividend relevance payout model and determinants of change in dividends – Panel 2**

	<b>OLS</b>	<b>Diff GMM</b>	<b>Sys GMM</b>	<b>LSDVC</b>
<b>EPS</b>	(2.01) 0.000174*	(-0.26) -0.001613	(1.81) 0.000166*	(3.14) 0.000228***
<b>DPS</b>	(12.24) 0.002159**	(0.94) 0.045597	(10.96) 0.002114***	(12.31) 0.0019638***
<b>L_DPS</b>	(-13.05) -0.002319***	(-1.08) -0.069660	(-10.63) -0.002104***	(-13.02) -0.002180***
<b>SIZE</b>	(2.11) 0.001307**	(-1.90) -4.445497*	(-2.55) -0.059450**	(-3.73) -0.107741***
<b>EVA</b>	(-1.94) -4.75E-08**	(-1.88) -0.000011*	(-1.96) -4.68E-08**	(-2.24) -3.54E-08**
<b>L_EVA</b>	(1.72) 1.41E-01*	(-1.66) 5.21E-07*	(1.09) 3.02E-08	(0.03) 4.14E-09
<b>CH</b>	(1.22) 0.066901	(-0.40) -5.568715	(1.43) 0.390544	(1.77) 0.369273
<b>Obs</b>	640	474	557	557
<b>Lag coef of dependent variable</b>		-0.0075	0.0325	-0.0004
<b>Adj. speed</b>		1.0075	0.9674	1.0004
<b>R<sup>2</sup></b>	0.42			
<b>Wald Chi2</b>		3.25	304.56	9.52
<b>Prod&gt;Chi2</b>		0.0000	0.0001	0.0000
<b>Sargan</b>		0.48 (35)	44.95 (43)	

Note: the '( )' for each variable in this table as determined by estimators denotes t-statistics, and accompanying values outside brackets show correlation coefficients between dependent and corresponding explanatory variables. Parentheses \*\*\*, \*\*, \* on coefficient estimations are significant at 1, 5 and 10 per cent respectively.

**Table 6. 6: Regression results for the dividend relevance payout model and determinants of change in dividends – Panel 3**

	<b>OLS</b>	<b>Diff GMM</b>	<b>Sys GMM</b>	<b>LSDVC</b>
<b>EPS</b>	(0.50) 0.000450	(-1.03) -0.002810	(-0.73) -0.002260	(-0.42) -0.000870
<b>DPS</b>	(6.89) 0.0192110**	(3.79) 0.02813***	(3.43) 0.023290**	(4.45) 0.018381***
<b>L_DPS</b>	(-7.65) -0.022840***	(-2.35) -0.020910**	(-2.57) -0.015031**	(-4.07) -0.018470***
<b>SIZE</b>	(-1.70) 0.019391*	(2.20) 0.177610**	(1.99) 0.001071*	(1.78) -0.006710*
<b>EVA</b>	(-2.26) -0.000001**	(-1.67) -1.08E-06*	(-3.03) -7.58E-07***	(-1.99) -5.08E-07**
<b>L_EVA</b>	(2.46) 9.04E-07**	(0.87) 6.76E-07	(1.98) 6.52E-07**	(2.33) 6.44E-07**
<b>CH</b>	(1.30) 0.462510	(0.91) 1.291350	(1.28) 1.179310	(1.10) 0.415750
<b>Obs</b>	99	54	76	
<b>Lag coef of dependent variable</b>		-0.1140	-0.2349	-0.1798
<b>Adj. speed</b>		1.1140	1.2349	1.1798
<b>R<sup>2</sup></b>	0.43			
<b>Wald Chi2</b>		77.97	38.31	8.5
<b>Prod&gt;Chi2</b>		0.0000	0.0001	0.0000
<b>Sargan</b>		0.11 (20)	17.56 (26)	

Note: the '( )' for each variable in this table as determined by estimators denotes t-statistics, and accompanying values outside brackets show correlation coefficients between dependent and corresponding explanatory variables. Parentheses \*\*\*, \*\*, \* on coefficient estimations are significant at 1, 5 and 10 per cent respectively.

From all Panels 1, 2 and 3, model specification tests, namely, Wald test and R<sup>2</sup> are satisfied for all panels, which indicates that the model provides good fit for the data. The Sargan test of over-identifying restrictions is valid for applicable regression estimators

thus confirming the Diff GMM and Sys GMM as also suitable estimators in the circumstances. The possible problem of multicollinearity<sup>14</sup> among explanatory variables was tested using the variance inflation factor (VIF) and accompanying test, the tolerance factor at the base levels of 10 and 0.9 values respectively. That is, if VIF equals or is more than 10 or tolerance factor is 0.9 or more, multicollinearity problem is suspected among explanatory variables. These tests are considered more advanced in testing multicollinearity than the correlation matrix (Musa, 2009:560). For Panels 1, 2 and 3 the variables EPS, L\_EPS, DPS and L\_DPS have exceeded the VIF base level and hence the null hypothesis for multicollinearity is rejected. In case of suspected multicollinearity, resolving it poses problem as multicollinearity may arise as a result of data dynamics rather than from model specification or estimation procedures, more so if collinear variables were included on valid theoretical grounds (Brooks, 2014:219). However, since multicollinearity may result in unreliable estimates, it is acceptable to drop some collinear variables. In the current study, and in respect of the above-mentioned panels (1 to 3), the variable L\_EPS was removed from the analyses. The variables DPS and L\_DPS were not removed as they are considered complements in respect of determining the speed of adjustment coefficients. Table 6.7 presents the VIF and tolerance tests' results for multicollinearity.

**Table 6. 7: Test of multicollinearity**

Variables	Panel 1		Panel 2		Panel 3	
	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance
EPS	25.6825	0.0389	24.2775	0.0412	88.1200	0.0113
L_EPS	25.3875	0.0394	25.2125	0.0397	85.1000	0.0118
DPS	21.6625	0.0462	19.6275	0.0509	70.1200	0.0143
L_DPS	20.8325	0.0480	19.5000	0.0513	68.1600	0.0147
SIZE	5.2400	0.1908	5.3600	0.1866	6.1600	0.1623
EVA	2.1400	0.4673	2.1100	0.4739	4.8000	0.2083
L_EVA	8.9000	0.1124	8.8000	0.1136	4.6200	0.2165
CH	2.7850	0.3591	2.5600	0.3906	3.8000	0.2632

<sup>14</sup> A phenomenon where two or more explanatory variables are highly correlated to one another in a regression model (Brooks, 2014:689).

Note: base values for VIF and Tolerance are 10 and 0.9 respectively. The tolerance values are computed as  $1/\text{VIF}$ .

For Panels 1, 2 and 3, EPS is moderately correlated with  $\Delta\text{DPS}$ , that is, skewed positive correlation for majority of estimators (See Panel 1), positive correlation for Panel 2 and negative correlation for Panel 3. The positive correlation for Panel 2 arises as this Panel comprises of value companies that generally do not have problems paying dividends as opposed to growth companies (Panel 3, and hence negative correlation). Hypothesis 1 is thus accepted.

The DPS is positively and significantly correlated with  $\Delta\text{DPS}$  in respect of relatively all panels. This confirms that current dividends are important determinant of payout policy. Hypothesis 2 is accepted. The SIZE shows a mixed correlation with  $\Delta\text{DPS}$  particularly in respect of value companies. The direction of this association was not necessarily expected as one would have anticipated an outright positive correlation, that is, trend of value/bigger companies paying more dividends. That is, bigger companies are expected to be more liquid, have lower growth rates as they do not aggressively pursue investments and hence should pay higher dividends. See Andres *et al.* (2009:180) and Musa (2009:559) for the basis of expected direction of correlation. Hypothesis 3 is thus accepted. For considered companies, these results suggest that larger companies may not necessarily pay higher dividends, but rather reinvest earnings in their assets. This phenomenon is in line with findings of Ahmed and Yavid (2008:13), and Musiega *et al.* (2013:256) for Pakistan and Kenya, respectively.

The EVA has a relative significant negative correlation with  $\Delta\text{DPS}$  (all Panels 1, 2 and 3). This correlation suggests that in their pursuance to create value for shareholders, managers may sacrifice decisions to pay dividends. In fact, for growth companies, it is expected that they do not prioritise paying dividends, as is shown by the descriptive analysis above (see Table 6.3). Hypothesis 6 is thus rejected. These results are in line

with the recognized strengths of EVA in creating value as noted by, among others, Lehn and Makhija (1997:97) and Chmelíková (2008:49).

Then, for all panels, the CH shows a relative positive correlation with  $\Delta$ DPS particularly for Panel 1 and 2, suggesting that, probably, keeping higher cash levels enables value companies to pay higher dividends. This confirms that a company's level of cash holdings is a key determinant of payout policy. This inferred association is in line with the predictions of the free cash flow hypothesis. Hypothesis 4 is thus accepted. These results are consistent with those of Andres *et al.* (2009), Musa (2009) and Lie and Chen (2015).

In respect of observed target dividend levels, our regression analysis estimates a target speed of adjustment of almost 1 for all Panels (1, 2 and 3). This is relative evidence of companies not necessarily smoothing dividends, that is, speed of adjustment equals to 1 or more, and thus further evidence that dividends relevance model may not provide good fit for South African payout policy (see Wolmarans (2003:243). Thus hypothesis 5 is rejected. The speed of adjustment of almost 1 seems to explain a unique phenomenon for South Africa as it suggests that the country's companies quickly revert to their target dividend levels just after deviation. This is a much higher speed when compared to Sibanda (2014:333) of 72.61 per cent also for South African listed companies between 1995 and 2011.

A number of factors may have contributed to the differences of speed of adjustments between the two studies. Firstly, the sample of the current study included all economic sectors whereas Sibanda's study excludes public utility and financial services; also the data specifications, model building, management of possible errors in data modelling and choice of estimation procedures seem to differ significantly. Nonetheless, the two studies observe and confirm that South African companies target specific payout ratios.

Other notable South African studies, namely, Firer *et al.* (2008), Firer and Viviers (2011) and few more from some key economic regions in Africa, for example, Musa (2009) on Nigeria and Musiega *et al.* (2013) on Kenya, as well as a number of studies in respect of other emerging non-African countries, do not estimate the speed of adjustment coefficients. It is important to indicate that the speed of adjustments observed by the current study and Sibanda (2014) as reported above are much higher than from reported trends in some developed economies. The speed of adjustments for these developed nations range from 12 to 45 per cent (see Table 6.8) or trends in reporting and estimating speed of adjustment coefficients for selected developed and emerging countries).

**Table 6.8: Trends in reporting and estimating speed of adjustments to payout ratios in selected developed and emerging countries**

Study	Country	Speed of Adjustment
Behm and Zimmermann (1993)	Germany	0.13 - 0.26
Lintner (1956)	US	0.30
Mueller (1967)	US	0.16 – 0.27
Fama and Babiak (1968)	US	0.32 – 0.37
McDonald, Jacquillat and Nussenbaum, (1975)	France	0.12 – 0.33
Short, Zhang and Keasey (2002)	UK	0.38
Khan (2006)	UK	0.20 – 0.45
Benzinho (2004)	Portugal	0.35
Ahmed and Yavid (2008)	Pakistan	0.41 – 0.78
Musa (2009)	Nigeria	-----
Firer <i>et al.</i> (2008)	South Africa	-----
Firer and Viviers (2011)	South Africa	-----
Viviers <i>et al.</i> (2013)	South Africa	-----
Musiega <i>et al.</i> (2013)	Kenya	-----
Sibanda (2014)	South Africa	0.73 (72.61%)

Adapted from Andres *et al.* (2009:183).



### **6.3.3. Section summary – review and extension of dividend relevance payout models**

The purpose of this section (6.3) was to present and discuss results on the review and extension of dividend relevance payout models within the South African setting, thereby also adding and testing further explanatory variables as justified in section 5.4.2 of Chapter 5.

Using the OLS, Diff GMM, Sys GMM and LSDVC estimators, the study reported a number of findings both in terms of confirming results of previous researchers and relatively new observed trends as they relate to the South African setting. The study finds DPS and EPS as key determinants of changes in dividends ( $\Delta$ DPS). The SIZE and CH were found to have insignificant correlation with DPS. A closer look at the  $\Delta$ DPS trend among the three Panels, 1, 2 and 3 suggests that corporate managers in South Africa, irrespective of company size, are reluctant to change dividends which may be cut later.

A few more key findings are noted: firstly, that EVA has a negative and significant correlation with  $\Delta$ DPS. This is observed as suggesting that companies sacrifice paying dividends in their pursuance of growth projects. Secondly, that the level of cash holdings is a key determinant of payout decisions (that is, CH positively correlated with  $\Delta$ DPS). The reported correlation between a number of explanatory variables, which includes EPS, DPS and  $\Delta$ DPS is observed as confirming that South African companies target certain payout ratios. Of the hypotheses stated in this regard, that is, H<sub>1</sub> to H<sub>6</sub>, H<sub>5</sub> and H<sub>6</sub> were rejected.

## 6.4. TEST OF DIVIDEND LIFE CYCLE HYPOTHESIS

This section presents and discusses the results on the test of dividend life cycle hypothesis of South African listed companies. The presentation and discussion are done for both descriptive and regression analyses.

### 6.4.1. Description analysis – test of dividend life cycle hypothesis

Table 6.9 presents descriptive statistics for full sample companies (Panel 4) in respect of all variables identified in this regard. This panel comprises of 119 companies as outlined in section 5.4.3 above. The same sample is then disaggregated into 86 value companies (Panel 5: Tables 6.10) and 33 growth companies (Panel 6: Table 6.11) as justified in the same section. The presentation of Tables 6.9, 6.10 and 6.11 below is followed by their comparative discussion.

**Table 6. 9: Descriptive statistics for all variables of Panel 4 – Full sample**

Variables	Obs	Mean	SD	Min	Max	Skewness	Kurtosis
DPS	1087	174.81	166.97	7.50	508.30	0.8282	2.3661
SIZE	1084	15.50	1.63	13.00	18.03	0.0052	1.8336
RETE (Ratio)	1088	0.0954	0.0705	-0.0174	0.2118	0.0659	2.0388
L_RETE	1056	0.1064	0.0792	-0.0115	0.2453	0.2456	2.0879
ΔTA	1048	0.1374	0.1428	-0.058	0.4268	0.6383	2.5914
ROA	1091	13.0404	10.1646	-1.13	31.37	0.3647	2.1099
EVA	1083	0.0023	0.2958	-0.3183	0.2035	-0.1764	3.2413
L_EVA	1049	0.0257	0.3127	-0.2814	0.1856	-0.1427	3.2657

**Table 6. 10: Descriptive statistics for all variables of Panel 5 – Value companies**

<b>Variables</b>	<b>Obs</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Skewness</b>	<b>Kurtosis</b>
<b>DPS</b>	844	211.81	179.47	20.40	573.75	0.7988	2.4211
<b>SIZE</b>	840	15.96	1.48	13.67	18.28	0.0230	1.8695
<b>RETE</b>	843	0.0981	0.0708	-0.0155	0.2141	0.0364	2.0410
<b>L_RETE</b>	842	0.1110	0.0808	-0.0086	0.2527	0.2446	2.0977
<b>ΔTA</b>	842	0.1315	0.1229	-0.0402	0.3619	0.4341	2.2316
<b>ROA</b>	845	12.1597	9.1513	-1.0500	28.1000	0.2862	2.0704
<b>EVA</b>	844	0.076	0.3253	-0.3057	0.1973	-0.0432	2.9624
<b>L_EVA</b>	841	0.0573	0.4635	-0.2936	0.1898	-0.0543	3.0021

**Table 6. 11: Descriptive statistics for all variables of Panel 6 – Growth companies**

<b>Variables</b>	<b>Obs</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Skewness</b>	<b>Kurtosis</b>
<b>DPS</b>	243	33.34	41.00	2.98	125.00	1.3575	3.3016
<b>SIZE</b>	244	13.95	1.32	12.04	16.09	0.1928	1.8799
<b>RETE</b>	245	0.0858	0.0689	-0.0242	0.201	0.1405	2.0793
<b>L_RETE</b>	214	0.0884	0.0723	-0.0242	0.2132	0.2069	2.1011
<b>ΔTA</b>	206	0.1736	0.2281	-0.0762	0.6543	1.0695	2.9901
<b>ROA</b>	246	16.2381	13.5035	-2.16	39.51	0.3488	1.9880
<b>EVA</b>	239	0.0079	0.3572	-0.2219	0.1856	0.2387	3.1231
<b>L_EVA</b>	208	0.0056	0.3645	-0.2167	0.1920	-0.2001	3.2314

The very high DPS number of observations for value companies (709) over growth companies (167) confirms somewhat that paying dividends is not a priority for growth companies. The trend is the same for all explanatory variables as growth companies comprises of mostly recently listed companies. In line with observations reported in section 6.3.1 above, this trend was to be expected as recently listed companies may not prioritise paying dividends and are generally fewer than value companies.

There is a trend here confirming the dominance of value companies over growth companies in Panel 4. The SIZE mean and SIZE range looks similar for Panels 4 and 5, although the SD for these panels show different disparities among sample companies within, that is, 1.63 and 1.48 respectively. The SIZE mean and related range for Panel 6 confirm that sample companies in this regard are relatively younger. The accompanying

SD (1.32) is the lowest of the panels suggesting that the lowest disparities exist among the sample companies, in this regard.

The RETE shows related trend for all panels in respect of mean and SD. The two serve, among others, as indicators of retentions of earnings in relation to total equity capital and total assets and hence the relatively, same trend. The  $\Delta TA$  has a mean of 0.1374, 0.1315 and 0.1736, SD of 0.1428, 0.1229 and 0.2281 for Panels 4, 5 and 6 respectively. The mean of Panels 4 and 5 are relatively close to each other (i.e., 0.1374 and 0.1315 respectively) as a result of dominance of growth companies in Panel 4 as discussed above, but different disparities (SD) among sample companies within these panels. Panel 6, among the three panels shows the highest  $\Delta TA$  mean of 0.1736 as it comprises of growth companies, but the highest SD showing the highest disparities within the sample.

The growth companies (Panel 6) are shown to be the highest earner of profits, but at the same time because of relative uncertainties inherent within them, they also have the highest SD. Panel 6 also has the highest EVA mean as well as the SD. The highest profitability mean for both ROA and EVA accompanied by same trend of SD for growth companies suggests a possible aggressive pursuance of growth projects and higher volatility of earnings. The assets growth ( $\Delta TA$ ) mean corroborates this phenomenon.

#### **6.4.2. Regression analysis – test of dividend life cycle hypothesis**

The regression results are presented in Tables 6.12 (full sample, Panel 4), 6.13 and 6.14 as disaggregated comparative analyses for Panels 5 and 6 respectively. The grouping of panels here follows that of the descriptive analysis. These tables present results on a number of explanatory variables in respect of explaining dividend life cycle hypothesis in South Africa. The dependent variable is  $DPS^{15}$  and explanatories are the SIZE, RETE,

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<sup>15</sup> DPS and  $Div_{it}$  are used interchangeably for the purpose of this document.

L\_RETE,  $\Delta$ TA, ROA, EVA and L\_EVA. The OLS, Diff GMM, Sys GMM and LSDVC were used to perform the regressions. After the presentation of Tables 6.12, 6.13 and 6.14, a comparative discussion of them follows.

The developed model specification is restated here from section 5.4.3 as:

$$Div_{it} = \alpha_i + \beta_1(SIZE_{it}) + \beta_2(RETE_{it}) + \beta_3(RETE_{it-1}) + \beta_4(ROA_{it}) + \beta_5(EVA_{it}) + \beta_6(EVA_{it-1}) + \beta_7(\Delta TA_{it}) + \varepsilon_{it}$$

**Table 6. 12: Regression results for the test of dividend life cycle hypothesis and determining factors – Panel 4**

	OLS	Diff GMM	Sys GMM	LSDVC
<b>SIZE</b>	(24.81) 68.306225***	(1.83) 106.764131*	(10.15) 42.293705***	(5.05) 24.845971***
<b>RETE</b>	(-1.01) -123.663871	(-0.67) -274.799160	(-0.56) -74.771495	(-2.50) -0.000081**
<b>L_RETE</b>	(-0.17) -12.455081	(0.14) 34.399574	(-0.12) -6.074035	(-1.04) -45.830711
<b><math>\Delta</math>TA</b>	(-1.09) -37.502929	(-0.64) -36.286777	(1.10) 27.563755	(0.94) 31.004132
<b>ROA</b>	(4.06) 2.561059***	(2.03) 8.9122304**	(2.72) 2.316166***	(4.44) 2.43E+00***
<b>EVA</b>	(2.77) 0.000035***	(-0.19) -6.64E-06	(-1.96) -5.48E-06**	(2.65) 1.07E-05***
<b>L_EVA</b>	(2.60) 0.000035***	(0.87) 0.000022	(-0.60) -0.000013	(0.88) 1.87E-06
<b>Obs</b>	834	599	721	721
<b>R<sup>2</sup></b>	0.43			
<b>Wald Chi2</b>		34.23	353.66	245.12
<b>Prod&gt;Chi2</b>		0.0000		0.0001
<b>Sargan</b>		171.54 (35)	103.27 (43)	

Note: the '( )' for each variable as determined by estimators denotes t-statistics, and accompanying values outside brackets show correlation coefficients between dependent and

corresponding explanatory variables. Parentheses \*\*\*, \*\*, \* on coefficient estimations are significant at 1, 5 and 10 per cent respectively.

**Table 6. 13: Regression results for the test of dividend life cycle hypothesis and determining factors – Panel 5**

	OLS	Diff GMM	Sys GMM	LSDVC
<b>SIZE</b>	(20.43) 5.430753***	(1.82) 111.812571*	(5.60) 55.959147***	(4.70) 32.808612***
<b>RETE</b>	(-0.89) -126.586570	(-0.75) -323.547470	(-0.36) -55.880285	(-2.26) -210.619212**
<b>L_RETE</b>	(-0.68) -59.707249	(0.21) 59.027327	(0.07) 5.022561	(-1.04) -66.336721
<b>ΔTA</b>	(-0.49) -23.992127	(-0.22) -17.379731	(1.24) 44.296728	(1.37) 54.442432
<b>ROA</b>	(3.45) 3.074616***	(1.98) 8.878369**	(2.35) 2.725679**	(3.56) 2.706645***
<b>EVA</b>	(1.78) 0.000022**	(1.77) 4.92E-06*	(-1.67) -3.02E-06*	(1.95) 7.83E-06**
<b>L_EVA</b>	(2.77) 0.000037***	(0.87) 0.000021	(-1.74) -0.000011*	(1.80) 1.20E-06*
<b>Obs</b>	695	511	600	600
<b>R<sup>2</sup></b>	0.37			
<b>Wald Chi2</b>		31.96	234.14	23.18
<b>Prod&gt;Chi2</b>		0.0002	0.0000	0.0000
<b>Sargan</b>		154.77 (35)	106.03 (43)	

Note: the '( )' for each variable as determined by estimators denotes t-statistics, and accompanying values outside brackets show correlation coefficients between dependent and corresponding explanatory variables. Parentheses \*\*\*, \*\*, \* on coefficient estimations are significant at 1, 5 and 10 per cent respectively.

**Table 6. 14: Regression results for the test of dividend life cycle hypothesis and determining factors – Panel 6**

	<b>OLS</b>	<b>Diff GMM</b>	<b>Sys GMM</b>	<b>LSDVC</b>
<b>SIZE</b>	(12.46) 20.751423***	(1.94) 27.684152**	(4.53) 16.211263***	(0.18) 0.042132
<b>RETE</b>	(-2.78) -257.893264***	(-1.71) -776.324132*	(-2.34) -183.313241**	(-1.21) -60.149082
<b>L_RETE</b>	(-0.04) -1.311236	(0.44) 39.222132	(1.91) 37.895243*	(1.13) 22.772312
<b>ΔTA</b>	(-0.09) -1.050000	(-0.28) -3.050000	(-0.45) -2.910000	(0.87) 5.240000
<b>ROA</b>	(3.18) 1.035751***	(2.40) 3.052223**	(2.03) 0.584121**	(0.72) 0.085712
<b>EVA</b>	(2.51) 0.000075***	(5.47) 0.000091***	(5.26) 0.000063***	(6.59) 0.000072***
<b>L_EVA</b>	(1.85) 0.000241*	(-1.64) -0.0000910	(-2.72) -0.0000412***	(-4.84) -0.000071***
<b>Obs</b>	139	88	121	121
<b>R<sup>2</sup></b>	0.67			
<b>Wald Chi2</b>		3200.06	460.53	27.06
<b>Prod&gt;Chi2</b>		0.0000	0.0000	0.0010
<b>Sargan</b>		81.96 (28)	74.33 (35)	

Note: the '( )' for each variable as determined by estimators denotes t-statistics, and accompanying values outside brackets show correlation coefficients between dependent and corresponding explanatory variables. Parentheses \*\*\*, \*\*, \* on coefficient estimations are significant at 1, 5 and 10 per cent respectively.

The Wald test and R<sup>2</sup> are satisfied for all Panels thus confirming that the model fits the data. The Sargan test is valid for all regression estimators. The test results of VIF and tolerance factor, although not included here, confirmed for all explanatory variables included in the analyses the null hypothesis in respect of the possible multicollinearity problem.

All model estimators show a positive correlation between SIZE and company's propensity to pay dividends ( $Div_{it}$ ) for all Panels. The correlation is significant for OLS and Sys GMM estimators. Hypothesis 10 is thus accepted. This suggests that the size of a company is a key determinant of company's decisions to pay dividends.

The RETE is negatively correlated with  $Div_{it}$  for all Panels and the correlation is robust for all Panels. This association confirms that indeed dividends are a residue of investments opportunities and more so for growth companies (Panel 6). Hypothesis 8 is rejected particularly for growth companies (see Panel 6) as they portray persuasive features in respect of endeavours for growth. These results are consistent with the predictions of free cash flow hypothesis and residual theory. The L\_RETE shows a relative negative correlation particularly for Panels 5 and 6; this was to be expected as these Panels present disaggregated results for value and growth companies respectively wherein we expect to observe real trends of companies that share relatively common features. The observed trend is in line with the propositions of Lintner (1956) and further built up by Fama and Babiak (1968) and even further in modern dynamic data setting where unique institutional and regulatory environment play some key role, for example, as noted by Andres *et al.* (2009). This means, lagged earnings influence payout decisions.

The  $\Delta TA$  has a negative, but insignificant correlation with  $Div_{it}$ . This somehow indicates that companies that prioritise growth over other key matters pay less dividends. Panel 6 shows most estimators with a negative sign over Panels 4 and 5, thus confirming the predicted and observed inferences. It was expected, therefore that growth companies (Panel 6) would prioritise growth over paying dividends. Hypothesis 7 is thus accepted as there is no evidence to the contrary. The results support those of previous pioneering researchers, notably Fama and French (2001), DeAngelo *et al.* (2006) and Coulton and Ruddock (2011).



Profitability as measured by ROA and EVA are significantly and positively correlated with  $Div_{it}$ . This was to be expected, as increased profits enhance a company's ability to pay dividends. The correlation of SIZE and ROA with  $Div_{it}$  is the same. Hypothesis 9 is accepted. This is not surprising as larger and more profitable companies are expected to pay more dividends. The EVA has a unique association with  $Div_{it}$ ; that is, it shows a significant and positive correlation as shown by all estimators in relatively all Panels. This trend is line with that of descriptive analysis (see comparative Tables 6.10 and 6.11), which shows a much higher EVA mean for growth companies. This finding suggests the strength of growth companies over value companies in creating value for shareholders. Hypothesis 11 is accepted. These results seem to contradict those of previous researchers, among others, Crowther *et al.* (1998), and De Mortanges and Van Riel (2003). These researchers argue in favour of value companies as they recognise and emphasise distribution of dividends, company's ability and consistency in generating surplus cash. These attributes may not be associated with growth companies.

#### **6.4.3. Section summary – test of dividend life cycle hypothesis**

The estimators, OLS, Diff GMM, Sys GMM and LSDVC were used to run regressions. The study suggests the prevalence of dividend life cycle hypothesis among corporates in South Africa. It was found, in particular that SIZE, ROE and EVA have a positive positive on a company's propensity to pay dividends ( $Div_{it}$ ). The correlation is robust for ROE and EVA; that is, ROE and EVA show a positive and significant impact particularly for growth companies. This suggests the strength of growth companies in this sample over value companies in creating value for shareholders.

Growth in assets ( $\Delta TA$ ) shows a negative, but insignificant correlation with  $Div_{it}$  particularly for growth companies. This statistic, although insignificant, is interpreted as indicating that indeed growth companies prioritise growth projects over paying dividends, a trend in line with the prevalence of dividend life cycle hypothesis as noted by previous

studies, among others, Fama and French (2001), DeAngelo *et al.* (2006), and Coulton and Ruddock (2011). Of the hypotheses H<sub>7</sub> to H<sub>11</sub> which relate to objective 2, only H<sub>8</sub> was rejected.

## 6.5. DETERMINANTS OF PAYOUT FLEXIBILITY

This section presents and discusses the results of test of payout flexibility as it relates to payout policy as well as its determinants. The presentation and discussion are done for both descriptive and regression analyses.

### 6.5.1. Descriptive analysis – determinants of payout flexibility

Table 6.15 presents descriptive statistics for only sample companies (Panel 7) for all variables identified in respect of payout flexibility. This panel comprises of data for 52 companies for over a period of 17 year (1999 – 2015) as outlined in section 5.4.4 above. The essence of the relationship between dependent and explanatory variables here is to test how the explanatories impact on the extent to which share repurchases are used as payout option.

**Table 6.15: Descriptive statistics for all variables of Panel 7**

Variables	Obs	Mean	SD	Min	Max	Skewness	Kurtosis
PF	884	0.1084	0.3080	0.000	1.000	2.4970	7.2552
EPS	769	193.46	217.50	4.50	669.00	1.1793	3.0574
L_EPS	772	184.99	210.44	5.00	650.10	1.2077	3.1292
DPS	762	73.94	93.43	0.00	272.00	1.1113	2.7738
L_DPS	761	69.19	87.94	0.00	255.00	1.1190	2.7756
SIZE	771	14.63	1.63	12.10	16.96	-0.2105	1.7031
EVA	563	0.0922	0.2342	-0.0413	0.1469	1.142	2.3525
L_EVA	527	0.0825	0.2232	-0.0453	0.1524	1.2635	2.6352
CH	768	0.1051	0.0822	0.0124	0.2713	0.8298	2.4978

The mean for the dependent variable (PF) is 0.01084 and related minimum and maximum values are 0.0000 and 1.0000 respectively. The PF SD is 0.3080 which indicates dispersion among sample companies. The minimum PF of 0.0000 represents some periods where share repurchases are not made, and mean of 0.1084 an indication that share repurchases made during the study period constitute a smaller fraction compared to cash dividends. The maximum PF of 1.0000 is an indication that there are periods where open market share repurchases were made without corresponding cash dividends paid. In some cases, share repurchases made have been accompanied by cash dividends paid but the latter have been minimal resulting in PF of 1 or close to it, and hence a relative takeover of total payout by share repurchases.

Of all the variables, EVA has the lowest number of observations due to, among others, missing values from reported financial statements (i.e., EVA Obs: 563; L\_EVA Obs: 527). The EPS and DPS have mean and SD of 193.46 (SD: 217.50) and 73.94 (SD: 93.43) respectively. The SIZE mean is 14.63 ranging from 12.10 to 16.96. The SIZE range suggests that the sample comprises of companies of insignificantly different sizes (also supported by relatively small SIZE SD of 1.63).

### 6.5.2. Regression analysis – determinants of payout flexibility

Table 6.16 presents regression results on the determinants of payout flexibility. The regression tests were done on 52 companies. The OLS, Diff GMM and Sys GMM were used to perform the regressions.

The model specification developed in section 5.4.4 above is restated here:

$$PF_{it} = \alpha_i + \beta_1(D_{it}) + \beta_2(E_{it}) + \beta_3(D_{it-1}) + \beta_4(E_{it-1}) + \beta_5(SIZE_{it} + \beta_6(CH_{it}) + \beta_7(EVA_{i,t}) + \beta_8(EVA_{it-1}) + \varepsilon_{it}$$

**Table 6.16 : Regression results for the determinants of payout flexibility – Panel 7**

	<b>OLS</b>	<b>Diff GMM</b>	<b>Sys GMM</b>	<b>LSDVC</b>
<b>L_EPS</b>	(-0.31) -0.000045	(2.02) 0.000074**	(2.70) 0.000111***	(2.32) 0.000261**
<b>L_DPS</b>	(-0.92) -0.000300	(0.09) -0.000046	(-4.25) -0.000085***	(-2.40) -0.000099**
<b>SIZE</b>	(-0.90) -0.010894	(-1.70) -0.103784*	(-1.98) -0.029524**	(-3.18) -0.122934***
<b>EVA</b>	(-2.22) -1.07e-08**	(-1.68) -1.08e-07*	(-1.97) -9.32e-08**	(-2.45) -1.15e-07**
<b>L_EVA</b>	(1.73) 7.32e-08*	(1.89) 1.15e-07*	(1.03) 1.03e-07	(-0.39) -3.28e-08
<b>CH</b>	(0.93) 0.212044	(-1.56) -0.540581	(1.44) 0.664388	(-2.45) -0.865957**
<b>Obs</b>	478	422	478	478
<b>R<sup>2</sup></b>	0.0140			
<b>Wald Chi2</b>		15.11	16.32	104.90
<b>Prod&gt;Chi2</b>		0.0879	0.0604	0.0000
<b>Sargan</b>		57.94(65)	68.52 (77)	

Note: the '( )' for each variable in this table as determined by estimators denotes t-statistics, and accompanying values outside brackets show correlation coefficients between dependent and corresponding explanatory variables. Parentheses \*\*\*, \*\*, \* on coefficient estimations are significant at 1, 5 and 10 percent respectively.

The tests for model goodness of fit (Wald test and R<sup>2</sup>) are satisfied with the exception of the application of LSDVC estimator. The Sargan test is also valid for both the Diff GMM and Sys GMM. Thus only OLS, Diff GMM and Sys GMM were used to test regressions with the latter dynamic estimators serving as tests for robustness of estimation as well. The results of LSDVC shown in Table 6.16 were given for illustrative purposes. With the exception of EVA, L\_EVA and CH, and the test results of VIF and tolerance factor could not reject the null hypothesis of the problem of multicollinearity among some explanatory

variables, namely, EPS, L\_EPS, DPS and SIZE. The EPS and DPS were then removed from the analyses. Their lagged variables were not removed as it is submitted that they may be more influential in determining the decision choice between share repurchases and payment of dividends.

The L\_EPS has a moderately skewed (to positive), but significant correlation with PF. This finding suggests that earnings are not key determinants of company flexibility regarding payout choices. On the other hand, the robust and positive correlation of L\_EPS and PF confirm inherent flexibility of repurchases as payout option. Thus hypothesis 12 is rejected, but hypothesis 13 is accepted. These results are consistent with those of Jagannathan *et al.* (2000), and Denis and Osobov (2008). L\_DPS has positive and significant correlation with PF, thus confirming findings of previous research in respect of current dividends as determinants of payout decisions (see Fama and Babiak, 1968; and Andres *et al.*, 2009).

The SIZE has negative and significant correlation with PF. This correlation implies that larger companies pay out a lower fraction of payout as repurchases, and thus evidence of attitude of managers of these companies relatively different from that of smaller ones. Thus hypothesis 14 is rejected. Furthermore, the evidence points to share repurchases as playing complementary role to cash dividends.

The EVA has a negative and relatively significant correlation with PF. This trend is in line with that of EPS as discussed above showing that in the process of decision-making, choices have to be made as to whether repurchases can be made or not, furthermore, repurchases are not routine and hence the relative insignificant correlation. This also suggests that value created may not be a key determinant of the choice between cash dividends or share repurchases. Hypothesis 15 is rejected. This correlation seems to support some caution by Opler *et al.* (1999) that increased excess cash may not necessarily result in making share repurchases, but rather increased dividends.

The CH shows some moderate, but positive correlation with PF. This suggests that cash flow is not a key determinant of choice between cash dividends and share repurchases. Hypothesis 16 is thus accepted. This evidence is consistent with that of CH correlation with  $\Delta$ DPS and the speed of adjustment coefficient as discussed above. As explained just after Table 6.15, the maximum PF of 1.0000 are an indication that share repurchases serve as substitute to cash dividends to some extent, that is, a relative share repurchase takeover of total payout. Consistently, there are a number of instances where share repurchases were made, without accompanying cash dividends being paid. Hypothesis 17 is thus accepted. On the other hand, as outlined above, there are periods where open market share repurchases were made and cash dividends were also paid albeit the values of the later have been minimal. The empirical evidence for the considered companies then suggests that share repurchases serve a complementary role to cash dividends as well. Thus hypothesis 18 is also accepted.

### **6.5.3. Section summary – determinants of payout flexibility**

The results indicated that L\_EPS is correlated with PF, a confirmation of the flexibility of share repurchases as payout option. Additionally, that SIZE is negatively correlated with PF, confirming that managers, irrespective of company size have similar attitudes towards share repurchases as payout option. The EVA and CH show negative and positive correlation respectively with PF and that repurchases serve both substitute and complementary roles to cash dividends.

The hypotheses that were developed in line with objective 3 were H<sub>12</sub> to H<sub>18</sub>, from which H<sub>12</sub>, H<sub>14</sub> and H<sub>15</sub> were rejected.

## 6.6. SUMMARY

The purpose of this chapter was to present and discuss results of the current study. A number of findings were presented and discussed. The specific summary results are outlined hereunder:

For objective 1, the study confirmed the results of similar previous research and also observed current trends relating to South African corporate setting. Firstly, it was found that companies have target payout ratios towards which they adjust. Secondly, managers are reluctant to change (increase) dividends which may have to be cut later. It was also observed that in their endeavours to create and maximise value, managers may have to sacrifice paying dividends; this trend was evident more with growth companies. Lastly, it was noted that holding of higher level by value companies affords them the opportunity to utilise same to make payout decisions.

For objective 2 the results showed that the dividend life cycle hypothesis is prevalent among South African companies. Specifically, it was observed that companies pursuing growth projects prioritise them over paying dividends. Growth companies were shown to be more aggressive in their pursuance of growth and hence are able to create more value for shareholders than value companies.

Objective 3 also provided a number of findings: firstly, that the inherent flexibility of share repurchases over cash dividends was confirmed; secondly, the size of company has negative and significant correlation with payout flexibility which implies that larger companies pay out a lower fraction of payout as repurchases, thus providing evidence that of attitude of managers of these companies relatively different from that of smaller ones. Finally, share repurchases serve both substitute and complementary roles to cash dividends.

The next chapter presents the overall summary, conclusion and recommendations of the study.



## **CHAPTER 7: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **7.1. INTRODUCTION**

The purpose of this chapter is to present the overall summary, conclusion and give recommendation in respect of key findings which have emanated from the study. Outlined in this chapter are the background of the study, problem statement, objectives, the justification, contribution of the study to literature on the topic, as well as suggestions for future research.

The chapter, therefore starts by restating the comprehensive context of the study, its resultant problem statement (section 7.2) and the questions which emanated from these aspects were also answered. The chapter further reflects on study objectives, findings and confirmation or rejection of the articulated hypotheses (section 7.3) Thirdly, the chapter presents the contribution of the study in respect of the research gap, information on the methodology and a discussion on the implications for policy makers and financial managers (section 7.4). Fourthly, the areas for future research are suggested (section 7.5) and section 7.6 concludes the chapter.

### **7.2. SOME REFLECTION ON THE FOUNDATIONAL CONTEXT OF THE STUDY AND PROBLEM STATEMENT**

The essence of payout decisions is that they remain one of the key functional areas in corporate finance. Payout decisions involve complex considerations as to how managers determine them and how they impact on value for shareholders.

The past few decades have witnessed the emergence of share repurchases as another payout option. Furthermore, there has been a recognition of some value-based measures of performance such as EVA and others in respect of creating value for shareholders. All these are occurring in the realm of modern, complex and competitive business environment, and thus add fuel to the already complex payout debate.

The current study was done from this context. The context, firstly, necessitated an examination of choice between cash dividends and share repurchases; secondly, theoretical and empirical justification had to be provided to relate key additional company specific variables (including value-based financial performance metrics) with payout decisions, a path which had not clearly, been explored, in the past. This process was followed with respect to already existing dividend relevance payout models, dividend life cycle hypothesis, as well as to the extent to which share repurchases are used as payout option. The adopted context was appropriate as it reported noteworthy trends for South African considered listed companies.

### **7.3. SOME REFLECTION ON THE STUDY OBJECTIVES, FINDINGS AND HYPOTHESES**

On the basis of the foundational context as well as the problem statement of the study, relevant objectives were deduced. The literature reviewed established some relationship between dependent and independent variables as well as justifying the design and methodology of Chapter 5. The same relationship provided the basis for hypothesis development. All these together set the tone for the analyses and findings of this study.

The objectives of the study are again restated here for convenience:

1. To review extended versions of dividend relevance models, thereby including some company-specific variables and selected key value based measure (s) of financial performance, as explanatory variables;
2. To test the dividend life cycle hypothesis in respect of emerging market setting such as that of South Africa; and
3. To study the extent to which share repurchases are being used as earnings distribution payout option (that is the payout flexibility). This objective also examines the determinants of payout flexibility.

The basis for objective 1 was set in section 1.2 of Chapter 1 and contextualised further in sections 3.2.1 and 3.3 of Chapter 3. The objective was explored, and its results and discussions indicated that of the hypotheses developed in this regard (H<sub>1</sub> to H<sub>6</sub>), H<sub>5</sub> and H<sub>6</sub> was rejected.

As with objectives 1 and 3 (still to follow next), objective 2's context was outlined in section 1.2 of Chapter 1, the further discussions and justifications following in section 3.4 of Chapter 3. The objective was explored through testing of related hypotheses, results and discussions. The only hypothesis rejected here ( H<sub>7</sub> to H<sub>11</sub>) was H<sub>8</sub>.

Objective 3 was explored in detail and justified through sections 3.5 of Chapter 3 and section 4.4 of Chapter 4. The applicable hypotheses were H<sub>12</sub> to H<sub>18</sub>, of which H<sub>12</sub>, H<sub>14</sub> and H<sub>15</sub> were rejected.

This outline suggests that the study achieved its intended purpose using the designed structure: foundational context, problem statement, objectives, review of literature,

development of hypotheses, selecting a research design and methodology and its application output (results); all these key parts of the study linked well till to the end.

#### **7.4. CONTRIBUTION OF THE STUDY: IMPLICATIONS FOR RESEARCHERS, MANAGERS AND SHAREHOLDERS**

The current study has contributed to the existing body on knowledge in a number of ways, including filling in some of the research gap identified, design and methodology matters for specialised topics like this one.

In respect of the research gap, the study contributes to existing body of knowledge as it found that, firstly, managers endeavour to maximise value for shareholders through, for example, pursuing potential profitable investments sacrifice payment of dividends. This was observed on a number of occasion when EVA showed a negative correlation with change in dividends ( $\Delta DPS$ ) and/or company's propensity to pay dividends ( $Div_{it}$ ) (see sections 6.3.2 and 6.4.2) especially for growth companies.

Secondly, the growth companies were observed to have the ability to create more value than value companies (that is, EVA was observed on several occasions to be negatively correlated with  $Div_{it}$  and was robust for growth companies; that is, the EVA mean for growth companies has significantly been higher than of value companies (see section 6.4.2, Tables 6.2 and 6.3).

Thirdly, the results confirmed the prevalence of dividend life cycle hypothesis among South African corporates, that is, both RETE and  $\Delta TA$  (among key variables) have shown a negative correlation with  $Div_{it}$  (see section 6.4.2 together with the overall analyses in respect of dividend life cycle hypothesis (section 6.4)).

Fourthly, the study showed that, managers of large and mature companies considered have attitude different from those of smaller companies regarding share repurchases as payout choice. That is, size of company was found to have negative and significant correlation with payout flexibility which implies that larger companies pay out a lower fraction of payout as repurchases. Fifthly, the collected evidence confirmed the flexibility of share repurchases as payout option (Lagged EPS showed a positive and robust correlation with PF, and together with analysis of section 6.5.2 provided evidence in this regard). Lastly, the study noted that share repurchases serve both substitute and complementary roles to cash dividends in South Africa (see sections 6.5.2 and 6.5.3 of Chapter 6). All these seven results are unique contribution to literature as they had not been explored explicitly, in the South African corporate history.

In respect of methodology, the current study is one of the very few, if any, to apply the panel data models and related econometric estimators for payout studies in South Africa, focusing on the inclusion of share repurchases as payout option in the process. Another contribution from the methodology explored in this study and models that were developed specifically is that it included all economic sectors in its sample companies and analyses without making any distinction, and yet still confirmed findings of previous research while isolating further noteworthy study areas. This is a unique case as a significant number of previous research in corporate finance have excluded financial services sectors due to the fact that they are highly regulated and hence the presumed resultant distortion of results if they are included for research with other sectors. In some cases, even sectors such as those of basic resources and utilities were excluded as their operations have been considered to be inherently too unique for considerations alongside others.

The study provided a number of implications for financial managers. The review of regulatory environment governing distribution decisions has shown that South African regulations in this regard presents the platform for a fair and equitable distribution of

earnings to shareholders, as well as the protection of all stakeholders. For example, the preservation of company's capital through the 'Concept of Capital and Capital Maintenance' by IFRS's conceptual framework sustains liquidity and solvency of the company. The change of STC to relatively new dividend tax (effective from 12 April 2012) is seen as enhancing more distribution of earnings as dividends or share repurchases. These are commendable developments by South African regulations for distribution decisions. The review of literature has also confirmed this, that is, it showed empirical evidence at emerging markets mirroring that of developed markets albeit relatively minimal at the earlier. Results from the current study further presents corroborating evidence.

The study also provided financial managers with enhanced alternatives regarding distribution decisions. This is confirmed through its empirical evidence, among them, firstly, the sacrifice of dividend payments so as to use earnings generated to pursue investment opportunities. Secondly, the reluctance by managers to increase dividends as increases have to be sustainable. Thirdly, it is a unique finding for South Africa that growth companies create more value for shareholders than value companies. Lastly, the confirmed inherent flexibility of share repurchases, and that they serve both substitute and complimentary roles to cash dividends. This evidence should encourage financial managers to recognise share repurchases more as distribution choice, that is, diffusing tension that share repurchases are replacing the payment of cash dividends and some doubt that they may not possess complimentary attributes to cash dividends.

These are enhanced decision alternatives for financial managers in their endeavours to create and maximise value for shareholders, particularly in emerging market setting.

In respect of the interests of shareholders and as outlined just above, the review of regulatory framework governing the payout policy showed that applicable regulations provide for a fair and equitable distribution of wealth to all ordinary shareholders, and thus protection of their interests. Likewise, empirical evidence shows some noteworthy trends

for South African corporate in respect of maximising value, for example, the finding that 'growth' companies seem to show potential to create more value than 'value' companies. This evidence should encourage shareholders not to undermine the value-creating prowess of growth companies. Furthermore, the recognition by managers of the role of repurchases in creating value, that is, the finding that share repurchases serve both substitute and complementary roles to cash dividends should benefit shareholders and potential shareholders more as value-adding financial decisions will be enhanced. Thus both regulatory review and empirical evidence from the current study seem to fairly protect the interests of shareholders as well as affording them with enhanced environment conducive for maximisation of value. These developments should attract investments in the country.

#### **7.5. LIMITATIONS OF THE STUDY AND SUGGESTED AREAS FOR FUTURE RESEARCH**

Based on the empirical findings and some limitations inherent in the current study, a number of suggestions are made in respect of future research in a relatively same area. Firstly, the study only concentrated on listed companies and this brought with it the survivorship bias. That is, possible inclusion of non-listed companies would have had their phenomenon fairly represented as well as enhancing sample sizes, and hence results of this study should be interpreted in this context. Nonetheless, it is submitted that fair representation of excluded companies may exist in either categories used in major parts of the current study, that is, 'value' and 'growth' companies. Furthermore, the inclusion of non-listed companies in this regard is suggested for future research.

Secondly, the study also did not analyse companies in respect of their sectors but rather as one group of those listed. This approach was deliberate so as to test whether or not exclusion of sectors such as financial services and in some cases, the basic resources or/and utilities, as done in many previous corporate finance studies may be justified. The

strategy adopted did not disappoint, but future research is suggested in the form of corroborative study so as to enhance the context for further research. Alternatively, future research may adopt a counter approach, that is, relatively similar study but traditional approach of still excluding the seemingly unique sectors mentioned above, so as to provide a comparative context for further research.

Thirdly, although the current study tested the extended versions of dividend relevance models, estimated the speed of adjustment to payout ratios and confirmed much of the previous findings, there appears to be a need to further test the model comprehensively thereby including share repurchases. Such an approach may also include an attempt to estimate the speed of adjustment to payout ratios as this is done by many studies in developed markets, but not necessarily for emerging markets; this will enhance comparability of research between developed and emerging markets.

Fourthly, to the author's knowledge, research is very minimal, if any, in respect of test of dividend life cycle hypothesis for emerging market setting and hence it is hereby recommended that further attempts be done in this regard so as to add to existing literature. Fifthly, the research on the extent to which share repurchases are used as payout option as done in this study had relatively few sample companies as the study was driven by, among others, the theme which focused on the creation of value for shareholders which then led to adopting definition of payout flexibility as ratio of value of open market repurchases over total payout. Widening this definition to include other forms of repurchases could have led to a much bigger sample and hence this approach is suggested for future research. When this is done, the findings of that research may be used in conjunction with the current study for an enhanced context for further research on the emerging markets. Sixthly and lastly, the period of the study includes some years that were affected by global financial crisis, for example, the 2008, that is, such crisis could have had an impact on corporate cash holdings, capital structure and distribution policy. Although the impact of the said crisis are considered important, it is hereby submitted for a number of reasons, among them, for example, that the study was directed



by issues as embodied in the three main study objectives with the theme of value-creation being the focal point. Furthermore, the noted possible impact of the financial crisis is somehow reflected in the variables included in those affected years. On the other hand, a similar study which may incorporate and explore the impact of global financial crisis is suggested for the future.

## **7.6. SUMMARY**

The purpose of this chapter was to present the summary, conclusion and recommendation in respect of key matters that emanated from the study. The chapter reflected on the foundational context of the study, problem statement, research objectives, findings and hypotheses. This was done so as to link the framework that contextualised the study with the eventual execution of the work to confirm if indeed the issues that were of concern in the justification of the study were addressed. The contribution to fill in the research gap, methodology and design, as well as opportunities affording corporate managers with enhanced decisions' alternatives were presented.

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## APPENDICES

### APPENDIX A: LIST OF FULL SAMPLE COMPANIES – PANEL 1

LIST OF COMPANIES – PANEL 1		
African and Overseas Enterprises	Northam Platinum	Aspen Pharmacare Holdings
Allied Electronic Corporation	Oceana Group	Cashbuild
Anglo Platinum Ltd	Octodec Investments	Buildmax Ltd
Arcelor Mittal	Omnia Holdings	Datacentrix Holdings Ltd
Barclays Africa	Pick n pay Holdings	Impala Platinum Ltd
Adcorp Holdings	PSG Group	Imperial Holdings
AECI Ltd	Remgro	Merafe Resources
African Oxygen Ltd	Reunert	York Timber Holdings
Argent Industrial	Rex Truform Clothing	The Foschini Group
Assore Ltd	Rand Merchant Bank Holdings	The Bidvest Group
Avi	SA Corporate Real Estate	Sentula Mining
Barloworld	Sanlam	Afrimat
Bowler Metcalf	Santam	Afro-C
Brait SA	Sasfin Holdings	ARB Holdings
Cargo Carriers	Sasol	Bluetel
City Lodge Group	Shoprite Holdings	Capevin Hodings
Clicks Holdings	Spur Corporation	Cognition
Comair	Standard Bank Ltd	Contract Services Group
Combined Motor Holdings	Sycom Property Fund	Efficient Group
Crookes Brothers Ltd	Tiger Brands	ENX Group
Distell Group	Tongaat Hulett	Essor
ELB Group	Truworth Ltd	Grand Parade
Famous Brands	WBHO	Holdsport
Firststrand Ltd	Woolworth Holdings	Hulamin
Grindrod	Nampak	Insimbi
Group 5	Netcare Group	Life Healthcare
Hudaco Industries	Nu-World Holdings	Mazor Ltd
Growth Point Properties	Redefine Income Fund	Mixtel
Implala Platinum	SAPPI	Niveus
Investec Ltd	Steinhoff International Holdings	Onelogix
Invicta Holdings	Super Group	Pioneer Foods
Italtile	Hyprop Investments	Raubex

Lewis Group	Trans Hex Group	Transaction Capital Ltd
Liberty Holdings	Hyprop Investments	Vodacom
Massmart Group	Trans Hex Group	Zeder
Metair Investments	Nedbank Ltd	Vodacom
Mr Price Group	Naspers Ltd	Zeder
Naspers Ltd	Nedbank Ltd	

## APPENDIX B: VALUE SAMPLE COMPANIES – PANEL 2

LIST OF COMPANIES - PANEL 2		
Barclays Africa	SA Corporate Real Estate	Octodec Investments
Adcorp Holdings	Sanlam	Omnia Holdings
AECI Ltd	Santam	Pick n pay Holdings
African Oxygen Ltd	Sasfin Holdings	PSG Group
Argent Industrial	Sasol	Remgro
Assore Ltd	Shoprite Holdings	Reunert
Avi	Spur Corporation	Rex Truform Clothing
Barloworld	Standard Bank Ltd	Merafe Resources
Bowler Metcalf	Sycom Property Fund	York Timber Holdings
Brait SA	Tiger Brands	The Foschini Group
Cargo Carriers	Tongaat Hulett	The Bidvest Group
City Lodge Group	Truworth Ltd	Sentula Mining
Clicks Holdings	WBHO	Rand Merchant Bank Holdings
Combined Motor Holdings	Woolworth Holdings	
Crookes Brothers Ltd	Nampak	
Distell Group	Netcare Group	
ELB Group	Nu-World Holdings	
Famous Brands	Redefine Income Fund	
Firstrand Ltd	SAPPI	
Grindrod	Steinhoff International Holdings	
Group 5	Super Group	
Hudaco Industries	Comair	
Growth Point Properties	Hyprop Investments	
Implala Platinum	Trans Hex Group	
Investec Ltd	African and Overseas Enterprises	
Invicta Holdings	Allied Electronic Corporation	
Italtile	Anglo Platinum Ltd	

## APPENDIX C: GROWTH SAMPLE COMPANIES – PANEL 3

LIST OF COMPANIES - PANEL 3
Afrimat
Afro-C
ARB Holdings
Bluetel
Capevin Hodings
Cognition
Contract Services Group
Efficient Group
ENX GROUP
Essor
Grand Parade
Holdsport
Hulamin
Insimbi
Life Helathcare
Mazor Ltd
Mixtel
Niveus
Onelogix
Pioneer Foods
Raubex
Transaction Capital Ltd
Vodacom
Zeder

## APPENDIX D: FULL SAMPLE COMPANIES – PANEL 4

LIST OF COMPANIES - PANEL 4		
Barclays Africa	Naspers	Trans Hex Group
Adcorp Holdings	Nedbank Ltd	African and Overseas Enterprises
AECI Ltd	Northam Platinum	Allied Electronic Corporation
African Oxygen Ltd	Oceana Group	Anglo Platinum Ltd
Argent Industrial	Octodec Investments	Arcelor Mittal
Assore Ltd	Omnia Holdings	Lewis Group
Aveng	Pick n Pay Holdings	Aspen Pharmacare Holdings
Avi	PSG Group	Cashbuild
Barloworld	Remgro	Buildmax Ltd
Bowler Metcalf	Reunert	Datacentrix Holdings Ltd
Brait SA	Rex Truform Clothing	Impala Platinum Ltd
Cargo Carriers	Rand Merchant Bank Holdings	Imperial Holdings
City Lodge Group	SA Corporate Real Estate	Merafe Resources
Clicks Holdings	Sanlam	York Timber Holdings
Clientele Life	Santam	The Foschini Group
Combined Motor Holdings	Sasfin Holdings	The Bidvest Group
Crookes Brothers Ltd	Sasol	Sentula Mining
Distell Group	Shoprite Holdings	Afrimat
ELG Group	Spur Corporation	Afrocentric Investment Ltd
Famous Brands	Standard Bank Ltd	ARB Holdings
Firststrand Ltd	Sycom Property Fund	Ascendis
Grindrod	Tiger Brands	Bluetel
Group 5 Ltd	Tongaat Hulett	Capevin Holdings
Hudaco Industries	Truworth Ltd	Cognition
GrowthPoint Properties	WBHO	Contract Services Group
Implala Platinum	Woolworth Holdings	Efficient Group
Investec Ltd	Nampak	ENX Group
Invicta Holdings	Netcare	Essor
Italtile	Nu-World Holdings	Finbond
Liberty Holdings	Redefine Income Fund	Grand Parade
Massmart Holdings	SAPPI	Holdsport
Metair Investments	Steinhoff International Holdings	Huge Telecom
Mr Price Group	Super Group	Hulamin
Texton	Comair	Insimbi
Tower	Hyprop Investments	Life Health care
Transcap	Raubex	Mazor
Vodacom	Rolfes	Mixel
Zeder	South Ocean	Niveus

Pioneer Foods	Taste	Onelogix
RMIH		

## APPENDIX E: VALUE SAMPLE COMPANIES – PANEL 5

LIST OF COMPANIES - PANEL 5		
Barclays Africa	Italtile	Truworth Ltd
Adcorp Holdings	Liberty Holdings	WBHO
AECI Ltd	Massmart Holdings	Woolworth Holdings
African Oxygen Ltd	Metair Investments	Nampak
Argent Industrial	Mr Price Group	Netcare
Assore Ltd	Naspers	Nu-World Holdings
Aveng	Nedbank Ltd	Redefine Income Fund
Avi	Northam Platinum	SAPPI
Barloworld	Oceana Group	Steinhoff International Holdings
Bowler Metcalf	Octodec Investments	Super Group
Brait SA	Omnia Holdings	Comair
Cargo Carriers	Pick n Pay Holdings	Hyprop Investments
City Lodge Group	PSG Group	Trans Hex Group
Clicks Holdings	Remgro	African and Overseas Enterprises
Clientele Life	Reunert	Allied Electronic Corporation
Combined Motor Holdings	Rex Truform Clothing	Anglo Platinum Ltd
Crookes Brothers Ltd	Rand Merchant Bank Holdings	Arcelor Mittal
Distell Group	SA Corporate Real Estate	Lewis Group
ELG Group	Sanlam	Aspen Pharmacare Holdings
Famous Brands	Santam	Cashbuild
Firstrand Ltd	Sasfin Holdings	Buildmax Ltd
Grindrod	Sasol	Datacentrix Holdings Ltd
Group 5 Ltd	Shoprite Holdings	Impala Platinum Ltd
Hudaco Industries	Spur Corporation	Imperial Holdings
GrowthPoint Properties	Standard Bank Ltd	Merafe Resources
Implala Platinum	Sycom Property Fund	York Timber Holdings
Investec Ltd	Tiger Brands	The Foschini Group
Invicta Holdings	Tongaat Hulett	The Bidvest Group

**APPENDIX F: GROWTH SAMPLE COMPANIES – PANEL 6**

<b>LIST OF COMPANIES – PANEL 6</b>
Afrimat
Afrocentric Investment Ltd
ARB Holdings
Ascendis
Bluetel
Capevin Holdings
Cognition
Contract Services Group
Efficient Group
ENX Group
Essor
Finbond
Grand Parade
Holdsport
Huge Telecom
Hulamin
Insimbi
Life Health care
Mazor
Mixtel
Niveus
Onelogix
Pioneer Foods
RMIH
Raubex
Rolfes
South Ocean
Taste

## APPENDIX G: FULL SAMPLE COMPANIES – PANEL 7

LIST OF COMPANIES - PANEL 7	
JD Group	Telkom SA
Adcorp Holdings	The House of Busby
Interwaste	Transpaco
AECI Ltd	Truworth Ltd
African Media Entertainment	UCS Group
African Oxygen Ltd	Unitrans
Astral Foods	Universal Industries
Aveng	Value Group
Barloworld	Woolworths Holdings
Brandcorp	York Timber Holdings
Clicks Holdings	PRIMSERV Group LTD
Compu-Clearing	AVI
Connection GRP	Tiger Wheels
Control Instruments	Adrenna Properties
Digicore Holdings	Advtec
Distribution and Warehousing	African Phoenix Investment
Edcon	Anglo American
Faritec	Argent
Grindrod	Assore
Invicta Holdings	Datatech
Kaydav	Exxaro Resources
Mustek	
Nampak	
Netcare Holdings	
Paracon Holdings	
Pick n Pay	
Reunert	
Sovereign Food	
Sun International	
Super Group	



## APPENDIX H: EXTRACTS TABLES FOR PANEL DATA

### AN EXTRACT FROM PANEL DATA 1– FULL SAMPLE OF OBJECTIVE 1

Firm	firm size	years	c_dps	eps	l_eps	dps	l_dps	size	eva <sup>16</sup>	l_eva	ch	firmc
Barclays Africa	Value	2015	0.80	1687.20	1538.40	850.00	786.25	20.86	-5901295.60	5775948.00	0.0401	2
Barclays Africa	Value	2014	-0.39	1538.40	1397.70	786.25	1298.80	20.71	5775948.00	-1398492.00	0.0508	2
Barclays Africa	Value	2013	1.23	1397.70	1227.30	1298.80	581.40	20.68	-1398492.00	6415417.60	0.0505	2
Barclays Africa	Value	2012	-0.15	1227.30	1355.90	581.40	684.00	20.51	6415417.60	1304459.30	0.0325	2
Barclays Africa	Value	2011	0.50	1355.90	1122.60	684.00	455.00	20.48	1304459.30	1543403.40	0.0343	2
Barclays Africa	Value	2010	0.02	1122.60	1099.40	455.00	445.00	20.39	1543403.40	5064400.80	0.0340	2
Barclays Africa	Value	2009	-0.25	1099.40	1466.20	445.00	595.00	20.39	5064400.80	6925727.90	0.0300	2
Barclays Africa	Value	2008	0.06	1466.20	1401.90	595.00	560.00	20.47	6925727.90	5257761.60	0.0300	2
Barclays Africa	Value	2007	-0.08	1401.90	1181.80	560.00	608.00	20.28	5257761.60	2844272.00	0.0300	2
Barclays Africa	Value	2006	0.80	1181.80	903.66	608.00	337.14	20.02	2844272.00	2517123.00	0.0300	2
Adcorp	Value	2015	0.06	298.50	188.60	125.80	119.00	15.49	126240.63	52671.51	0.1272	3
Adcorp	Value	2014	0.00	188.60	236.70	119.00	119.00	15.36	52671.51	-18038.26	0.1005	3
Adcorp	Value	2013	-0.05	236.70	209.10	119.00	125.00	15.23	-18038.26	-9348.07	0.1504	3
Adcorp	Value	2012	-0.29	209.10	195.70	125.00	175.00	14.86	-9348.07	12031.03	0.1093	3
Adcorp	Value	2011	0.06	195.70	195.90	175.00	165.00	14.47	12031.03	8237.28	0.1979	3
Adcorp	Value	2010	-0.26	195.90	272.10	165.00	222.00	14.33	8237.28	25026.76	0.0823	3
Adcorp	Value	2009	0.20	272.10	167.66	222.00	184.29	14.35	25026.76	-40351.18	0.1057	3
Adcorp	Value	2008		167.66		184.29		14.14	-40351.18		0.1064	3
Adcorp	Value	2007			236.50		168.00	13.38		64992.08		3
Adcorp	Value	2006	0.20	236.50	195.10	168.00	140.00		64992.08	62551.90	0.1153	3
AECI	Value	2015	-0.48	894.00	842.00	327.25	632.40	16.69	-310554.00	397296.60	0.1188	4
AECI	Value	2014	1.36	842.00	791.00	632.40	267.75	16.51	397296.60	126247.20	0.0931	4
AECI	Value	2013	0.20	791.00	547.00	267.75	223.55	16.48	126247.20	285144.50	0.0847	4
AECI	Value	2012	-0.13	547.00	720.00	223.55	257.00	16.39	285144.50	63692.50	0.0879	4
AECI	Value	2011	0.25	720.00	577.00	257.00	205.00	16.34	63692.50	116792.50	0.0852	4
AECI	Value	2010	1.28	577.00	346.00	205.00	90.00	16.15	116792.50	-216691.20	0.0710	4
AECI	Value	2009	-0.61	346.00	412.00	90.00	231.00	16.12	-216691.20	85969.20	0.0666	4

<sup>16</sup> Although the values of EVA and its lagged here are raw, the final data and eventual analyses used values deflated by beginning of year assets.

AECI	Value	2008	0.08	412.00	355.00	231.00	213.00	16.21	85969.20	73589.60	0.0405	4
AECI	Value	2007	0.04	355.00	853.00	213.00	205.00	15.93	73589.60	699993.00	0.0518	4
AECI	Value	2006	0.17	853.00	482.00	205.00	175.00	15.87	699993.00	249641.61	0.0481	4
Afrox	Value	2015	1.88	139.20	36.20	58.65	20.40	15.66	-61656.00	65184.30	0.1398	5
Afrox	Value	2014	-0.49	36.20	95.30	20.40	39.95	15.59	65184.30	-50290.00	0.0890	5
Afrox	Value	2013	0.05	95.30	91.00	39.95	38.20	15.61	-50290.00	158389.00	0.0890	5
Afrox	Value	2012	-0.15	91.00	91.60	38.20	45.00	15.50	158389.00	24012.80	0.0551	5
Afrox	Value	2011	0.67	91.60	55.50	45.00	27.00	15.49	24012.80	-101663.10	0.0454	5
Afrox	Value	2010	-0.29	55.50	74.60	27.00	38.00	15.48	-101663.10	-80114.00	0.0619	5
Afrox	Value	2009	-0.43	74.60	133.50	38.00	67.00	15.57	-80114.00	140917.00	0.1051	5
Afrox	Value	2008	-0.16	133.50	157.20	67.00	80.00	15.61	140917.00	283488.30	0.0238	5
Afrox	Value	2007	-0.46	157.20	191.40	80.00	148.00	15.43	283488.30	242841.00	0.0191	5
Afrox	Value	2006	-0.70	191.40	142.60	148.00	495.00	15.18	242841.00	167378.50	0.1144	5
Argent	Value	2015	0.21	40.80	14.60	14.45	11.90	14.33	-73378.82	-117170.52	0.0001	6
Argent	Value	2014	0.08	14.60	85.90	11.90	11.00	14.37	-117170.52	-9037.78	0.0001	6
Argent	Value	2013	0.21	85.90	77.10	11.00	9.10	14.54	-9037.78	-84928.17	0.0002	6
Argent	Value	2012	0.30	77.10	55.30	9.10	7.00	14.51	-84928.17	-143013.12	0.0001	6
Argent	Value	2011		55.30	14.40	7.00		14.53	-143013.12	-190205.50	0.0001	6
Argent	Value	2010		14.40	126.80		28.00	14.49	-190205.50	-66983.59	0.0001	6
Argent	Value	2009	-0.22	126.80	204.20	28.00	36.00	14.49	-66983.59	60993.47	0.0002	6
Argent	Value	2008	0.16	204.20	179.10	36.00	31.00	14.41	60993.47	52783.12	0.0002	6
Argent	Value	2007	0.15	179.10	147.80	31.00	27.00	14.02	52783.12	58039.13	0.0116	6
Argent	Value	2006	0.17	147.80	126.60	27.00	23.00	13.77	58039.13	51901.58	0.0116	6
Assore	Value	2015	-0.40	1915.00	4098.00	510.00	850.00	16.79	-1021029.52	-280798.32	0.1471	7
Assore	Value	2014	0.67	4098.00	3423.00	850.00	510.00	16.76	-280798.32	1642662.32	0.1131	7
Assore	Value	2013	0.09	3423.00	3519.00	510.00	467.50	16.82	1642662.32	2134215.47	0.2160	7
Assore	Value	2012	0.04	3519.00	2690.00	467.50	450.00	16.68	2134215.47	2141433.20	0.1857	7
Assore	Value	2011	-0.74	2690.00	6243.00	450.00	1700.00	16.53	2141433.20	644883.26	0.1506	7
Assore	Value	2010	-0.15	6243.00	13772.00	1700.00	2000.00	16.33	644883.26	2326828.05	0.1498	7
Assore	Value	2009	0.60	13772.00	11362.00	2000.00	1250.00	16.23	2326828.05	2378598.22	0.2689	7
Assore	Value	2008	2.57	11362.00	2720.00	1250.00	350.00	16.12	2378598.22	87769.72	0.1940	7
Assore	Value	2007	0.52	2720.00	1170.00	350.00	230.00	15.49	87769.72	101810.70	0.0527	7
Assore	Value	2006	1.42	1170.00	1834.00	230.00	95.00	15.18	101810.70	485738.90	0.0381	7
Avi	Value	2015	0.77	419.70	383.60	452.20	255.00	15.90	870222.78	752932.04	0.0576	8
Avi	Value	2014	0.15	383.60	341.40	255.00	221.00	15.78	752932.04	678064.71	0.0420	8
Avi	Value	2013	-0.35	341.40	322.00	221.00	338.00	15.70	678064.71	603275.64	0.0323	8

Avi	Value	2012	1.70	322.00	249.40	338.00	125.00	15.53	603275.64	341179.44	0.0438	8
Avi	Value	2011	0.25	249.40	183.60	125.00	100.00	15.50	341179.44	131075.75	0.0706	8
Avi	Value	2010	0.14	183.60	172.60	100.00	88.00	15.54	131075.75	149068.06	0.1049	8
Avi	Value	2009	0.10	172.60	155.60	88.00	80.00	15.52	149068.06	46527.21	0.0936	8
Avi	Value	2008	0.10	155.60	146.80	80.00	73.00	15.48	46527.21	165433.59	0.0332	8
Avi	Value	2007	0.38	146.80	106.50	73.00	53.00	15.39	165433.59	-45685.64	0.0657	8
Avi	Value	2006	-0.02	106.50	184.00	53.00	54.00	15.30	-45685.64	391637.16	0.0761	8
Barworld	Value	2015	0.08	813.80	882.50	293.25	272.00	17.69	-647569.60	-559672.80	0.0493	9
Barworld	Value	2014	0.10	882.50	859.70	272.00	247.35	17.60	-559672.80	-600541.80	0.0946	9
Barworld	Value	2013	0.27	859.70	679.70	247.35	195.50	17.52	-600541.80	826982.00	0.0696	9
Barworld	Value	2012	0.26	679.70	464.60	195.50	155.00	17.39	826982.00	-883490.00	0.0733	9
Barworld	Value	2011	1.07	464.60	170.90	155.00	75.00	17.25	-883490.00	-1244069.20	0.0890	9
Barworld	Value	2010	-0.32	170.90	282.50	75.00	110.00	17.06	-1244069.20	-1318857.60	0.0750	9
Barworld	Value	2009	-0.27	282.50	614.00	110.00	150.00	17.22	-1318857.60	-712722.50	0.0541	9
Barworld	Value	2008	-0.79	614.00	1181.30	150.00	700.00	17.34	-712722.50	769192.20	0.0365	9
Barworld	Value	2007	0.17	1181.30	1170.80	700.00	600.00	17.24	769192.20	539343.00	0.0392	9
Barworld	Value	2006	0.32	1170.80	893.60	600.00	455.00	17.39	539343.00	731722.40	0.0599	9
Bowcalf	Value	2015	0.18	98.20	74.90	35.19	29.75	13.55	5759.47	10375.06	0.1811	10
Bowcalf	Value	2014	0.05	74.90	67.50	29.75	28.30	13.22	10375.06	13051.42	0.2281	10
Bowcalf	Value	2013	-0.14	67.50	70.30	28.30	33.00	13.15	13051.42	13143.01	0.1446	10
Bowcalf	Value	2012	-0.07	70.30	96.00	33.00	35.60	13.19	13143.01	39294.81	0.0890	10
Bowcalf	Value	2011	0.27	96.00	84.20	35.60	28.00	13.10	39294.81	34928.68	0.2634	10
Bowcalf	Value	2010	0.07	84.20	72.70	28.00	26.20	12.96	34928.68	22595.43	0.1918	10
Bowcalf	Value	2009	0.36	72.70	55.40	26.20	19.30	12.87	22595.43	14415.67	0.0969	10
Bowcalf	Value	2008	0.12	55.40	53.30	19.30	17.30	12.79	14415.67	19451.11	0.0168	10
Bowcalf	Value	2007	0.03	53.30	52.70	17.30	16.80	12.83	19451.11	22115.96	0.0215	10
Bowcalf	Value	2006	0.09	52.70	50.60	16.80	15.40	12.67	22115.96	33821.70	0.0062	10
Brait	Value	2015	1.41	4527.00	480.00	77.12	31.95	17.54	-4607255.20	-1968266.40	0.3305	11
Brait	Value	2014	0.20	480.00	581.00	31.95	26.60	16.73	-1968266.40	-884406.60	0.0184	11
Brait	Value	2013	0.29	581.00	545.00	26.60	20.60	16.53	-884406.60	-1167451.20	0.0332	11
Brait	Value	2012	-0.72	545.00	155.70	20.60	74.20	16.28	-1167451.20	-303657.78	0.0443	11
Brait	Value	2011	-0.59	155.70	174.80	74.20	179.50	14.58	-303657.78	-263238.80	0.0299	11
Brait	Value	2010	0.00	174.80	157.00	179.50	178.90	14.61	-263238.80	-213936.48	0.1272	11
Brait	Value	2009	0.19	157.00	253.30	178.90	150.30	14.70	-213936.48	-282056.52	0.1785	11
Brait	Value	2008	0.15	253.30	319.84	150.30	130.52	14.68	-282056.52	-91592.63	0.1752	11
Brait	Value	2007	0.09	319.84	300.72	130.52	119.50	12.68	-91592.63	-194280.57	0.2459	11

Brait	Value	2006	7.66	300.72	38.00	119.50	13.80	12.61	-194280.57	-749.90	0.2800	11
Cargo	Value	2015	-0.53	155.10	229.30	22.10	46.75	13.67	13770.55	-292.95	0.1559	12
Cargo	Value	2014	0.83	229.30	108.80	46.75	25.50	13.66	-292.95	-13177.86	0.1364	12
Cargo	Value	2013	0.61	108.80	60.70	25.50	15.80	13.67	-13177.86	-14621.69	0.0982	12
Cargo	Value	2012	-0.07	60.70	48.50	15.80	17.00	13.46	-14621.69	-24378.91	0.0832	12
Cargo	Value	2011	-0.42	48.50	118.80	17.00	29.50	13.35	-24378.91	-17944.58	0.1054	12
Cargo	Value	2010	0.59	118.80	55.00	29.50	18.50	13.20	-17944.58	-36171.38	0.1636	12
Cargo	Value	2009	0.00	55.00	69.70	18.50	18.50	13.19	-36171.38	-14399.89	0.1946	12
Cargo	Value	2008	0.00	69.70	83.10	18.50	18.50	13.12	-14399.89	1020.29	0.0300	12
Cargo	Value	2007	-0.38	83.10	119.40	18.50	30.00	13.01	1020.29	3806.67	0.1156	12
Cargo	Value	2006	1.00	119.40	64.20	30.00	15.00	12.77	3806.67	976.61	0.1424	12
City Lodge	Value	2015	0.18	722.80	645.90	391.00	332.35	14.51	178699.29	142533.93	0.0427	13
City Lodge	Value	2014	0.11	645.90	599.30	332.35	298.30	14.35	142533.93	105469.51	0.0483	13
City Lodge	Value	2013	0.20	599.30	410.80	298.30	248.00	14.13	105469.51	83202.00	0.0000	13
City Lodge	Value	2012	0.09	410.80	294.30	248.00	228.00	14.07	83202.00	91422.46	0.0483	13
City Lodge	Value	2011	-0.30	294.30	459.50	228.00	327.00	14.04	91422.46	167349.28	0.0124	13
City Lodge	Value	2010	-0.09	459.50	363.50	327.00	361.00	14.02	167349.28	175474.47	0.0345	13
City Lodge	Value	2009	-0.03	363.50	530.40	361.00	371.00	13.79	175474.47	130006.59	0.0179	13
City Lodge	Value	2008	0.27	530.40	419.00	371.00	293.00	13.57	130006.59	117159.23	0.0653	13
City Lodge	Value	2007	0.23	419.00	341.70	293.00	238.00	13.42	117159.23	97388.38	0.1178	13
City Lodge	Value	2006	0.17	341.70	290.70	238.00	203.00	13.32	97388.38		0.1216	13
Clicks	Value	2015	0.24	399.20	341.70	199.75	161.50	15.84	812013.19	702567.44	0.0530	14
Clicks	Value	2014	0.13	341.70	302.40	161.50	142.80	15.64	702567.44	588762.29	0.0316	14
Clicks	Value	2013	0.05	302.40	273.50	142.80	135.82	15.51	588762.29	565201.74	0.0212	14
Clicks	Value	2012		273.50	250.10	135.82		15.38	565201.74	520393.26	0.0053	14
Clicks	Value	2011		250.10	212.30			15.26	520393.26	398547.93	0.0042	14
Clicks	Value	2010		212.30	167.70			15.23	398547.93	317263.11	0.0370	14
Clicks	Value	2009		167.70	134.40		7.40	15.25	317263.11	242559.68	0.0980	14
Clicks	Value	2008	0.06	134.40	106.10	7.40	7.00	15.09	242559.68	187792.82	0.0282	14
Clicks	Value	2007	0.03	106.10	73.10	7.00	6.80	15.20	187792.82	128840.30	0.1031	14
Clicks	Value	2006	-0.77	73.10	65.20	6.80	29.70	15.12	128840.30	107316.24	0.0109	14
CMH	Value	2015	0.25	194.60	156.70	82.88	66.30	14.81	128272.56	109130.90	0.1673	15
CMH	Value	2014	0.56	156.70	183.90	66.30	42.50	14.76	109130.90	126306.20	0.1198	15
CMH	Value	2013	-0.03	183.90	121.40	42.50	43.60	14.82	126306.20	34958.86	0.1246	15
CMH	Value	2012	0.28	121.40	111.30	43.60	34.00	14.73	34958.86	-1994.84	0.1592	15
CMH	Value	2011	0.26	111.30	76.70	34.00	27.00	14.59	-1994.84	-29837.81	0.1436	15

CMH	Value	2010	-0.04	76.70	24.60	27.00	28.00	14.51	-29837.81	-86979.95	0.1262	15
CMH	Value	2009	-0.27	24.60	97.70	28.00	38.60	14.49	-86979.95	19362.40	0.1077	15
CMH	Value	2008	-0.80	97.70	174.00	38.60	192.60	14.63	19362.40	131404.22	0.0994	15
CMH	Value	2007	0.05	174.00	775.60	192.60	183.00	14.68	131404.22	129509.63	0.1394	15
CMH	Value	2006	0.74	775.60	561.10	183.00	105.00	14.38	129509.63	88093.43	0.0758	15
Crookes	Value	2015	-0.25	330.60	676.80	127.50	170.20	13.92	-44222.76	117352.41	0.0118	16
Crookes	Value	2014	-0.17	676.80	749.90	170.20	204.00	13.84	117352.41	55437.67	0.0281	16
Crookes	Value	2013	0.13	749.90	588.30	204.00	179.80	13.60	55437.67	55437.67	0.0456	16
Crookes	Value	2012	0.12	588.30	203.90	179.80	160.00	13.50	55437.67	-43014.19	0.0265	16
Crookes	Value	2011	1.29	203.90	89.90	160.00	70.00	13.30	-43014.19	-53806.05	0.0130	16
Crookes	Value	2010	-0.38	89.90	356.60	70.00	113.00	13.18	-53806.05	2786.82	0.0063	16
Crookes	Value	2009	-0.19	356.60	305.10	113.00	140.00	13.16	2786.82	261.62	0.0003	16
Crookes	Value	2008	0.17	305.10	222.90	140.00	120.00	12.90	261.62	33.19	0.0003	16
Crookes	Value	2007	0.09	222.90	222.60	120.00	110.00	12.78	33.19	1124.33	0.0002	16
Crookes	Value	2006	1.44	222.60	37.70	110.00	45.00	12.73	1124.33	-22858.44	0.0002	16
Distell	Value	2015	0.03	656.20	721.30	294.10	286.45	16.70	254075.28	382777.35	0.0348	17
Distell	Value	2014	0.01	721.30	535.70	286.45	284.75	16.58	382777.35	345278.83	0.0285	17
Distell	Value	2013	0.05	535.70	479.70	284.75	272.20	16.47	345278.83	204570.92	0.0240	17
Distell	Value	2012	0.06	479.70	476.80	272.20	256.00	16.10	204570.92	442354.35	0.0469	17
Distell	Value	2011	0.00	476.80	469.10	256.00	256.00	15.95	442354.35	363248.93	0.0271	17
Distell	Value	2010	0.00	469.10	475.20	256.00	256.00	15.92	363248.93	513095.79	0.0296	17
Distell	Value	2009	0.09	475.20	471.00	256.00	236.00	15.83	513095.79	271326.50	0.0238	17
Distell	Value	2008	0.20	471.00	391.50	236.00	196.00	15.68	271326.50	412657.61	0.0301	17
Distell	Value	2007	0.281	391.50	271.50	196.00	153.00	15.61	412657.61	205903.75	0.0554	17
Distell	Value	2006	0.24	271.50	245.80	153.00	123.00	15.51	205903.75	156736.38	0.0419	17
ELG Group	Value	2015	0.02	322.30	382.10	82.45	80.75	14.47	24552.55	43416.13	0.2046	18
ELG Group	Value	2014	0.12	382.10	374.20	80.75	72.25	14.51	43416.13	80615.24	0.2257	18
ELG Group	Value	2013	0.16	374.20	313.10	72.25	62.20	14.30	80615.24	57355.61	0.2895	18
ELG Group	Value	2012	0.13	313.10	271.10	62.20	55.00	14.13	57355.61	19055.23	0.3562	18
ELG Group	Value	2011	0.31	271.10	195.60	55.00	42.00	14.06	19055.23	16639.38	0.4659	18
ELG Group	Value	2010	0.40	195.60	189.10	42.00	30.00	13.77	16639.38	44392.78	0.3687	18
ELG Group	Value	2009	-0.50	189.10	243.20	30.00	60.00	13.68	44392.78	44006.87	0.3311	18
ELG Group	Value	2008	1.00	243.20	124.90	60.00	30.00	13.65	44006.87	21502.56	0.3726	18
ELG Group	Value	2007	2.00	124.90	44.20	30.00	10.00	13.22	21502.56	-1446.55	0.3791	18
ELG Group	Value	2006	0.00	44.20	35.40	10.00	10.00	13.17	-1446.55	-223.35	0.2893	18
Famous Brands	Value	2015	0.18	467.00	406.00	301.75	255.00	14.43	397060.34	297949.47	0.0681	19

Famous Brands	Value	2014	0.20	406.00	339.00	255.00	212.50	14.34	297949.47	230689.98	0.0536	19
Famous Brands	Value	2013	0.17	339.00	278.00	212.50	182.00	14.23	230689.98	176258.54	0.0561	19
Famous Brands	Value	2012	0.17	278.00	242.00	182.00	155.00	14.02	176258.54	145768.60	0.0332	19
Famous Brands	Value	2011	0.36	242.00	206.00	155.00	114.00	13.95	145768.60	125722.09	0.0758	19
Famous Brands	Value	2010	0.50	206.00	159.00	114.00	76.00	13.88	125722.09	78374.34	0.0883	19
Famous Brands	Value	2009	1.30	159.00	144.00	76.00	33.00	13.87	78374.34	90971.44	0.0883	19
Famous Brands	Value	2008	0.10	144.00	113.80	33.00	30.00	13.66	90971.44	58544.80	0.0963	19
Famous Brands	Value	2007	0.00	113.80	83.50	30.00	30.00	13.42	58544.80	45973.48	0.1411	19
Famous Brands	Value	2006	0.67	83.50	58.60	30.00		13.18	45973.48	39280.13	0.2798	19
Firststrand	Value	2015	0.21	381.40	340.40	178.50	147.90	20.78	6509821.50	367759.60	0.0619	20
Firststrand	Value	2014	0.28	340.40	276.70	147.90	115.60	20.67	367759.60	5516940.00	0.0643	20
Firststrand	Value	2013	0.24	276.70	231.50	115.60	93.30	20.58	5516940.00	2336048.40	0.0571	20
Firststrand	Value	2012	0.15	231.50	183.10	93.30	81.00	20.46	2336048.40	1290233.00	0.0498	20
Firststrand	Value	2011	0.05	183.10	180.10	81.00	77.00	20.36	1290233.00	-1126874.00	0.0491	20
Firststrand	Value	2010	0.38	180.10	133.30	77.00	56.00	20.56	-1126874.00	13858474.80	0.0320	20
Firststrand	Value	2009	-0.32	133.30	191.50	56.00	82.50	20.51	13858474.80	-1999355.00	0.0707	20
Firststrand	Value	2008	0.00	191.50	202.50	82.50	82.50	20.52	-1999355.00	3011763.00	0.0591	20
										-		
Firststrand	Value	2007	0.25	202.50	157.80	82.50	66.00	20.40	3011763.00	17645481.00	0.0410	20
Firststrand	Value	2006	0.20	157.80	146.20	66.00	55.10	20.18	-17645481.00	-6556665.00	0.0523	20
Grindrod	Value	2015	-0.42	74.40	107.50	16.66	28.56	17.41	-2211212.49	-4127624.91	0.2302	21
Grindrod	Value	2014	-0.09	107.50	118.70	28.56	31.50	17.31	-4127624.91	-544355.32	0.2258	21
Grindrod	Value	2013	0.13	118.70	121.90	31.50	28.00	17.16	-544355.32	-241800.64	0.2138	21
Grindrod	Value	2012	-0.05	121.90	99.60	28.00	29.50	16.91	-241800.64	-810505.75	0.1915	21
Grindrod	Value	2011	-0.45	99.60	167.60	29.50	54.00	16.83	-810505.75	-2324.94	0.1458	21
Grindrod	Value	2010	-0.10	167.60	189.60	54.00	60.00	16.47	-2324.94	-167020.47	0.0896	21
Grindrod	Value	2009	-0.56	189.60	511.70	60.00	136.00	16.35	-167020.47	1011422.74	0.1518	21
Grindrod	Value	2008	0.74	511.70	263.10	136.00	78.00	16.45	1011422.74	432687.91	0.1719	21
Grindrod	Value	2007	0.18	263.10	220.80	78.00	66.00	16.11	432687.91	400588.70	0.1264	21
Grindrod	Value	2006	0.27	220.80	185.30	66.00	52.00	15.80	400588.70	470783.83	0.1465	21
Group 5	Value	2015	-0.45	205.00	407.00	46.75	85.00	16.14	-327154.66	11682.10	0.3302	22
Group 5	Value	2014	0.49	407.00	298.00	85.00	56.95	16.11	11682.10	-80209.00	0.2932	22
Group 5	Value	2013	0.68	298.00	116.00	56.95	33.90	15.99	-80209.00	-151790.34	0.3359	22
Group 5	Value	2012	-0.53	116.00	332.00	33.90	72.00	15.84	-151790.34	2888.31	0.2989	22
Group 5	Value	2011	-0.47	332.00	614.00	72.00	137.00	15.87	2888.31	286361.94	0.2876	22
Group 5	Value	2010	0.05	614.00	568.00	137.00	130.00	16.11	286361.94	271044.59	0.3146	22

Group 5	Value	2009	0.24	568.00	470.00	130.00	105.00	16.15	271044.59	58835.87	0.2697	22
Group 5	Value	2008	0.46	470.00	283.00	105.00	72.00	16.04	58835.87	24478.22	0.1985	22
Group 5	Value	2007	0.29	283.00	193.20	72.00	56.00	15.75	24478.22	20715.22	0.0973	22
Group 5	Value	2006	0.14	193.20	151.60	56.00	49.00	15.41	20715.22	-65061.20	0.1454	22
Hudaco	Value	2015	0.13	1163.00	6.00	446.25	395.25	15.14	164743.08	126247.20	0.0103	23
Hudaco	Value	2014	0.00	6.00	928.00	395.25	395.25	14.94	126247.20	188195.18	0.0136	23
Hudaco	Value	2013	0.00	928.00	1071.00	395.25	395.20	14.85	188195.18	205805.34	0.0055	23
Hudaco	Value	2012	-0.10	1071.00	1024.00	395.20	440.00	15.37	205805.34	179443.84	0.0161	23
Hudaco	Value	2011	0.26	1024.00	800.00	440.00	350.00	15.33	179443.84	81927.76	0.0372	23
Hudaco	Value	2010	0.00	800.00	801.00	350.00	350.00	15.21	81927.76	94647.86	0.0647	23
Hudaco	Value	2009	-0.13	801.00	964.00	350.00	400.00	15.13	94647.86	186017.86	0.0904	23
Hudaco	Value	2008	-0.32	964.00	604.50	400.00	590.00	15.16	186017.86	150068.62	0.0349	23
Hudaco	Value	2007	2.11	604.50	532.50	590.00	190.00	15.09	150068.62	81033.36	0.0883	23
Hudaco	Value	2006	0.32	532.50	415.00	190.00	144.00	14.01	81033.36	83731.78	0.2363	23
Growth Point	Value	2015	0.08	149.40	154.20	147.39	137.10	18.48	-1351802.10	-1618762.60	0.0047	24
Growth Point	Value	2014	1370.00	154.20	138.70	137.10	0.10	18.24	-1618762.60	-239421.00	0.0045	24
Growth Point	Value	2013	0.00	138.70	72.70	0.10	0.10	17.98	-239421.00	256382.40	0.0298	24
Growth Point	Value	2012	0.00	72.70	104.60	0.10	0.10	17.84	256382.40	-140196.00	0.0071	24
Growth Point	Value	2011	0.00	104.60	-42.70	0.10	0.10	17.70	-140196.00	-25118.80	0.0070	24
Growth Point	Value	2010	0.00	-42.70	-3.10	0.10	0.10	17.44	-25118.80	-74328.00	0.0082	24
Growth Point	Value	2009	0.00	-3.10	-119.40	0.10	0.10	17.29	-74328.00	-73257.50	0.0154	24
Growth Point	Value	2008	0.00	-119.40	-166.00	0.10	0.10	17.24	-73257.50	189595.60	0.0009	24
Growth Point	Value	2007	0.00	-166.00	-151.00	0.10	0.10	16.95	189595.60	17976.85	0.0008	24
Growth Point	Value	2006	0.00	-151.00	-125.90	0.10	0.10	16.56	17976.85	97742.25	0.0010	24
Implats	Value	2015		36.00	86.00			18.16	-8217430.50	-8075036.50	0.0336	25
Implats	Value	2014		86.00	330.00			18.20	-8075036.50	-3533061.60	0.0539	25
Implats	Value	2013	-0.57	330.00	685.00	80.75	186.00	18.21	-3533061.60	-4638803.40	0.0658	25
Implats	Value	2012	-0.67	685.00	1105.00	186.00	570.00	18.10	-4638803.40	-1287369.60	0.0164	25
Implats	Value	2011	0.46	1105.00	786.00	570.00	390.00	18.03	-1287369.60	-3149004.60	0.0672	25
Implats	Value	2010	0.22	786.00	1001.00	390.00	320.00	17.95	-3149004.60	-289284.80	0.0617	25
Implats	Value	2009	-0.78	1001.00	2065.00	320.00	1475.00	17.87	-289284.80	4608050.90	0.0580	25
Implats	Value	2008	0.51	2065.00	1312.00	1475.00	975.00	17.94	4608050.90	1691471.60	0.1673	25
Implats	Value	2007	-0.89	1312.00	6006.00	975.00	8700.00	17.73	1691471.60	2217203.84	0.0645	25
Implats	Value	2006	2.78	6006.00	4325.00	8700.00	2300.00	16.96	2217203.84	877319.56	0.0800	25
InvLtd	Value	2015	0.16	637.89	546.15	356.37	306.10	17.61	-8411170.71	-7527753.78		26
InvLtd	Value	2014	1.53	546.15	428.73	306.10	120.96	17.67	-7527753.78	-1092410.76		26

InvLtd	Value	2013	-0.41	428.73	320.97	120.96	203.60	17.75	-1092410.76	-4866999.13		26
InvLtd	Value	2012	0.07	320.97	421.39	203.60	190.02	17.76	-4866999.13	-4265359.33		26
InvLtd	Value	2011	0.02	421.39	466.79	190.02	186.25	17.75	-4265359.33	-1291101.47		26
InvLtd	Value	2010	0.02	466.79	578.92	186.25	182.67	17.66	-1291101.47	879303.64		26
InvLtd	Value	2009	-0.50	578.92	725.05	182.67	364.71	17.43	879303.64	-874028.41		26
InvLtd	Value	2008	0.13	725.05	736.74	364.71	324.00	17.34	-874028.41	-8415706.06		26
InvLtd	Value	2007	0.70	736.74	2430.79	324.00	1089.66	17.09	-8415706.06	-8415706.06		26
InvLtd	Value	2006	15.26	2430.79	141.70	1089.66	67.00	16.99	-8415706.06	-49722.19		26
Invicta	Value	2015	6.19	727.00	765.00	1887.27	262.47	16.48	-10236.31	189038.01	0.0505	27
Invicta	Value	2014	0.15	765.00	885.00	262.47	227.80	16.41	189038.01	151973.11	0.0391	27
Invicta	Value	2013	0.00	885.00	687.00	227.80	227.40	16.32	151973.11	273470.46	0.0556	27
Invicta	Value	2012	0.24	687.00	496.00	227.40	183.00	15.94	273470.46	190505.73	0.0767	27
Invicta	Value	2011	0.21	496.00	441.00	183.00	151.00	15.75	190505.73	173210.60	0.0628	27
Invicta	Value	2010	0.09	441.00	434.00	151.00	138.00	15.60	173210.60	182634.51	0.0439	27
Invicta	Value	2009	0.00	434.00	345.00	138.00	138.00	15.61	182634.51	160662.95	0.0208	27
Invicta	Value	2008	0.33	345.00	260.00	138.00	104.00	15.47	160662.95	99317.54	0.0432	27
Invicta	Value	2007	0.53	260.00	170.00	104.00	68.00	14.91	99317.54	65904.00	0.0655	27
Invicta	Value	2006	-0.12	170.00	179.00	68.00	77.00	14.73	65904.00	94660.05	0.0106	27
Italtile	Value	2015	0.32	71.60	58.70	21.25	16.15	14.95	411840.00	292867.50	0.1264	28
Italtile	Value	2014	0.19	58.70	47.40	16.15	13.60	14.81	292867.50	223102.50	0.0918	28
Italtile	Value	2013	0.05	47.40	41.00	13.60	13.00	14.79	223102.50	222266.80	0.1142	28
Italtile	Value	2012	0.08	41.00	34.60	13.00	12.00	14.78	222266.80	170960.30	0.3496	28
Italtile	Value	2011	-0.83	34.60	33.10	12.00	71.00	14.65	170960.30	121942.50	0.3654	28
Italtile	Value	2010	5.45	33.10	32.40	71.00	11.00	14.54	121942.50	127565.00	0.3441	28
Italtile	Value	2009	-0.08	32.40	34.40	11.00	12.00	14.47	127565.00	174573.20	0.3451	28
Italtile	Value	2008	-0.98	34.40	1489.70	12.00	500.00	14.27	174573.20	196256.50	0.1790	28
Italtile	Value	2007	0.16	1489.70	1312.30	500.00	430.00	14.11	196256.50	176004.40	0.1918	28
Italtile	Value	2006	-0.28	1312.30	1069.10	430.00	600.00	13.93	176004.40	144028.79	0.3071	28
										-		
Lib Holdings	Value	2015	0.09	1528.20	1523.50	587.35	538.90	19.85	-69681715.20	37850118.40	0.0460	29
										-		
Lib Holdings	Value	2014	0.09	1523.50	1559.80	538.90	493.85	19.74	-37850118.40	49582399.50	0.0372	29
										-		
Lib Holdings	Value	2013	-0.12	1559.80	1437.10	493.85	559.30	19.68	-49582399.50	40412319.90	0.0281	29
										-		
Lib Holdings	Value	2012	6.26	1437.10	997.60	559.30	77.00	19.49	-40412319.90	23139051.10	0.0216	29



Lib Holdings	Value	2011	-0.74	997.60	968.80	77.00	291.00	19.35	-23139051.10	22137874.40	0.0263	29
Lib Holdings	Value	2010		968.80	16.40	291.00		19.29	-22137874.40	23695952.00	0.0246	29
Lib Holdings	Value	2009		16.40	709.30		354.00	19.21	-23695952.00	9144014.00	0.0485	29
Lib Holdings	Value	2008	-0.09	709.30	3149.00	354.00	387.00	19.17	9144014.00	-6792321.00	0.0241	29
Lib Holdings	Value	2007	-0.81	3149.00	2561.00	387.00	2030.00	19.21	-6792321.00	44029389.00	0.0212	29
Lib Holdings	Value	2006	0.99	2561.00	1965.30	2030.00	1020.00	19.12	-44029389.00	30830785.00	0.0212	29
Massmart	Value	2015	-0.39	516.30	509.70	219.47	357.85	17.24	424792.41	859361.64	0.0652	30
Massmart	Value	2014	0.00	509.70	615.20	357.85	357.85	17.18	859361.64	748002.78	0.0715	30
Massmart	Value	2013	-0.12	615.20	593.67	357.85	406.53	17.08	748002.78	1217293.28	0.0840	30
Massmart	Value	2012	0.05	593.67	433.30	406.53	386.00	16.95	1217293.28	852933.90	0.0883	30
Massmart	Value	2011	0.00	433.30	567.20	386.00	386.00	16.66	852933.90	1035722.16	0.0897	30
Massmart	Value	2010	0.00	567.20	605.00	386.00	386.00	16.48	1035722.16	1038779.42	0.0958	30
Massmart	Value	2009	0.00	605.00	663.00	386.00	386.00	16.34	1038779.42	1000429.32	0.0843	30
Massmart	Value	2008	0.21	663.00	540.40	386.00	320.00	16.29	1000429.32	910478.28	0.0890	30
Massmart	Value	2007	0.52	540.40	419.30	320.00	210.00	16.20	910478.28	632536.98	0.1148	30
Massmart	Value	2006	0.15	419.30	341.00	210.00	183.00	16.08	632536.98	413760.00	0.1499	30
Metair	Value	2015	-0.13	247.70	303.00	59.50	68.00	16.02	-217533.40	123933.44	0.0851	31
Metair	Value	2014	0.14	303.00	219.00	68.00	59.50	15.89	123933.44	93727.82	0.0760	31
Metair	Value	2013	-0.26	219.00	310.00	59.50	80.75	15.82	93727.82	371429.83	0.0772	31
Metair	Value	2012	0.12	310.00	260.00	80.75	72.00	15.04	371429.83	179215.37	0.1314	31
Metair	Value	2011	-0.42	260.00	189.00	72.00	125.00	14.72	179215.37	129636.34	0.1699	31
Metair	Value	2010	7.33	189.00	67.00	125.00	15.00	14.55	129636.34	-58836.54	0.1463	31
Metair	Value	2009		67.00	74.00	15.00		14.51	-58836.54	-65414.12	0.1411	31
Metair	Value	2008		74.00	124.00		40.00	14.57	-65414.12	36163.59	0.0578	31
Metair	Value	2007	-0.95	124.00	3317.00	40.00	850.00	14.46	36163.59	95454.61	0.0602	31
Metair	Value	2006	0.00	3317.00	2597.00	850.00	850.00	14.24	95454.61	55433.00	0.0442	31
Mr Price	Value	2015	0.20	919.70	765.10	493.00	409.70	15.88	1732836.00	1452042.69	0.3513	32
Mr Price	Value	2014	0.21	765.10	635.50	409.70	338.30	15.70	1452042.69	1325399.10	0.3431	32
Mr Price	Value	2013	0.20	635.50	503.00	338.30	280.90	15.40	1325399.10	933043.74	0.2493	32
Mr Price	Value	2012	0.11	503.00	418.90	280.90	252.00	15.27	933043.74	824172.06	0.2795	32
Mr Price	Value	2011	0.46	418.90	276.90	252.00	173.00	15.17	824172.06	333958.62	0.3544	32
Mr Price	Value	2010	0.30	276.90	251.90	173.00	133.00	15.10	333958.62	422028.11	0.3243	32
Mr Price	Value	2009	0.30	251.90	219.00	133.00	102.50	15.00	422028.11	291734.88	0.2020	32

Mr Price	Value	2008	0.27	219.00	191.80	102.50	81.00	14.84	291734.88	244494.24	0.1667	32
Mr Price	Value	2007	0.00	191.80	161.70	81.00	81.00	14.73	244494.24	246287.29	0.2290	32
Mr Price	Value	2006	0.35	161.70	120.40	81.00	60.00	14.52	246287.29	83529.74	0.3081	32
Naspers	Value	2015	0.11	1792.00	1514.00	399.50	361.00	18.87	-13833016.20	10954995.00	0.0948	33
Naspers	Value	2014	0.10	1514.00	1722.00	361.00	327.25	18.67	-10954995.00	2483080.60	0.1063	33
Naspers	Value	2013	0.15	1722.00	1297.00	327.25	284.80	18.46	2483080.60	-2879597.90	0.1527	33
Naspers	Value	2012	0.05	1297.00	1125.00	284.80	270.00	18.21	-2879597.90	-1578393.00	0.1209	33
Naspers	Value	2011	0.15	1125.00	884.00	270.00	235.00	18.06	-1578393.00	-1083107.20	0.1250	33
Naspers	Value	2010	0.14	884.00	827.00	235.00	207.00	17.87	-1083107.20	-1437877.22	0.1181	33
Naspers	Value	2009	0.15	827.00	1076.00	207.00	180.00	17.81	-1437877.22	-1095314.46	0.1217	33
Naspers	Value	2008	0.15	1076.00	866.00	180.00	156.00	17.85	-1095314.46	-507352.30	0.1333	33
Naspers	Value	2007	0.08	866.00	756.00	156.00	144.00	17.29	-507352.30	1162839.96	0.3680	33
Naspers	Value	2006	0.71	756.00	781.00	144.00	84.00	16.67	1162839.96	1144681.65	0.3908	33
Nedbank	Value	2015	0.08	2284.00	2127.00	940.95	873.80	20.65	3146958.50	8637563.30	0.0247	34
Nedbank	Value	2014	0.15	2127.00	1884.00	873.80	760.75	20.51	8637563.30	9078722.00	0.0165	34
Nedbank	Value	2013	0.19	1884.00	1646.00	760.75	639.20	20.44	9078722.00	8312275.00	0.0278	34
Nedbank	Value	2012	0.06	1646.00	1365.00	639.20	605.00	20.34	8312275.00	5872075.80	0.0211	34
Nedbank	Value	2011	0.26	1365.00	1104.00	605.00	480.00	20.29	5872075.80	6123702.60	0.0208	34
Nedbank	Value	2010	0.09	1104.00	1010.00	480.00	440.00	20.23	6123702.60	5175285.20	0.0324	34
Nedbank	Value	2009	-0.29	1010.00	1422.00	440.00	620.00	20.16	5175285.20	6206920.20	0.0322	34
Nedbank	Value	2008	-0.06	1422.00	1485.00	620.00	660.00	20.16	6206920.20	3356094.00	0.0329	34
Nedbank	Value	2007	0.34	1485.00	1110.00	660.00	493.00	20.01	3356094.00	3902833.00	0.0383	34
Nedbank	Value	2006	0.70	1110.00	797.00	493.00	290.00	20.01	3902833.00	1814571.60		34
Northam	Value	2015		-202.90	2.20			16.77	-1942601.06	-1563735.19	0.2161	35
Northam	Value	2014		2.20	136.50			16.51	-1563735.19	-983911.31	0.0452	35
Northam	Value	2013		136.50	80.90			16.48	-983911.31	-1138514.10	0.0208	35
Northam	Value	2012	-0.70	80.90	89.50	5.00	15.00	16.32	-1138514.10	-1131684.05	0.0086	35
Northam	Value	2011	-0.60	89.50	177.80	15.00	40.00	16.29	-1131684.05	-791309.58	0.1423	35
Northam	Value	2010	-0.50	177.80	172.20	40.00	78.00	16.13	-791309.58	-565764.65	0.1176	35
Northam	Value	2009	-0.80	172.20	627.20	78.00	330.00	16.05	-565764.65	1134294.54	0.0985	35
Northam	Value	2008	-0.40	627.20	560.10	330.00	525.00	15.23	1134294.54	1154223.71	0.3641	35
Northam	Value	2007	0.90	560.10	300.90	525.00	280.00	15.02	1154223.71	1154223.71	0.3629	35
Northam	Value	2006	3.00	300.90	107.30	280.00	70.00	14.82	1154223.71		0.3038	35
Oceana	Value	2015	-0.03	588.20	565.00	310.25	320.45	16.17	202382.52	454880.19	0.1124	36
Oceana	Value	2014	0.17	565.00	487.90	320.45	273.70	14.91	454880.19	292425.41	0.1156	36

Oceana	Value	2013	0.07	487.90	455.70	273.70	255.85	14.88	292425.41	383089.04	0.0428	36
Oceana	Value	2012	0.16	455.70	333.70	255.85	220.00	14.76	383089.04	223151.33	0.1075	36
Oceana	Value	2011	0.06	333.70	315.20	220.00	208.00	14.52	223151.33	216404.99	0.1957	36
Oceana	Value	2010	0.13	315.20	279.40	208.00	184.00	14.43	216404.99	192166.16	0.0986	36
Oceana	Value	2009	0.18	279.40	237.70	184.00	156.00	14.36	192166.16	156820.99	0.1100	36
Oceana	Value	2008	0.47	237.70	162.40	156.00	106.00	14.26	156820.99	156820.99	0.1739	36
Oceana	Value	2007	0.43	162.40	112.80	106.00	74.00	14.22	156820.99	51423.48	0.2107	36
Oceana	Value	2006	0.00	112.80	109.80	74.00	74.00	14.11	51423.48	56370.00	0.1485	36
Octodec	Value	2015	1.16	215.40	170.50	160.80	74.38	16.28	-163975.07	-110660.38	0.0047	37
Octodec	Value	2014	105.26	170.50	6.90	74.38	0.70	15.35	-110660.38	-171352.39	0.0010	37
Octodec	Value	2013	0.00	6.90	-0.20	0.70	0.70	15.21	-171352.39	-160278.89	0.0001	37
Octodec	Value	2012	0.17	-0.20	-7.80	0.70	0.60	15.10	-160278.89	-173491.86	0.0001	37
Octodec	Value	2011	0.00	-7.80	-1.90	0.60	0.60	14.94	-173491.86	-153084.21	0.0001	37
Octodec	Value	2010	0.00	-1.90	9.20	0.60	0.60	14.85	-153084.21	-113409.09	0.0001	37
Octodec	Value	2009	0.00	9.20	142.30	0.60	0.60	14.72	-113409.09	-134410.53	0.0001	37
Octodec	Value	2008	0.20	142.30	114.20	0.60	0.50	14.70	-134410.53	-95810.94	0.0002	37
Octodec	Value	2007	0.25	114.20	95.90	0.50	0.40	14.59	-95810.94	-65448.43	0.0001	37
Octodec	Value	2006	0.33	95.90	69.10	0.40	0.30	14.35	-65448.43	-42873.45	0.0001	37
Omnia	Value	2015	0.03	1465.00	1428.00	416.50	403.75	16.29	282678.00	359236.80	0.0336	38
Omnia	Value	2014	0.13	1428.00	1330.60	403.75	357.00	16.17	359236.80	467528.40	0.0320	38
Omnia	Value	2013	0.41	1330.60	958.60	357.00	253.00	16.02	467528.40	165920.00	0.0298	38
Omnia	Value	2012		958.60	766.50	253.00		15.83	165920.00	47643.90	0.0271	38
Omnia	Value	2011		766.50	80.60			15.66	47643.90	-220876.80	0.0845	38
Omnia	Value	2010		80.60	1114.20		100.00	15.46	-220876.80	167944.80	0.1085	38
Omnia	Value	2009	-0.50	1114.20	724.50	100.00	200.00	15.57	167944.80	156527.50	0.0276	38
Omnia	Value	2008	0.25	724.50	558.20	200.00	160.00	15.31	156527.50	95615.55	0.0185	38
Omnia	Value	2007	0.10	558.20	353.20	160.00	145.00	14.95	95615.55	25351.49	0.0159	38
Omnia	Value	2006	-0.19	353.20	516.30	145.00	180.00	14.73	25351.49	137509.02	0.0128	38
Pick n pay	Value	2015	0.28	177.30	138.51	100.39	78.46	16.50	516090.82	361474.40	0.0798	39
Pick n pay	Value	2014	0.10	138.51	111.30	78.46	71.40	16.46	361474.40	189298.40	0.1092	39
Pick n pay	Value	2013	-0.38	111.30	142.70	71.40	114.60	16.38	189298.40	388137.84	0.0964	39
Pick n pay	Value	2012	-0.20	142.70	164.90	114.60	142.50	16.29	388137.84	431920.80	0.1076	39
Pick n pay	Value	2011	-0.18	164.90	213.90	142.50	174.50	16.22	431920.80	802753.77	0.0000	39
Pick n pay	Value	2010	0.03	213.90	208.20	174.50	170.00	16.23	802753.77	868677.60	0.0942	39
Pick n pay	Value	2009	0.14	208.20	198.80	170.00	149.10	16.17	868677.60	808328.34	0.1014	39
Pick n pay	Value	2008	0.11	198.80	170.40	149.10	134.30	16.05	808328.34	725700.69	0.0713	39

Pick n pay	Value	2007	0.34	170.40	153.00	134.30	100.00	15.87	725700.69	586426.26	0.0910	39
Pick n pay	Value	2006	0.20	153.00	141.50	100.00	83.30	15.72	586426.26	536059.46	0.1402	39
PSG	Value	2015	0.50	818.60	551.30	170.00	113.05	17.64	-2056955.95	-3466373.88	0.0361	40
PSG	Value	2014	0.20	551.30	480.20	113.05	94.35	17.33	-3466373.88	-1529803.32	0.0640	40
PSG	Value	2013	0.28	480.20	326.20	94.35	73.60	17.07	-1529803.32	-764762.98	0.0858	40
PSG	Value	2012	0.10	326.20	306.70	73.60	67.00	16.86	-764762.98	-593118.29	0.0346	40
PSG	Value	2011	0.60	306.70	249.20	67.00	42.00	16.67	-593118.29	-24350.71	0.0649	40
PSG	Value	2010	-0.84	249.20	65.30	42.00	257.00	16.50	-24350.71	-140967.99	0.0499	40
PSG	Value	2009	1.28	65.30	295.10	257.00	112.50	16.46	-140967.99	-438054.47	0.0499	40
PSG	Value	2008	0.25	295.10	519.30	112.50	90.00	16.47	-438054.47	-595723.48	0.0294	40
PSG	Value	2007	0.33	519.30	351.80	90.00	67.50	15.51	-595723.48	-669167.62	0.2475	40
PSG	Value	2006	0.50	351.80	103.00	67.50	45.00	14.42	-669167.62	-435950.28	0.1212	40
Remgro	Value	2015	0.10	1555.00	1292.40	363.80	330.65	18.37	-5339006.40	-5332481.60	0.0428	41
Remgro	Value	2014	-0.04	1292.40	854.30	330.65	346.00	18.19	-5332481.60	-3771847.10	0.0460	41
Remgro	Value	2013	0.21	854.30	994.60	346.00	285.80	18.10	-3771847.10	-2807005.40	0.0580	41
Remgro	Value	2012	0.14	994.60	865.92	285.80	251.20	17.88	-2807005.40	247779.30	0.1117	41
Remgro	Value	2011	0.20	865.92	690.10	251.20	209.00	17.84	247779.30	-3413037.60	0.0771	41
Remgro	Value	2010	0.10	690.10	987.70	209.00	190.00	17.69	-3413037.60	37705445.00	0.0796	41
Remgro	Value	2009	-0.63	987.70	1692.80	190.00	510.00	17.56	37705445.00	-2928517.40	0.1199	41
Remgro	Value	2008	0.18	1692.80	1445.40	510.00	434.00	17.94	-2928517.40	-1309924.00	0.0636	41
Remgro	Value	2007	0.20	1445.40	1052.30	434.00	361.00	17.72	-1309924.00	927564.80	0.1004	41
Remgro	Value	2006	0.15	1052.30	1001.80	361.00	314.00	17.54	927564.80	-533890.00	0.1538	41
Reunert	Value	2015	0.10	588.00	505.60	345.95	314.50	16.06	152032.50	-64159.88	0.2886	42
Reunert	Value	2014	0.00	505.60	583.20	314.50	314.50	16.08	-64159.88	412799.25	0.0727	42
Reunert	Value	2013	0.00	583.20	658.30	314.50	214.50	15.82	412799.25	823225.00	0.0939	42
Reunert	Value	2012	-0.05	658.30	598.30	214.50	330.00	15.70	823225.00	529500.65	0.1058	42
Reunert	Value	2011	0.15	598.30	505.50	330.00	287.00	15.62	529500.65	662947.60	0.1053	42
Reunert	Value	2010	0.13	505.50	651.60	287.00	253.00	15.89	662947.60	533257.38	0.2270	42
Reunert	Value	2009	-0.21	651.60	651.90	253.00	319.00	15.85	533257.38	679248.00	0.2209	42
Reunert	Value	2008	0.02	651.90	272.40	319.00	314.00	15.85	679248.00	829892.63	0.1035	42
Reunert	Value	2007	-0.34	272.40	524.60	314.00	473.00	15.39	829892.63	600306.62	0.1095	42
Reunert	Value	2006	1.13	524.60	406.00	473.00	222.00	15.55	600306.62	636321.40	0.1716	42
Rex Tru A	Value	2015		102.00	-41.00	51.85		12.69	-4987.76	-35740.94	0.2461	43
Rex Tru A	Value	2014		-41.00	-47.40		51.80	12.59	-35740.94	-40844.01	0.1894	43
Rex Tru A	Value	2013	0.00	-47.40	123.70	51.80	51.80	12.67	-40844.01	-2709.39	0.3104	43
Rex Tru A	Value	2012	0.00	123.70	198.30	51.80	52.00	12.70	-2709.39	23883.46	0.4901	43

Rex Tru A	Value	2011	0.30	198.30	154.50	52.00	40.00	12.70	23883.46	17059.76	0.4542	43
Rex Tru A	Value	2010	0.14	154.50	124.10	40.00	35.00	12.58	17059.76	20362.96	0.4878	43
Rex Tru A	Value	2009	0.00	124.10	186.50	35.00	35.00	12.48	20362.96	12607.34	0.4348	43
Rex Tru A	Value	2008	0.40	186.50	75.30	35.00	25.00	12.39	12607.34	6493.63	0.4093	43
Rex Tru A	Value	2007	0.00	75.30	46.70	25.00	25.00	12.19	6493.63	6493.63	0.3945	43
Rex Tru A	Value	2006	0.00	46.70	62.50	25.00	25.00	12.12	6493.63	2072.82	0.4065	43
RMBH	Value	2015	0.21	508.50	454.70	234.60	193.38	17.29	-1691384.40	-1500687.10	0.1742	44
RMBH	Value	2014	0.33	454.70	366.70	193.38	144.90	17.14	-1500687.10	-1466085.60	0.1702	44
RMBH	Value	2013	0.25	366.70	304.90	144.90	116.00	16.98	-1466085.60	-258083.10	0.1120	44
RMBH	Value	2012	-0.41	304.90	294.40	116.00	196.00	16.92	-258083.10	100232.40	0.1102	44
RMBH	Value	2011	0.58	294.40	299.80	196.00	124.00	16.78	100232.40	-2405763.44	0.1267	44
RMBH	Value	2010	0.25	299.80	219.70	124.00	99.00		-2405763.44	-973282.64		44
RMBH	Value	2009	-0.30	219.70	311.70	99.00	141.50		-973282.64	-1549981.50		44
RMBH	Value	2008	0.00	311.70	320.90	141.50	141.50		-1549981.50	-1406179.02		44
RMBH	Value	2007	0.25	320.90	247.60	141.50	113.50		-1406179.02	-1250103.95		44
RMBH	Value	2006	0.21	247.60	234.90	113.50	94.00		-1250103.95	-913009.37		44
SA Corp	Value	2015	0.11	40.46	23.50	33.63	30.35	16.46	-360107.23	72934.77	0.0220	45
SA Corp	Value	2014	0.09	23.50	33.10	30.35	27.84	16.24	72934.77	17836.26	0.0266	45
SA Corp	Value	2013	0.09	33.10	27.20	27.84	25.63	16.06	17836.26	106649.25	0.0330	45
SA Corp	Value	2012	-0.11	27.20	30.10	25.63	28.80	15.98	106649.25	-218702.69	0.0466	45
SA Corp	Value	2011	0.01	30.10	28.00	28.80	28.40	16.05	-218702.69	-232099.74	0.0402	45
SA Corp	Value	2010	0.03	28.00	26.40	28.40	27.70	16.06	-232099.74	-224371.03	0.0329	45
SA Corp	Value	2009	-0.07	26.40	30.10	27.70	29.80	16.01	-224371.03	-132878.42	0.0475	45
SA Corp	Value	2008	-0.07	30.10	29.70	29.80	32.00	16.08	-132878.42	-441599.05	0.0460	45
SA Corp	Value	2007	0.19	29.70	27.67	32.00	26.82	16.10	-441599.05	7021.35	0.0066	45
SA Corp	Value	2006	0.05	27.67	25.40	26.82	25.50	14.97	7021.35	26428.74	0.0070	45
										-		
Sanlam	Value	2015	0.09	464.40	416.50	208.25	191.25	20.33	-93412554.00	64987239.60	0.0739	46
										-		
Sanlam	Value	2014	0.13	416.50	416.20	191.25	170.00	20.23	-64987239.60	77561683.20	0.0593	46
										-		
Sanlam	Value	2013	-0.07	416.20	298.90	170.00	182.75	20.15	-77561683.20	58622208.00	0.0328	46
										-		
Sanlam	Value	2012	0.41	298.90	259.10	182.75	130.00	19.91	-58622208.00	31310819.60	0.0337	46
										-		
Sanlam	Value	2011	0.13	259.10	260.00	130.00	115.00	19.76	-31310819.60	54392583.40	0.0376	46

Sanlam	Value	2010	0.11	260.00	224.60	115.00	104.00	19.70	-54392583.40	47243769.30	0.0337	46
Sanlam	Value	2009	0.06	224.60	135.40	104.00	98.00	19.63	-47243769.30	13485887.10	0.0358	46
Sanlam	Value	2008	0.05	135.40	225.70	98.00	93.00	19.58	-13485887.10	37025356.00	0.0317	46
Sanlam	Value	2007	0.21	225.70	310.40	93.00	77.00	19.65	-37025356.00	50276287.60	0.0318	46
Sanlam	Value	2006	0.18	310.40	233.70	77.00	65.00	19.65	-50276287.60	27962352.60	0.0273	46
Santam	Value	2015	0.10	1844.00	1446.00	693.60	630.70	17.14	-1100646.20	-92209.20	0.1202	47
Santam	Value	2014	0.10	1446.00	1033.00	630.70	573.75	17.04	-92209.20	-303154.40	0.1017	47
Santam	Value	2013	0.05	1033.00	995.00	573.75	544.00	16.93	-303154.40	-329332.20	0.1036	47
Santam	Value	2012	-0.61	995.00	1216.00	544.00	1405.00	16.80	-329332.20	-272890.40	0.1252	47
Santam	Value	2011	0.39	1216.00	1367.00	1405.00	1010.00	16.74	-272890.40	-272890.40	0.0855	47
Santam	Value	2010	1.17	1367.00	906.00	1010.00	466.00	16.69	-272890.40	-747578.40	0.0644	47
Santam	Value	2009	0.08	906.00	586.00	466.00	430.00	16.65	-747578.40	-175987.50	0.0807	47
Santam	Value	2008	-0.84	586.00	906.00	430.00	2610.00	16.62	-175987.50	-1230906.80	0.3056	47
Santam	Value	2007	5.87	906.00	1555.00	2610.00	380.00	16.68	-1230906.80	-1391220.00	0.1970	47
Santam	Value	2006	0.13	1555.00	1540.00	380.00	335.00	16.64	-1391220.00	-528242.37	0.3058	47
Sasfin	Value	2015	0.17	566.70		189.32	162.44	16.20	-75593.90	38313.27	0.1184	48
Sasfin	Value	2014	0.14	486.00	486.00	162.44	142.80	15.92	38313.27	-2322.33	0.1341	48
Sasfin	Value	2013	0.15	421.00	421.00	142.80	123.80	15.65	-2322.33	21577.23	0.1633	48
Sasfin	Value	2012	0.05	344.00	344.00	123.80	118.00	15.52	21577.23	-28283.36	0.2700	48
Sasfin	Value	2011	-0.11	297.00	297.00	118.00	133.00	15.29	-28283.36	-27143.51	0.1841	48
Sasfin	Value	2010	-0.40	355.00	355.00	133.00	220.00	15.08	-27143.51	26404.17	0.1502	48
Sasfin	Value	2009	-0.04	560.00	560.00	220.00	228.00	14.97	26404.17	74812.15	0.1332	48
Sasfin	Value	2008	0.10	576.00	576.00	228.00	207.00	14.92	74812.15	48226.71	0.1490	48
Sasfin	Value	2007	0.29	523.00	523.00	207.00	161.00	14.92	48226.71	30947.33	0.1490	48
Sasfin	Value	2006	0.24	404.00	404.00	161.00	130.00	14.72	30947.33	55590.19	0.2771	48
Sasol	Value	2015	1.72	4976.00	6016.00	1572.50	1827.50	19.60	6431457.60	14553177.60	0.1649	49
Sasol	Value	2014	2.73	6016.00	5262.00	1827.50	1615.00	19.45	14553177.60	10623522.80	0.1370	49
Sasol	Value	2013	2.35	5262.00	4228.00	1615.00	1573.00	19.33	10623522.80	6125282.80	0.1311	49
Sasol	Value	2012	2.25	4228.00	3385.00	1573.00	1300.00	19.13	6125282.80	4083890.40	0.0886	49
Sasol	Value	2011	2.22	3385.00	2657.00	1300.00	1050.00	19.00	4083890.40	1093024.80	0.1012	49
Sasol	Value	2010	2.13	2657.00	2542.00	1050.00	850.00	18.87	1093024.80	-84374.50	0.1068	49
Sasol	Value	2009	0.96	2542.00	3809.00	850.00	1300.00	18.80	-84374.50	10621159.20	0.1417	49

Sasol	Value	2008	3.23	3809.00	2537.00	1300.00	900.00	18.76	10621159.20	8519612.50	0.0375	49	
Sasol	Value	2007	2.57	2537.00	2293.00	900.00	710.00	18.60	8519612.50	2703944.00	0.0557	49	
Sasol	Value	2006	3.25	2293.00	1749.00	710.00	540.00	18.45	2703944.00	5809126.40	0.0557	49	
Shoprite	Value	2015	0.10	772.90	697.60	328.10	297.50	17.60	2651113.40	2181061.30	0.1608	50	
Shoprite	Value	2014	0.04	697.60	675.40	297.50	287.30	17.52	2181061.30	2347926.30	0.2013	50	
Shoprite	Value	2013	0.05	675.40	607.00	287.30	273.90	17.33	2347926.30	1774961.96	0.1833	50	
Shoprite	Value	2012	0.08	607.00	507.60	273.90	253.00	17.25	1774961.96	1584266.97	0.2569	50	
Shoprite	Value	2011	0.11	507.60	455.40	253.00	227.00	16.85	1584266.97	1563597.52	0.0947	50	
Shoprite	Value	2010	0.14	455.40	401.10	227.00	200.00	16.71	1563597.52	1470357.21	0.1233	50	
Shoprite	Value	2009	0.29	401.10	309.90	200.00	155.00	16.63	1470357.21	885431.27	0.1688	50	
Shoprite	Value	2008	0.53	309.90	202.20	155.00	101.00	16.51	885431.27	584785.86	0.2125	50	
Shoprite	Value	2007	1.20	202.20	146.70	101.00	46.00	16.29	584785.86	297782.76	0.1694	50	
Shoprite	Value	2006	0.11	146.70	120.30	46.00	41.50	16.11	297782.76	285425.69	0.1215	50	
SpurCorp	Value	2015	0.09	152.80	157.90	112.20	102.85	13.92	86843.42	69513.82	0.2756	51	
SpurCorp	Value	2014	0.09	157.90	156.60	102.85	94.35	13.51	69513.82	60427.35	0.1246	51	
SpurCorp	Value	2013	0.18	156.60	128.30	94.35	79.95	13.44	60427.35	57121.02	0.1628	51	
SpurCorp	Value	2012	0.21	128.30	97.70	79.95	66.00	13.31	57121.02	45557.37	0.1636	51	
SpurCorp	Value	2011	0.10	97.70	96.80	66.00	60.00	13.23	45557.37	43188.73	0.2086	51	
SpurCorp	Value	2010	0.09	96.80	84.70	60.00	55.00	13.18	43188.73	31471.57	0.1595	51	
SpurCorp	Value	2009	2.57	84.70	76.50	55.00	15.40	13.21	31471.57	12860.41	0.1536	51	
SpurCorp	Value	2008		76.50	91.50	15.40		13.23	12860.41	27235.71	0.1200	51	
SpurCorp	Value	2007		91.50	65.80			13.13	27235.71	28616.18	0.0894	51	
SpurCorp	Value	2006		65.80	56.30			12.99	28616.18	44679.94	0.1039	51	
Standard Bank	Value	2015	0.13	1388.90		572.90		21.41	-14176500.40	15344955.60	-	0.0379	52
Standard Bank	Value	2014	0.12	1081.40	1081.40	508.30	508.30	21.37	-15344955.60	29291400.90	-	0.0338	52
Standard Bank	Value	2013	0.17	1084.20	1084.20	453.05	453.05	21.25	-29291400.90	17142248.00	-	0.0315	52
Standard Bank	Value	2012	-0.09	963.40	963.40	386.75	386.75	21.16	-17142248.00	-2157945.00	-	0.0401	52
Standard Bank	Value	2011	0.10	887.20	887.20	425.00	425.00	21.12	-2157945.00	14158452.00	-	0.0214	52
Standard Bank	Value	2010	0.00	735.20	735.20	386.00	386.00	21.01	-14158452.00	-6841271.80	-	0.0215	52
Standard Bank	Value	2009	0.00	771.10	771.10	386.00	386.00	21.02	-6841271.80	21308752.50	-	0.0186	52
Standard Bank	Value	2008	0.00	1002.00	1002.00	286.00	286.00	21.13	21308752.50	12639869.70	-	0.0186	52

Standard Bank	Value	2007	0.21	1033.40	1033.40	386.00	386.00	20.89	-12639869.70	27439513.50	-	0.0171	52
Standard Bank	Value	2006	0.20	837.40	837.40	320.00	320.00	20.69	-27439513.50	24475752.00	-	0.0765	52
SYCOM	Value	2015	0.04	162.72	203.10	165.15	155.79	16.04	-167056.48	-177326.96		0.0348	53
SYCOM	Value	2014	0.05	203.10	185.33	155.79	148.80	16.02	-177326.96	-29412.41		0.0335	53
SYCOM	Value	2013	-0.03	185.33	190.80	148.80	153.90	16.01	-29412.41	-212473.05		0.0230	53
SYCOM	Value	2012	-0.02	190.80	113.20	153.90	156.70	15.80	-212473.05	-219035.71		0.1208	53
SYCOM	Value	2011	-0.02	113.20	148.40	156.70	159.30	15.60	-219035.71	-136485.02		0.0216	53
SYCOM	Value	2010	0.06	148.40	131.80	159.30	149.90	15.53	-136485.02	-109186.99		0.0274	53
SYCOM	Value	2009	0.11	131.80	136.00	149.90	134.90	15.46	-109186.99	-215189.78		0.0270	53
SYCOM	Value	2008	0.08	136.00	152.50	134.90	124.60	15.43	-215189.78	-21692.92		0.0217	53
SYCOM	Value	2007	0.07	152.50	129.60	124.60	116.50	15.10	-21692.92	40100.03		0.0299	53
SYCOM	Value	2006	0.05	129.60	92.20	116.50	110.90	14.95	40100.03	-1294.46		0.0272	53
Tiger Brands	Value	2015	0.01	1785.50	1815.70	807.50	799.00	17.03	839812.01	909705.68		0.0423	54
Tiger Brands	Value	2014	0.09	1815.70	1623.90	799.00	735.20	17.03	909705.68	689188.17		0.0467	54
Tiger Brands	Value	2013	0.02	1623.90	1689.00	735.20	722.50	17.04	689188.17	1639218.00		0.0251	54
Tiger Brands	Value	2012	-0.09	1689.00	1575.00	722.50	791.00	16.70	1639218.00	1120729.44		0.0208	54
Tiger Brands	Value	2011	2.28	1575.00	1393.00	791.00	241.00	16.60	1120729.44	1303767.53		0.0313	54
Tiger Brands	Value	2010	-0.02	1393.00	1407.00	241.00	245.00	16.38	1303767.53	1118264.20		0.0710	54
Tiger Brands	Value	2009	-0.69	1407.00	1524.00	245.00	786.00	16.27	1118264.20	1597788.31		0.0433	54
Tiger Brands	Value	2008	4.09	1524.00	1283.00	786.00	157.00	16.36	1597788.31	1315695.85		0.0441	54
Tiger Brands	Value	2007	-0.74	1283.00	1207.00	157.00	603.00	16.30	1315695.85	1222685.80		0.0408	54
Tiger Brands	Value	2006	0.21	1207.00	995.00	603.00	500.00	16.15	1222685.80	1146973.05		0.0555	54
Tongaat	Value	2015	0.06	826.10	990.50	323.00	306.00	17.09	-444011.00	-142046.70		0.0628	55
Tongaat	Value	2014	0.06	990.50	959.90	306.00	289.00	16.99	-142046.70	468516.60		0.0445	55
Tongaat	Value	2013	0.09	959.90	838.90	289.00	264.50	16.87	468516.60	222075.00		0.0430	55
Tongaat	Value	2012	0.06	838.90	760.50	264.50	250.00	16.69	222075.00	-722034.60		0.0333	55
Tongaat	Value	2011	0.14	760.50	661.20	250.00	220.00	16.49	-722034.60			0.0242	55
Tongaat	Value	2010		661.20		220.00		16.41		-400328.50		0.0105	55
Tongaat	Value	2009			565.60		310.00		-400328.50	-401203.20			55
Tongaat	Value	2008	0.00	565.60	58.10	310.00	310.00	16.07	-401203.20	-401203.20		0.0240	55
Tongaat	Value	2007	-0.44	58.10	666.40	310.00	550.00	15.85	-401203.20	170501.10		0.0519	55
Tongaat	Value	2006	0.38	666.40	452.40	550.00	500.00	16.02	170501.10	56622.40		0.0562	55
Truworth	Value	2015	0.05	593.80	576.80	344.25	327.25	16.03	1574363.80	1592628.80		0.1597	56
Truworth	Value	2014	0.06	576.80	570.80	327.25	307.70	15.90	1592628.80	1689343.20		0.1966	56
Truworth	Value	2013	0.02	570.80	526.70	307.70	302.45	15.80	1689343.20	1601965.50		0.1822	56



Truworth	Value	2012	0.15	526.70	456.00	302.45	262.00	15.75	1601965.50	1396739.40	0.2255	56
Truworth	Value	2011	0.31	456.00	377.90	262.00	200.00	15.64	1396739.40	1084960.20	0.2392	56
Truworth	Value	2010	0.17	377.90	337.60	200.00	171.00	15.50	1084960.20	1062644.40	0.2437	56
Truworth	Value	2009	0.19	337.60	295.60	171.00	144.00	15.32	1062644.40	830544.00	0.1702	56
Truworth	Value	2008	0.20	295.60	248.60	144.00	120.00	15.18	830544.00	761367.60	0.1366	56
Truworth	Value	2007	0.35	248.60	186.40	120.00	89.00	15.02	761367.60	606733.40	0.0647	56
Truworth	Value	2006	0.29	186.40	144.80	89.00	69.00	14.78	606733.40	433875.00	0.0831	56
WBHO	Value	2015	0.00	1175.20	1172.60	312.80	312.80	16.48	49640.51	-378389.42	0.2780	57
WBHO	Value	2014	0.00	1172.60	1150.90	312.80	312.80	16.41	-378389.42	106118.55	0.2058	57
WBHO	Value	2013	-0.01	1150.90	1166.70	312.80	315.70	16.33	106118.55	156683.19	0.2704	57
WBHO	Value	2012	-0.04	1166.70	1415.70	315.70	330.00	16.24	156683.19	341968.59	0.2729	57
WBHO	Value	2011	0.00	1415.70	1760.70	330.00	330.00	16.07	341968.59	476741.34	0.3037	57
WBHO	Value	2010	0.10	1760.70	1610.80	330.00	300.00	16.05	476741.34	679564.63	0.4158	57
WBHO	Value	2009	0.24	1610.80	1263.10	300.00	242.00	16.08	679564.63	379938.13	0.4198	57
WBHO	Value	2008	1.00	1263.10	512.10	242.00	121.00	15.88	379938.13	125319.00	0.3523	57
WBHO	Value	2007	0.49	512.10	357.50	121.00	81.00	15.26	125319.00	76501.14	0.2987	57
WBHO	Value	2006	0.29	357.50	251.50	81.00	63.00	14.92	76501.14	91668.46	0.2122	57
Woolworth	Value	2015	-0.02	369.70	365.20	209.95	213.78	17.54	2063378.10	2546539.30	0.0215	58
Woolworth	Value	2014	0.07	365.20	340.40	213.78	198.90	16.92	2546539.30	2000123.70	0.4285	58
Woolworth	Value	2013	0.11	340.40	267.30	198.90	179.50	16.32	2000123.70	1499841.50	0.1282	58
Woolworth	Value	2012	0.25	267.30	214.90	179.50	143.50	16.12	1499841.50	1269632.00	0.2135	58
Woolworth	Value	2011	0.37	214.90	164.60	143.50	105.00	16.12	1269632.00	747868.80	0.2530	58
Woolworth	Value	2010	-0.41	164.60	109.30	105.00	179.00	16.01	747868.80	592309.18	0.3238	58
Woolworth	Value	2009	1.27	109.30	115.70	179.00	79.00	15.93	592309.18	472343.97	0.2879	58
Woolworth	Value	2008	0.04	115.70	127.80	79.00	76.00	16.24	472343.97	577317.40	0.0733	58
Woolworth	Value	2007	0.21	127.80	105.00	76.00	63.00	16.16	577317.40	479787.67	0.0406	58
Woolworth	Value	2006	0.17	105.00	92.10	63.00	54.00	15.99	479787.67	403361.70	0.0468	58
Nampak	Value	2015	-0.12	182.10	234.70	113.90	130.05	16.83	308048.00	269620.80	0.0782	59
	Value	2014	0.09	234.70	209.30	130.05	119.00	16.73	269620.80	34891.46	0.0610	59
	Value	2013	0.08	209.30	200.80	119.00	110.10	16.76	34891.46	504990.85	0.2365	59
	Value	2012	0.02	200.80	176.00	110.10	108.00	16.49	504990.85	321889.92	0.1225	59
	Value	2011	0.30	176.00	149.70	108.00	83.00	16.36	321889.92	493159.00	0.1140	59
	Value	2010		149.70	83.80	83.00		16.35	493159.00	-341856.80	0.0569	59
	Value	2009		83.80	177.30			16.43	-341856.80	214289.20	0.0742	59
	Value	2008		177.30	184.60			16.53	214289.20	141420.00	0.1149	59
	Value	2007		184.60	151.20			16.30	141420.00	155453.40	0.0505	59

	Value	2006		151.20	119.20		83.60	16.24	155453.40	155453.40	0.0366	59
Netcare	Value	2015	0.15	174.10	158.20	78.20	68.00	17.27	876518.40	769329.00	0.0806	60
	Value	2014	0.18	158.20	138.40	68.00	57.40	17.10	769329.00	859297.60	0.0641	60
	Value	2013	0.21	138.40	95.30	57.40	47.60	16.99	859297.60	1080607.20	0.0705	60
	Value	2012	-0.10	95.30	117.00	47.60	53.00	17.60	1080607.20	202515.00	0.0657	60
	Value	2011	1.52	117.00	96.50	53.00	21.00	17.74	202515.00	53670.50	0.0465	60
	Value	2010		96.50	78.20	21.00		17.61	53670.50	-571858.20	0.0311	60
	Value	2009		78.20	61.50			17.64	-571858.20	-608335.00	0.0175	60
	Value	2008		61.50	77.60			17.82	-608335.00	75844.32	0.0219	60
	Value	2007		77.60	56.20			17.74	75844.32	506721.60	0.0269	60
	Value	2006		56.20	60.30			17.74	506721.60		0.0290	60
Nu-World Holdings	Value	2015	0.48	428.60	351.10	138.98	94.01	14.03	6755.29	6008.96	0.0729	61
	Value	2014	0.86	351.10	192.80	94.01	50.50	13.87	6008.96	14775.53	0.0998	61
	Value	2013	0.05	192.80	179.20	50.50	48.00	13.71	14775.53	-16289.12	0.1356	61
	Value	2012		179.20	93.70	48.00		13.78	-16289.12	-23181.90	0.0105	61
	Value	2011		93.70	324.40			13.67	-23181.90	20183.81	0.1016	61
	Value	2010		324.40	143.10			13.70	20183.81	-33374.30	0.0658	61
	Value	2009		143.10	205.50			13.55	-33374.30	-22260.23	0.1946	61
	Value	2008		205.50	249.10			13.54	-22260.23	-13217.56	0.1835	61
	Value	2007		249.10	378.30		120.80	13.52	-13217.56	17810.70	0.3854	61
	Value	2006	0.30	378.30	339.90	120.80	92.60	13.56	17810.70	17913.56	0.3456	61
									-			
Redefine Income Fund	Value	2015	1.10	84.08	75.90	68.00	32.39	18.07	-1035268.71	2336647.85	0.0019	62
									-			
	Value	2014		75.90	98.20	32.39		17.87	-2336647.85	3022166.83	0.0061	62
									-			
	Value	2013		98.20	125.00			17.70	-3022166.83	3259813.46	0.0073	62
									-			
	Value	2012		125.00	71.20			17.66	-3259813.46	2325625.39	0.0075	62
									-			
	Value	2011		71.20	101.30			17.61	-2325625.39	1832875.81	0.0149	62
	Value	2010		101.30	60.40			17.37	-1832875.81	1853899.47	0.0174	62
	Value	2009		60.40	19.00			17.07	1853899.47	-573416.27	0.0043	62
	Value	2008		19.00	143.20			16.19	-573416.27	-472873.89	0.0148	62
	Value	2007		143.20	43.80			16.10	-472873.89	-199531.30	0.0131	62
	Value	2006		43.80	22.80			15.62	-199531.30	-31618.80	0.0000	62

SAPPI	Value	2015		384.50	327.84			15.41	-144195.81	-979141.79	0.0928	63
										-		
	Value	2014		327.84	-55.69			15.51	-979141.79	1477086.12	0.0966	63
										-		
	Value	2013		-55.69	73.92			15.56	-1477086.12	1079232.67	0.0672	63
										-		
	Value	2012		73.92	-117.40			15.63	-1079232.67	2593317.82	0.1046	63
										-		
	Value	2011		-117.40	73.16			15.66	-2593317.82	2071447.94	0.1013	63
										-		
Value	2010		73.16	-191.48			15.79	-2071447.94	3737768.84	0.1102	63	
Value	2009		-191.48	776.04		132.09	15.80	-3737768.84	172124.47	0.1055	63	
									-			
	Value	2008	-0.41	776.04	577.02	132.09	225.18	15.63	172124.47	1214039.85	0.0449	63
									-			
	Value	2007	0.11	577.02	-74.24	225.18	202.46	15.66	-1214039.85	1651104.69	0.0574	63
	Value	2006	5.75	-74.24	7.00	202.46	30.00	15.52	-1651104.69	-352387.20	0.0406	63
Steinhoff International Holdings										-		
	Value	2015	0.10	393.80	443.50	140.25	127.50	19.56	19436927.40	4624362.60	0.1209	64
										-		
	Value	2014	0.88	443.50	394.80	127.50	68.00	19.13	-4624362.60	2893265.70	0.0808	64
										-		
	Value	2013		394.80	317.00	68.00		18.92	-2893265.70	1458504.00	0.0558	64
										-		
	Value	2012		317.00	258.90			18.71	-1458504.00	2360219.60	0.0602	64
	Value	2011		258.90	254.60			18.43	-2360219.60	-593334.00	0.0624	64
	Value	2010		254.60	252.90			17.86	-593334.00	-102841.81	0.0878	64
Value	2009		252.90	263.50			17.83	-102841.81	-809588.28	0.0857	64	
									-			
	Value	2008		263.50	215.30			17.86	-809588.28	1049411.76	0.0830	64
	Value	2007		215.30	173.00			17.44	-1049411.76	160858.10	0.0977	64
	Value	2006		173.00	141.00			17.28	160858.10	211356.52	0.1465	64
Super Group	Value	2015		271.10	248.70			16.54	463553.07	384599.71	0.1388	65
	Value	2014		248.70	212.70			16.31	384599.71	388937.68	0.1676	65
	Value	2013		212.70	179.40			16.17	388937.68	198217.48	0.1774	65
	Value	2012		179.40	10.80			15.89	198217.48	38911.59	0.2222	65

Value	2011		10.80	5.80			15.83	38911.59		0.1618	65	
Value	2010		5.80	-170.90			15.84		-	1043459.62	0.1549	65
Value	2009		-170.90	11.90			15.99	-1043459.62	-333093.45		0.0209	65
Value	2008		11.90	132.30		80.00	16.19	-333093.45		160498.33	0.0786	65
Value	2007	0.30	132.30	106.88	80.00	61.60	16.04	160498.33	229571.36		0.0737	65

**AN EXTRACT FROM PANEL DATA 4– FULL SAMPLE OF OBJECTIVE 2**

<b>firm</b>	<b>firm size</b>	<b>Years</b>	<b>Dps</b>	<b>size</b>	<b>rete</b>	<b>l_rete</b>	<b>Δta</b>	<b>roa</b>	<b>eva</b>	<b>l_eva</b>	<b>Firmc</b>
B-Africa	Value	2015	850.00	20.86	0.06	0.01	0.15	-1.62	-5901295.60	5775948.00	2
	Value	2014	786.25	20.71	0.06	0.00	0.03	-1.52	5775948.00	-1398492.00	2
	Value	2013	1298.80	20.68	0.00	0.00	0.19	-1.63	-1398492.00	6415417.60	2
	Value	2012	581.40	20.51	0.05	0.01	0.03	-1.54	6415417.60	1304459.30	2
	Value	2011	684.00	20.48	0.09	0.01	0.10	-1.37	1304459.30	1543403.40	2
	Value	2010	455.00	20.39	0.08	0.00	0.00	-1.61	1543403.40	5064400.80	2
	Value	2009	445.00	20.39	0.05	0.01	-0.07	-1.47	5064400.80	6925727.90	2
	Value	2008	595.00	20.47	0.12	0.01	0.21	-0.94	6925727.90	5257761.60	2
	Value	2007	560.00	20.28	0.15	0.01	0.29	-0.87	5257761.60	2844272.00	2
	Value	2006	608.00	20.02	0.17	0.24	0.22	-1.11	2844272.00	2517123.00	2
Adcorp	Value	2015	125.80	15.49	0.06	0.02	0.14	11.06	126240.63	52671.51	3
	Value	2014	119.00	15.36	0.02	0.03	0.14	13.61	52671.51	-18038.26	3
	Value	2013	119.00	15.23	0.03	0.02	0.45	14.34	-18038.26	-9348.07	3
	Value	2012	125.00	14.86	0.02	0.06	0.47	14.37	-9348.07	12031.03	3
	Value	2011	175.00	14.47	0.06	-0.01	0.15	17.50	12031.03	8237.28	3
	Value	2010	165.00	14.33	0.01	0.02	-0.02	25.91	8237.28	25026.76	3
	Value	2009	222.00	14.35	0.02	0.04	0.23	33.59	25026.76	-40351.18	3
	Value	2008	184.29	14.14	0.04	0.00	0.00		-40351.18		3
	Value	2007	0.00	13.38	0.00	0.16	-1.00	23.26		64992.08	3
	Value	2006	168.00			0.16	0.08	0.16	22.37	64992.08	62551.90
AECI	Value	2015	327.25	16.69	0.02	0.14	0.20	11.32	-310554.00	397296.60	4
	Value	2014	632.40	16.51	0.14	0.09	0.03	12.10	397296.60	126247.20	4
	Value	2013	267.75	16.48	0.09	0.06	0.10	11.26	126247.20	285144.50	4
	Value	2012	223.55	16.39	0.06	0.11	0.05	10.47	285144.50	63692.50	4
	Value	2011	257.00	16.34	0.11	0.10	0.21	13.14	63692.50	116792.50	4
	Value	2010	205.00	16.15	0.10	0.06	0.03	11.24	116792.50	-216691.20	4
	Value	2009	90.00	16.12	0.06	0.03	-0.08	8.21	-216691.20	85969.20	4
	Value	2008	231.00	16.21	0.03	0.06	0.33	10.51	85969.20	73589.60	4
	Value	2007	213.00	15.93	0.06	0.19	0.06	11.59	73589.60	699993.00	4
	Value	2006	205.00	15.87	0.19	0.11	0.18	22.66	699993.00	249641.61	4

Afrox	Value	2015	58.65	15.66	0.10	-0.02		0.07	8.37	-61656.00	65184.30	5
					-							
	Value	2014	20.40	15.59	0.02	0.05		-0.02	3.39	65184.30	-50290.00	5
	Value	2013	39.95	15.61	0.05	0.04		0.12	9.16	-50290.00	158389.00	5
	Value	2012	38.20	15.50	0.04	0.03	0.02	0.01	8.36	158389.00	24012.80	5
	Value	2011	45.00	15.49	0.03	-0.01	0.02	0.01	6.53	24012.80	-101663.10	5
					-							
	Value	2010	27.00	15.48	0.01	0.03	0.00	-0.09	4.08	-101663.10	-80114.00	5
	Value	2009	38.00	15.57	0.03	0.05	0.02	-0.03	9.45	-80114.00	140917.00	5
	Value	2008	67.00	15.61	0.05	0.05	0.02	0.20	14.22	140917.00	283488.30	5
Value	2007	80.00	15.43	0.05	0.26	0.03	0.28	19.42	283488.30	242841.00	5	
Value	2006	148.00	15.18	0.26	0.79	0.15	0.21	31.37	242841.00	167378.50	5	
Argent	Value	2015	14.45	14.33	0.01	-0.18	0.01	-0.04	3.78	-73378.82	-117170.52	6
					-							
	Value	2014	11.90	14.37	0.18	0.05	-0.12	-0.15	-11.03	-117170.52	-9037.78	6
	Value	2013	11.00	14.54	0.05	0.05	0.03	0.03	7.27	-9037.78	-84928.17	6
	Value	2012	9.10	14.51	0.05	0.04	0.03	-0.02	7.01	-84928.17	-143013.12	6
	Value	2011	7.00	14.53	0.04	0.00	0.02	0.04	5.93	-143013.12	-190205.50	6
	Value	2010	0.00	14.49	0.00	0.07	0.00	0.00	2.94	-190205.50	-66983.59	6
	Value	2009	28.00	14.49	0.07	0.14	0.04	0.09	12.02	-66983.59	60993.47	6
	Value	2008	36.00	14.41	0.14	0.18	0.09	0.47	20.88	60993.47	52783.12	6
	Value	2007	31.00	14.02	0.18	0.15	0.11	0.28	23.31	52783.12	58039.13	6
Assore	Value	2006	27.00	13.77	0.15	0.17	0.09	0.48	21.18	58039.13	51901.58	6
	Value	2015	510.00	16.79	0.03	0.18	0.03	0.03	-0.35	-1021029.52	-280798.32	7
	Value	2014	850.00	16.76	0.18	0.19	0.17	-0.06	3.21	-280798.32	1642662.32	7
	Value	2013	510.00	16.82	0.19	0.27	0.14	0.16	25.12	1642662.32	2134215.47	7
	Value	2012	467.50	16.68	0.27	0.25	0.20	0.16	34.44	2134215.47	2141433.20	7
	Value	2011	450.00	16.53	0.25	0.14	0.18	0.22	34.50	2141433.20	644883.26	7
	Value	2010	1700.00	16.33	0.14	0.41	0.09	0.11	19.14	644883.26	2326828.05	7
	Value	2009	2000.00	16.23	0.41	0.69	0.25	0.11	48.64	2326828.05	2378598.22	7
	Value	2008	1250.00	16.12	0.69	0.21	0.29	0.89	60.46	2378598.22	87769.72	7
	Value	2007	350.00	15.49	0.21	0.10	0.13	0.36	25.46	87769.72	101810.70	7
Aveng	Value	2006	230.00	15.18	0.10	0.23	0.07	0.21	19.61	101810.70	485738.90	7
					-							
	Value	2015		17.13	0.04	-0.03	-0.02	-0.11	-0.33	-2262721.00	-1078087.80	8
				-								
Value	2014		17.25	0.03	0.02	-0.01	0.02	-0.33	-1078087.80	-1641275.40	8	

	Value	2013		17.23	0.02	0.00	0.04	0.09	2.27	-1641275.40	-1595069.73	8
	Value	2012	51.00	17.15	0.00	0.05	0.00	0.14	2.16	-1595069.73	-324009.40	8
	Value	2011	145.00	17.02	0.05	0.11	0.02	0.02	6.40	-324009.40	143843.58	8
	Value	2010	145.00	17.00	0.11	0.09	0.05	0.06	9.30	143843.58	418134.73	8
	Value	2009	145.00	16.94	0.09	0.19	0.04	0.03	9.94	418134.73	715109.92	8
	Value	2008	290.00	16.91	0.19	0.67	0.09	0.13	12.20	715109.92	-315042.66	8
	Value	2007		16.79	0.67	0.14	0.38	0.95	53.19	-315042.66	267906.51	8
	Value	2006	38.00	16.12	0.14	0.13	0.05	0.12	7.03	267906.51	-297718.41	8
				-								
Avi	Value	2015	452.20	15.90	0.08	0.10	0.04	0.13	29.71	870222.78	752932.04	9
	Value	2014	255.00	15.78	0.10	-0.03	0.06	0.08	32.52	752932.04	678064.71	9
				-								
	Value	2013	221.00	15.70	0.03	0.14	0.02	0.19	29.82	678064.71	603275.64	9
	Value	2012	338.00	15.53	0.14	0.12	0.09	0.03	28.89	603275.64	341179.44	9
	Value	2011	125.00	15.50	0.12	0.07	0.07	-0.04	23.64	341179.44	131075.75	9
	Value	2010	100.00	15.54	0.07	0.10	0.03	0.02	20.11	131075.75	149068.06	9
	Value	2009	88.00	15.52	0.10	0.10	0.05	0.05	20.85	149068.06	46527.21	9
	Value	2008	80.00	15.48	0.10	0.11	0.05	0.09	19.90	46527.21	165433.59	9
	Value	2007	73.00	15.39	0.11	0.06	0.06	0.09	21.60	165433.59	-45685.64	9
	Value	2006	53.00	15.30	0.06	0.47	0.03	0.20	15.28	-45685.64	391637.16	9
B-World	Value	2015	293.25	17.69	0.00	0.10	0.00	0.09	8.18	-647569.60	-559672.80	10
	Value	2014	272.00	17.60	0.10	0.14	0.04	0.08	9.09	-559672.80	-600541.80	10
	Value	2013	247.35	17.52	0.14	0.13	0.05	0.14	9.53	-600541.80	826982.00	10
	Value	2012	195.50	17.39	0.13	0.12	0.05	0.16	10.05	826982.00	-883490.00	10
	Value	2011	155.00	17.25	0.12	0.09	0.05	0.20	8.84	-883490.00	-1244069.20	10
	Value	2010	75.00	17.06	0.09	0.00	0.04	-0.15	4.45	-1244069.20	-1318857.60	10
	Value	2009	110.00	17.22	0.00	0.05	0.00	-0.11	6.32	-1318857.60	-712722.50	10
	Value	2008	150.00	17.34	0.05	0.11	0.02	0.11	8.82	-712722.50	769192.20	10
	Value	2007	700.00	17.24	0.11	0.16	0.04	-0.14	9.46	769192.20	539343.00	10
	Value	2006	600.00	17.39	0.16	0.19	0.06	0.25	15.43	539343.00	731722.40	10
Bowcalf	Value	2015	35.19	13.55	0.04	0.31	0.04	0.39	14.17	5759.47	10375.06	11
	Value	2014	29.75	13.22	0.31	0.07	0.37	0.08	14.52	10375.06	13051.42	11
	Value	2013	28.30	13.15	0.07	0.06	0.06	-0.04	13.75	13051.42	13143.01	11
	Value	2012	33.00	13.19	0.06	0.07	0.05	0.09	15.77	13143.01	39294.81	11
	Value	2011	35.60	13.10	0.07	0.13	0.06	0.15	25.68	39294.81	34928.68	11
	Value	2010	28.00	12.96	0.13	0.13	0.12	0.10	24.99	34928.68	22595.43	11
	Value	2009	26.20	12.87	0.13	0.18	0.11	0.08	28.82	22595.43	14415.67	11

Brait SA	Value	2008	19.30	12.79	0.18	0.12	0.15	-0.04	20.54	14415.67	19451.11	11
	Value	2007	17.30	12.83	0.12	0.13	0.09	0.17	22.16	19451.11	22115.96	11
	Value	2006	16.80	12.67	0.13	0.15	0.10	0.12	24.54	22115.96	33821.70	11
	Value	2015	77.12	17.54	0.56	0.13	0.56	1.25	76.81	-4607255.20	-1968266.40	12
	Value	2014	31.95	16.73	0.13	0.20	0.13	0.22	13.98	-1968266.40	-884406.60	12
	Value	2013	26.60	16.53	0.20	0.25	0.20	0.28	20.19	-884406.60	-1167451.20	12
	Value	2012	20.60	16.28	0.25	0.00	0.22	4.48	36.74	-1167451.20	-303657.78	12
	Value	2011	74.20	14.58	0.00	-0.01	0.00	-0.03	10.11	-303657.78	-263238.80	12
	Value	2010	179.50	14.61	0.01	-0.01	0.00	-0.08	10.21	-263238.80	-213936.48	12
	Value	2009	178.90	14.70	0.01	0.11	0.01	0.01	8.75	-213936.48	-282056.52	12
Cargo	Value	2008	150.30	14.68	0.11	0.10	0.09	6.45	28.03	-282056.52	-91592.63	12
	Value	2007	130.52	12.68	0.10	0.12	0.08	0.07	16.14	-91592.63	-194280.57	12
	Value	2006	119.50	12.61	0.12	0.29	0.09	0.64	15.70	-194280.57	0.28	12
	Value	2015	22.10	13.67	0.04	0.09	0.02	0.01	6.35	13770.55	-292.95	13
	Value	2014	46.75	13.66	0.09	0.06	0.05	-0.01	7.25	-292.95	-13177.86	13
	Value	2013	25.50	13.67	0.06	0.03	0.03	0.23	6.41	-13177.86	-14621.69	13
	Value	2012	15.80	13.46	0.03	0.03	0.01	0.12	6.24	-14621.69	-24378.91	13
	Value	2011	17.00	13.35	0.03	0.07	0.02	0.16	5.92	-24378.91	-17944.58	13
	Value	2010	29.50	13.20	0.07	0.04	0.01	0.01	6.98	-17944.58	-36171.38	13
	Value	2009	18.50	13.19	0.04	0.13	0.03	0.07	4.52	-36171.38	-14399.89	13
City Lodge	Value	2008	18.50	13.12	0.13	0.10	0.07	0.12	12.64	-14399.89	1020.29	13
	Value	2007	18.50	13.01	0.10	0.14	0.05	0.27	11.48	1020.29	3806.67	13
	Value	2006	30.00	12.77	0.14	0.12	0.08	0.29	13.91	3806.67	0.14	13
	Value	2015	391.00	14.51	0.14	0.14	0.08	0.17	28.08	178699.29	142533.93	14
	Value	2014	332.35	14.35	0.14	0.12	0.08	0.24	26.28	142533.93	105469.51	14
	Value	2013	298.30	14.13	0.12	0.09	0.08	0.06	24.95	105469.51	83202.00	14
	Value	2012	248.00	14.07	0.09	0.00	0.05	0.03	23.39	83202.00	91422.46	14
	Value	2011	228.00	14.04	0.00	0.08	0.00	0.02	20.35	91422.46	167349.28	14
	Value	2010	327.00	14.02	0.08	-0.02	0.05	0.27	29.11	167349.28	175474.47	14
	Value	2009	361.00	13.79	0.02	0.14	0.01	0.25	31.43	175474.47	130006.59	14
Clicks	Value	2008	371.00	13.57	0.14	0.12	0.11	0.15	42.98	130006.59	117159.23	14
	Value	2007	293.00	13.42	0.12	0.10	0.10	0.11	39.71	117159.23	97388.38	14
	Value	2006	238.00	13.32	0.10	0.29	0.08	0.08	36.19	97388.38		14
	Value	2015	199.75	15.84	0.47	0.55	0.13	0.22	21.71	812013.19	702567.44	15



	Value	2014	161.50	15.64	0.55	0.55	0.14	0.14	23.29	702567.44	588762.29	15
	Value	2013	142.80	15.51	0.55	0.51	0.14	0.14	23.41	588762.29	565201.74	15
	Value	2012	135.82	15.38	0.51	0.67	0.12	0.12	24.46	565201.74	520393.26	15
	Value	2011		15.26	0.67	0.50	0.04	0.04	24.70	520393.26	398547.93	15
	Value	2010		15.23	0.50	0.42	-0.02	-0.02	21.65	398547.93	317263.11	15
	Value	2009		15.25	0.42	0.39	0.17	0.17	20.11	317263.11	242559.68	15
	Value	2008	7.40	15.09	0.39	0.29	-0.11	-0.11	17.78	242559.68	187792.82	15
	Value	2007	7.00	15.20	0.29	0.15	0.09	0.09	15.30	187792.82	128840.30	15
	Value	2006	6.80	15.12	0.15	0.15	0.15	0.15	12.29	128840.30	107316.24	15
Clientele	Value	2015	76.50	14.83	0.14	0.10	0.04	0.04	13.20	131923.56	203721.42	16
	Value	2014	66.30	14.79	0.10	0.14	-0.10	-0.10	8.51	203721.42	262805.60	16
	Value	2013	62.90	14.90	0.14	0.15	0.00	0.00	11.61	262805.60	290902.09	16
	Value	2012	56.95	14.90	0.15	0.12	0.18	0.18	12.48	290902.09	16361.18	16
	Value	2011	53.50	14.73	0.12	0.08	0.25	0.25	12.04	16361.18	11438.46	16
	Value	2010	47.00	14.51	0.08	0.06	0.10	0.10	12.49	11438.46	257067.92	16
	Value	2009	42.00	14.41	0.06	0.17	0.22	0.22	11.50	257067.92	132452.66	16
	Value	2008	39.00	14.22	0.17	0.00	0.00	0.00	26.87	132452.66	0.00	16
	Value	2007	0.00		0.00	0.00	0.00	0.00				16
	Value	2006	0.00		0.00	0.00	0.00	0.00				16
CMH	Value	2015	82.88	14.81	0.24	0.30	0.05	0.05	12.67	128272.56	109130.90	17
	Value	2014	66.30	14.76	0.30	0.24	-0.06	-0.06	12.42	109130.90	126306.20	17
	Value	2013	42.50	14.82	0.24	0.20	0.10	0.10	11.63	126306.20	34958.86	17
	Value	2012	43.60	14.73	0.20	0.20	0.14	0.14	9.69	34958.86	-1994.84	17
	Value	2011	34.00	14.59	0.20	0.11	0.09	0.09	9.99	-1994.84	-29837.81	17
	Value	2010	27.00	14.51	0.11	0.02	0.02	0.02	5.75	-29837.81	-86979.95	17
	Value	2009	28.00	14.49	0.02	0.20	-0.12	-0.12	2.35	-86979.95	19362.40	17
	Value	2008	38.60	14.63	0.20	0.41	-0.05	-0.05	9.83	19362.40	131404.22	17
	Value	2007	192.60	14.68	0.41	0.34	0.34	0.34	17.74	131404.22	129509.63	17
	Value	2006	183.00	14.38	0.34	0.31	0.55	0.55	18.55	129509.63	88093.43	17
Crookes	Value	2015	127.50	13.92	0.05	0.26	0.08	0.08	5.74	-44222.76	117352.41	18
	Value	2014	170.20	13.84	0.26	0.16	0.28	0.28	10.74	117352.41	55437.67	18
	Value	2013	204.00	13.60	0.16	0.15	0.10	0.10	10.92	55437.67	55437.67	18
	Value	2012	179.80	13.50	0.15	0.26	0.22	0.22	15.48	41002.49	-43014.19	18
	Value	2011	160.00	13.30	0.26	0.06	0.13	0.13	21.16	-43014.19	-53806.05	18
	Value	2010	70.00	13.18	0.06	0.21	0.02	0.02	9.42	-53806.05	2786.82	18
	Value	2009	113.00	13.16	0.21	0.14	0.30	0.30	22.17	2786.82	261.62	18

	Value	2008	140.00	12.90	0.14	0.11	0.10	0.13	16.19	261.62	33.19	18
	Value	2007	120.00	12.78	0.11	0.11	0.08	0.05	12.58	33.19	1124.33	18
	Value	2006	110.00	12.73	0.11	0.02	0.08	0.05	12.80	1124.33	-22858.44	18
Distell	Value	2015	294.10	16.70	0.07	0.09	0.04	0.12	14.20	254075.28	382777.35	19
	Value	2014	286.45	16.58	0.09	0.07	0.05	0.11	16.18	382777.35	345278.83	19
	Value	2013	284.75	16.47	0.07	0.07	0.03	0.45	15.99	345278.83	204570.92	19
	Value	2012	272.20	16.10	0.07	0.08	0.04	0.16	15.79	204570.92	442354.35	19
	Value	2011	256.00	15.95	0.08	0.08	0.05	0.03	17.67	442354.35	363248.93	19
	Value	2010	256.00	15.92	0.08	0.09	0.05	0.10	18.29	363248.93	513095.79	19
	Value	2009	256.00	15.83	0.09	0.12	0.06	0.16	20.69	513095.79	271326.50	19
	Value	2008	236.00	15.68	0.12	0.13	0.08	0.07	21.78	271326.50	412657.61	19
	Value	2007	196.00	15.61	0.13	0.08	0.08	0.10	20.88	412657.61	205903.75	19
	Value	2006	153.00	15.51	0.08	0.17	0.05	0.09	15.81	205903.75	156736.38	19
ELG Group	Value	2015	82.45	14.47	0.07	0.09	0.03	-0.04	8.09	24552.55	43416.13	20
	Value	2014	80.75	14.51	0.09	0.11	0.04	0.23	9.07	43416.13	80615.24	20
	Value	2013	72.25	14.30	0.11	0.12	0.05	0.18	10.50	80615.24	57355.61	20
	Value	2012	62.20	14.13	0.12	0.13	0.05	0.08	9.99	57355.61	19055.23	20
	Value	2011	55.00	14.06	0.13	0.13	0.04	0.33	8.84	19055.23	16639.38	20
	Value	2010	42.00	13.77	0.13	0.13	0.05	0.09	9.03	16639.38	44392.78	20
	Value	2009	30.00	13.68	0.13	0.20	0.05	0.04	8.68	44392.78	44006.87	20
	Value	2008	60.00	13.65	0.20	0.12	0.07	0.53	13.76	44006.87	21502.56	20
	Value	2007	30.00	13.22	0.12	-0.01	0.05	0.05	14.62	21502.56	-1446.55	20
	Value	2006	10.00	13.17	0.01	0.10	0.00	0.25	4.57	-1446.55	-223.35	20
Famous Brands	Value	2015	301.75	14.43	0.10	0.11	0.08	0.09	76.71	397060.34	297949.47	21
	Value	2014	255.00	14.34	0.11	0.11	0.08	0.12	73.80	297949.47	230689.98	21
	Value	2013	212.50	14.23	0.11	0.13	0.07	0.24	75.37	230689.98	176258.54	21
	Value	2012	182.00	14.02	0.13	0.14	0.09	0.07	82.05	176258.54	145768.60	21
	Value	2011	155.00	13.95	0.14	0.18	0.09	0.06	76.50	145768.60	125722.09	21
	Value	2010	114.00	13.88	0.18	0.17	0.10	0.02	63.29	125722.09	78374.34	21
	Value	2009	76.00	13.87	0.17	0.32	0.08	0.23	55.65	78374.34	90971.44	21
	Value	2008	33.00	13.66	0.32	0.24	0.15	0.27	46.35	90971.44	58544.80	21
	Value	2007	30.00	13.42	0.24	0.21	0.11	0.28	36.04	58544.80	45973.48	21
	Value	2006	30.00	13.18	0.21	0.26	0.10	0.42	42.71	45973.48	39280.13	21
Firststrand	Value	2015	178.50	20.78	0.11	0.11	0.04	0.12	-0.92	6509821.50	367759.60	22

	Value	2014	147.90	20.67	0.11	0.11	0.04	0.09	-0.59	367759.60	5516940.00	22
	Value	2013	115.60	20.58	0.11	0.06	0.04	0.13	-0.61	5516940.00	2336048.40	22
	Value	2012	93.30	20.46	0.06	0.25	0.04	0.10	-0.63	2336048.40	1290233.00	22
	Value	2011	81.00	20.36	0.25	0.11	0.02	-0.17	0.07	1290233.00	-1126874.00	22
	Value	2010	77.00	20.56	0.11	0.05	0.04	0.04	-0.59	-1126874.00	13858474.80	22
	Value	2009	56.00	20.51	0.05	0.13	0.00	-0.01	-2.58	13858474.80	-1999355.00	22
	Value	2008	82.50	20.52	0.13	0.16	0.04	0.14	-1.49	-1999355.00	3011763.00	22
										-		
	Value	2007	82.50	20.40	0.16	0.14	0.04	0.24	-0.58	3011763.00	17645481.00	22
										-		
	Value	2006	66.00	20.18	0.14	0.24	0.04	0.25	-0.41	17645481.00	-6556665.00	22
										-		
Grindrod	Value	2015	16.66	17.41	0.09	0.05	-0.05	0.11	-3.97	-2211212.49	-4127624.91	23
	Value	2014	28.56	17.31	0.05	0.08	0.02	0.15	14.67	-4127624.91	-544355.32	23
	Value	2013	31.50	17.16	0.08	0.07	0.03	0.29	3.11	-544355.32	-241800.64	23
	Value	2012	28.00	16.91	0.07	0.04	0.03	0.08	3.48	-241800.64	-810505.75	23
	Value	2011	29.50	16.83	0.04	0.09	0.02	0.43	4.17	-810505.75	-2324.94	23
	Value	2010	54.00	16.47	0.09	0.07	0.04	0.13	7.69	-2324.94	-167020.47	23
	Value	2009	60.00	16.35	0.07	0.24	0.03	-0.10	9.10	-167020.47	1011422.74	23
	Value	2008	136.00	16.45	0.24	0.35	0.12	0.41	23.04	1011422.74	432687.91	23
	Value	2007	78.00	16.11	0.35	0.26	0.12	0.37	17.72	432687.91	400588.70	23
	Value	2006	66.00	15.80	0.26	0.33	0.10	0.46	19.74	400588.70	470783.83	23
Group 5	Value	2015	46.75	16.14	0.05	0.12	0.04	0.03	3.63	-327154.66	11682.10	24
	Value	2014	85.00	16.11	0.12	0.10	0.03	0.13	6.90	11682.10	-80209.00	24
	Value	2013	56.95	15.99	0.10	-0.17	0.03	0.16	6.78	-80209.00	-151790.34	24
										-		
	Value	2012	33.90	15.84	0.17	-0.15	-0.04	-0.02	4.32	-151790.34	2888.31	24
										-		
	Value	2011	72.00	15.87	0.15	0.05	-0.04	-0.22	-0.03	2888.31	286361.94	24
	Value	2010	137.00	16.11	0.05	0.17	0.04	-0.04	5.57	286361.94	271044.59	24
	Value	2009	130.00	16.15	0.17	0.17	0.04	0.12	8.31	271044.59	58835.87	24
	Value	2008	105.00	16.04	0.17	0.11	0.04	0.34	9.27	58835.87	24478.22	24
	Value	2007	72.00	15.75	0.11	0.15	0.03	0.40	7.04	24478.22	20715.22	24
	Value	2006	56.00	15.41	0.15	16.11	0.02	0.71	6.64	20715.22	-65061.20	24
Hudaco	Value	2015	446.25	15.14	0.11	-0.09	0.06	0.23	24.10	164743.08	-50290.00	25
										-		
	Value	2014	395.25	14.94	0.09	0.08	-0.05	0.09	22.22	-173404.86	188195.18	25

	Value	2013	395.25	14.85	0.08	0.11	0.05	-0.40	14.29	188195.18	205805.34	25
	Value	2012	395.20	15.37	0.11	0.14	0.04	0.04	11.08	205805.34	179443.84	25
	Value	2011	440.00	15.33	0.14	0.09	0.05	0.12	11.13	179443.84	81927.76	25
	Value	2010	350.00	15.21	0.09	0.10	0.03	0.09	7.66	81927.76	94647.86	25
	Value	2009	350.00	15.13	0.10	0.20	0.03	-0.04	8.24	94647.86	186017.86	25
	Value	2008	400.00	15.16	0.20	0.02	0.05	0.07	11.80	186017.86	150068.62	25
	Value	2007	590.00	15.09	0.02	0.14	0.01	1.94	11.71	150068.62	81033.36	25
	Value	2006	190.00	14.01	0.14	0.14	0.09	0.22	21.46	81033.36	83731.78	25
Growth Point					-							
	Value	2015	147.39	18.48	0.07	-0.03	-0.05	0.28	9.53	-1351802.10	-1618762.60	26
					-							
	Value	2014	137.10	18.24	0.03	0.00	-0.02	0.30	10.01	-1618762.60	-239421.00	26
	Value	2013	0.10	17.98	0.00	0.00	0.00	0.15	5.75	-239421.00	256382.40	26
	Value	2012	0.10	17.84	0.00	0.00	0.00	0.14	6.17	256382.40	-140196.00	26
	Value	2011	0.10	17.70	0.00	0.00	0.00	0.29	7.45	-140196.00	-25118.80	26
	Value	2010	0.10	17.44	0.00	0.00	0.00	0.16	9.19	-25118.80	-74328.00	26
	Value	2009	0.10	17.29	0.00	0.00	0.00	0.06	7.66	-74328.00	-73257.50	26
	Value	2008	0.10	17.24	0.00	-0.02	0.00	0.34	7.23	-73257.50	189595.60	26
Implats					-							
	Value	2007	0.10	16.95	0.02	-0.02	0.00	0.48	7.85	189595.60	17976.85	26
					-							
	Value	2006	0.10	16.56	0.02	0.00	0.00	0.61	7.26	17976.85	97742.25	26
					-							
	Value	2015		18.16	0.07	-0.01	-0.05	-0.03	-5.66	-8217430.50	-8075036.50	27
					-							
	Value	2014		18.20	0.01	0.01	0.00	-0.01	-0.21	-8075036.50	-3533061.60	27
	Value	2013	80.75	18.21	0.01	0.02	0.01	0.11	3.44	-3533061.60	-4638803.40	27
	Value	2012	186.00	18.10	0.02	0.08	0.01	0.07	8.86	-4638803.40	-1287369.60	27
InvLtd	Value	2011	570.00	18.03	0.08	0.06	0.06	0.08	14.84	-1287369.60	-3149004.60	27
	Value	2010	390.00	17.95	0.06	-0.04	0.04	0.08	12.06	-3149004.60	-289284.80	27
					-							
	Value	2009	320.00	17.87	0.04	0.25	-0.03	-0.07	14.58	-289284.80	4608050.90	27
	Value	2008	1475.00	17.94	0.25	0.12	0.19	0.24	39.36	4608050.90	1691471.60	27
	Value	2007	975.00	17.73	0.12	-0.08	0.08	1.14	28.46	1691471.60	2217203.84	27
					-							
	Value	2006	8700.00	16.96	0.08	0.37	-0.05	0.12	29.50	2217203.84	877319.56	27
	Value	2015	356.37	17.61	0.01	0.04	0.00	-0.06	-1.18	-8411170.71	-7527753.78	28
	Value	2014	306.10	17.67	0.04	0.03	0.00	-0.08	-1.05	-7527753.78	-1092410.76	28

	Value	2013	120.96	17.75	0.03	0.02	0.00	-0.01	-1.16	-1092410.76	-4866999.13	28
	Value	2012	203.60	17.76	0.02	0.06	0.00	0.01	-1.58	-4866999.13	-4265359.33	28
	Value	2011	190.02	17.75	0.06	0.06	0.00	0.09	-0.78	-4265359.33	-1291101.47	28
	Value	2010	186.25	17.66	0.06	0.05	0.00	0.26	-0.92	-1291101.47	879303.64	28
	Value	2009	182.67	17.43	0.05	0.09	0.00	0.09	-1.97	879303.64	-874028.41	28
	Value	2008	364.71	17.34	0.09	0.11	0.01	0.30	-0.41	-874028.41	-8415706.06	28
	Value	2007	324.00	17.09	0.11	0.15	0.01	0.10	0.73	-8415706.06	-8415706.06	28
	Value	2006	1089.66	16.99	0.15	0.10	0.01	0.33	1.21	-2739410.83	-49722.19	28
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Invicta	Value	2015	1887.27	16.48	0.24	0.10	-0.08	0.06	7.77	-10236.31	189038.01	29
	Value	2014	262.47	16.41	0.10	0.16	0.03	0.10	8.66	189038.01	151973.11	29
	Value	2013	227.80	16.32	0.16	0.17	0.04	0.46	9.74	151973.11	273470.46	29
	Value	2012	227.40	15.94	0.17	0.13	0.04	0.21	8.77	273470.46	190505.73	29
	Value	2011	183.00	15.75	0.13	0.14	0.04	0.16	8.28	190505.73	173210.60	29
	Value	2010	151.00	15.60	0.14	0.16	0.04	-0.01	7.93	173210.60	182634.51	29
	Value	2009	138.00	15.61	0.16	0.16	0.03	0.15	9.26	182634.51	160662.95	29
	Value	2008	138.00	15.47	0.16	0.17	0.03	0.75	9.29	160662.95	99317.54	29
	Value	2007	104.00	14.91	0.17	0.11	0.05	0.20	11.09	99317.54	65904.00	29
	Value	2006	68.00	14.73	0.11	0.21	0.03	1.55	12.21	65904.00	94660.05	29
Italtile	Value	2015	21.25	14.95	0.18	-0.05	0.16	0.14	31.19	411840.00	292867.50	30
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	Value	2014	16.15	14.81	0.05	0.13	-0.04	0.02	28.05	292867.50	223102.50	30
	Value	2013	13.60	14.79	0.13	0.13	0.11	0.01	23.21	223102.50	222266.80	30
	Value	2012	13.00	14.78	0.13	0.13	0.10	0.14	21.32	222266.80	170960.30	30
	Value	2011	12.00	14.65	0.13	-0.20	0.10	0.11	20.60	170960.30	121942.50	30
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	Value	2010	71.00	14.54	0.20	0.11	-0.14	0.07	19.51	121942.50	127565.00	30
	Value	2009	11.00	14.47	0.11	0.16	0.08	0.23	20.68	127565.00	174573.20	30
	Value	2008	12.00	14.27	0.16	0.18	0.12	0.17	27.47	174573.20	196256.50	30
	Value	2007	500.00	14.11	0.18	0.15	0.13	0.20	31.98	196256.50	176004.40	30
	Value	2006	430.00	13.93	0.15	0.20	0.11	0.16	32.47	176004.40	144028.79	30
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Liberty H	Value	2015	587.35	19.85	0.08	0.09	0.01	0.12	-2.37	69681715.20	37850118.40	31
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	Value	2014	538.90	19.74	0.09	0.09	0.01	0.07	-1.93	37850118.40	49582399.50	31
						-						
	Value	2013	493.85	19.68	0.09	0.13	0.01	0.20	-0.98	49582399.50	40412319.90	31

	Value	2012	559.30	19.49	0.13	0.11	<del>0.04</del>	0.16	-1.13	40412319.90	23139051.10	31
	Value	2011	77.00	19.35	0.11	0.17	<del>0.04</del>	0.06	-1.86	23139051.10	22137874.40	31
	Value	2010	291.00	19.29	0.17	0.00	<del>0.04</del>	0.08	-1.61	22137874.40	23695952.00	31
	Value	2009		19.21	0.00	0.05	<del>0.00</del>	0.04	-3.80	23695952.00	9144014.00	31
	Value	2008	354.00	19.17	0.05	0.08	<del>0.00</del>	-0.04	-3.89	9144014.00	-6792321.00	31
	Value	2007	387.00	19.21	0.08	0.04	<del>0.00</del>	0.10	-1.58	-6792321.00	44029389.00	31
	Value	2006	2030.00	19.12	0.04	0.04	<del>0.00</del>	0.21	-1.33	44029389.00	30830785.00	31
Massmart	Value	2015	219.47	17.24	0.03	0.03	<del>0.04</del>	0.06	7.86	424792.41	859361.64	32
	Value	2014	357.85	17.18	0.03	0.07	<del>0.04</del>	0.11	8.00	859361.64	748002.78	32
	Value	2013	357.85	17.08	0.07	0.15	<del>0.04</del>	0.14	9.58	748002.78	1217293.28	32
	Value	2012	406.53	16.95	0.15	0.00	<del>0.03</del>	0.33	11.70	1217293.28	852933.90	32
	Value	2011	386.00	16.66	0.00	0.10	<del>0.00</del>	0.21	11.87	852933.90	1035722.16	32
	Value	2010	386.00	16.48	0.10	0.12	<del>0.02</del>	0.14	16.23	1035722.16	1038779.42	32
	Value	2009	386.00	16.34	0.12	0.23	<del>0.03</del>	0.05	17.81	1038779.42	1000429.32	32
	Value	2008	386.00	16.29	0.23	0.22	<del>0.05</del>	0.10	20.49	1000429.32	910478.28	32
	Value	2007	320.00	16.20	0.22	0.22	<del>0.05</del>	0.13	18.26	910478.28	632536.98	32
	Value	2006	210.00	16.08	0.22	0.37	<del>0.04</del>	0.19	16.63	632536.98	413760.00	32
Metair	Value	2015	59.50	16.02	0.06	0.08	<del>0.04</del>	0.14	11.01	-217533.40	123933.44	33
	Value	2014	68.00	15.89	0.08	0.05	<del>0.06</del>	0.07	12.89	123933.44	93727.82	33
	Value	2013	59.50	15.82	0.05	0.16	<del>0.03</del>	1.19	9.36	93727.82	371429.83	33
	Value	2012	80.75	15.04	0.16	0.19	<del>0.10</del>	0.37	23.14	371429.83	179215.37	33
	Value	2011	72.00	14.72	0.19	0.13	<del>0.13</del>	0.19	25.49	179215.37	129636.34	33
	Value	2010	125.00	14.55	0.13	0.04	<del>0.08</del>	0.04	19.98	129636.34	-58836.54	33
	Value	2009	15.00	14.51	0.04	-0.06	<del>0.03</del>	-0.06	6.98	-58836.54	-65414.12	33
	Value	2008		14.57	0.06	0.09	<del>-0.03</del>	0.12	4.78	-65414.12	36163.59	33
	Value	2007	40.00	14.46	0.09	0.14	<del>0.06</del>	0.24	16.55	36163.59	95454.61	33
	Value	2006	850.00	14.24	0.14	0.11	<del>0.10</del>	0.12	21.63	95454.61	55433.00	33
Mr Price	Value	2015	493.00	15.88	0.19	0.19	<del>0.13</del>	0.20	44.30	1732836.00	1452042.69	34
	Value	2014	409.70	15.70	0.19	0.20	<del>0.15</del>	0.34	45.55	1452042.69	1325399.10	34
	Value	2013	338.30	15.40	0.20	0.20	<del>0.16</del>	0.14	46.13	1325399.10	933043.74	34
	Value	2012	280.90	15.27	0.20	0.20	<del>0.15</del>	0.11	43.69	933043.74	824172.06	34

	Value	2011	252.00	15.17	0.20	0.21	0.14	0.07	39.05	824172.06	333958.62	34
	Value	2010	173.00	15.10	0.21	0.16	0.14	0.10	24.44	333958.62	422028.11	34
	Value	2009	133.00	15.00	0.16	0.18	0.10	0.17	28.92	422028.11	291734.88	34
	Value	2008	102.50	14.84	0.18	0.33	0.14	0.12	28.41	291734.88	244494.24	34
	Value	2007	81.00	14.73	0.33	0.33	0.20	0.23	28.36	244494.24	246287.29	34
	Value	2006	81.00	14.52	0.33	0.32	0.24	-0.04	27.30	246287.29	83529.74	34
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Naspers	Value	2015	399.50	18.87	0.02	-0.02	0.04	0.22	3.23	13833016.20	10954995.00	35
	Value	2014	361.00	18.67	0.02	-0.02	0.04	0.24	0.43	10954995.00	2483080.60	35
	Value	2013	327.25	18.46	0.02	-0.02	0.04	0.27	1.82	2483080.60	-2879597.90	35
	Value	2012	284.80	18.21	0.02	-0.02	0.04	0.16	4.13	-2879597.90	-1578393.00	35
	Value	2011	270.00	18.06	0.02	-0.02	0.04	0.22	12.51	-1578393.00	-1083107.20	35
	Value	2010	235.00	17.87	0.02	-0.02	0.04	0.05	11.42	-1083107.20	-1437877.22	35
	Value	2009	207.00	17.81	0.02	-0.02	0.04	-0.04	18.82	-1437877.22	-1095314.46	35
	Value	2008	180.00	17.85	0.02	-0.02	0.04	0.76	11.73	-1095314.46	-507352.30	35
	Value	2007	156.00	17.29	0.02	-0.03	0.04	0.86	13.09	-507352.30	1162839.96	35
	Value	2006	144.00	16.67	0.03	0.00	0.04	0.11	21.39	1162839.96	1144681.65	35
Nedbank	Value	2015	940.95	20.65	0.07	0.07	0.04	0.14	-1.22	3146958.50	8637563.30	36
	Value	2014	873.80	20.51	0.07	0.07	0.04	0.08	-1.25	8637563.30	9078722.00	36
	Value	2013	760.75	20.44	0.07	0.07	0.04	0.10	-1.34	9078722.00	8312275.00	36
	Value	2012	639.20	20.34	0.07	0.07	0.04	0.05	-1.39	8312275.00	5872075.80	36
	Value	2011	605.00	20.29	0.07	0.06	0.04	0.06	-1.58	5872075.80	6123702.60	36
	Value	2010	480.00	20.23	0.06	0.06	0.00	0.07	-1.78	6123702.60	5175285.20	36
	Value	2009	440.00	20.16	0.06	0.09	0.00	0.01	-1.72	5175285.20	6206920.20	36
	Value	2008	620.00	20.16	0.09	0.10	0.04	0.16	-1.47	6206920.20	3356094.00	36
	Value	2007	660.00	20.01	0.10	0.10	0.04	0.15	-1.22	3356094.00	3902833.00	36
	Value	2006	493.00	19.87	0.10	0.12	0.04	0.21	-1.12	3902833.00	1814571.60	36
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Northam	Value	2015		16.77	0.07	0.00	0.05	0.30	-4.27	-1942601.06	-1563735.19	37

	Value	2014		16.51	0.00	0.05	0.00	0.03	1.09	-1563735.19	-983911.31	37
	Value	2013		16.48	0.05	0.02	0.04	0.17	5.02	-983911.31	-1138514.10	37
	Value	2012	5.00	16.32	0.02	0.03	0.02	0.03	3.19	-1138514.10	-1131684.05	37
	Value	2011	15.00	16.29	0.03	0.05	0.02	0.18	4.01	-1131684.05	-791309.58	37
	Value	2010	40.00	16.13	0.05	-0.02	0.04	0.08	8.22	-791309.58	-565764.65	37
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	Value	2009	78.00	16.05	0.02	0.17	0.02	1.27	12.09	-565764.65	1134294.54	37
	Value	2008	330.00	15.23	0.17	0.15	0.12	0.24	60.67	1134294.54	1154223.71	37
	Value	2007	525.00	15.02	0.15	0.16	0.11	0.22	66.55	1154223.71	557053.49	37
	Value	2006	280.00	14.82	0.16	0.16	0.12	0.22	41.47	557053.49	0.30	37
Oceana	Value	2015	310.25	16.17	0.06	-0.03	0.02	2.53	22.41	202382.52	454880.19	38
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	Value	2014	320.45	14.91	0.03	0.07	0.02	0.03	30.20	454880.19	292425.41	38
	Value	2013	273.70	14.88	0.07	0.13	0.05	0.13	27.26	292425.41	383089.04	38
	Value	2012	255.85	14.76	0.13	0.09	0.08	0.27	29.57	383089.04	223151.33	38
	Value	2011	220.00	14.52	0.09	0.09	0.06	0.10	26.76	223151.33	216404.99	38
	Value	2010	208.00	14.43	0.09	0.12	0.06	0.07	26.46	216404.99	192166.16	38
	Value	2009	184.00	14.36	0.12	0.14	0.08	0.11	26.92	192166.16	156820.99	38
	Value	2008	156.00	14.26	0.14	0.10	0.09	0.04	22.25	156820.99	92881.37	38
	Value	2007	106.00	14.22	0.10	0.06	0.06	0.12	17.58	92881.37	51423.48	38
	Value	2006	74.00	14.11	0.06	0.12	0.03	-0.09	13.18	51423.48	0.15	38
Octodec	Value	2015	160.80	16.28	0.16	0.10	0.09	1.54	20.40	-163975.07	-110660.38	39
	Value	2014	74.38	15.35	0.10	0.21	0.06	0.16	8.80	-110660.38	-171352.39	39
	Value	2013	0.70	15.21	0.21	0.08	0.10	0.12	10.86	-171352.39	-160278.89	39
	Value	2012	0.70	15.10	0.08	0.00	0.03	0.18	11.25	-160278.89	-173491.86	39
	Value	2011	0.60	14.94	0.00	0.07	0.00	0.09	5.79	-173491.86	-153084.21	39
	Value	2010	0.60	14.85	0.07	-0.01	0.03	0.14	9.65	-153084.21	-113409.09	39
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	Value	2009	0.60	14.72	0.01	0.11	0.00	0.02	3.78	-113409.09	-134410.53	39
	Value	2008	0.60	14.70	0.11	0.22	0.05	0.11	10.79	-134410.53	-95810.94	39
	Value	2007	0.50	14.59	0.22	0.34	0.09	0.27	19.60	-95810.94	-65448.43	39
	Value	2006	0.40	14.35	0.34	0.55	0.13	0.36	24.80	-65448.43	-42873.45	39
Omnia	Value	2015	416.50	16.29	0.09	0.12	0.05	0.13	13.78	282678.00	359236.80	40
	Value	2014	403.75	16.17	0.12	0.13	0.07	0.17	15.25	359236.80	467528.40	40
	Value	2013	357.00	16.02	0.13	0.14	0.07	0.20	15.89	467528.40	165920.00	40
	Value	2012	253.00	15.83	0.14	0.13	0.08	0.19	13.85	165920.00	47643.90	40
	Value	2011		15.66	0.13	-0.01	0.07	0.22	13.17	47643.90	-220876.80	40



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	Value	2010		15.46	0.01	0.18	<del>0.00</del>	-0.10	4.99	-220876.80	167944.80	40
	Value	2009	100.00	15.57	0.18	0.15	<del>0.07</del>	0.30	19.25	167944.80	156527.50	40
	Value	2008	200.00	15.31	0.15	0.14	<del>0.05</del>	0.42	17.86	156527.50	95615.55	40
	Value	2007	160.00	14.95	0.14	0.09	<del>0.06</del>	0.25	17.84	95615.55	25351.49	40
	Value	2006	145.00	14.73	0.09	0.25	<del>0.04</del>	0.00	14.12	25351.49	137509.02	40
PnP	Value	2015	100.39	16.50	0.13	0.07	<del>0.03</del>	0.04	9.33	516090.82	361474.40	41
	Value	2014	78.46	16.46	0.07	-0.01	<del>0.04</del>	0.08	7.15	361474.40	189298.40	41
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	Value	2013	71.40	16.38	0.01	0.21	<del>0.00</del>	0.10	7.57	189298.40	388137.84	41
	Value	2012	114.60	16.29	0.21	-0.01	<del>0.04</del>	0.06	11.67	388137.84	431920.80	41
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	Value	2011	142.50	16.22	0.01	0.17	<del>0.00</del>	-0.01	13.75	431920.80	802753.77	41
	Value	2010	174.50	16.23	0.17	0.19	<del>0.03</del>	0.06	18.86	802753.77	868677.60	41
	Value	2009	170.00	16.17	0.19	0.22	<del>0.03</del>	0.14	20.12	868677.60	808328.34	41
	Value	2008	149.10	16.05	0.22	0.15	<del>0.03</del>	0.19	20.32	808328.34	725700.69	41
	Value	2007	134.30	15.87	0.15	0.30	<del>0.02</del>	0.16	18.43	725700.69	586426.26	41
	Value	2006	100.00	15.72	0.30	0.60	<del>0.04</del>	0.08	18.05	586426.26	536059.46	41
PSG	Value	2015	170.00	17.64	0.06	0.06	<del>0.03</del>	0.36	1.90	-2056955.95	-3466373.88	42
	Value	2014	113.05	17.33	0.06	0.09	<del>0.02</del>	0.30	2.19	-3466373.88	-1529803.32	42
	Value	2013	94.35	17.07	0.09	0.07	<del>0.04</del>	0.23	2.34	-1529803.32	-764762.98	42
	Value	2012	73.60	16.86	0.07	0.09	<del>0.03</del>	0.20	0.92	-764762.98	-593118.29	42
	Value	2011	67.00	16.67	0.09	0.06	<del>0.04</del>	0.19	1.56	-593118.29	-24350.71	42
	Value	2010	42.00	16.50	0.06	-0.10	<del>0.02</del>	0.04	-0.82	-24350.71	-140967.99	42
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	Value	2009	257.00	16.46	0.10	0.08	<del>-0.03</del>	-0.01	-2.08	-140967.99	-438054.47	42
	Value	2008	112.50	16.47	0.08	0.15	<del>0.03</del>	1.62	6.38	-438054.47	-595723.48	42
	Value	2007	90.00	15.51	0.15	0.26	<del>0.11</del>	1.96	24.05	-595723.48	-669167.62	42
	Value	2006	67.50	14.42	0.26	0.22	<del>0.18</del>	-0.46	17.99	-669167.62	-435950.28	42
Remgro	Value	2015	363.80	18.37	0.09	0.07	<del>0.07</del>	0.19	2.42	-5339006.40	-5332481.60	43
	Value	2014	330.65	18.19	0.07	0.04	<del>0.06</del>	0.09	1.06	-5332481.60	-3771847.10	43
	Value	2013	346.00	18.10	0.04	0.14	<del>0.04</del>	0.25	0.40	-3771847.10	-2807005.40	43
	Value	2012	285.80	17.88	0.14	0.18	<del>0.13</del>	0.04	8.64	-2807005.40	247779.30	43
	Value	2011	251.20	17.84	0.18	0.05	<del>0.17</del>	0.16	4.63	247779.30	-3413037.60	43
	Value	2010	209.00	17.69	0.05	1.12	<del>0.04</del>	0.14	1.46	-3413037.60	37705445.00	43
	Value	2009	190.00	17.56	1.12	0.13	<del>1.03</del>	-0.32	0.58	37705445.00	-2928517.40	43
	Value	2008	510.00	17.94	0.13	0.07	<del>0.12</del>	0.24	4.93	-2928517.40	-1309924.00	43

Reunert	Value	2007	434.00	17.72	0.07	0.10	0.06	0.21	2.36	-1309924.00	927564.80	43
	Value	2006	361.00	17.54	0.10	0.17	0.09	0.04	10.89	927564.80	-533890.00	43
	Value	2015	345.95	16.06	0.05	0.22	0.04	-0.02	13.31	152032.50	-64159.88	44
	Value	2014	314.50	16.08	0.22	0.07	0.14	0.29	8.95	-64159.88	412799.25	44
	Value	2013	314.50	15.82	0.07	0.11	0.05	0.13	21.52	412799.25	823225.00	44
	Value	2012	314.50	15.70	0.11	0.21	0.08	0.08	27.32	823225.00	529500.65	44
	Value	2011	330.00	15.62	0.21	0.10	0.14	-0.23	27.19	529500.65	662947.60	44
	Value	2010	287.00	15.89	0.10	0.15	0.06	0.03	16.27	662947.60	533257.38	44
	Value	2009	253.00	15.86	0.15	0.16	0.08	0.00	19.93	533257.38	679248.00	44
	Value	2008	319.00	15.85	0.16	0.07	0.08	0.58	26.92	679248.00	829892.63	44
	Rex Tru	Value	2007	314.00	15.39	0.07	0.07	0.04	-0.14	17.83	829892.63	600306.62
Value		2006	473.00	15.55	0.07	0.47	0.02	0.39	28.20	600306.62	636321.40	44
Value		2015	51.85	12.69	0.09	-0.10	0.07	0.11	10.18	-4987.76	-35740.94	45
Value		2014		12.59	0.10	-0.08	0.08	-0.08	-5.87	-35740.94	-40844.01	45
Value		2013	51.80	12.67	0.08	0.05	0.07	-0.03	-6.04	-40844.01	-2709.39	45
Value		2012	51.80	12.70	0.05	0.12	0.04	0.00	8.18	-2709.39	23883.46	45
Value		2011	52.00	12.70	0.12	0.10	0.10	0.13	14.45	23883.46	17059.76	45
Value		2010	40.00	12.58	0.10	0.09	0.08	0.11	13.46	17059.76	20362.96	45
Value		2009	35.00	12.48	0.09	0.17	0.07	0.09	10.86	20362.96	12607.34	45
Value		2008	35.00	12.39	0.17	0.06	0.14	0.22	17.47	12607.34	6493.63	45
Value		2007	25.00	12.19	0.06	0.02	0.05	0.08	10.00	6493.63	6493.63	45
RMBH	Value	2006	25.00	12.12	0.02	-0.15	0.02	0.04	9.08	-2829.28	2072.82	45
	Value	2015	234.60	17.29	0.08	0.09	0.05	0.16	0.12	-1691384.40	-1500687.10	46
	Value	2014	193.38	17.14	0.09	0.00	0.06	0.17	-0.02	-1500687.10	-1466085.60	46
	Value	2013	144.90	16.98	0.00	0.09	0.00	0.06	-0.07	-1466085.60	-258083.10	46
	Value	2012	116.00	16.92	0.09	0.02	0.06	0.15	-0.08	-258083.10	100232.40	46
	Value	2011	196.00	16.78	0.02		0.04		-0.17	100232.40	-2405763.44	46
	Value	2010	124.00						2.11	-2405763.44	-973282.64	46
	Value	2009	99.00						1.03	-973282.64	-1549981.50	46
	Value	2008	141.50						2.94	-1549981.50	-1406179.02	46
	Value	2007	141.50						5.25	-1406179.02	-1250103.95	46
	Value	2006	113.50						4.45	-1250103.95	-913009.37	46
SA Corp	Value	2015	33.63	16.46	0.10	0.03	0.07	0.25	12.61	-360107.23	72934.77	47
	Value	2014	30.35	16.24	0.03	0.07	0.02	0.20	10.91	72934.77	17836.26	47
	Value	2013	27.84	16.06	0.07	0.02	0.05	0.08	11.95	17836.26	106649.25	47

	Value	2012	25.63	15.98	0.02	-0.03	0.01	-0.06	9.90	106649.25	-218702.69	47
	Value	2011	28.80	16.05	0.03	0.04	-0.02	-0.01	5.20	-218702.69	-232099.74	47
	Value	2010	28.40	16.06	0.04	-0.06	0.03	0.05	10.44	-232099.74	-224371.03	47
	Value	2009	27.70	16.01	0.06	-0.16	-0.05	-0.06	1.96	-224371.03	-132878.42	47
	Value	2008	29.80	16.08	0.16	0.06	-0.12	-0.02	-5.82	-132878.42	-441599.05	47
	Value	2007	32.00	16.10	0.06	0.25	0.05	2.10	20.14	-441599.05	7021.35	47
	Value	2006	26.82	14.97	0.25	0.31	0.19	0.53	25.12	7021.35	26428.74	47
	Value	2015	208.25	20.33	0.08	0.09	0.01	0.10	-1.52	93412554.00	64987239.60	48
	Value	2014	191.25	20.23	0.09	0.09	0.01	0.09	-1.55	64987239.60	77561683.20	48
	Value	2013	170.00	20.15	0.09	0.08	0.01	0.27	-1.32	77561683.20	58622208.00	48
	Value	2012	182.75	19.91	0.08	0.08	0.01	0.16	-1.58	58622208.00	31310819.60	48
	Value	2011	130.00	19.76	0.08	0.10	0.01	0.06	-1.29	31310819.60	54392583.40	48
	Value	2010	115.00	19.70	0.10	0.07	0.01	0.08	-1.38	54392583.40	47243769.30	48
	Value	2009	104.00	19.63	0.07	0.02	0.01	0.05	2.27	47243769.30	13485887.10	48
	Value	2008	98.00	19.58	0.02	0.12	0.00	-0.07	1.05	13485887.10	37025356.00	48
	Value	2007	93.00	19.65	0.12	0.17	0.01	0.01	2.58	37025356.00	50276287.60	48
	Value	2006	77.00	19.63	0.17	0.34	0.02	0.21	0.03	50276287.60	27962352.60	48
Santam	Value	2015	693.60	17.14	0.17	0.11	0.05	0.11	10.12	-1100646.20	-92209.20	49
	Value	2014	630.70	17.04	0.11	0.06	0.03	0.11	6.81	-92209.20	-303154.40	49
	Value	2013	573.75	16.93	0.06	-0.11	0.02	0.15	4.04	-616736.00	-329332.20	49
	Value	2012	544.00	16.80	0.11	0.13	-0.03	0.06	4.82	-303154.40	-272890.40	49
	Value	2011	1405.00	16.74	0.13	0.12	0.04	0.05	7.63	-329332.20	-272890.40	49
	Value	2010	1010.00	16.69	0.12	0.12	0.04	0.04	10.88	-272890.40	-747578.40	49
	Value	2009	466.00	16.65	0.12	0.06	0.03	0.04	4.65	-747578.40	-175987.50	49
	Value	2008	430.00	16.62	0.06	-0.46	0.02	-0.06	0.75	-175987.50	-1230906.80	49

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Sasfin	Value	2007	2610.00	16.68	0.46	0.10	-0.11	0.04	6.41	-1230906.80	-1391220.00	49	
	Value	2006	380.00	16.64	0.10	0.24	0.04	0.13	11.81	-1391220.00	-528242.37	49	
	Value	2015	189.32	16.20	0.08	0.07	0.04	0.33	-0.79	-75593.90	38313.27	50	
	Value	2014	162.44	15.92	0.07	0.07	0.04	0.31	-0.83	38313.27	-2322.33	50	
	Value	2013	142.80	15.65	0.07	0.06	0.04	0.14	-0.97	-2322.33	21577.23	50	
	Value	2012	123.80	15.52	0.06	0.05	0.04	0.25	-1.14	21577.23	-28283.36	50	
	Value	2011	118.00	15.29	0.05	0.06	0.04	0.23	-2.00	-28283.36	-27143.51	50	
	Value	2010	133.00	15.08	0.06	0.11	0.02	0.12	-1.45	-27143.51	26404.17	50	
	Value	2009	220.00	14.97	0.11	0.12	0.03	0.05	0.89	26404.17	74812.15	50	
	Value	2008	228.00	14.92	0.12	0.12	0.03	0.18	1.03	74812.15	48226.71	50	
Sasol	Value	2007	207.00	14.75	0.12	0.17	0.04	0.03	2.98	48226.71	30947.33	50	
	Value	2006	161.00	14.72	0.17	0.22	0.05	0.39	5.31	30947.33	55590.19	50	
	Value	2015	1572.50	19.60	0.08	0.09	0.05	0.15	14.91	6431457.60	14553177.60	51	
	Value	2014	1827.50	19.45	0.09	0.10	0.06	0.12	15.90	14553177.60	10623522.80	51	
	Value	2013	1615.00	19.33	0.10	0.10	0.06	0.22	18.10	10623522.80	6125282.80	51	
	Value	2012	1573.00	19.13	0.10	0.11	0.07	0.14	19.46	6125282.80	4083890.40	51	
	Value	2011	1300.00	19.00	0.11	0.10	0.07	0.14	18.13	4083890.40	1093024.80	51	
	Value	2010	1050.00	18.87	0.10	0.07	0.07	0.07	16.05	1093024.80	-84374.50	51	
	Value	2009	850.00	18.80	0.07	0.21	0.04	0.04	17.49	-84374.50	10621159.20	51	
	Value	2008	1300.00	18.76	0.21	0.20	0.12	0.18	26.43	10621159.20	8519612.50	51	
Shoprite	Value	2007	900.00	18.60	0.20	0.13	0.10	0.16	23.34	8519612.50	2703944.00	51	
	Value	2006	710.00	18.45	0.13	0.22	0.07	0.17	22.14	2703944.00	5809126.40	51	
	Value	2015	328.10	17.60	0.11	0.11	0.05	0.08	14.88	2651113.40	2181061.30	52	
	Value	2014	297.50	17.52	0.11	0.12	0.05	0.21	15.81	2181061.30	2347926.30	52	
	Value	2013	287.30	17.33	0.12	0.13	0.06	0.08	17.04	2347926.30	1774961.96	52	
	Value	2012	273.90	17.25	0.13	0.18	0.05	0.49	17.92	1774961.96	1584266.97	52	
	Value	2011	253.00	16.85	0.18	0.20	0.06	0.15	20.85	1584266.97	1563597.52	52	
	Value	2010	227.00	16.71	0.20	0.22	0.07	0.07	19.24	1563597.52	1470357.21	52	
	Value	2009	200.00	16.63	0.22	0.20	0.07	0.13	18.65	1470357.21	885431.27	52	
	Value	2008	155.00	16.51	0.20	0.18	0.07	0.25	17.67	885431.27	584785.86	52	
SpurCorp	Value	2007	101.00	16.29	0.18	0.20	0.06	0.19	15.72	584785.86	297782.76	52	
	Value	2006	46.00	16.11	0.20	0.26	0.06	0.16	15.55	297782.76	285425.69	52	
	Value	2015	112.20	13.92	0.02	0.08	0.04	0.50	33.17	86843.42	69513.82	53	
	Value	2014	102.85	13.51	0.08	0.09	0.05	0.07	52.35	69513.82	60427.35	53	
	Value	2013	94.35	13.44	0.09	0.12	0.06	0.14	58.23	60427.35	57121.02	53	

	Value	2012	79.95	13.31	0.12	0.04	<del>0.08</del>	0.09	60.60	57121.02	45557.37	53
	Value	2011	66.00	13.23	0.04	0.06	<del>0.03</del>	0.05	42.61	45557.37	43188.73	53
	Value	2010	60.00	13.18	0.06	0.06	<del>0.05</del>	-0.03	45.83	43188.73	31471.57	53
	Value	2009	55.00	13.21	0.06	0.14	<del>0.05</del>	-0.02	36.07	31471.57	12860.41	53
	Value	2008	15.40	13.23	0.14	0.20	<del>0.14</del>	0.10	33.71	12860.41	27235.71	53
	Value	2007		13.13	0.20	0.16	<del>0.16</del>	0.15	44.81	27235.71	28616.18	53
	Value	2006		12.99	0.16	0.40	<del>0.13</del>	1.68	47.96	28616.18	44679.94	53
Standard Bank	Value	2015	572.90	21.41	0.07	0.06	<del>0.04</del>	0.04	-1.65	14176500.40	15344955.60	54
	Value	2014	508.30	21.37	0.06	0.07	<del>0.00</del>	0.13	-1.23	15344955.60	29291400.90	54
	Value	2013	453.05	21.25	0.07	0.08	<del>0.04</del>	0.10	-1.21	29291400.90	17142248.00	54
	Value	2012	386.75	21.16	0.08	0.06	<del>0.04</del>	0.03	-1.38	17142248.00	-2157945.00	54
	Value	2011	425.00	21.12	0.06	0.07	<del>0.00</del>	0.12	-1.26	-2157945.00	14158452.00	54
	Value	2010	386.00	21.01	0.07	0.08	<del>0.04</del>	0.00	-1.36	14158452.00	-6841271.80	54
	Value	2009	386.00	21.02	0.08	0.08	<del>0.04</del>	-0.11	-1.69	-6841271.80	21308752.50	54
	Value	2008	386.00	21.13	0.08	0.15	<del>0.04</del>	0.27	-1.54	21308752.50	12639869.70	54
	Value	2007	386.00	20.89	0.15	0.12	<del>0.04</del>	0.22	-0.22	12639869.70	27439513.50	54
	Value	2006	320.00	20.69	0.12	0.12	<del>0.04</del>	0.28	-0.61	27439513.50	24475752.00	54
SYCOM	Value	2015	162.15	16.04	0.06	0.08	<del>0.04</del>	0.02	9.11	-167056.48	-177326.96	55
	Value	2014	155.79	16.02	0.08	0.11	<del>0.05</del>	0.01	11.04	-177326.96	-29412.41	55
	Value	2013	148.80	16.01	0.11	0.06	<del>0.08</del>	0.23	14.96	-29412.41	-212473.05	55
	Value	2012	153.90	15.80	0.06	0.06	<del>0.05</del>	0.22	11.26	-212473.05	-219035.71	55
	Value	2011	156.70	15.60	0.06	0.03	<del>0.05</del>	0.07	11.67	-219035.71	-136485.02	55
	Value	2010	159.30	15.53	0.03	0.00	<del>0.03</del>	0.08	9.90	-136485.02	-109186.99	55
	Value	2009	149.90	15.46	0.00	0.23	<del>0.00</del>	0.03	6.91	-109186.99	-215189.78	55
	Value	2008	134.90	15.43	0.23	0.18	<del>0.20</del>	0.39	29.32	-215189.78	-21692.92	55
	Value	2007	124.60	15.10	0.18	0.17	<del>0.15</del>	0.17	24.14	-21692.92	40100.03	55
	Value	2006	116.50	14.95	0.17	0.41	<del>0.13</del>	0.34	22.22	40100.03	-1294.46	55
Tiger Brands	Value	2015	807.50	17.03	0.01	0.04	<del>0.04</del>	0.00	9.50	839812.01	909705.68	56

	Value	2014	799.00	17.03	0.04	0.08	<del>0.02</del>	-0.01	12.47	909705.68	689188.17	56
	Value	2013	735.20	17.04	0.08	0.12	<del>0.05</del>	0.41	18.25	689188.17	1639218.00	56
	Value	2012	722.50	16.70	0.12	0.17	<del>0.08</del>	0.10	26.55	1639218.00	1120729.44	56
	Value	2011	791.00	16.60	0.17	0.25	<del>0.11</del>	0.25	28.85	1120729.44	1303767.53	56
	Value	2010	241.00	16.38	0.25	0.17	<del>0.17</del>	0.11	26.91	1303767.53	1118264.20	56
	Value	2009	245.00	16.27	0.17	0.26	<del>0.11</del>	-0.08	33.15	1118264.20	1597788.31	56
	Value	2008	786.00	16.36	0.26	0.26	<del>0.13</del>	0.05	24.90	1597788.31	1315695.85	56
	Value	2007	157.00	16.30	0.26	0.31	<del>0.13</del>	0.17	25.90	1315695.85	1222685.80	56
	Value	2006	603.00	16.15	0.31	0.46	<del>0.14</del>	0.12	36.20	1222685.80	1146973.05	56
Tonga	Value	2015	323.00	17.09	0.04	0.08	<del>0.02</del>	0.11	8.41	-444011.00	-142046.70	57
	Value	2014	306.00	16.99	0.08	0.07	<del>0.04</del>	0.13	10.67	-142046.70	468516.60	57
	Value	2013	289.00	16.87	0.07	0.08	<del>0.03</del>	0.20	11.04	468516.60	222075.00	57
	Value	2012	264.50	16.69	0.08	0.11	<del>0.03</del>	0.23	11.85	222075.00	-722034.60	57
	Value	2011	250.00	16.49	0.11	0.48	<del>0.04</del>	0.08	11.74	-722034.60		57
	Value	2010	220.00	16.41	0.48		<del>0.20</del>		44.97	-571550.00	-400328.50	57
	Value	2009				0.08		-1.00			-401203.20	57
	Value	2008	310.00	16.07	0.08	0.99	<del>0.03</del>	0.25	13.35	-400328.50	-401203.20	57
	Value	2007	310.00	15.85	0.99	0.04	<del>0.38</del>	-0.16	45.75	-401203.20	170501.10	57
	Value	2006	550.00	16.02	0.04	0.05	<del>0.02</del>	0.14	11.34	170501.10	56622.40	57
Truworth	Value	2015	344.25	16.03	0.10	0.13	<del>0.08</del>	0.13	28.81	1574363.80	1592628.80	58
	Value	2014	327.25	15.90	0.13	0.14	<del>0.10</del>	0.11	32.20	1592628.80	1689343.20	58
	Value	2013	307.70	15.80	0.14	0.16	<del>0.12</del>	0.05	36.90	1689343.20	1601965.50	58
	Value	2012	302.45	15.75	0.16	0.19	<del>0.14</del>	0.11	38.45	1601965.50	1396739.40	58
	Value	2011	262.00	15.64	0.19	0.19	<del>0.16</del>	0.15	39.31	1396739.40	1084960.20	58
	Value	2010	200.00	15.50	0.19	0.21	<del>0.15</del>	0.20	37.41	1084960.20	1062644.40	58
	Value	2009	171.00	15.32	0.21	0.24	<del>0.17</del>	0.15	36.91	1062644.40	830544.00	58
	Value	2008	144.00	15.18	0.24	0.26	<del>0.18</del>	0.17	38.88	830544.00	761367.60	58
	Value	2007	120.00	15.02	0.26	0.24	<del>0.19</del>	0.27	44.08	761367.60	606733.40	58
	Value	2006	89.00	14.78	0.24	0.36	<del>0.18</del>	0.02	37.36	606733.40	433875.00	58
WBHO	Value	2015	312.80	16.48	0.07	0.04	<del>0.02</del>	0.07	4.52	49640.51	-378389.42	59
	Value	2014	312.80	16.41	0.04	0.08	<del>0.01</del>	0.09	8.03	-378389.42	106118.55	59
	Value	2013	312.80	16.33	0.08	0.11	<del>0.03</del>	0.10	8.06	106118.55	156683.19	59
	Value	2012	315.70	16.24	0.11	0.15	<del>0.04</del>	0.18	9.80	156683.19	341968.59	59
	Value	2011	330.00	16.07	0.15	0.24	<del>0.06</del>	0.01	11.16	341968.59	476741.34	59
	Value	2010	330.00	16.05	0.24	0.28	<del>0.08</del>	-0.03	13.67	476741.34	679564.63	59
	Value	2009	300.00	16.08	0.28	0.35	<del>0.07</del>	0.22	12.01	679564.63	379938.13	59

Woolworth	Value	2008	242.00	15.88	0.35	0.20	0.08	0.86	16.04	379938.13	125319.00	59
	Value	2007	121.00	15.26	0.20	0.21	0.05	0.41	10.61	125319.00	76501.14	59
	Value	2006	81.00	14.92	0.21	0.24	0.05	0.31	10.61	76501.14	91668.46	59
	Value	2015	209.95	17.54	0.07	0.13	0.02	0.86	24.79	2063378.10	2546539.30	60
	Value	2014	213.78	16.92	0.13	0.16	0.04	0.83	27.13	2546539.30	2000123.70	60
	Value	2013	198.90	16.32	0.16	0.16	0.08	0.21	37.35	2000123.70	1499841.50	60
	Value	2012	179.50	16.12	0.16	0.18	0.07	0.11	31.25	1499841.50	1269632.00	60
	Value	2011	143.50	16.02	0.18	0.36	0.08	0.01	24.98	1269632.00	747868.80	60
	Value	2010	105.00	16.01	0.36	-0.05	0.14	0.08	19.96	747868.80	592309.18	60
Nampak	Value	2009	179.00	15.93	0.05	0.09	0.02	-0.26	15.45	592309.18	472343.97	60
	Value	2008	79.00	16.24	0.09	0.16	0.03	0.08	6.06	472343.97	577317.40	60
	Value	2007	76.00	16.16	0.16	0.14	0.05	0.19	9.16	577317.40	479787.67	60
	Value	2006	63.00	15.99	0.14	0.52	0.04	0.25	9.21	479787.67	403361.70	60
	Value	2015	113.90	16.83	0.01	0.03	0.00	0.10	7.56	308048.00	269620.80	61
	Value	2014	130.05	16.73	0.03	0.07	0.04	-0.02	7.97	269620.80	34891.46	61
	Value	2013	119.00	16.76	0.07	0.13	0.03	0.30	9.46	34891.46	504990.85	61
	Value	2012	110.10	16.49	0.13	0.01	0.05	0.14	11.02	504990.85	321889.92	61
	Value	2011	108.00	16.36	0.01	0.10	0.01	0.01	10.40	321889.92	493159.00	61
	Value	2010	83.00	16.35	0.10	0.04	0.04	-0.08	9.43	493159.00	-341856.80	61
	Value	2009		16.43	0.04	0.09	0.01	-0.09	3.42	-341856.80	214289.20	61
Netcare	Value	2008		16.53	0.09	0.17	0.03	0.26	5.76	214289.20	141420.00	61
	Value	2007		16.30	0.17	0.10	0.09	0.05	12.82	141420.00	155453.40	61
	Value	2006		16.24	0.10	0.05	0.05	0.21	12.78	155453.40	155453.40	61
	Value	2015	78.20	17.27	0.09	0.09	0.04	0.19	13.67	876518.40	769329.00	62
	Value	2014	68.00	17.10	0.09	0.41	0.04	0.12	14.31	769329.00	859297.60	62
	Value	2013	57.40	16.99	0.41	4.83	0.18	-0.46	30.45	859297.60	1080607.20	62
	Value	2012	47.60	17.60	4.83	0.13	0.11	-0.13	-25.68	1080607.20	202515.00	62
	Value	2011	53.00	17.74	0.13	0.19	0.02	0.14	10.18	202515.00	53670.50	62
	Value	2010	21.00	17.61	0.19	0.22	0.03	-0.03	11.39	53670.50	-571858.20	62
	Value	2009		17.64	0.22	0.09	0.03	-0.16	11.56	-571858.20	-608335.00	62
	Value	2008		17.82	0.09	0.11	0.04	0.09	8.76	-608335.00	75844.32	62
Nu-World	Value	2007		17.74	0.11	0.12	0.02	0.00	8.78	75844.32	506721.60	62
	Value	2006		17.74	0.12	0.24	0.04	7.05	4.73	506721.60		62
	Value	2015	138.98	14.03	0.08	0.08	0.05	0.17	11.11	6755.29	6008.96	63
	Value	2014	94.01	13.87	0.08	0.03	0.06	0.17	10.87	6008.96	14775.53	63

	Value	2013	50.50	13.71	0.03	0.06	0.03	-0.06	8.23	14775.53	-16289.12	63
	Value	2012	48.00	13.78	0.06	0.03	0.04	0.11	9.66	-16289.12	-23181.90	63
	Value	2011		13.67	0.03	0.11	0.02	-0.03	5.89	-23181.90	20183.81	63
	Value	2010		13.70	0.11	0.04	0.08	0.16	11.47	20183.81	-33374.30	63
	Value	2009		13.55	0.04	0.07	0.03	0.01	4.41	-33374.30	-22260.23	63
	Value	2008		13.54	0.07	0.14	0.05	0.02	6.07	-22260.23	-13217.56	63
	Value	2007		13.52	0.14	0.11	0.11	-0.04	13.34	-13217.56	17810.70	63
	Value	2006	120.80	13.56	0.11	0.16	0.08	0.19	13.62	17810.70	17913.56	63
Redefine	Value	2015	68.00	18.07	0.06	0.10	0.04	0.22	10.13	-1035268.71	-2336647.85	64
	Value	2014	32.39	17.87	0.10	0.15	0.06	0.18	10.95	-2336647.85	-3022166.83	64
	Value	2013		17.70	0.15	0.02	0.07	0.05	9.36	-3022166.83	-3259813.46	64
	Value	2012		17.66	0.02	-0.03	0.04	0.05	6.81	-3259813.46	-2325625.39	64
						-						
	Value	2011		17.61	0.03	0.08	0.04	0.27	4.52	-2325625.39	-1832875.81	64
	Value	2010		17.37	0.08	-0.02	0.03	0.35	11.94	-1832875.81	1853899.47	64
						-						
	Value	2009		17.07	0.02	-0.04	0.04	1.42	2.30	1853899.47	-573416.27	64
						-						
	Value	2008		16.19	0.04	0.19	0.04	0.09	4.94	-573416.27	-472873.89	64
	Value	2007		16.10	0.19	0.31	0.08	0.61	18.47	-472873.89	-199531.30	64
	Value	2006		15.62	0.31	0.72	0.11	0.52	20.23	-199531.30	-31618.80	64
SAPPI	Value	2015		15.41	0.16	0.13	0.03	-0.10	5.98	-144195.81	-979141.79	65
	Value	2014		15.51	0.13	-0.14	0.02	-0.05	4.37	-979141.79	-1477086.12	65
						-						
	Value	2013		15.56	0.14	0.07	0.03	-0.07	-0.42	-1477086.12	-1079232.67	65
	Value	2012		15.63	0.07	-0.16	0.02	-0.02	5.77	-1079232.67	-2593317.82	65
						-						
	Value	2011		15.66	0.16	0.03	0.04	-0.12	-0.22	-2593317.82	-2071447.94	65
	Value	2010		15.79	0.03	-0.12	0.04	-0.02	3.50	-2071447.94	-3737768.84	65
						-						
	Value	2009		15.80	0.12	0.02	0.03	0.19	-2.75	-3737768.84	172124.47	65
	Value	2008	132.09	15.63	0.02	0.07	0.00	-0.04	1.81	172124.47	-1214039.85	65
	Value	2007	225.18	15.66	0.07	-0.05	0.02	0.15	3.18	-1214039.85	-1651104.69	65
						-						
	Value	2006	202.46	15.52	0.05	-0.11	0.04	-0.03	-0.44	-1651104.69	-352387.20	65
Steinhoff International Holdings								0.55				
	Value	2015	140.25	19.56	0.05	0.10	0.03		10.22	19436927.40	-4624362.60	66



	Value	2014	127.50	19.13	0.10	0.11	0.04	0.23	10.57	-4624362.60	-2893265.70	66
	Value	2013	68.00	18.92	0.11	0.10	0.04	0.24	10.74	-2893265.70	-1458504.00	66
	Value	2012		18.71	0.10	0.12	0.04	0.32	9.76	-1458504.00	-2360219.60	66
	Value	2011		18.43	0.12	0.13	0.05	0.76	8.18	-2360219.60	-593334.00	66
	Value	2010		17.86	0.13	0.13	0.06	0.03	12.70	-593334.00	-102841.81	66
	Value	2009		17.83	0.13	0.13	0.06	-0.03	13.80	-102841.81	-809588.28	66
	Value	2008		17.86	0.13	0.17	0.06	0.52	12.25	-809588.28	-1049411.76	66
	Value	2007		17.44	0.17	0.15	0.08	0.18	12.88	-1049411.76	160858.10	66
	Value	2006		17.28	0.15	0.16	0.06	0.30	10.46	160858.10	211356.52	66
Super Group	Value	2015		16.54	0.14	0.14	0.05	0.26	11.86	463553.07	384599.71	67
	Value	2014		16.31	0.14	0.15	0.06	0.15	13.34	384599.71	388937.68	67
	Value	2013		16.17	0.15	0.15	0.06	0.32	13.06	388937.68	198217.48	67
	Value	2012		15.89	0.15	0.11	0.06	0.07	14.47	198217.48	38911.59	67
	Value	2011		15.83	0.11	0.05	0.04	-0.01	9.79	38911.59		67
	Value	2010		15.84	0.05	-1.14	0.02	-0.14	7.40		-1043459.62	67
	Value	2009			-							
	Value	2009		15.99	1.14	-0.07	0.15	-0.18	5.54	-1043459.62	-333093.45	67
	Value	2008			-							
	Value	2008		16.19	0.07	0.14		0.16	5.37	-333093.45	160498.33	67
	Value	2007	80.00	16.04	0.14	0.14		0.17	11.80	160498.33	229571.36	67
	Value	2006	61.60	15.89	0.14	0.20		0.29	9.85	229571.36	277862.57	67
Comair	Value	2015	8.50	15.21	0.12	0.18		0.00	8.08	10.17	11.92	68
	Value	2014	11.05	15.21	0.18	0.20		0.12	10.14	11.92	10.75	68
	Value	2013	8.50	15.10	0.20	0.01		0.63	10.24	10.75	8.29	68
	Value	2012		14.61	0.01	0.07		0.05	0.68	8.29	9.18	68
	Value	2011		14.56	0.07	0.10		0.04	4.92	9.18	9.55	68
	Value	2010	5.00	14.52	0.10	0.14		0.19	6.42	9.55	8.59	68
	Value	2009	5.00	14.35	0.14	0.06		0.18	6.85	8.59	9.99	68
	Value	2008		14.18	0.06	0.19		0.26	6.40	9.99	11.02	68
	Value	2007		13.95	0.19	0.14		0.08	13.23	11.02	16.04	68
	Value	2006	7.00	13.87	0.14	0.25		0.31	12.42	16.04	10.43	68
Hyprop	Value	2015	461.55	17.18	0.15	0.15		0.07	14.38	-169667.90	-984621.46	69
	Value	2014		17.11	0.15	0.35		0.17	13.09	-984621.46	-904069.39	69
	Value	2013		16.95	0.35	0.14		0.07	19.25	-904069.39	-460272.91	69
	Value	2012		16.88	0.14	-0.01		0.07	14.67	-460272.91	-342240.62	69

	Value	2011		16.82	0.01	0.11	0.76	5.21	-342240.62	-784031.00	69
	Value	2010		16.25	0.11	0.12	0.06	12.79	-784031.00	-169667.90	69
	Value	2009		16.20	0.12	0.08	0.14	12.21	-169667.90	-984621.46	69
	Value	2008		16.07	0.08	0.24	-0.09	8.22	-984621.46	-904069.39	69
	Value	2007		16.17	0.24	0.30	0.33	21.34	-904069.39	-460272.91	69
	Value	2006		15.88	0.30	0.39	0.28	27.04	-460272.91	-342240.62	69
Trans Hex	Value	2015	51.00	13.84	0.21	0.04	0.07	15.23	104735.51	29038.93	70
	Value	2014		13.77	0.04	0.16	-0.04	-1.75	29038.93	60741.77	70
	Value	2013		13.81	0.16	0.44	0.04	7.86	60741.77	125663.37	70
	Value	2012		13.76	0.44	-0.14	0.03	11.22	125663.37	-19521.38	70
	Value	2011		13.73	0.14	0.07	-0.09	-2.90	-19521.38	41933.36	70
	Value	2010		13.82	0.07	-4.31	0.02	4.85	41933.36	142031.27	70
	Value	2009		13.80	4.31	-0.04	-0.36	-84.01	142031.27	14304.94	70
	Value	2008	10.00	14.25	0.04	0.03	0.02	1.93	14304.94	56313.06	70
	Value	2007	20.00	14.23	0.03	-0.16	0.11	6.75	56313.06	68936.72	70
	Value	2006	30.00	14.12	0.16	0.09	-0.15	-9.58	68936.72	-85383.06	70

### AN EXTRACT FROM PANEL DATA 7 – FULL SAMPLE OF OBJECTIVE 3

firm	firm	size	years	pf	dps	l_dps	ch	eps	l_eps	eva	l_eva	Size	Firmc
ADCORP	Value	2015	0.0000	125.80	119.00	0.1272	298.50	188.60	127322.59	53341.75	15.49	2	
ADCORP	Value	2014	0.0000	119.00	119.00	0.1005	188.60	236.70	53341.75	-16821.27	15.36	2	
ADCORP	Value	2013	0.0000	119.00	125.00	0.1504	236.70	209.10	-16821.27	-5718.49	15.23	2	
ADCORP	Value	2012	0.0000	125.00	175.00	0.1093	209.10	195.70	-5718.49	15518.77	14.86	2	
ADCORP	Value	2011	0.0000	175.00	165.00	0.1979	195.70	195.90	15518.77	12116.38	14.47	2	
ADCORP	Value	2010	0.0000	165.00	222.00	0.0823	195.90	272.10	12116.38	29399.98	14.33	2	
ADCORP	Value	2009	1.0000	222.00	215.00	0.1057	272.10	195.60	29399.98	-37087.61	14.35	2	
ADCORP	Value	2008	0.0000	215.00		0.1064	195.60		-37087.61		14.14	2	
ADCORP	Value	2007	0.0000		168.00			236.50		65940.47		2	
ADCORP	Value	2006	0.0000	168.00	140.00	0.1153	236.50	195.10	65940.47	62551.90	13.38	2	
ADCORP	Value	2005	0.0000	140.00	105.00	0.1352	195.10	164.50	62551.90	59180.72	13.23	2	
ADCORP	Value	2004	0.0000	105.00	64.00	0.1737	164.50	96.40	59180.72	44576.10	13.09	2	
ADCORP	Value	2003	1.0000	64.00	37.00	0.1891	96.40	110.00	44576.10		12.93	2	
ADCORP	Value	2002	0.0000	37.00	28.00	0.1246	110.00	156.00			12.99	2	
ADCORP	Value	2001	0.0000	28.00	28.00	0.0000	156.00	192.00			12.91	2	
ADCORP	Value	2000	0.0000	28.00	23.00	0.1116	192.00	151.00			12.96	2	
ADCORP	Value	1999	0.0000	23.00	25.00	0.3455	151.00	150.00			12.54	2	
ASTRAL FOODS	Value	2015	0.0000	977.50	374.00	0.0179	2,016.00	864.00	-310554.00	397296.60	16.69	3	
ASTRAL FOODS	Value	2014	0.0000	374.00	188.70	0.0088	864.00	443.00	397296.60	126247.20	16.51	3	
ASTRAL FOODS	Value	2013	0.0000	188.70	571.20	0.0065	443.00	787.00	126247.20	285144.50	16.48	3	
ASTRAL FOODS	Value	2012	0.0000	571.20	810.00	0.0019	787.00	1,148.00	285144.50	63692.50	16.39	3	
ASTRAL FOODS	Value	2011	0.0000	810.00	760.00	0.0146	1,148.00	960.00	63692.50	116792.50	16.34	3	
ASTRAL FOODS	Value	2010	0.0000	760.00	700.00	0.0136	960.00	890.00	116792.50	-216691.20	16.15	3	
ASTRAL FOODS	Value	2009	0.0000	700.00	700.00	0.0137	890.00	840.00	-216691.20	85969.20	16.12	3	

ASTRAL FOODS	Value	2008	0.0000	700.00	700.00	0.0146	840.00	1,381.00	85969.20	73589.60	16.21	3
ASTRAL FOODS	Value	2007	0.0000	700.00	585.00	0.0129	1,381.00	1,286.00	73589.60	699993.00	15.93	3
ASTRAL FOODS	Value	2006	0.9978	585.00	380.00	0.0165	1,286.00	918.00	699993.00	249641.61	15.87	3
ASTRAL FOODS	Value	2005	1.0000	380.00	230.00	0.0098	918.00	631.40	249641.61	143128.80	15.70	3
ASTRAL FOODS	Value	2004	0.0000	230.00	168.00	0.0075	631.40	487.20	143128.80	175244.60	15.59	3
ASTRAL FOODS	Value	2003	0.0000	168.00	108.00	0.0113	487.20	326.30	175244.60		15.61	3
ASTRAL FOODS	Value	2002	0.0000	108.00	90.00	0.0050	326.30	271.50			15.55	3
ASTRAL FOODS	Value	2001	0.0000	90.00		0.0024	271.50				15.62	3
ASTRAL FOODS	Value	2000	0.0000	0.00	0.00	0.0000					15.60	3
ASTRAL FOODS	Value	1999	0.0000	0.00	0.00	0.0000					15.60	3
AVENG	Value	2015	0.0000	0.00	0.00		-144.30	112.50				4
AVENG	Value	2014	0.0000	0.00	0.00		112.50	124.60		-179972.10		4
AVENG	Value	2013	0.0000	0.00	51.00	0.6153	124.60	128.10	-179972.10	-8400.00	15.82	4
AVENG	Value	2012	0.9987	51.00	145.00	0.7230	128.10	306.40	-8400.00	-516397.20	15.79	4
AVENG	Value	2011	0.0000	145.00	145.00	0.7033	306.40	483.60	-516397.20	189388.83	15.89	4
AVENG	Value	2010	0.9924	145.00	145.00	0.9234	483.60	528.50	189388.83	46597.79	15.95	4
AVENG	Value	2009	0.0000	145.00	290.00	0.8051	528.50	591.40	46597.79	-64787.21	16.10	4
AVENG	Value	2008	0.9999	290.00	0.00	1.0345	591.40	343.50	-64787.21	52286.90	16.03	4
AVENG	Value	2007	0.0000	0.00	38.00	1.3886	343.50	154.90	52286.90	-55984.26	15.78	4
AVENG	Value	2006	0.0000	38.00	23.00	0.4050	154.90	93.50	-55984.26	74320.60	15.18	4
AVENG	Value	2005	0.0000	23.00	14.00	0.2297	93.50	56.50	74320.60	185277.44	15.13	4
AVENG	Value	2004	0.0000	14.00	30.00	0.2634	56.50	118.60	185277.44		14.86	4
AVENG	Value	2003	0.0000	30.00	27.00	0.1938	118.60	111.20			15.06	4
AVENG	Value	2002	0.0000	27.00	22.50	0.2703	111.20	99.40			14.74	4
AVENG	Value	2001	0.0000	22.50	0.00	0.1186	99.40	79.30			14.95	4
AVENG	Value	2000	0.0000	0.00	0.00	0.2754	79.30	80.20			14.83	4

AVENG	Value	1999	0.0000	0.00	0.00	0.2990	80.20	60.00			14.67	4
AVI	Value	2015	0.0000	452.20	255.00	0.0576	417.70	419.30	870222.78	752932.04	15.90	5
AVI	Value	2014	0.0000	255.00	221.00	0.0420	419.30	353.60	752932.04	678064.71	15.78	5
AVI	Value	2013	0.0000	221.00	338.00	0.0323	353.60	324.30	678064.71	603275.64	15.70	5
AVI	Value	2012	0.0000	338.00	125.00	0.0438	324.30	230.60	603275.64	341179.44	15.53	5
AVI	Value	2011	0.9989	125.00	100.00	0.0706	230.60	156.30	341179.44	131075.75	15.50	5
AVI	Value	2010	0.0000	100.00	88.00	0.1049	156.30	170.50	131075.75	149068.06	15.54	5
AVI	Value	2009	0.0000	88.00	80.00	0.0936	170.50	159.60	149068.06	46527.21	15.52	5
AVI	Value	2008	0.0000	80.00	73.00	0.0332	159.60	156.60	46527.21	165433.59	15.48	5
AVI	Value	2007	0.0000	73.00	53.00	0.0657	156.60	104.90	165433.59	-45685.64	15.39	5
AVI	Value	2006	0.0000	53.00	54.00	0.0761	104.90	280.30	-45685.64	391637.16	15.30	5
AVI	Value	2005	0.0000	54.00	80.00	0.1220	280.30	179.50	391637.16	310320.84	15.12	5
AVI	Value	2004	0.0000	80.00	133.00	0.1142	179.50	206.60			15.59	5
AVI	Value	2003	0.0000	133.00	53.00	0.1765	206.60	160.10			15.54	5
AVI	Value	2002	0.0000	53.00	38.00	0.1626	160.10	108.90			15.47	5
AVI	Value	2001	0.0000	38.00	30.00	0.1619	108.90	88.80			15.26	5
AVI	Value	2000	0.0000	30.00	30.00	0.1799	88.80	73.40			15.26	5
AVI	Value	1999	0.0000	30.00	30.00	0.1077	73.40	106.80			15.91	5
BARLOWORLD	Value	2015	0.9954	293.30	272.00	0.0493	808.70	1,012.30	-647569.60	-559672.80	17.69	6
BARLOWORLD	Value	2014	0.0000	272.00	247.40	0.0946	1,012.30	801.90	-559672.80	-600541.80	17.60	6
BARLOWORLD	Value	2013	0.0000	247.40	195.50	0.0696	801.90	739.90	-600541.80	826982.00	17.52	6
BARLOWORLD	Value	2012	0.0000	195.50	155.00	0.0733	739.90	482.70	826982.00	-883490.00	17.39	6
BARLOWORLD	Value	2011	0.0000	155.00	75.00	0.0890	482.70	-3.30	-883490.00	1244069.20	17.25	6
BARLOWORLD	Value	2010	0.0000	75.00	110.00	0.0750	-3.30	321.80	1244069.20	1318857.60	17.06	6
BARLOWORLD	Value	2009	0.0000	110.00	150.00	0.0541	321.80	602.20	-	-712722.50	17.22	6
BARLOWORLD	Value	2008	0.0000	150.00	700.00	0.0365	602.20	1,120.00	-712722.50	769192.20	17.34	6
BARLOWORLD	Value	2007	0.0000	700.00	600.00	0.0392	1,120.00	1,138.90	769192.20	539343.00	17.24	6

BARLOWORLD	Value	2006	0.9997	600.00	455.00	0.0599	1,138.90	897.40	539343.00	731722.40	17.39	6
BARLOWORLD	Value	2005	0.0000	455.00	380.00	0.0489	897.40	760.90	731722.40	107365.20	17.17	6
BARLOWORLD	Value	2004	0.0000	380.00	290.00	0.0518	760.90	582.10	107365.20	185857.20	17.14	6
BARLOWORLD	Value	2003	0.0000	290.00	275.00	0.0654	582.10	769.60	185857.20		16.98	6
BARLOWORLD	Value	2002	0.0000	275.00	220.00	0.0647	769.60	315.70			17.11	6
BARLOWORLD	Value	2001	0.0000	220.00	180.00	0.0812	315.70	684.00			16.90	6
BARLOWORLD	Value	2000	0.0000	180.00	141.00	0.0564	684.00	735.60			16.63	6
BARLOWORLD	Value	1999	0.0000	141.00	124.00	0.0841	735.60	372.10			16.46	6
BRANDCO	Value	2015	0.0000						-288017.10	323703.60		7
BRANDCO	Value	2014	0.0000						323703.60	98805.70		7
BRANDCO	Value	2013	0.0000						98805.70	272265.60		7
BRANDCO	Value	2012	0.0000						272265.60	314010.20		7
BRANDCO	Value	2011	0.0000						314010.20	202215.00		7
BRANDCO	Value	2010	0.0000						202215.00	324898.90		7
BRANDCO	Value	2009	0.0000					125.10	324898.90	790521.20		7
BRANDCO	Value	2008	0.0000				125.10	112.80	790521.20	507608.00		7
BRANDCO	Value	2007	0.0000		45.00		112.80	80.40	507608.00	354585.00	13.09	7
BRANDCO	Value	2006	0.9967	45.00	40.00	0.2074	80.40	58.20	354585.00	348791.10	12.94	7
BRANDCO	Value	2005	0.0000	40.00	18.00	0.2388	58.20	28.60	348791.10	175764.00	12.78	7
BRANDCO	Value	2004	1.0000	18.00	16.00	0.2201	28.60	19.50	175764.00		12.69	7
BRANDCO	Value	2003	1.0000	16.00	8.00	0.2377	19.50	16.50			12.62	7
BRANDCO	Value	2002	0.0000	8.00	6.00	0.1360	16.50				12.56	7
BRANDCO	Value	2001	0.0000	6.00		0.1779	0.00	16.60			12.49	7
BRANDCO	Value	2000	0.0000	0.00		0.1328	16.60				12.92	7
BRANDCO	Value	1999	0.0000	0.00	4.00	0.0080					15.42	7
CLICKS	Value	2015	0.0000	199.80	161.50	0.0530	396.70	352.40	812013.19	702567.44	15.84	8
CLICKS	Value	2014	0.9997	161.50	142.80	0.0316	352.40	300.10	702567.44	588762.29	15.64	8
CLICKS	Value	2013	0.9992	142.80	135.80	0.0212	300.10	272.00	588762.29	565201.74	15.51	8

CLICKS	Value	2012	0.0000	135.80		0.0053	272.00	248.30	565201.74	520393.26	15.38	8
CLICKS	Value	2011	0.0000	0.00		0.0042	248.30	208.60	520393.26	398547.93	15.26	8
CLICKS	Value	2010	1.0000	0.00		0.0370	208.60	165.60	398547.93	317263.11	15.23	8
CLICKS	Value	2009	1.0000	0.00	7.40	0.0980	165.60	148.40	317263.11	242559.68	15.25	8
CLICKS	Value	2008	0.9998	7.40	7.00	0.0282	148.40	113.20	242559.68	187792.82	15.09	8
CLICKS	Value	2007	0.9999	7.00	6.80	0.1031	113.20	71.40	187792.82	128840.30	15.20	8
CLICKS	Value	2006	0.9998	6.80	29.70	0.0109	71.40	60.20	128840.30	107316.24	15.12	8
CLICKS	Value	2005	0.0000	29.70	35.00	0.0220	60.20	-3.60	107316.24	137491.52	14.98	8
CLICKS	Value	2004	0.0000	35.00	26.00	0.1310	-3.60	63.50	137491.52	20189.07	14.96	8
CLICKS	Value	2003	0.0000	26.00	24.00	0.0519	63.50	48.40	20189.07		15.05	8
CLICKS	Value	2002	0.0000	24.00	19.80		48.40	52.20			14.72	8
CLICKS	Value	2001	0.0000	19.80	18.00	0.0095	52.20	55.80			14.50	8
CLICKS	Value	2000	0.0000	18.00	14.20	0.1195	55.80	44.90			14.36	8
CLICKS	Value	1999	0.0000	14.20	11.40	0.1716	44.90	33.90			14.20	8
COMPU-C	Value	2015	0.0000		27.20			30.00		9177.26		9
COMPU-C	Value	2014	0.0000	27.20	25.50	0.3173	30.00	25.90	9177.26	9430.95	11.10	9
COMPU-C	Value	2013	0.0000	25.50	21.20	0.3658	25.90	24.70	9430.95	7532.39	11.03	9
COMPU-C	Value	2012	0.0000	21.20	18.00	0.3689	24.70	18.90	7532.39	5217.53	10.92	9
COMPU-C	Value	2011	0.0000	18.00	15.00	0.3706	18.90	18.10	5217.53	4698.15	10.87	9
COMPU-C	Value	2010	0.0000	15.00	25.00	0.3416	18.10	15.80	4698.15	3756.00	10.81	9
COMPU-C	Value	2009	0.0000	25.00	25.00	0.4811	15.80	27.00	3756.00	6990.42	10.87	9
COMPU-C	Value	2008	0.0000	25.00	0.00	0.5478	27.00	20.60	6990.42	3814.31	10.83	9
COMPU-C	Value	2007	0.0000	0.00	11.00	0.3901	20.60	19.60	3814.31	4211.04	10.68	9
COMPU-C	Value	2006	0.0000	11.00	18.00	0.4353	19.60	15.40	4211.04	3365.79	10.72	9
COMPU-C	Value	2005	0.0000	18.00	6.00	0.4482	15.40	15.70	3365.79	3658.96	10.55	9
COMPU-C	Value	2004	0.0000	6.00	3.00	0.5063	15.70	16.00	3658.96		10.68	9
COMPU-C	Value	2003	1.0000	3.00	2.50	0.4413	16.00	12.40			10.53	9
COMPU-C	Value	2002	0.0000	2.50	2.20	0.3670	12.40	12.60			10.43	9
COMPU-C	Value	2001	0.0000	2.20	2.20	0.2483	12.60	11.30			10.39	9
COMPU-C	Value	2000	0.0000	2.20		0.3836	11.30	10.30			10.41	9
COMPU-C	Value	1999	0.0000			0.4798	10.30	11.00			10.28	9
CONNECT G	Value	2015	0.0000									10
CONNECT G	Value	2014	0.0000									10
CONNECT G	Value	2013	0.0000									10
CONNECT G	Value	2012	0.0000									10
CONNECT G	Value	2011	0.0000									10

CONNECT G	Value	2010	0.0000									10
CONNECT G	Value	2009	0.0000									10
CONNECT G	Value	2008	0.0000									10
CONNECT G	Value	2007	0.0000									10
CONNECT G	Value	2006	0.0000									10
CONNECT G	Value	2005	1.0000		25.00			90.90		33901.79	12.46	10
CONNECT G	Value	2004	0.9998	25.00	18.00	0.3727	90.90	61.00	33901.79		12.29	10
CONNECT G	Value	2003	1.0000	18.00	0.00	0.3309	61.00	0.90			12.41	10
CONNECT G	Value	2002	0.0000	0.00	0.00	0.4120	0.90	5.60			12.19	10
CONNECT G	Value	2001	0.0000	0.00	0.00	0.2223	5.60	43.20			11.89	10
CONNECT G	Value	2000	0.0000	0.00	0.00	0.1002	43.20	-20.10			12.53	10
CONNECT G	Value	1999	0.0000	0.00	2.80	0.3759	-20.10	8.60			11.81	10
CONTROL I	Value	2015	0.0000									11
CONTROL I	Value	2014	0.0000					10.70		5403.20	12.71	11
CONTROL I	Value	2013	0.0000			0.1829	10.70	-24.30	5403.20	4842.09	12.70	11
CONTROL I	Value	2012	0.0000	1.30		0.1583	-24.30	-107.50	4842.09	-53858.22	13.01	11
CONTROL I	Value	2011	0.0000			0.1126	-107.50	1.60	-53858.22	-18543.21	13.23	11
CONTROL I	Value	2010	0.0000			0.0836	1.60	-16.20	-18543.21	-54002.58	13.20	11
CONTROL I	Value	2009	0.0000		3.50	0.0508	-16.20	-54.90	-54002.58	-82059.34	13.29	11
CONTROL I	Value	2008	0.0000	3.50	418.00	0.0112	-54.90	380.10	-82059.34	-99954.17	13.47	11
CONTROL I	Value	2007	0.0000	418.00	3.50	0.0172	380.10	60.80	-99954.17	-15616.52	13.73	11
CONTROL I	Value	2006	0.9998	3.50	6.00	0.0227	60.80	32.00	-15616.52	12019.93	12.82	11
CONTROL I	Value	2005	0.0000	6.00	4.50	0.0012	32.00	27.70	12019.93	20633.69	12.21	11
CONTROL I	Value	2004	0.0000	4.50	2.50	0.0268	27.70	23.80	20633.69	15293.63	12.08	11
CONTROL I	Value	2003	1.0000	2.50	2.00	0.0013	23.80	8.80	15293.63		12.02	11
CONTROL I	Value	2002	0.0000	2.00	0.00	0.1143	8.80	-10.60			11.95	11
CONTROL I	Value	2001	0.0000	0.00	0.00	0.0864	-10.60	16.20			12.10	11
CONTROL I	Value	2000	0.0000	0.00	8.00	0.0750	16.20	14.90			11.91	11
CONTROL I	Value	1999	0.0000	8.00	6.00	0.2077	14.90	14.70			11.89	11
DIGICORE	Value	2015	0.0000	0.00	0.00			2.90		-71387.44		12
DIGICORE	Value	2014	0.0000	0.00	0.00	0.0253	2.90	-21.70	-71387.44	-57762.60	13.54	12
DIGICORE	Value	2013	0.0000	0.00	5.30	0.0483	-21.70	12.70	-57762.60	-39330.33	13.69	12
DIGICORE	Value	2012	0.0000	5.30	3.00	0.0442	12.70	22.40	-39330.33	-11314.45	13.75	12
DIGICORE	Value	2011	0.0000	3.00	6.00	0.0678	22.40	22.00	-11314.45	-27732.08	13.57	12
DIGICORE	Value	2010	0.0000	6.00	10.00	0.0749	22.00	36.10	-27732.08	6099.55	13.40	12
DIGICORE	Value	2009	0.0000	10.00	19.00	0.0916	36.10	68.70	6099.55	73068.45	13.35	12



DIGICORE	Value	2008	0.0000	19.00	13.00	0.1737	68.70	44.40	73068.45	51691.52	13.34	12
DIGICORE	Value	2007	0.0000	13.00	10.00	0.1375	44.40	32.30	51691.52	41254.27	12.97	12
DIGICORE	Value	2006	0.0000	10.00	6.00	0.2150	32.30	21.10	41254.27	13422.78	12.56	12
DIGICORE	Value	2005	0.0000	6.00	8.00	0.2036	21.10	11.70	13422.78	18788.21	12.38	12
DIGICORE	Value	2004	1.0000	8.00	2.00	0.3072	11.70	7.10	18788.21		11.92	12
DIGICORE	Value	2003	0.0000	2.00	0.00	0.2591	7.10	5.50			11.85	12
DIGICORE	Value	2002	0.0000	0.00	0.00	0.1494	5.50	9.70			11.82	12
DIGICORE	Value	2001	0.0000	0.00	0.00	0.0540	9.70	0.40			11.77	12
DIGICORE	Value	2000	0.0000	0.00		0.0302	0.40	9.30			11.59	12
DIGICORE	Value	1999	0.0000	0.00		0.0399	9.30	5.00			11.27	12
DISTRIBUTION AND WAREHOUSING	Value	2015	0.0000	0.00	14.00	0.0534	204.70	31.60	-229068.67	-35950.36	15.12	13
DISTRIBUTION AND WAREHOUSING	Value	2014	0.0000	14.00	14.00	0.0427	31.60	66.70	-35950.36	-16349.29	15.10	13
DISTRIBUTION AND WAREHOUSING	Value	2013	0.0000	14.00	0.00	0.0894	66.70	35.50	-16349.29	-41439.50	14.94	13
DISTRIBUTION AND WAREHOUSING	Value	2012	0.0000	0.00	0.00	0.0867	35.50	-13.00	-41439.50	-125421.72	14.80	13
DISTRIBUTION AND WAREHOUSING	Value	2011	0.0000	0.00	0.00	0.0590	-13.00	54.00	-125421.72	-112698.03	14.76	13
DISTRIBUTION AND WAREHOUSING	Value	2010	0.0000	0.00	0.00	0.0796	54.00	63.90	-112698.03	-56356.07	14.73	13

DISTRIBUTION AND WAREHOUSING	Value	2009	0.0000	0.00	0.00	0.0215			-56356.07	60311.20		
							63.90	152.90			14.68	13
DISTRIBUTION AND WAREHOUSING	Value	2008	0.0000	0.00	0.00	0.0335			60311.20	89764.65	14.80	
							152.90	117.10				13
DISTRIBUTION AND WAREHOUSING	Value	2007	0.0000	0.00	0.00	0.1379			89764.65	86624.30		
							117.10	77.40			14.50	13
DISTRIBUTION AND WAREHOUSING	Value	2006	0.0000	0.00	0.00	0.0950			86624.30	67508.66		
							77.40	52.30			13.95	13
DISTRIBUTION AND WAREHOUSING	Value	2005	0.0000	0.00	0.00	0.0118			67508.66	24918.04	13.37	
							52.30	30.50				13
DISTRIBUTION AND WAREHOUSING	Value	2004	1.0000	0.00	0.00	0.0707			24918.04			
							30.50	17.20			12.82	13
DISTRIBUTION AND WAREHOUSING	Value	2003	1.0000	0.00	0.00	0.0494						
							17.20	6.80			12.58	13
DISTRIBUTION AND WAREHOUSING	Value	2002	0.0000	0.00	0.00	0.0652						
							6.80	7.00			12.57	13
DISTRIBUTION AND WAREHOUSING	Value	2001	0.0000	0.00	0.00	0.0000						
							7.00	10.70			12.53	13

DISTRIBUTION AND WAREHOUSING	Value	2000	0.0000	0.00	0.00	0.0140	10.70	12.10			12.36	13
DISTRIBUTION AND WAREHOUSING	Value	1999	0.0000	0.00	0.00		12.10	9.30				13
EDCON	Value	2015	0.0000									14
EDCON	Value	2014	0.0000									14
EDCON	Value	2013	0.0000									14
EDCON	Value	2012	0.0000									14
EDCON	Value	2011	0.0000									14
EDCON	Value	2010	0.0000									14
EDCON	Value	2009	0.0000									14
EDCON	Value	2008	0.0000									14
EDCON	Value	2007	0.0000	162.00	0.0000		313.00		1105588.20	15.89		14
EDCON	Value	2006	0.0000	162.00	1,345.00	0.0525	313.00	2,670.00	1105588.20	882649.80	15.71	14
EDCON	Value	2005	0.0000	1,345.00	768.00	0.0807	2,670.00	1535.90	882649.80	491986.56	15.44	14
EDCON	Value	2004	0.0000	768.00	308.00	0.0457	1,535.90	690.50	491986.56		15.27	14
EDCON	Value	2003	1.0000	308.00	117.00	0.0718	690.50	302.90			15.24	14
EDCON	Value	2002	0.0000	117.00	100.00	0.0489	302.90	261.30			15.30	14
EDCON	Value	2001	0.0000	100.00	152.00	0.0535	261.30	394.80			15.23	14
EDCON	Value	2000	0.0000	152.00	58.00	0.0314	394.80	150.60			15.15	14
EDCON	Value	1999	0.0000	58.00	247.00	0.0219	150.60	418.20			15.13	14
FARITEC	Value	2015	0.0000						870222.78	752932.04		15
FARITEC	Value	2014	0.0000						752932.04	678064.71		15
FARITEC	Value	2013	0.0000						678064.71	603275.64		15
FARITEC	Value	2012	0.0000						603275.64	341179.44		15
FARITEC	Value	2011	0.0000						341179.44	131075.75		15
FARITEC	Value	2010	0.0000		0.00	0.0000		-61.90	131075.75	149068.06	12.67	15
FARITEC	Value	2009	0.0000	0.00	0.00	0.0761	-61.90	11.30	149068.06	46527.21	13.17	15
FARITEC	Value	2008	0.0000	0.00	0.00	0.0507	11.30	8.50	46527.21	165433.59	12.84	15
FARITEC	Value	2007	0.0000	0.00	0.00	0.0884	8.50	10.40	165433.59	-45685.64	12.80	15
FARITEC	Value	2006	0.0000	0.00	0.00	0.1841	10.40	4.50	-45685.64	391637.16	12.27	15
FARITEC	Value	2005	0.0000	0.00	0.00	0.1319	4.50	-8.90	391637.16	310320.84	11.87	15

FARITEC	Value	2004	0.0000	0.00	0.00	0.0280	-8.90	0.40	310320.84		12.01	15
FARITEC	Value	2003	1.0000	0.00	0.00	0.1089	0.40	12.90			12.06	15
FARITEC	Value	2002	0.0000	0.00	0.00	0.5031	12.90	8.90			12.01	15
FARITEC	Value	2001	0.0000	0.00	0.00	0.7020	8.90	6.20			11.60	15
FARITEC	Value	2000	0.0000	0.00	0.00	0.0152	6.20	15.90			15.26	15
FARITEC	Value	1999	0.0000	0.00	0.00	0.0060	15.90				15.91	15
									-	-		
GRINDROD	Value	2015	0.0000	16.70	28.60	0.2302	-189.80	147.60	2211212.49	4127624.91	17.41	16
									-	-		
GRINDROD	Value	2014	0.0000	28.60	31.50	0.2258	147.60	199.10	4127624.91	-544355.32	17.31	16
GRINDROD	Value	2013	0.0000	31.50	28.00	0.2138	199.10	144.60	-544355.32	-241800.64	17.16	16
GRINDROD	Value	2012	0.0000	28.00	29.50	0.1915	144.60	111.00	-241800.64	-810505.75	16.91	16
GRINDROD	Value	2011	0.0000	29.50	54.00	0.1458	111.00	171.60	-810505.75	-2324.94	16.83	16
GRINDROD	Value	2010	0.0000	54.00	60.00	0.0896	171.60	193.00	-2324.94	-167020.47	16.47	16
GRINDROD	Value	2009	0.9982	60.00	136.00	0.1518	193.00	475.70	-167020.47	1011422.74	16.35	16
GRINDROD	Value	2008	0.0000	136.00	78.00	0.1719	475.70	263.90	1011422.74	432687.91	16.45	16
GRINDROD	Value	2007	0.0000	78.00	66.00	0.1264	263.90	221.20	432687.91	400588.70	16.11	16
GRINDROD	Value	2006	0.0000	66.00	52.00	0.1465	221.20	185.70	400588.70	470783.83	15.80	16
GRINDROD	Value	2005	0.9140	52.00	175.00	0.1317	185.70	610.70	470783.83	430125.76	15.42	16
GRINDROD	Value	2004	1.0000	175.00	60.00	0.1320	610.70	251.10	430125.76	70669.68	14.78	16
GRINDROD	Value	2003	1.0000	60.00	40.00	0.1171	251.10	172.00	70669.68		14.55	16
GRINDROD	Value	2002	0.0000	40.00	28.00	0.1023	172.00	120.30			14.46	16
GRINDROD	Value	2001	0.0000	28.00	20.00	0.1767	120.30	65.20			14.46	16
GRINDROD	Value	2000	0.0000	20.00	0.00	0.0759	65.20	-57.90			14.29	16
GRINDROD	Value	1999	0.0000	0.00	14.00	0.0898	-57.90	27.70			14.27	16
INVICTA	Value	2015	0.0000	1,887.30	262.50	0.0505	741.00	788.00	-10236.31	189038.01	16.48	17
INVICTA	Value	2014	0.0000	262.50	227.80	0.0391	788.00	948.00	189038.01	151973.11	16.41	17
INVICTA	Value	2013	0.0000	227.80	227.40	0.0556	948.00	652.00	151973.11	273470.46	16.32	17
INVICTA	Value	2012	0.9931	227.40	183.00	0.0767	652.00	480.00	273470.46	190505.73	15.94	17
INVICTA	Value	2011	0.0000	183.00	151.00	0.0628	480.00	441.00	190505.73	173210.60	15.75	17
INVICTA	Value	2010	0.0000	151.00	138.00	0.0439	441.00	437.00	173210.60	182634.51	15.60	17
INVICTA	Value	2009	0.0000	138.00	138.00	0.0208	437.00	354.00	182634.51	160662.95	15.61	17
INVICTA	Value	2008	0.0000	138.00	104.00	0.0432	354.00	288.00	160662.95	99317.54	15.47	17
INVICTA	Value	2007	0.0000	104.00	68.00	0.0655	288.00	169.00	99317.54	65904.00	14.91	17
INVICTA	Value	2006	0.0000	68.00	77.00	0.0106	169.00	190.00	65904.00	94660.05	14.73	17
INVICTA	Value	2005	0.0000	77.00	66.00	0.0366	190.00	160.00	94660.05	74683.16	13.79	17

INVICTA	Value	2004	1.0000	66.00	45.00	0.0785	160.00	130.00	74683.16		13.78	17	
INVICTA	Value	2003	0.0000	45.00	24.00	0.0717	130.00	58.00			13.80	17	
INVICTA	Value	2002	0.0000	24.00	22.00	0.0829	58.00	45.00			13.61	17	
INVICTA	Value	2001	0.0000	22.00	20.00	0.1075	45.00	37.00			13.44	17	
INVICTA	Value	2000	0.0000	20.00	18.00	0.2651	37.00	44.00			12.96	17	
INVICTA	Value	1999	0.0000	18.00	17.00	0.3763	44.00	44.00			12.90	17	
JD GROUP	Value	2015	0.0000		0.00			-859.50		-	1772654.40	18	
JD GROUP	Value	2014	0.0000	0.00	197.20	0.0570	-859.50	276.30	1772654.40	-75820.80		16.86	18
JD GROUP	Value	2013	0.0000	197.20	197.20	0.0421	276.30	406.40	-75820.80	12365.10		16.96	18
JD GROUP	Value	2012	0.0000	197.20	200.00	0.0784	406.40	406.20	12365.10	-379731.60		16.79	18
JD GROUP	Value	2011	0.0000	200.00	150.00	0.0822	406.20	304.90	-379731.60	174270.90		16.63	18
JD GROUP	Value	2010	0.0000	150.00	41.00	0.0839	304.90	45.80	174270.90	-265282.60		16.04	18
JD GROUP	Value	2009	0.0000	41.00	152.00	0.0825	45.80	302.80	-265282.60	-435626.70		16.00	18
JD GROUP	Value	2008	0.9978	152.00	303.00	0.1309	302.80	605.70	-435626.70	310461.50		15.98	18
JD GROUP	Value	2007	0.0000	303.00	412.00	0.0990	605.70	826.50	310461.50	918984.60		16.10	18
JD GROUP	Value	2006	0.0000	412.00	352.00	0.1599	826.50	705.30	918984.60	889027.60		16.13	18
JD GROUP	Value	2005	0.0000	352.00	240.00	0.1882	705.30	473.30	889027.60	556649.20		15.95	18
JD GROUP	Value	2004	0.0000	240.00	110.00	0.1716	473.30	335.70	556649.20	102879.00		15.86	18
JD GROUP	Value	2003	0.0000	110.00	56.00	0.0618	335.70	213.80	102879.00			15.79	18
JD GROUP	Value	2002	0.0000	56.00	94.00	0.0553	213.80	245.30				15.26	18
JD GROUP	Value	2001	0.0000	94.00	78.00	0.1443	245.30	301.80				15.33	18
JD GROUP	Value	2000	0.0000	78.00	65.00	0.0117	301.80	253.90				15.07	18
JD GROUP	Value	1999	0.0000	65.00	62.00	0.0104	253.90	206.10				14.88	18
KAYDAV	Value	2015	0.0000	0.00	0.00	0.0952	18.60	16.10		-	1772654.40	12.87	19
KAYDAV	Value	2014	0.0000	0.00	0.00	0.1270	16.10	13.70	1772654.40	-75820.80		12.73	19
KAYDAV	Value	2013	0.0000	0.00	0.00	0.0802	13.70	11.80	-75820.80	12365.10		12.46	19
KAYDAV	Value	2012	1.0000	0.00	0.00	0.0892	11.80	9.90	12365.10	-379731.60		12.36	19
KAYDAV	Value	2011	1.0000	0.00	0.00	0.0309	9.90	3.30	-379731.60	174270.90		12.21	19
KAYDAV	Value	2010	0.0000	0.00	0.00	0.1118	3.30	2.30	174270.90	-265282.60		12.22	19
KAYDAV	Value	2009	1.0000	0.00	0.00	0.0487	2.30	-33.60	-265282.60	-435626.70		12.18	19
KAYDAV	Value	2008	0.0000	0.00	0.00	0.0318	-33.60	1.30	-435626.70	310461.50		12.28	19
KAYDAV	Value	2007	0.0000	0.00		0.0526	1.30		310461.50	918984.60		12.63	19

KAYDAV	Value	2006	0.0000						918984.60	889027.60		19
KAYDAV	Value	2005	0.0000						889027.60	556649.20		19
KAYDAV	Value	2004	0.0000						556649.20	102879.00		19
KAYDAV	Value	2003	0.0000						102879.00			19
KAYDAV	Value	2002	0.0000									19
KAYDAV	Value	2001	0.0000									19
KAYDAV	Value	2000	0.0000									19
KAYDAV	Value	1999	0.0000									19
MICROMEGA	Value	2015	0.0000	29.80	17.00	0.1509	101.30	130.40	15513.51	42028.21	13.80	20
MICROMEGA	Value	2014	0.0000	17.00		0.1569	130.40		42028.21		13.45	20
MICROMEGA	Value	2013	0.0000		0.00			12.40		1496.79		20
MICROMEGA	Value	2012	0.0000	0.00	0.00	0.2251	12.40	7.70	1496.79	-22258.25	13.08	20
MICROMEGA	Value	2011	0.0000	0.00	0.00	0.0457	7.70	5.90	-22258.25	-29510.91	13.16	20
MICROMEGA	Value	2010	0.0000	0.00	0.00	0.0415	5.90	16.90	-29510.91	-12285.75	13.13	20
MICROMEGA	Value	2009	0.0000	0.00	0.00	0.0711	16.90	61.80	-12285.75	13615.78	12.95	20
MICROMEGA	Value	2008	0.0000	0.00	0.00	0.0690	61.80	41.50	13615.78	4832.43	12.99	20
MICROMEGA	Value	2007	0.0000	0.00	0.00	0.1889	41.50	31.50	4832.43	8769.68	12.54	20
MICROMEGA	Value	2006	0.0000	0.00	0.00	0.2575	31.50	16.90	8769.68	-1428.42	12.28	20
MICROMEGA	Value	2005	0.0000	0.00	0.00	0.2638	16.90	16.90	-1428.42	-5916.68	12.07	20
MICROMEGA	Value	2004	0.0000	0.00	0.00	0.3759	16.90	-14.50	-5916.68	10791.23	11.71	20
MICROMEGA	Value	2003	1.0000	0.00	0.00	0.5799	-14.50	-29.00	10791.23		11.36	20
MICROMEGA	Value	2002	0.0000	0.00	20.00	0.3384	-29.00	5.50			11.65	20
MICROMEGA	Value	2001	0.0000	20.00	0.00	0.2878	5.50	17.20			11.87	20
MICROMEGA	Value	2000	0.0000	0.00	0.00	0.1977	17.20	-49.00			11.91	20
MICROMEGA	Value	1999	0.0000			0.0982	-49.00					20
MUSTEK LTD	Value	2015	0.9995	29.80	23.80	0.1330	124.90	100.10	49504.73	36548.56	15.06	21
MUSTEK LTD	Value	2014	0.0000	23.80	17.00	0.0752	100.10	78.40	36548.56	30026.71	14.81	21
MUSTEK LTD	Value	2013	0.0000	17.00	14.40	0.2040	78.40	73.70	30026.71	96765.77	14.62	21
MUSTEK LTD	Value	2012	0.9929	14.40	17.00	0.1060	73.70	86.40	96765.77	17177.42	14.57	21
MUSTEK LTD	Value	2011	0.9965	17.00	12.00	0.1173	86.40	55.70	17177.42	-9167.31	14.33	21
MUSTEK LTD	Value	2010	0.0000	12.00	10.00	0.1476	55.70	49.60	-9167.31	38331.18	14.38	21
MUSTEK LTD	Value	2009	0.0000	10.00	20.00	0.1851	49.60	73.80	38331.18	24211.81	14.42	21
MUSTEK LTD	Value	2008	0.0000	20.00	55.00	0.2065	73.80	54.80	24211.81	46420.86	14.53	21
MUSTEK LTD	Value	2007	0.0000	55.00	65.00	0.1992	54.80	58.00	46420.86	75926.87	14.43	21
MUSTEK LTD	Value	2006	0.0000	65.00	55.00	0.2524	58.00	80.30	75926.87	60589.48	14.45	21
MUSTEK LTD	Value	2005	0.0000	55.00	50.00	0.2353	80.30	50.80	60589.48	126045.79	14.34	21

MUSTEK LTD	Value	2004	0.0000	50.00	25.00	0.2909	50.80	97.20	126045.79		14.17	21
MUSTEK LTD	Value	2003	1.0000	25.00	0.00	0.3096	97.20	78.70			14.15	21
MUSTEK LTD	Value	2002	0.0000	0.00	0.00	0.1885	78.70	18.50			14.01	21
MUSTEK LTD	Value	2001	0.0000	0.00	0.00	0.1098	18.50	26.90			13.81	21
MUSTEK LTD	Value	2000	0.0000	0.00	0.00	0.1170	26.90	90.60			13.70	21
MUSTEK LTD	Value	1999	0.0000	0.00	0.00	0.0296	90.60	87.80			13.26	21
NETCARE	Value	2015	0.0000	78.20	68.00	0.0806	178.90	157.50	876518.40	769329.00	17.27	22
NETCARE	Value	2014	0.0000	68.00	57.40	0.0641	157.50	384.90	769329.00	859297.60	17.10	22
NETCARE	Value	2013	0.0000	57.40	47.60	0.0705	384.90	-323.80	859297.60	1080607.20	16.99	22
NETCARE	Value	2012	0.0000	47.60	53.00	0.0657	-323.80	122.10	1080607.20	202515.00	17.60	22
NETCARE	Value	2011	0.0000	53.00	21.00	0.0465	122.10	97.00	202515.00	658576.80	17.74	22
NETCARE	Value	2010	0.0000	21.00	0.00	0.0311	97.00	123.80	658576.80	53670.50	17.61	22
NETCARE	Value	2009	0.0000	0.00	0.00	0.0175	123.80	63.50	53670.50	-571858.20	17.64	22
NETCARE	Value	2008	0.0000	0.00	0.00	0.0219	63.50	75.40	-571858.20	-608335.00	17.82	22
NETCARE	Value	2007	0.0000	0.00	0.00	0.0269	75.40	50.40	-608335.00	75844.32	17.74	22
NETCARE	Value	2006	1.0000	0.00	0.00	0.0290	50.40	57.20	75844.32	506721.60	17.74	22
NETCARE	Value	2005	0.0000	0.00	0.00	0.0467	57.20	44.60	506721.60	285322.05	15.65	22
NETCARE	Value	2004	0.0000	0.00	15.00	0.0265	44.60	46.00	285322.05	149709.04	15.52	22
NETCARE	Value	2003	0.0000	15.00	11.50	0.0761	46.00	36.40	149709.04		15.57	22
NETCARE	Value	2002	0.0000	11.50	8.50	0.0501	36.40	25.80			15.25	22
NETCARE	Value	2001	0.0000	8.50	2.50	0.1123	25.80	19.40			15.20	22
NETCARE	Value	2000	0.0000	2.50	4.00	0.1024	19.40	14.60			14.98	22
NETCARE	Value	1999	0.0000	4.00	1.00	0.0438	14.60	12.60			14.89	22
PARACON HOLDINGS	Value	2015	0.0000									23
PARACON HOLDINGS	Value	2014	0.0000									23
PARACON HOLDINGS	Value	2013	0.0000									23
PARACON HOLDINGS	Value	2012	0.0000									23
PARACON HOLDINGS	Value	2011	0.0000					17.20		19327.22		23
PARACON HOLDINGS	Value	2010	0.0000		10.00	0.2525	17.20	17.00	19327.22	23707.55	12.75	23

PARACON HOLDINGS	Value	2009	0.0000	10.00	10.00	0.2344	17.00	19.00	23707.55	41187.10	12.66	23
PARACON HOLDINGS	Value	2008	0.0000	10.00	11.00	0.2749	19.00	17.90	41187.10	33275.48	12.60	23
PARACON HOLDINGS	Value	2007	0.0000	11.00	5.00	0.3730	17.90	11.60	33275.48	21969.65	12.64	23
PARACON HOLDINGS	Value	2006	0.0000	5.00	0.00	0.4391	11.60	8.60	21969.65	12390.81	12.48	23
PARACON HOLDINGS	Value	2005	0.0000	0.00	0.00	0.4716	8.60	3.80	12390.81	-132.10	12.38	23
PARACON HOLDINGS	Value	2004	0.0000	0.00	0.00	0.5127	3.80	2.10	-132.10	-3939.62	12.23	23
PARACON HOLDINGS	Value	2003	1.0000	0.00	0.00	0.5591	2.10	1.00	-3939.62		12.19	23
PARACON HOLDINGS	Value	2002	0.0000	0.00	0.00	0.4141	1.00	7.70			12.07	23
PARACON HOLDINGS	Value	2001	0.0000	0.00	0.00	0.2819	7.70	6.30			12.31	23
PARACON HOLDINGS	Value	2000	0.0000	0.00	0.00	0.3647	6.30	7.50			12.35	23
PARACON HOLDINGS	Value	1999	0.0000	0.00	0.00	0.8043	7.50	7.00			11.93	23
PICK N PAY STORES	Value	2015	0.0000	100.40	78.50	0.0798	178.80	122.00	516090.82	361474.40	16.50	24
PICK N PAY STORES	Value	2014	0.0000	78.50	71.40	0.1092	122.00	115.10	361474.40	189298.40	16.46	24
PICK N PAY STORES	Value	2013	0.0000	71.40	114.60	0.0964	115.10	233.20	189298.40	388137.84	16.38	24
PICK N PAY STORES	Value	2012	0.0000	114.60	142.50	0.1076	233.20	165.00	388137.84	431920.80	16.29	24
PICK N PAY STORES	Value	2011	0.0000	142.50	174.50	0.0000	165.00	251.30	431920.80	802753.77	16.22	24
PICK N PAY STORES	Value	2010	0.9992	174.50	170.00	0.0942	251.30	222.20	802753.77	868677.60	16.23	24
PICK N PAY STORES	Value	2009	0.0000	170.00	149.10	0.1014	222.20	206.20	868677.60	808328.34	16.17	24



PICK N PAY STORES	Value	2008	0.0000	149.10	134.30	0.0713	206.20	148.10	808328.34	725700.69	16.05	24
PICK N PAY STORES	Value	2007	0.0000	134.30	100.00	0.0910	148.10	152.50	725700.69	586426.26	15.87	24
PICK N PAY STORES	Value	2006	0.0000	100.00	83.30	0.1402	152.50	138.60	586426.26	536059.46	15.72	24
PICK N PAY STORES	Value	2005	0.0000	83.30	71.50	0.2128	138.60	109.60	536059.46	376288.85	15.65	24
PICK N PAY STORES	Value	2004	0.0000	71.50	55.30	0.2502	109.60	93.20	376288.85		15.61	24
PICK N PAY STORES	Value	2003	0.0000	55.30	85.80	0.1944	93.20	79.60			15.49	24
PICK N PAY STORES	Value	2002	0.0000	85.80	42.90	0.2001	79.60	63.90			15.41	24
PICK N PAY STORES	Value	2001	0.0000	42.90	34.80	0.2867	63.90	54.20			15.15	24
PICK N PAY STORES	Value	2000	0.0000	34.80	27.60	0.2296	54.20	32.70			15.05	24
PICK N PAY STORES	Value	1999	0.0000	27.60	22.20	0.3111	32.70	23.20			14.90	24