



GORDON INSTITUTE
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**A COMPARATIVE ANALYSIS OF ECONOMIC VALUE ADDED (EVA®) BY SOUTH
AFRICAN BANKING AND RETAIL COMPANIES LISTED ON THE
JOHANNESBURG SECURITIES EXCHANGE**

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ABSTRACT

EVA® is a performance metric that calculates the creation of shareholder value and is a registered trademark of Stern Stuart, New York. EVA® has been widely adopted by management when making decisions to increase productivity, where to invest new capital and which underperforming assets to liquidate. EVA® is also widely used by investors and analysts as a measure of company performance when deciding on which shares to invest in.

While extensive research was done on EVA® and share price performance internationally, the aim of this research was to determine whether a positive EVA® leads to growth in its share price, specifically for retail and banking shares listed on the Johannesburg Securities Exchange (JSE). The banking and retail sector was selected as both these sectors experience favourable growth in terms of turnover during decreasing interest rate periods and unfavourable growth during increasing interest rate periods. Thus EVA® was selected as one of the better performance measures to use to show true operating performance.

Statistical tests were done on turnover growth rates, EVA® growth rates, EVA® and Turnover, EVA® and Share Price growth and finally EVA® and other common performance measures. Common performance measures were limited to Price/Earnings, Earnings Per Share, Return On Assets and Earnings Before Interest, Tax, Depreciation and Amortisation.

After analysis of the results, it was found that turnover growth rates were statistically similar for the banking sector during the period 1998 to 2007, but not

for the retail sector. Leading on from that it was found that share price correlates well with EVA® for the banking sector however not for the retail sector. The study also further revealed that none of the common performance measures correlated well with EVA for both the banking and retail sector.

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other university. I further declare that I have obtained the necessary authorization and consent to carry out this research.

Romalin Nagan

13 November 2008

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TABLE OF CONTENTS

ABSTRACT	ii
DECLARATION.....	iv
ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS	vi
LIST OF FIGURES.....	viii
LIST OF TABLES.....	ix
CHAPTER 1 - PROBLEM DEFINITION	1
1.1 Title	1
1.2 Overview	1
1.3 Problem.....	4
1.4 Aim.....	5
CHAPTER 2 - THEORY AND LITERATURE REVIEW	7
2.1 The reasons for measuring EVA®	7
2.2 Calculation of EVA®.....	10
2.3 Limitations to EVA®	12
2.4 Return on Equity and EVA®	14
2.5 Earnings per share, Price/Earnings and EVA®	16
2.6 The impact of EVA® on share price performance.....	16
2.7 The South African retail sector	17
2.8 The South African banking sector.....	19
2.9 Conclusion	22
CHAPTER 3 - RESEARCH HYPOTHESES	23
CHAPTER 4 - RESEARCH METHODOLOGY	27
4.1 Research Design	27
4.2 Population of relevance	27
4.3 Sampling method and size.....	28

4.4 Data collection process.....	28
4.5 Data analysis.....	29
4.6 Research Limitations.....	34
CHAPTER 5 - RESULTS AND DISCUSSION.....	35
5.1 Company turnover growth rates.....	35
5.2 EVA® for respective companies.....	40
5.3 EVA® and turnover.....	44
5.4 EVA® and company share price.....	46
5.5 EVA® and other performance measures.....	51
CHAPTER 6 - CONCLUSION.....	54
6.1 Turnover Growth Rates.....	54
6.2 Economic Value Added (EVA®).....	55
6.3 Economic Value Added and Share Price.....	55
6.4 Other performance measures.....	56
6.5 Recommendation.....	56
6.6 Future Research.....	57
REFERENCES.....	58
APPENDICES.....	63
1 EVA calculations for banking shares listed on the JSE.....	63
2 EVA calculations for retail shares listed on the JSE.....	70
3 Growth rates for banking shares listed on the JSE.....	89
4 Growth rates for retail shares listed on the JSE.....	90

LIST OF FIGURES

Figure 1: Prime overdraft interest rates for 1998 to 2009.....	2
Figure 2: Real Economic Growth (wholesale and retail trade)	18
Figure 3: Retail performance statistics.....	19
Figure 4: Real economic growth, Financial Sector.....	20
Figure 5: Turnover for banking companies	35
Figure 6: Turnover for retail companies	35
Figure 7: Box Plots of Turnover growth rates (Banking Sector)	36
Figure 8: Box Plots of Turnover growth rates (Retail Sector)	37
Figure 9: Banking share price performance (1998 to 2007).....	47
Figure 10: Banking share price performance (1998 to 2007).....	47

LIST OF TABLES

Table 1: Share price performance for SA retail companies.....	2
Table 2: Share price performance for SA banking companies	3
Table 3: Advantages and strategies for EVA®.....	8
Table 4: Example of the template used for calculating EVA®.....	32
Table 5: NCSS Statistical output for banking turnover annual growth rates	39
Table 6: NCSS Statistical output for retail turnover annual growth rates.....	39
Table 7: Economic Value Added for SA Banking companies.....	41
Table 8: Economic Value Added for SA Retail companies.....	41
Table 9: NCSS Statistical output for banking EVA® annual growth rates	42
Table 10: NCSS Statistical output for retail EVA® annual growth rates	43
Table 11: NCSS Regression Analysis for banking companies.....	45
Table 12: NCSS Regression Analysis for retail companies.....	46
Table 13: Share performance of banking companies.....	48
Table 14: Share performance of retail companies	48
Table 15: NCSS regression analysis output for Share Price vs.EVA® in the banking sector	49
Table 16: NCSS regression analysis output for Share Price vs.EVA® in the retail sector	50
Table 17: NCSS regression analysis output for EVA® vs. common performance measures in the banking sector.....	52
Table 18: NCSS regression analysis output for EVA vs. common performance measures in the retail sector	53

CHAPTER 1 - PROBLEM DEFINITION

1.1 Title

A comparative analysis of Economic Value Added (EVA[®]) by South African banking and retail companies listed on the Johannesburg Securities Exchange.

1.2 Overview

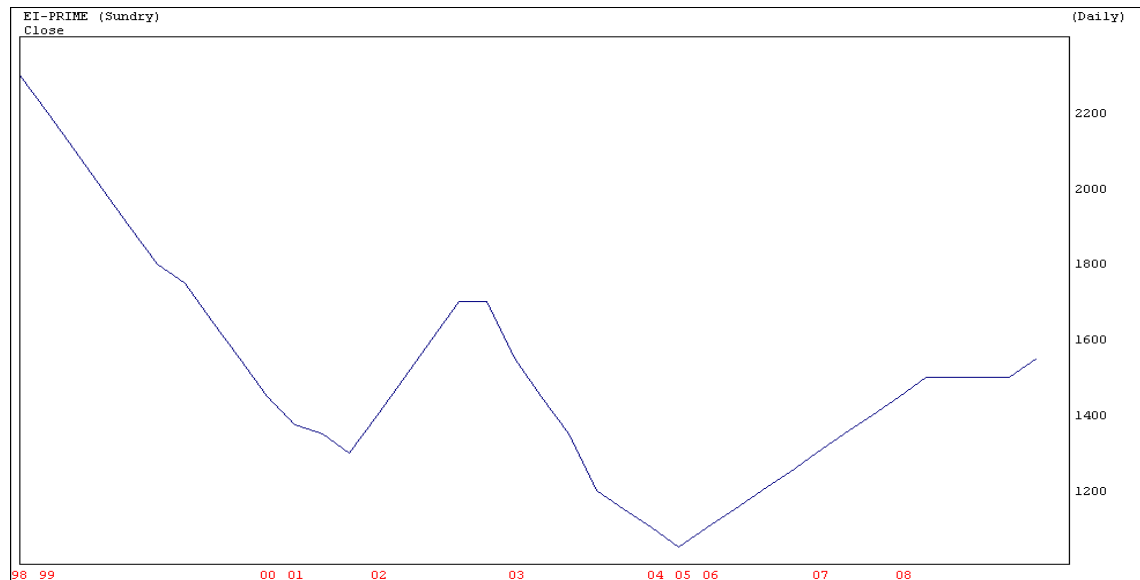
The global economy is no longer theory, it is reality. It has its own dynamic and reality. Although interactions are largely invisible, the effects of disruptions can be felt worldwide (Ohmae, 2005). The impacts of international interaction can clearly be seen. One only needs to look at the sub-prime crisis, liquidity, inflationary pressures on net exports, and the resultant effect of interest rates cycles.

The South African Reserve Bank's policy on inflation targeting when setting interest rates, coupled with the international sub-prime crisis provides a good basis for selecting the banking and retail sector for review. There is a direct impact on these two sectors performances when interest rates are altered.

Looking at the prime overdraft interest rate graph in figure 1 below, it can be seen that the interest rate has been steadily dropping for the period 1998 to 2005, with a slight rise up to 2007. However, during this period share prices for retail and banking companies have been steadily increasing as can be seen from the data provided in tables 1 and 2 below. These tables also reveal that

individual companies, within both the banking sector and retail sector, have varying degrees of successes.

Figure 1: Prime overdraft interest rates for 1998 to 2009



Data source: South African Reserve Bank

Table 1: Share price performance for SA retail companies

COMPANY	Average Annual Growth in share price (1998 - 2007)	Growth in share price (1998-2007)
Woolworths	38%	258%
PicknPayHoldings	21%	367%
PicknPayStores	20%	335%
RexTruform	5%	15%
ShopriteHoldings	19%	207%
SparGroup	35%	80%
TradeHold	-6%	-40%
Truworths	26%	551%
Verimark	257%	220%
Nictus	10%	-45%
JDGroup	13%	42%
KingConsolidated	131%	13%
LewisGroup	-7%	92%
MassMart	48%	883%
MrPrice	20%	-100%
NewClicks	14%	154%
African&Overseas	4%	4%
Cashbuild	50%	1484%
CMH	34%	127%
Foschini	28%	246%
AdvTech	28%	63%

Data source: McGregor BFA, 2007

Table 2: Share price performance for SA banking companies

COMPANY	Average Annual Growth Rate (1998 -2007)	Growth in share price (1998-2007)
Standard	25%	574%
ABSA	18%	184%
Capitec	87%	3116%
Firststrand	13%	146%
Mercantile	-1%	-83%
Nedbank	7%	34%
RMBHolding	14%	134%

Data source: McGregor BFA, 2007

Ballow (2004) showed that share price performance is not a true indication of the value of a company. Share price is dependent on the market, which is merely the aggregate of opinions of various investors and analysts. These investors and analysts might overlook sources of future growth and revenues.

Although it is important for companies to monitor share price performance, it is equally important for companies to identify and monitor true economic performance. One of the methods that can be used is Economic Value Added (EVA®).

Worthington (2004) indicates that EVA® proponents claim that it is the only true metric that ties directly to a share's intrinsic value while Taub (2003) indicates that calculating economic profit, as opposed to accounting profit provides a better understanding as to whether assets are managed well enough to make a profit.

1.3 Problem

EVA® is a performance metric that calculates the creation of shareholder value and is a registered trademark of Stern Stuart, New York. It can be calculated as Net Operating Profit After Tax minus a charge for the opportunity cost of the capital invested. “The firm pioneered the development of its proprietary EVA® (Economic Value Added) framework,” and says, “Economic Value Added is the financial performance measure that comes closer than any other to capturing the true economic profit of an enterprise. EVA® also is the performance measure most directly linked to the creation of shareholder wealth over time (Ferguson, Rentzler and Yu, 2005).

Keef and Roush (2003) further note that the majority of literature on EVA® found in professional journals can be assessed as being supportive of the concept. Keef *et al* (2003) further state that it is hard to escape the conclusion that EVA® meets the corporate need for an accounting-based measure that correlates with shareholder wealth creation.

Whether EVA® can be used to evaluate future share performance has been widely debated. According to Griffith (2006), firms with positive EVA®’s will lead to higher shareholder returns and firms with a zero EVA® will just meet investor expectations. Ferguson *et al* (2005) identified research that indicates EVA® is a reliable guide to the firm’s value and that EVA® can be used to enhance future earnings predictions.

Ferguson et al (2005) also identified research that argues EVA® is just another piece of accounting information, and it has become less relevant to stock returns and stock price changes. Keef *et al* (2003) found no relationship existed between EVA® and stock market performance in their sample of Canadian agribusiness firms.

A major drawback in calculating EVA® is that Stern Stewart has never fully revealed the theoretical basis for their adjustments when calculating EVA® mainly due to proprietary information they provide to their clients. This provides complexity to the problem in that there are up to 164 possible adjustments to accounting numbers, but only a few are really necessary in practice (Keef and Roush, 2003).

The above contradictory findings indicate that a relationship between a listed firm's growth in Economic Value Added (EVA®) and its share price has not been established.

1.4 Aim

The aim of this research is to determine the EVA® for the period 1998 to 2007 for companies listed in the banking and retail sectors of the Johannesburg Securities Exchange (JSE) and to identify if similar EVA®'s were created during this period within each sector. A further aim would be to determine if there is a relationship between EVA® and turnover growth rates, EVA® and share price

growth rates, as well as EVA® and other common performance measures, within the respective sectors.

This research is a replication study and is being built on a study done by Johannes J. Prinsloo at The Gordon Institute of Business Sciences (GIBS) titled: “A comparative analysis of economic value created by South African mining companies in a growing platinum industry.” The main difference is that EVA® was calculated on platinum mining companies and not retail and banking companies.

CHAPTER 2 - THEORY AND LITERATURE REVIEW

2.1 The reasons for measuring EVA®

Ward and Price (2006) stated that the ultimate measure of a business is whether it is creating or destroying wealth for shareholders. Value creation is an economic, not an accounting concept, and, therefore, stock exchange returns will have to be taken into account. The objective of shareholders expecting an increase in share price should not be any different from that of the company's management. However, managers do not really know if the decisions they make are adding value to the company. Hence the use for EVA® (Ward and Price, 2006).

Jalbert and Landry (2003) highlight the following overall advantages and disadvantages of EVA®:

Advantages:

- Explicitly considers the cost of capital
- Allows projects to be viewed independently
- Capitalises expenses that have multi-period benefits
- Provides detail of corporate performance beyond that obtained from market-determined measures

Disadvantages:

- Computations are complex and difficult

- Difficult to allocate EVA® among divisions
- Is not market determined

Kudla and Arendt (2000) further highlight the following advantages and strategies for an EVA® management system in table 3:

Table 3: Advantages and strategies for EVA®

Advantages of an EVA® Management system	Strategies for increasing EVA®
<ul style="list-style-type: none"> • Aligns the interests of managers and shareholders. • Increases the motivation of managers and employees by encouraging them to act like owners. Links manager and employee performance evaluation with compensation. • Provides benefits to all stakeholders, including employees, customers, shareholders and suppliers. 	<ul style="list-style-type: none"> • Increase the return on existing projects. • Invest in new projects that have a return greater than the cost of capital. • Use less capital to achieve the same return. • Reduce the cost of capital. • Liquidate capital or curtail further investment in sub-standard operations where inadequate returns are being earned.

EVA® can also be used for the following purposes:

- To set organisational goals
- Performance measurement
- Determining of bonuses
- Communication with shareholders and investors
- Motivation of managers

- Capital budgeting
- Corporate valuation
- Analysing equities

While taking the above into consideration, Keef *et al* (2003) state that an increase in EVA® on a period by period basis has only a small link with change in market price. However, if ways to increase EVA® are implemented this will ultimately lead to an increase in share price. Thus Stern (2006) stresses that examining the market's assessment of a company's EVA® "should be considered a litmus test of the company's internal plans."

There are only three ways in which to increase a company's EVA®:

- Increase productivity
- Invest new capital in wealth generating projects
- Liquidate underperforming assets

Bardia (2008) noted that there are only three ways in which EVA® can be increased. Firstly, if operating profit grows without employing more capital. Secondly, if further capital is introduced in profitable growth projects. Finally, if activities that do not cover the total cost of capital employed are discontinued.

From the above three points, one can gauge a further benefit of EVA®. It eliminates the confusion created when a firm uses multiple performance measures such as return on equity, earnings per share, return on investments

and net profit margins. EVA® is designed to focus on the top three value drivers and the cost of capital while establishing a basis for incentive compensation and communications with the firm and the investment community ((Kudla and Arendt, 2000). It should be noted that management buy-in is a key pre-requisite for EVA® to work as a performance measure.

Leading on from the above points, Stern (2006) goes on further to state that “EVA® is a company’s strategic plan translated into value,” meaning that when EVA® is declining, a strategic plan can be implemented before unsolicited takeover bids are made.

2.2 Calculation of EVA®

Firer, Ross, Westerfield and Jordan (2004) state that EVA® is calculated as “Net Operating Profit After Tax” less the “Cost of Capital”, mathematically disclosed as follows:

$$\text{EVA}^{\circledR} = \text{NOPAT} - \text{Cost of Capital}$$

The Cost of Capital is further defined as the “Capital Invested” multiplied by the “Weighted Average Cost of Capital”, or:

$$\text{Cost of Capital} = \text{Capital} * \text{WACC}$$

The WACC is actually the weighted average cost of equity and the after-tax cost of debt, or:

$$\text{WACC} = [(\% \text{Debt of TF} \times K_d) + (\% \text{Equity of TF} \times K_e)]$$

Where:

- TF = Total Financing Cost
- K_d = After-tax Cost of debt
- T = Effective tax rate
- K_e = Cost of Equity

Furthermore, in order to calculate the cost of equity (K_e), the Capital Asset Pricing Model (CAPM), takes into consideration the risk free rate of return (RFR) plus the market risk premium (MRP), which is the difference between the return expected in the market place and the best risk-free investment, multiplied by beta. The CAPM model is mathematically stated as follows:

$$K_e = \text{RFR} + B(\text{MRP})$$

Firer *et al* (2004) indicate that beta tells us how much systematic risk a particular asset has relative to an average asset, as the expected return on an asset depends only on that asset's systematic risk. Firer *et al* (2004) goes on further to state that the definition of a systematic risk is a risk that influences a large number of assets, each to a greater or lesser extent while Chernoff (2006) identifies CAPM as a simple equation to express the concept that higher risk accompanies higher rates of return.

Laubscher (2002) defines risk as the extent to which the returns on shares have covariance with the returns on the market which is measured by beta. Beta is the measure of a company's sensitivity to the rise and fall of the economy over time. Moyer, McGuigan and Kretlow (2001) goes on further to say that beta measures the volatility (i.e. the fluctuations in price) of a share and estimates how the expected returns on a share will move relative to the movement in the returns on the market portfolio.

Beta is crucial to the CAPM because it brings together investors' expectations of returns with those of the markets. According to Bowie and Bradfield (1997), it was found that the CAPM can explain JSE share returns and that the evidence supports the beta/return relationship. This empirical evidence provides support to the use of the CAPM model.

EVA® implies that if a company's NOPAT is more than its cost of capital then the company is adding economic value to shareholders. Thus EVA® represents residual income. This is income that is left after investors earn their minimum rate of return which compensates them for the risk incurred by investing in the company (Kudla and Arendt, 2000).

2.3 Limitations to EVA®

Sparling and Turvey (2003) state that investors make investment decisions based on corporate results and expected corporate results. For many, the concept of EVA® is foreign. Others, who understand the general principles of

EVA[®], still must ask whether EVA[®] will be of value in selecting different stocks. A wider move to EVA[®] would have to be preceded by improvements in investor understanding of EVA[®], increased standardization in the application of EVA[®] and more transparency in the adjustments made by firms using EVA[®] (Sparling and Turvey, 2003).

Brewer, Gyan and Hock (1999) highlight the following limitations to measuring EVA[®]. The first is “Financial Orientation”. EVA[®] is a computed number relying on financial accounting methods of revenue recognition and expense recognition. Thus managers can manipulate these numbers by altering their decision making process.

The second is “Size Differences”. Brewer *et al* (1999) indicate that EVA[®] does not control size differences across plants or divisions. A larger plant will tend to have a higher EVA[®] relative to the smaller one and while EVA[®] is more effective than Return On Investments (ROI) at aligning plant managers’ goals with corporate goals, it does not account for size differences across organisational units.

The use of CAPM is a crucial part in the calculation of EVA[®] and studies conducted by Fama & French (2006) concluded that CAPM had “fatal problems throughout the 1926 to 2004 period.” The study highlighted the fact that beta doesn’t significantly explain firm size which is imported to expected returns.

2.4 Return on Equity and EVA®

De Wet and Du Toit (2006) states that Return on Equity (ROE) is perhaps one of the most widely used overall measure for corporate financial performance and is calculated by taking the profit after tax divided by the book value of the company's equity. Equity would only consist of ordinary share capital plus share premium and reserves. ROE can be mathematically disclosed as follows:

$$\text{ROE} = \frac{\text{Earnings}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$$

Thus to improve ROE, profitability has to be improved. However, this may not improve shareholder value. De Wet *et al* (2006) state that shareholder value is created when the equity returns of a company exceed the cost of that equity, or it can be explained as the present value of all future cash flows, less the cost of debt.

De Wet *et al* (2006) highlight some fundamental flaws when using ROE as a measure of performance. Firstly, earnings can be manipulated legally within the Generally Accepted Accounting Practices (GAAP) framework via change in accounting policies.

Secondly, ROE is calculated after the cost of debt, but before taking into account the cost of own capital. Thus ROE increases with more financial gearing, as the return on borrowed funds is higher than the cost of borrowing. The danger here is that gearing beyond a certain point increases financial risk and may cause the value of the company and share price to fall (De Wet and Du Toit, 2006).

Thirdly, looking specifically at asset turnover in calculating ROE, it should be noted that this ratio is affected by inflation. Although sales immediately reflect the impact of inflation, the book value of assets, which includes a mixture of various ageing assets, does not adapt quickly to the effects of inflation. De Wet *et al* (2006) noted that during the 1970's, a study was done on companies included in the Standard and Poor's index and that 400 companies with decreased earnings actually reported increased ROE's. Markets were not misled by improved company ROE's based on asset turnover and gearing. Consequently market returns during that period were poor.

It is further argued that ROE is a short term performance measure and should not be used when in search of long term growth opportunities as a company can still improve its ROE while earning a return that is below its weighted average cost of capital (WACC), and destroying value.

De Wet *et al* (2006) highlighted Miller and Modigliani's theory and model on capital structure which used various levels of WACC, from 0% to 80% of net assets. The results showed that ROE can be increased by using more debt, even at very high levels, relative to equity. However, in contrast, EVA® is highest at a moderate level of long term debt (40% of assets) and, furthermore, it is at this financial structure where the WACC is the lowest, and where the value of the firm will be the highest.

2.5 Earnings per share, Price/Earnings and EVA®

The earnings per share is expressed on a net profit per share basis while the price earnings ratio indicates what the market is prepared to pay for a share based on its perception of future earnings (Firer *et al*, 2004).

Ehrbar (1998) highlights that “companies can manipulate their stock prices by manufacturing earnings numbers is hubris at best, and leads to dishonesty at worst. Ehrbar (1998) continues to state “the practice of constantly trying to please Wall Street with the right earnings number causes corporations to do all manner of dumb things.”

The major criticisms of earnings per share is that there is pressure on firms to make suboptimal decisions and employ questionable practices for calculating and report earnings per share (Sparling and Turvey, 2003). This measure also doesn't provide a clear understanding of the variables that drive value such as operating margins, cost of capital and competitive advantage (Ehrbar, 1998).

2.6 The impact of EVA® on share price performance

Stern (2006) states that share markets are smart because share prices contain valuable information about a firm's expected future performance expressed as the growth in EVA®. Therefore whenever management expect to increase EVA®, which means return on capital exceeds the required return for risk, shareholders will prefer to let their money ride on share ownership (Stern, 2006). In light of these statements, research has been done on EVA® to

provide evidence as to whether the calculation adds value to shareholders, or not.

Kyriazis and Anastassis (2007) analysis of EVA® using companies on the Athens Stock Exchange (ASE) found that although EVA® is a useful performance evaluation tool, it need not necessarily be more correlated with shareholders' value than established accounting variables (e.g. net income, operating income).

Athanassakos (2007) found various differing views on EVA® and its impact on share price performance. Evidence was found that EVA® varies greatly over time and is significantly correlated with accounting variables. This was also contradicted when Athanassakos (2007) found further evidence of a study that shows changes in EVA® explain more of the variation in ten-year stock returns than do changes in earnings, and significantly more of the variation in five year returns. During this study, it was also found that EVA® is a lagging indicator that looks into a company's past performance and provides no information of a company's future performance.

2.7 The South African retail sector

Descriptors of the retail sector

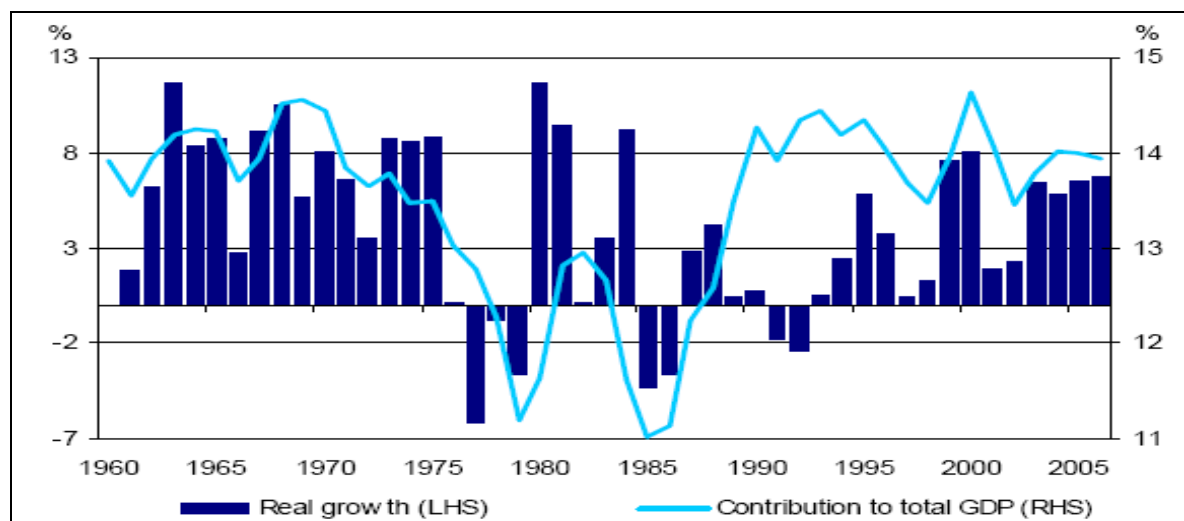
The South African retail sector displays intense competition. This can be seen with the lower pass-through effect by wholesalers resulting in narrower margins

for retailers. This competition is leading to greater integration between wholesalers and retailers as well as product innovation with the coupling of retail services with financial products such as store credit cards. However, overall personal income growth sustained through positive economic factors continue to bolster growth in the long run (Standard Bank, 2007).

Growth of the retail sector

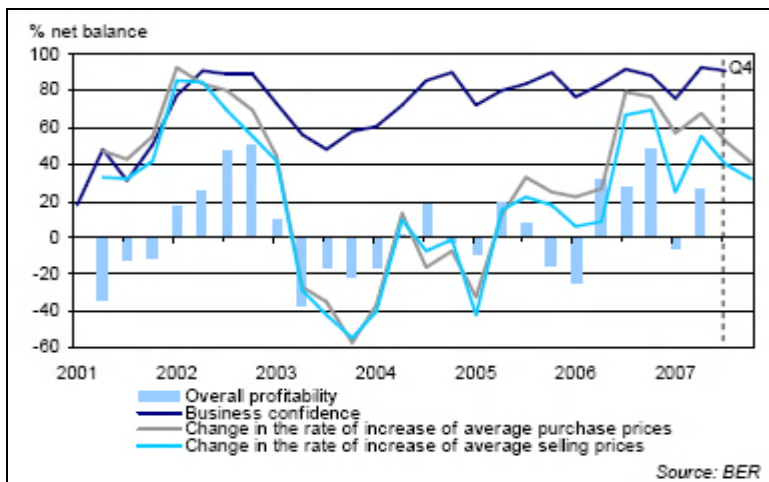
The Standard Bank economic report (2007) continues to state that the retail sector, which generally records positive growth in the region of 13% to 15% of GDP, has benefitted from the countries healthy consumer fundamentals over the past few years until 2007 as disclosed in figures 2 and 3 below. However in 2007, due to inflationary pressure, the interest rate increases has resulted in a decrease in consumer's disposable income and therefore an overall drop in retail profitability as disclosed in figure 3.

Figure 2: Real Economic Growth (wholesale and retail trade)



Data source: Standard Bank Group Economics (The South African Economy by sector, 2007)

Figure 3: Retail performance statistics



Data source: Standard Bank Group Economics (The South African Economy by sector, 2007)

2.8 The South African banking sector

Descriptors of the banking sector

South Africa has a well developed banking system that sets it apart from many other emerging economies. The sector is characterised by a good regulatory and legal framework backed by sophisticated risk-management systems and corporate governance structures. The banking sector is considered to be the eighth most developed among world economies with populations in excess of 20 million individuals (Standard Bank, 2007).

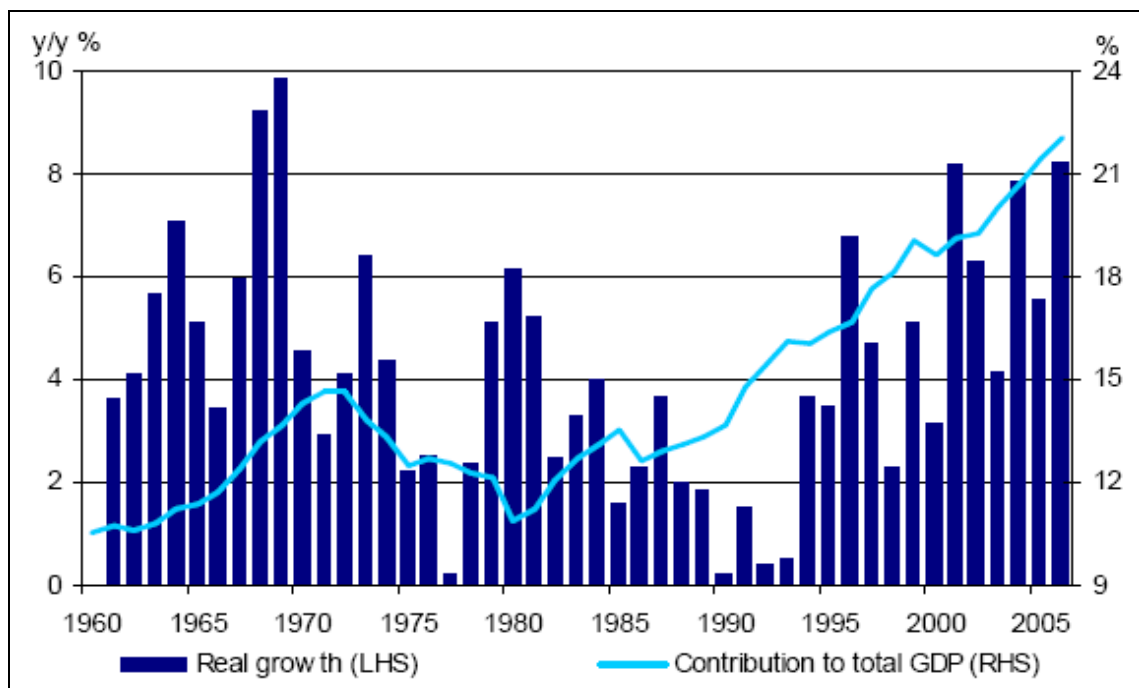
South Africa's political transformation and staggered relaxation of exchange controls and liberalisation of African economies has meant that SA has become an increasingly valuable entry port to Africa (South African Business guidebook, 2006). This bodes well for the SA banking industry as it is well positioned to provide global financial services.

The companies listed in the banking sector on the JSE comprise seven companies. The South African banking sector analysis (2007) indicates that currently there are five major banking groups. Standard, Nedcor, Absa, Firststrand and Investec dominate the South African banking sector collectively controlling 89.4% of total banking assets in the country while other local banks controlling another 2% and the balance controlled by international banks.

Growth of the banking sector

This sector is undeniably the jewel in South Africa's economic crown. From figure 4 below it can be seen that the financial sector has grown from 10% of GDP in 1960 to more than 22% in 2006 (Standard Bank, 2007). However in a favourable macro-financial environment, it constituted as much as 40% of GDP growth.

Figure 4: Real economic growth, Financial Sector



Data source: Standard Bank Group Economics (The South African Economy by sector, 2007)

Due to the favourable conditions existing in this sector, a number of entities have increased investment spending to take full advantage of the demand boom. However, this increase in competition has eroded some of the level of overall sector profitability.

The South African banking industry experienced significant growth during the period 2003 to 2006 with the bulk of revenue arising from taking deposits from the public and corporate sector. In that period the industry experience higher asset growth than the global banking industry.

Even though Kershoff and Thompson (2008) indicate that for the first quarter of 2008 the country's banking sector finds itself in an environment of rising interest rates and falling shares as a result of the turmoil in world financial markets, the following key findings up to the year 2006 were identified in the South African banking industry:

- The year-on-year (YOY) banking industry deposits in South Africa increased by 24.4% in 2006 as compared to a 19.8% YOY hike in 2005.
- During 2002-2006, banking loans grew at a compounded average growth rate (CAGR) of 18.03% due to lower interest rate and rising consumer expenditure in South Africa.
- The number of credit card purchases increased at a CAGR of 13.18% between 2002 and 2006.

- Rising disposable income, along with other factors, will drive the South African banking industry deposits to grow at a projected CAGR of 4.8% by 2011.
- During 2007-2011, net interest income of the South African banking industry is expected to surge at a CAGR of 13.19% due to rising interest margins and soaring return on banking investments.

2.9 Conclusion

From the above, it can be seen that for the period 1998 to 2007 the banking and retail sectors has experienced favourable growth in line with positive economic trends. During this period both industries have become more competitive and hence the need to demonstrate real returns for shareholders. The literature review has identified EVA® as one of the better performance measures to show true operating performance and shareholder wealth creation.

Furthermore, it would be reasonable to expect the companies listed in the banking and retail sectors of the JSE to add economic value in line with the trend of the share price highlighted in tables 1 and 2 of chapter 1.

Therefore, the purpose of this study is to show that companies listed in the banking and retail sector of the JSE were able to add value for shareholders during the period 1998 to 2007. This will be done by correlating EVA® to share price and turnover as well as EVA® to other performance measures.

CHAPTER 3 - RESEARCH HYPOTHESES

From the literature review, with the economic data provided on the retail and banking sector, within the local economy, it can be reasonably assumed that growth rates within each sector should be able to unlock shareholder value.

In this case Economic Value Added (EVA®) has been selected as the measure to use for unlocking shareholder value. The reason for using EVA® and not any of the other more common performance measurement ratios such as return on equity, return on investments and earnings per share has been discussed within the literature review.

The following research hypotheses have been designed based on the review carried out thus far. The hypotheses were designed to test if similar growth rates were experienced by companies within the same sector. Furthermore, tests were done to identify the correlation between EVA® and share price performance within the banking and retail sector.

Hypothesis 1a

H₀: The null hypothesis states that turnover growth rates for banking companies listed on the JSE are similar.

H_A: The alternative hypothesis states that turnover growth rates for banking companies listed on the JSE are not similar.

Hypothesis 1b

H_0 : The null hypothesis states that turnover growth rates for retail companies listed on the JSE are similar.

H_A : The alternative hypothesis states that growth rates for retail companies listed on the JSE are not similar.

Hypothesis 2a

H_0 : The null hypothesis states that EVA® growth rates for banking companies listed on the JSE are similar.

H_A : The alternative hypothesis states that EVA® growth rates for banking companies listed on the JSE are not similar.

Hypothesis 2b

H_0 : The null hypothesis states that EVA® growth rates for retail companies listed on the JSE are similar.

H_A : The alternative hypothesis states that EVA® growth rates for retail companies listed on the JSE are not similar.

Hypothesis 3a

H_0 : The null hypothesis states that the regression coefficient of correlation between EVA® growth and turnover growth for banking companies is zero.

H_A : The null hypothesis states that the regression coefficient of correlation between EVA® growth and turnover growth for banking companies is not zero.

Hypothesis 3b

H_0 : The null hypothesis states that the regression coefficient of correlation between EVA® growth and turnover growth rates for retail companies is zero.

H_A : The null hypothesis states that the regression coefficient of correlation between EVA® growth and turnover growth rates for retail companies is not zero.

Hypothesis 4a

H_0 : The null hypothesis states that the regression coefficient of correlation between EVA® growth and share price growth for banking companies is zero.

H_A : The null hypothesis states that the regression coefficient of correlation between EVA® growth and share price growth for banking companies is not zero.

Hypothesis 4b

H_0 : The null hypothesis states that the regression coefficient of correlation between EVA® growth and share price growth for retail companies is zero.

H_A : The null hypothesis states that the regression coefficient of correlation between EVA® growth and share price growth for retail companies is not zero.

Hypothesis 5a

H_0 : The regression coefficients of correlation between EVA® and other common performance measures of companies listed in the banking sector are zero.

H_A : The regression coefficients of correlation between EVA® and other common performance measures of companies listed in the banking sector are not zero.

Hypothesis 5b

H_0 : The regression coefficients of correlation between EVA® and other common performance measures of companies listed in the retail sector are zero.

H_A : The regression coefficients of correlation between EVA® and other common performance measures of companies listed in the retail sector are not zero.

Hypotheses are tested using the following statistical techniques:

- 5% error level
- Two-tailed t-tests
- Regression analyses

CHAPTER 4 - RESEARCH METHODOLOGY

4.1 Research Design

This research compared the share price performance of companies listed on the JSE to the economic value created. The research also attempted to investigate specific correlations between various accounting ratios and share price performance.

Since numerical data was used, a quantitative research approach was required for this study. According to Leedy (1993, p139) “The nature of the data and the problem for research dictate the research methodology”.

Furthermore, the specific quantitative methodology used was secondary data analysis which had the advantage of being immediately available at a low cost (Leedy, 1993).

This method was also appropriate as it will not uncover conclusive evidence but it will indicate whether there is or is not a relationship between EVA® and share price growth (Zikmund, 2003).

4.2 Population of relevance

A population can be defined as any complete group of people, companies, hospitals, stores, college students, or the like that share some set of characteristics (Zikmund, 2003). In this case the population of relevance

included all retail and banking shares listed on the main board of the JSE between 1998 and still listed in 2008. All calculations relating to EVA® and any share price data was extracted from the McGregor's BFANet database.

4.3 Sampling method and size

Since the retail and banking sectors included a small number of shares it was decided to select all the shares within each sector as the sample size. Thus 100% of the population within these sectors was chosen.

4.4 Data collection process

Financial information relevant to the calculation of EVA® as well as share price performance was extracted from the McGregor's BFA database.

Standardised annual financial statements and supporting financial and performance information for banking and retail shares for the period 1998 to 2008 was used from the McGregor BFA database. Standardised statements, instead of normalised financial statements, were used for research purposes. This was done in order to make the financial results of the companies listed in the retail and banking sector of the Johannesburg Securities Exchange comparable. The standardisation of the financial information is done by the Bureau for Financial Analysis thus making the information complete and accurate.

Companies listed on the JSE often report according to the rules and regulations set out in Generally Accepted Accounting Practices (GAAP) which leads to different ways of reporting financial statements based on individual company interpretation. Hence it is important to note that certain figures in the income statement and balance sheet were changed according to set rules and standards during the standardisation process, which will differ from the company's actual listed financial statements.

Further supporting information was also extracted from various internet websites. Economic data such as interest rates were obtained from the South African Reserve Bank (SARB) published reports. Further retail and banking industry information was obtained from sector reports published on various banking websites.

4.5 Data analysis

Excel was used in order to calculate EVA® and any other valuations required. Models and templates were used in order to standardise the dataset of the individual companies included in the sample. The EVA® calculations for the banking sector and retail sector are included in appendix 1 and 2 respectively. The growth rates for the hypotheses 3 to 5 are included in appendix 3 and 4 for the banking sector and retail sector respectively.

Actual Calculation of EVA®

EVA® was calculated in accordance to Firer, Ross, Westerfield and Jordan (2004) as indicated in section 2.2, where:

$$\text{EVA}^{\circledR} = \text{NOPAT} - \text{Cost of Capital}$$

Net Operating Profit After Tax (NOPAT) was calculated using McGregor's BFA database and adding back the tax portion. The annual tax rate was used for each company. Ward and Price (2006) states that since NOPAT is a true cash measure, book-keeping entries which do not affect actual cash flow must not affect NOPAT.

Thus NOPAT was further adjusted for book entries which do not affect actual cashflow. These adjustments included the adding back of intangible assets as well as goodwill amortised. Goodwill, being the difference between the cost of an investment acquisition and its book value. The accounting convention is to amortise goodwill annually until it is written off. However goodwill was added back for EVA® calculation purposes.

The calculation for the cost of capital was done in accordance with section 2.2.

The following assumptions were made:

- The five to ten year South African government bond rate of 9.37% was used as the risk free rate.
- Actual beta's were obtained from the McGregor's BFA database.

- An estimate of 6% was used for the market risk premium (MRP).
- The market value of equity was used.
- The book value of debt was used after applying the after-tax interest rate.

Table 4: Example of the template used for calculating EVA®

EVA® STANDARD BANK	2007	2006
STEP 1: CALCULATING NOPAT, R		
NOPAT = EBIT - TAX		
Profit Before Interest and Tax (EBIT)	65,379,000	52,433,000
- Tax on Operating Profit (at effective Tax rate of 30%)	19,613,700	15,729,900
=NOPAT (Before Adjustments)	45,765,300	36,703,100
NOPAT EVA Adjustments (Add back Non Cash Items)		
	315,000	278,000
+Intangible Assets Written Off	315,000	263,000
+Amortisation of goodwill	0	15,000
= NOPAT (After Adjustments)	46,080,300	36,981,100
STEP 2: CALCULATE THE COST OF DEBT, Kd		
AFTER TAX COST OF INTEREST		
Interest charge (Income statement)	40,992,000	34,201,000
=-Tax saved on interest	12,297,600	10,260,300
After tax cost of debt	28,694,400	23,940,700
Long Term Loans + Short term interest bearing borrowings	1,086,623,000	851,563,000
Effective Interest Rate, Kd	2.64%	2.81%
STEP 3: CALCULATE THE COST OF EQUITY, Ke		
Ke = CAPM = Rf + (B x MRP)		
Rf (Government Bonds)	9%	9%
Beta (B)	0.53299	0.61617
MRP (6% = expected growth)	6%	6%
Cost of Equity, Ke	12.57%	13.07%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K		
WACC		
Equity:		
Equity (Balance Sheet)	68,502,000	55,244,000
Ke (%)	12.57%	13.07%
Cost of Equity (Rand)	8609290.259	7218744.529
Debt:		
Debt (Balance Sheet)	1,128,404,000	925,665,000
Kd (%)	2.64%	2.81%
Cost of Debt (Rand)	29797708.81	26023991.26
=WACC (Rand)	38406999.07	33242735.78
=WACC (%)	3.2%	3.4%
STEP 5: CALCULATE EVA		
NOPAT	46,080,300	36,981,100
- Cost of Capital	38,406,999	33,242,736
EVA	7,673,301	3,738,364

Statistical Analysis

For statistical analysis, NCSS computer software was used.

Box plots were initially used when comparing turnover growth rates. Analysis of variance, or ANOVA, was selected to further test the hypotheses. ANOVA is a technique to determine if statistically significant differences in means occur between two or more groups (Zikmund, 2003).

More specifically, the Kruskal-Wallis, one-way ANOVA test was done where normality was rejected. The Kruskal-Wallis test is used where three or more groups or populations are compared and the underlying population does not have to be normally distributed (Zikmund, 2003).

Linear regression was used when comparing growth rates between EVA® and share prices or other common performance measures. The resultant correlation coefficient (r) was analysed as follows:

- Where r is +1.0, there is a perfect positive correlation
- Where r is -1.0, there is a perfect negative correlation
- Where r is 0, there is a no correlation

4.6 Research Limitations

The research conducted had the following limitations:

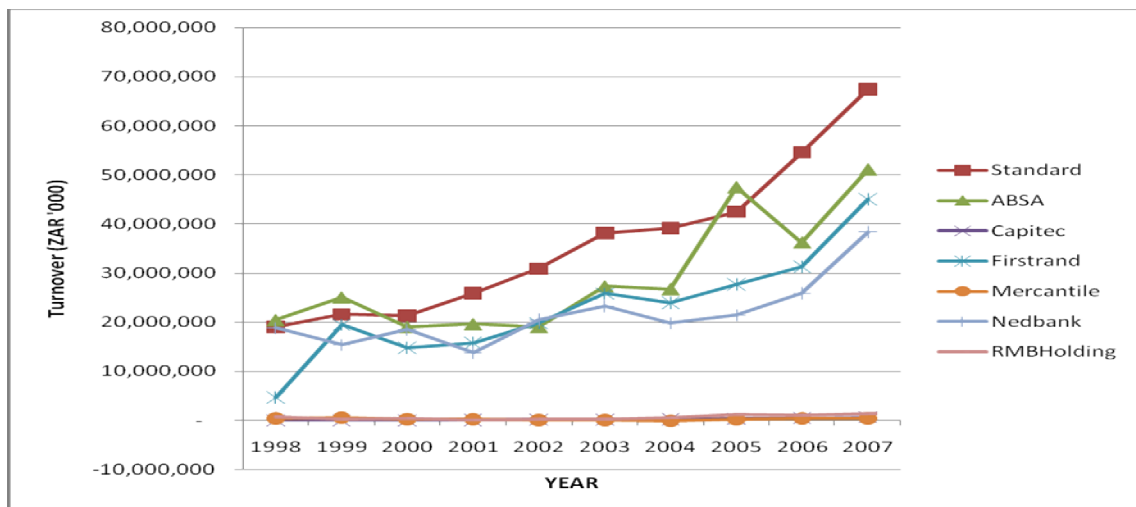
- The research was only conducted on shares listed on the JSE in the retail and banking sectors. Therefore, it will not represent all shares listed on the JSE.
- The statistics were run on all companies within the retail and banking sector at a sector level. The research will not comment on individual companies within these sectors but rather on the sector as a whole.
- The research was done on the above shares from 1998. Therefore it will not take into account other time periods.
- When analysing the data, type 1 and type 2 errors was not reduced as the sample size could not be increased.
- Corporate activities such as mergers and acquisitions were considered as the normal course of business and therefore were not specifically excluded from the analysis.

CHAPTER 5 - RESULTS AND DISCUSSION

5.1 Company turnover growth rates

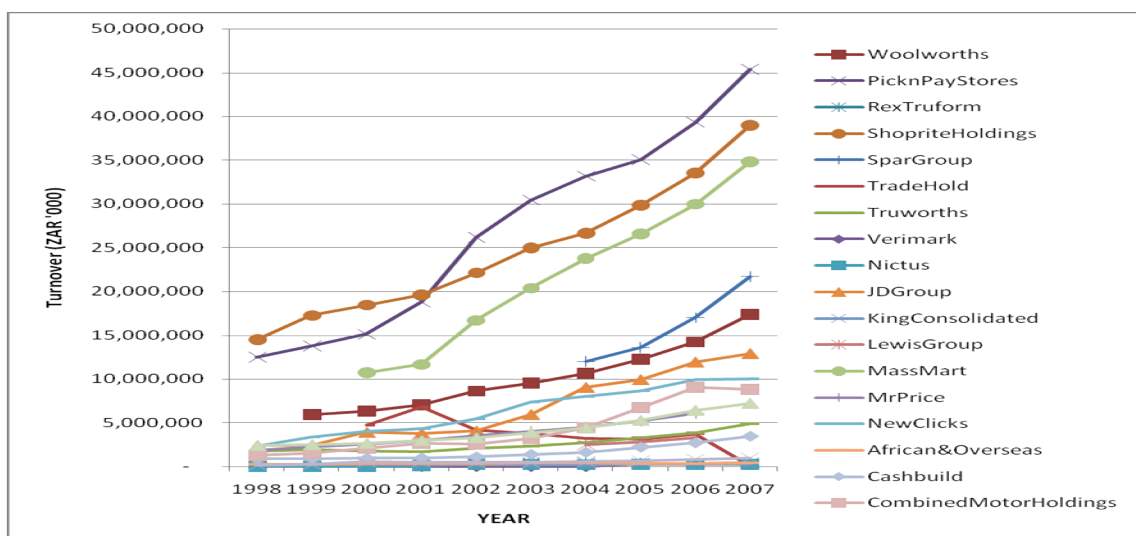
The year-on-year turnover for individual companies is graphically presented below in figures 5 for banking and figure 6 for retail.

Figure 5: Turnover for banking companies



Data source: McGregor's BFA database

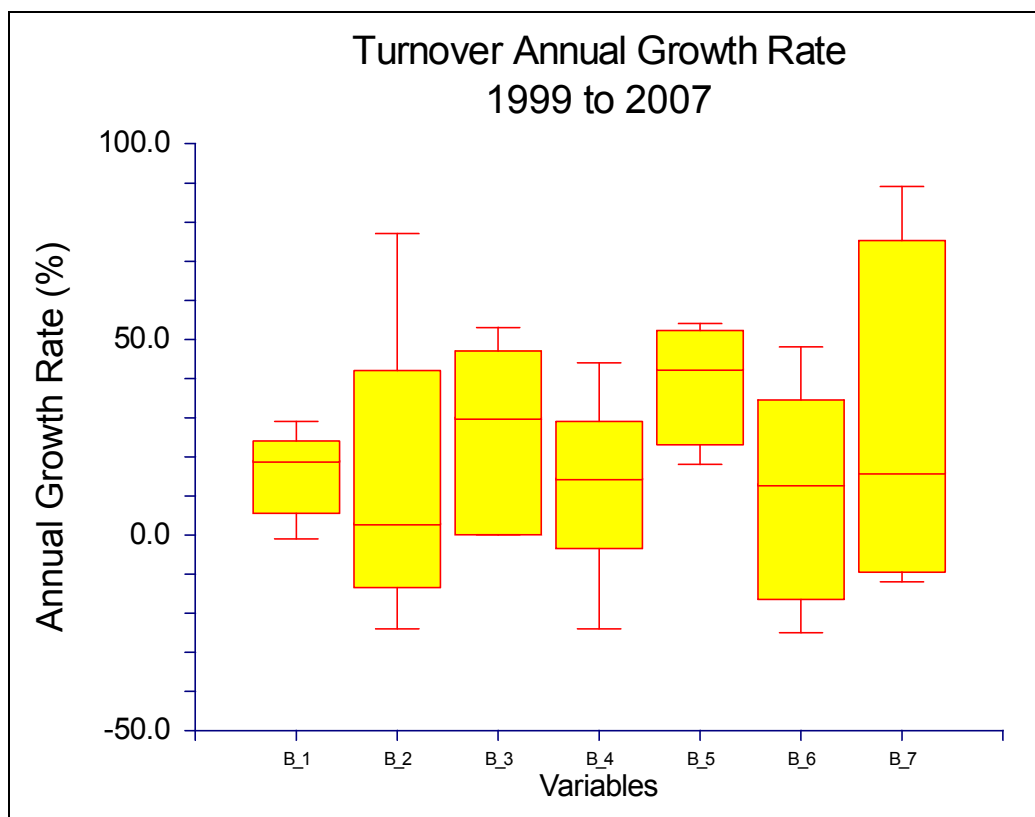
Figure 6: Turnover for retail companies



Data source: McGregor's BFA database

The graphs indicate that turnover showed similar trends in line with real economic growth as presented in section 2.7 and 2.8 and, furthermore, it appears that the turnover growth rates are similar within the banking sector and retail sector. However, according to the box plot diagrams below, it appears that turnover growth rates of companies are more similar within the banking sector than the retail sector.

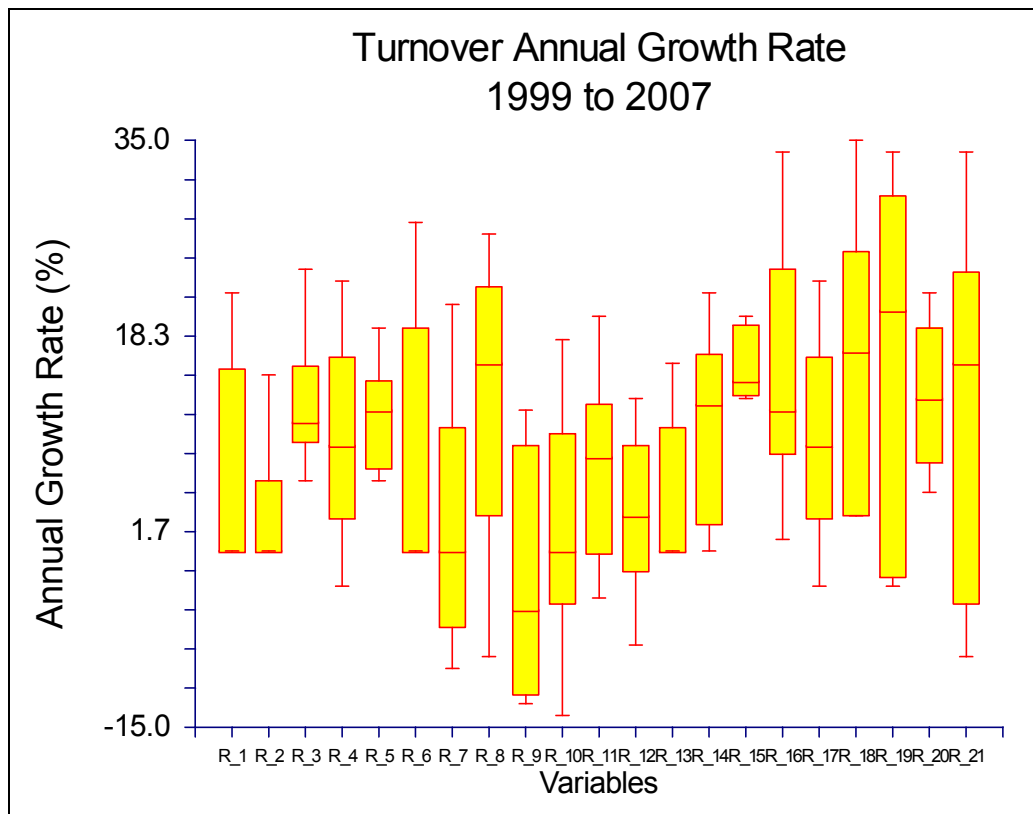
Figure 7: Box Plots of Turnover growth rates (Banking Sector)



Legend:

B_1 Standard	B_2 ABSA	B_3 Capitec	B_4 Firststrand
B_5 Mercantile	B_6 Nedbank	B_7 RMBHolding	

Figure 8: Box Plots of Turnover growth rates (Retail Sector)



Legend:

R_1 Woolworths	R_2 PicknPay Holdings	R_3 PicknPayStores	R_4 RexTruform
R_5 Shoprite	R_6 SparGroup	R_7 Tradehold	R_8 Truworhts
R_9 Verimark	R_10 Nictus	R_11 JDGroup	R_12 KingCo
R_13 LewisGroup	R_14 Massmart	R_15 MrPrice	R_16 NewClicks
R_17 African&Overseas	R_18 Cashbuild	R_19 CMH	R_20 Foschini
R_21 AdvTech			

However, hypothesis testing was used in order to determine if the turnover growth rates are statistically comparable. The results of which are presented below under Hypothesis 1 for retail and Hypothesis 2 for banking.

Note that Pick 'n Pay holdings was excluded from further testing as the groups true operational performance is included in Pick 'n Pay Stores results.

Hypothesis 1a

H_0 : The null hypothesis states that turnover growth rates for banking companies listed on the JSE are similar.

H_A : The alternative hypothesis states that turnover growth rates for banking companies listed on the JSE are not similar.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong at a 95% confidence level.

Hypothesis 1b

H_0 : The null hypothesis states that turnover growth rates for retail companies listed on the JSE are similar.

H_A : The alternative hypothesis states that turnover growth rates for retail companies listed on the JSE are not similar.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong at a 95% confidence level.

Statistical Test:

ANOVA was selected for statistical testing purposes as there were more than two sub-groups. Normality was rejected when performing statistical tests for turnover growth rates and therefore the Kruskal-Wallis one-way ANOVA test was selected. The results are displayed below in table 5 for banking and table 6 for retail.

Table 5: NCSS Statistical output for banking turnover annual growth rates

Tests of Assumptions Section				
Assumption	Test Value	Prob Level	Decision (0.05)	
Skewness Normality of Residuals	3.6878	0.000226	Reject	
Kurtosis Normality of Residuals	5.0950	0.000000	Reject	
Omnibus Normality of Residuals	39.5587	0.000000	Reject	
Modified-Levene Equal-Variance Test	2.7917	0.019047	Reject	
Kruskal-Wallis One-Way ANOVA on Ranks				
Hypotheses				
H0: All medians are equal.				
Ha: At least two medians are different.				
Test Results				
Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	6	2.901455	0.821110	Accept H0
Corrected for Ties	6	2.902848	0.820938	Accept H0

Table 6: NCSS Statistical output for retail turnover annual growth rates

Tests of Assumptions Section				
Assumption	Test Value	Prob Level	Decision (0.05)	
Skewness Normality of Residuals	16.4302	0.000000	Reject	
Kurtosis Normality of Residuals	10.5697	0.000000	Reject	
Omnibus Normality of Residuals	381.6720	0.000000	Reject	
Modified-Levene Equal-Variance Test	1.0388	0.419971	Accept	
Kruskal-Wallis One-Way ANOVA on Ranks				
Hypotheses				
H0: All medians are equal.				
Ha: At least two medians are different.				
Test Results				
Method	DF	Chi-Square (H)	Prob Level	Decision(0.05)
Not Corrected for Ties	20	38.65434	0.007359	Reject H0
Corrected for Ties	20	38.86379	0.006932	Reject H0

Test Result:

The Banking Sector

The Kruskal Wallis test resulted in a probability of 0.82 as presented in table 5 above. Thus the null hypothesis cannot be rejected.

The Retail Sector

The Kruskal Wallis test resulted in a probability of 0.007 as presented in table 6 above. Thus the null hypothesis can be rejected.

Conclusion:

The Banking Sector

The null hypothesis was not rejected at the 95% confidence level. Therefore it can be concluded that there is no significant difference between the means of the turnover growth rates for companies in the banking sector respectively. This result is in line with what was discussed in section 2.8.

The Retail Sector

The null hypothesis was rejected at the 95% confidence level. Therefore it can be concluded that there is a significant difference between the means of the turnover growth rates for companies in the retail sector respectively. This result is not in line with what was discussed in section 2.8. This could be as a result of the different types of companies listed within the retail sub-sectors which include food and drug retailers, as well as general retailers.

5.2 EVA® for respective companies

The Economic Value Added (EVA®) was calculated for each company as of listing date in the banking and retail sector on the Johannesburg Securities Exchange (JSE). The calculations were done in line with the guidelines explained in chapter 4. The detail calculations are appended in appendix 1 for banking and appendix 2 for retail. The final EVA® values are presented in table 7 for banking companies and table 8 for retail below companies.

Table 7: Economic Value Added for SA Banking companies

COMPANY	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ABSA	-170,629	-368,943	-462,894	134,743	-1,295,575	-516,609	-857,346	4,518,262	1,621,712	1,531,865
Capitec				-112,001	-25,461	-15,910	-20,968	16,971	-100,628	-409,068
FirstRand	-1,602,460	-5,473,311	-3,970,803	-4,043,047	-4,549,329	-5,846,549	-4,300,640	-3,227,669	-186,927	-1,037,022
Mercantile	-20,443	-40,817	-217,948	-117,045	-332,678	-62,319	-211,743	-32,901	-15,202	3,166
Nedbank	441,829	302,696	2,573,644	-1,850,421	-2,004,867	-2,380,704	-1,262,236	-655,914	-424,027	23,511
RMBHolding	-611,820	-1,355,914	-1,319,013	-2,628,354	-2,094,157	-2,032,498	-2,399,071	-3,101,773	-4,663,095	-5,965,675
Standard	4,371,254	3,665,992	-410,057	-1,136,321	443,578	2,068,388	-1,484,473	771,041	3,738,364	7,673,301
Average	401,288	-545,049	-634,512	-1,393,207	-1,408,356	-1,255,171	-1,505,211	-244,569	-4,258	260,011

Table 8: Economic Value Added for SA Retail companies

COMPANY	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AdvTech	-21,691	130,128	-40,414	-41,919	33,737	-16,194	-8,178	-2,755	27,158	26,016
African&Overseas	3,420	-4,867	-3,744	-9,890	-9,063	-2,193	-8,446	7,762	-2,760	-684
Cashbuild	-189,958	-41,473	-221,899	-1,033,665	-238,795	-2,095,440	-353,740	-5,409,838	-335,634	-640,341
CombinedMotorHoldings	-65,953	-26,444	-105,835	-345,839	-444,140	-1,613,051	-2,708,030	-4,950,815	-6,551,334	-9,462,822
Foschini	-69,151	-112,977	-106,135	-170,974	-144,059	-21,889	87,744	371,540	611,973	723,266
JDGroup	12,095	-37,815	95,780	-2,416	-101,880	-287,556	101,905	322,935	493,142	-19,069
KingConsolidated	-15,633	29,774	-5,896	-6,757	-8,611	-15,608	-4,734	-3,381	-1,462	-4,318
LewisGroup								83,549	105,042	306,747
MassMart			-1,583,002	-955,694	-27,375	-282,223	-79,005	105,606	14,653	-92,406
MrPrice		-7,072,510	-1,211,279	-54,392	-47,595	-284,039	-86,701	-4,145,404	208,301	255,187
NewClicks		-39,617,154	-15,331,862	-200,568	-654,781	-1,713,263	-503,108	-12,936,450	-770,563	-571,167
Nictus	-5,456	-5,687	-1,448	-1,096	-7,731	-5,550	-22,994	-11,476	-16,305	-18,442
PicknPayStores	-38,582	-489,906	-39,748	-60,248	158,514	36,502	132,754	491,626	-266,677	315,505
RexTruform	-9,448	164	-4,991	-13,298	-11,757	-5,464	-11,198	7,115	-1,801	-2,076
ShopriteHoldings	-603,107	-805,353	-2,472,376	-4,641,539	-4,882,690	98,082	-20,658,657	162,675	32,977	-18,329,637
SparGroup							265,835	196,185	126,531	-70,745,541
TradeHold			-100,972	-1,314,808	-711,667	-278,198	-99,101	-165,563	-283,922	-15,864
Truworths	69,903	38,206	-39,567	110,970	188,448	216,150	364,906	464,236	628,536	805,981
Verimark		-4,049	-1,171	633	-3,489	-4,360	305	2,374	6,298	-3,529
Woolworths		-996,117	-1,116,207	-2,535,028	-1,488,576	92,964	165,865	404,818	410,524	325,925
Average	-77,797	-3,063,505	-1,238,376	-626,474	-466,751	-343,407	-1,232,873	-1,250,263	-278,266	-4,857,364

Hypothesis testing was used in order to determine if the EVA®'s for the respective companies can be statistically compared. The results are presented below:

Hypothesis 2a

H₀: The null hypothesis states that EVA® growth rates for banking companies listed on the JSE are similar.

H_A: The alternative hypothesis states that EVA® growth rates for banking companies listed on the JSE are not similar.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong at a 95% confidence level.

Hypothesis 2b

H₀: The null hypothesis states that EVA® growth rates for retail companies listed on the JSE are similar.

H_A: The alternative hypothesis states that EVA® growth rates for retail companies listed on the JSE are not similar.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong at a 95% confidence level.

Statistical Test:

The normal ANOVA test was selected as there are more than two sub-groups and also both normality and equal variance were accepted. The tests of assumptions are presented below in table 9 for banking companies and table 10 for retail companies.

Table 9: NCSS Statistical output for banking EVA® annual growth rates

Tests of Assumptions Section						
Response	B_1,B_2,B_3,B_4,B_5,B_6,B_7					
Assumption		Test Value	Prob Level	Decision (0.05)		
Skewness Normality of Residuals		-1.5421	0.123053	Accept		
Kurtosis Normality of Residuals		3.2302	0.001237	Reject		
Omnibus Normality of Residuals		12.8124	0.001651	Reject		
Modified-Levene Equal-Variance Test		0.7640	0.601239	Accept		
Analysis of Variance Table						
Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0.05)
A (...)	6	490016	81669.33	1.36	0.245982	0.488785
S(A)	56	3358095	59965.98			
Total (Adjusted)	62	3848111				
Total	63					
* Term significant at alpha = 0.05						

Table 10: NCSS Statistical output for retail EVA® annual growth rates

Analysis of Variance Report						
Response: R_1,R_10,R_11,R_12,R_13,R_14,R_15,R_16,R_17,R_18,R_19,R_2,R_20,R_21,R_3, R_4,R_5,R_6,R_7, R_8,R_9						
Tests of Assumptions Section						
Assumption		Test Value	Prob Level		Decision (0.05)	
Skewness Normality of Residuals		-11.6963	0.000000		Reject	
Kurtosis Normality of Residuals		8.6649	0.000000		Reject	
Omnibus Normality of Residuals		211.8848	0.000000		Reject	
Modified-Levene Equal-Variance Test		1.8803	0.022603		Reject	
Analysis of Variance Table						
Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0.05)
A (...)	20	1.431042E+09	7.155209E+07	1.99	0.011164*	0.977851
S(A)	134	4.809005E+09	3.58881E+07			
Total (Adjusted)	154	6.240047E+09				
Total	155					
* Term significant at alpha = 0.05						

Test Result:

The Banking Sector

The resultant probability from the ANOVA test performed was 0.25, as disclosed in table 9. Therefore the null hypothesis cannot be rejected.

The Retail Sector

The resultant probability from the ANOVA test performed was 0.01, as disclosed in table 10. Therefore the null hypothesis can be rejected.

Conclusion:

The Banking Sector

Since the null hypothesis cannot be rejected at the 95% confidence level, it can be concluded that the difference between the means of the EVA® growth rates of companies in the banking sector are similar.

The Retail Sector

Since the null hypothesis was rejected at the 95% confidence level, it can be concluded that the difference between the means of the EVA® growth rates for companies in the retail sector are not similar.

5.3 EVA® and turnover

Growth rates in turnover and EVA® were compared. This was done to determine if there was any statistically significant correlation between EVA® growth rates and turnover growth rates.

Linear regression was used to determine if there were statistically significant correlations between EVA® growth and turnover growth.

Hypothesis 3a

H_0 : The null hypothesis states that the regression coefficient of correlation between EVA® growth and turnover growth for banking companies is zero.

H_A : The null hypothesis states that the regression coefficient of correlation between EVA® growth and turnover growth for banking companies is not zero.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong at the 95% confidence level.

Statistical Test:

Linear regression was used to test for correlation.

Test Result:

The results of the linear regression are presented below in table 11.

Table 11: NCSS Regression Analysis for banking companies

Linear Regression Report					
Parameters	Null Hypothesis (H_0)	T-Value	Probability Level	R^2	Reject H_0 (Alpha=0.05)
EVA Growth vs. Turnover Growth	Slope is zero	0.6051	0.5475	0.0799	No
EVA Growth vs. Turnover Growth (Excl. Outliers)	Slope is zero	1.8831	0.0652	0.2504	No

Conclusion:

The results obtained from the linear regression indicate that there is statistically insufficient evidence to reject the null hypothesis for EVA® growth vs. Turnover growth for banking shares listed on the JSE. This result holds true even when the outliers are removed from the test. This result suggests that there isn't a significant correlation between EVA® growth and turnover growth for the banking shares listed on the Johannesburg Securities Exchange (JSE).

Hypothesis 3b

H_0 : The null hypothesis states that the regression coefficient of correlation between EVA® growth and turnover growth rates for retail companies is zero.

H_A : The null hypothesis states that the regression coefficient of correlation between EVA® growth and turnover growth rates for retail companies is not zero.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong (95% confidence level).

Statistical Test:

Linear regression was used to test for correlation.

Test Result:

The results of the linear regression are presented below in table 12.

Table 12: NCSS Regression Analysis for retail companies

Parameters	Null Hypothesis (H ₀)	T-Value	Probability Level	R ²	Reject H ₀ (Alpha=0.05)
EVA Growth vs. Turnover Growth	Slope is zero	0.2436	0.8079	0.0198	No
EVA Growth vs. Turnover Growth (Excl. Outliers)	Slope is zero	-0.8411	0.4016	-0.0683	No

Conclusion:

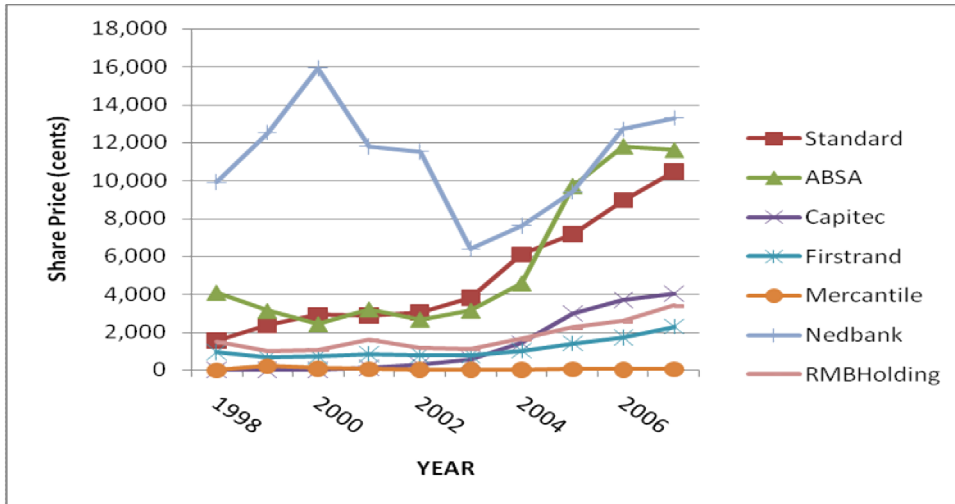
The results obtained from the linear regression indicate that there is statistically insufficient evidence to reject the null hypothesis for EVA® growth vs. Turnover growth for retail shares listed on the JSE. This result holds true even when the outliers are removed from the test. This result suggests that there isn't a significant correlation between EVA® growth and turnover growth for the retail shares listed on the Johannesburg Securities Exchange (JSE).

5.4 EVA® and company share price

Annual year end share prices for companies listed in the banking and retail sector are presented below in figure 9 and figure 10 respectively, while table 13 and 14 indicates the annual percent change is share price together with

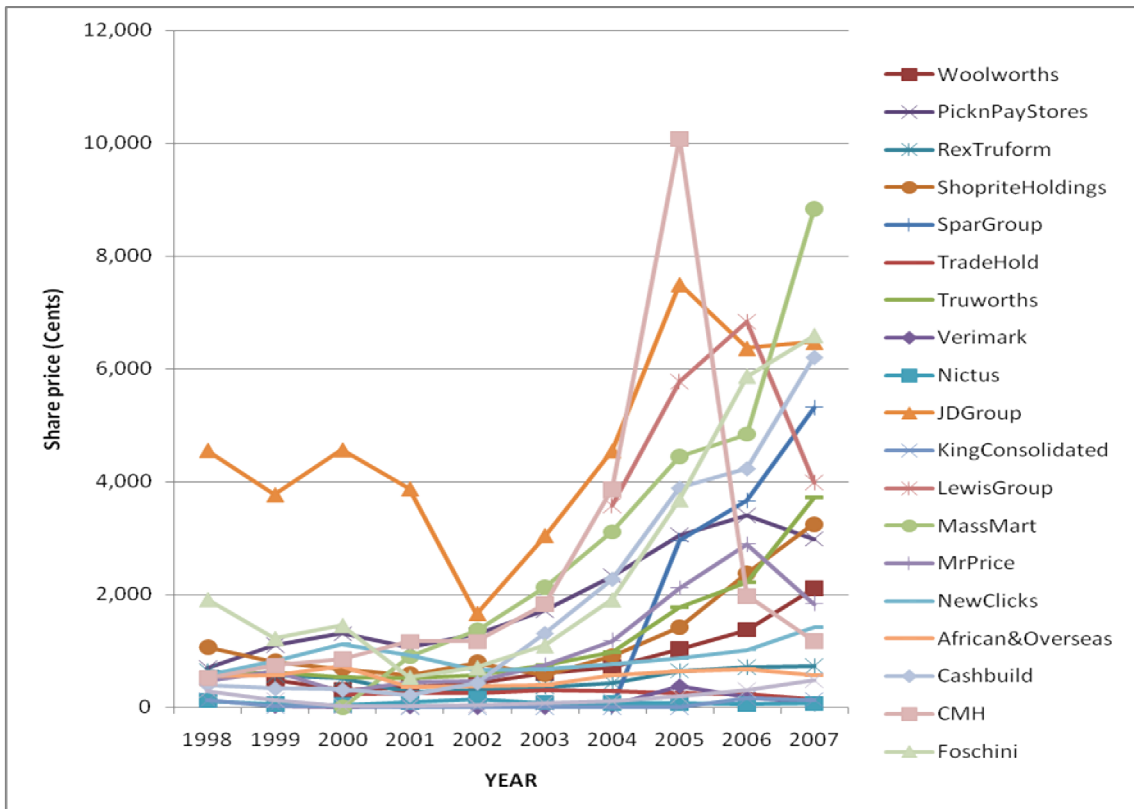
average annual growth rates and cumulative growth rates for banking and retail shares respectively.

Figure 9: Banking share price performance (1998 to 2007)



Data source: McGregor's BFA database

Figure 10: Banking share price performance (1998 to 2007)



Data source: McGregor's BFA database

Table 13: Share performance of banking companies

COMPANY	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average Annual Growth Rate	Cumulative Growth Rate
Standard	52%	24%	-2%	7%	25%	60%	18%	25%	17%	25%	574%
ABSA	-24%	-22%	32%	-17%	18%	46%	112%	21%	-2%	18%	184%
Capitec				103%	124%	148%	111%	23%	9%	87%	3116%
Firstrand	-30%	9%	19%	-8%	-1%	32%	39%	21%	34%	13%	146%
Mercantile		-59%	-65%	-61%	36%	0%	133%	-26%	31%	-1%	-83%
Nedbank	26%	27%	-26%	-2%	-44%	19%	23%	35%	5%	7%	34%
RMBHolding	-33%	4%	54%	-27%	-4%	49%	38%	15%	33%	14%	134%

Data source: McGregor's BFA database

Table 14: Share performance of retail companies

COMPANY	1999	2000	2001	2002	2003	2004	2005	2006	2007	Avg Annual Growth Rate	Cumulative Growth Rate
Woolworths		-38%	17%	24%	38%	20%	45%	33%	54%	24%	258%
PicknPayStores	60%	18%	-19%	22%	33%	36%	31%	11%	-12%	20%	335%
RexTruform	-10%	-10%	-47%	16%	14%	19%	50%	9%	3%	5%	15%
ShopriteHoldings	-24%	-15%	-15%	36%	-27%	58%	56%	68%	37%	19%	207%
SparGroup								24%	45%	35%	80%
TradeHold			7%	0%	18%	-9%	-8%	-12%	-36%	-6%	-40%
Truworths	9%	-13%	-4%	9%	32%	32%	80%	25%	68%	26%	551%
Verimark		-75%	100%	-90%	200%	900%	1137%	-54%	-63%	257%	220%
Nictus	-55%	-40%	167%	75%	-46%	-7%	-14%	-25%	33%	10%	-45%
JDGroup	-17%	21%	-15%	-57%	84%	49%	65%	-15%	2%	13%	42%
KingConsolidated	-81%	-13%	-60%	-13%	0%	-29%	140%	1250%	-17%	131%	13%
LewisGroup							62%	19%	-42%	13%	92%
MassMart				53%	55%	46%	43%	9%	83%	48%	883%
MrPrice	37%	-58%	62%	5%	60%	58%	79%	37%	-37%	27%	284%
NewClicks	45%	37%	-18%	-29%	2%	15%	13%	18%	40%	14%	154%
African&Overseas	4%	27%	-50%	5%	5%	44%	13%	5%	-16%	4%	4%
Cashbuild	-16%	-6%	-32%	103%	204%	73%	71%	9%	47%	50%	1484%
CMH	43%	16%	36%	0%	57%	111%	161%	-80%	-41%	34%	127%
Foschini	-36%	19%	-64%	33%	56%	75%	93%	60%	12%	28%	246%
AdvTech	-53%	-79%	-17%	46%	117%	55%	71%	48%	61%	28%	63%

Data source: McGregor's BFA database

When reviewing the tables above, no overall trend could be identified when comparing average annual growth rates and cumulative growth rates between companies in both sectors.

However in chapter 2 it was highlighted that EVA® supporters, promote EVA® as a good proxy for share price growth. This was supported by studies which indicated that EVA® correlates well with share price growth. Therefore, linear

regression was used to test if there was any significant correlation between EVA® and share price growth. The test was performed specifically on banking and retail shares listed on the JSE.

Hypothesis 4a

H₀: The null hypothesis states that the regression coefficient of correlation between EVA® growth and share price growth for banking companies is zero.

H_A: The null hypothesis states that the regression coefficient of correlation between EVA® growth and share price growth for banking companies is not zero.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong (95% confidence level).

Statistical Test:

Linear regression was used to test for correlation.

Test Result:

The results of the linear regression are presented below in table 15.

Table 15: NCSS regression analysis output for Share Price vs. EVA® in the banking sector

Parameters	Null Hypothesis (H ₀)	T-Value	Probability Level	R ²	Reject H ₀ (Alpha=0.05)
EVA Growth vs. Share Price growth	Slope is zero	2.5178	0.0146	0.3164	Yes

Conclusion:

The results obtained from the linear regression indicate that there is statistically enough evidence to reject the null hypothesis and therefore suggests that is significant correlation between EVA® and share price growth for companies listed within the banking sector of the JSE.

Hypothesis 4b

H₀: The null hypothesis states that the regression coefficient of correlation between EVA® growth and share price growth for retail companies is zero.

H_A: The null hypothesis states that the regression coefficient of correlation between EVA® growth and share price growth for retail companies is not zero.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong (95% confidence level).

Statistical Test:

Linear regression was used to test for correlation.

Test Result:

The results of the linear regression are presented below in table 16.

Table 16: NCSS regression analysis output for Share Price vs. EVA® in the retail sector

Parameters	Null Hypothesis (H ₀)	T-Value	Probability Level	R ²	Reject H ₀ (Alpha=0.05)
EVA Growth vs. Share Price growth	Slope is zero	0.0710	0.9435	0.0058	No

Conclusion:

The results obtained from the linear regression indicate that there is statistically insufficient evidence to reject the null hypothesis and therefore suggests that there is insignificant correlation between EVA® and share price growth for companies listed in the retail sector of the JSE.

5.5 EVA® and other performance measures

Investment decisions are made using a wide range of performance measures or indicators which are calculated from company annual financial reports. These include Price/Earnings ratio, Earnings per share, Return on Assets, and Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA). Not all these measures address the cost of capital in the same way. That is why it is important to determine how EVA® correlates with these measures as EVA® is a true measure of economic value added as it accounts for the cost of capital.

Appendix 3 and 4 indicates the list of measures along with the actual numbers that were used to test against EVA®. The calculations were all obtained from the McGregors BFA database. Linear regression was used to test if there was any significant correlation between EVA® and the conventional measures. The test was performed specifically on banking and retail shares listed on the JSE.

Hypothesis 5a

H_0 : The regression coefficients of correlation between EVA® and other common performance measures of companies listed in the banking sector are zero.

H_A : The regression coefficients of correlation between EVA® and other common performance measures of companies listed in the banking sector are not zero.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong (95% confidence level).

Statistical Test:

Linear regression was used to test for correlation.

Test Result:

The results of the linear regression are presented below in table 17.

Table 17: NCSS regression analysis output for EVA® vs. common performance measures in the banking sector

Parameters	Null Hypothesis (H_0)	T-Value	Probability Level	R^2	Reject H_0 (Alpha=0.05)
EVA Growth vs. P/E Growth	Slope is zero	-0.1057	0.9160	-0.008	No
EVA Growth vs. EPS Growth	Slope is zero	-0.1756	0.8609	-0.0143	No
EVA Growth vs. ROA Growth	Slope is zero	0.2576	0.7970	0.0210	No
EVA Growth vs. EBITDA	Slope is zero	0.2651	0.7913	0.0216	No

Conclusion:

The results obtained from the linear regression indicate that there is statistically insufficient evidence to reject the null hypothesis and therefore suggests that there is insignificant correlation between EVA® and other conventional performance measures within the banking sector.

Hypothesis 5b

H_0 : The regression coefficients of correlation between EVA® and other common performance measures of companies listed in the retail sector are zero.

H_A : The regression coefficients of correlation between EVA® and other common performance measures of companies listed in the retail sector are not zero.

Significance Level: The null hypothesis will be rejected if there is a less than 5% chance of being wrong (95% confidence level).

Statistical Test:

Linear regression was used to test for correlation.

Test Result:

The results of the linear regression are presented in table 18.

Table 18: NCSS regression analysis output for EVA vs. common performance measures in the retail sector

Parameters	Null Hypothesis (H_0)	T-Value	Probability Level	R^2	Reject H_0 (Alpha=0.05)
EVA Growth vs. P/E Growth	Slope is zero	-0.1290	0.8975	-0.0105	No
EVA Growth vs. EPS Growth	Slope is zero	-0.1799	0.8575	-0.0146	No
EVA Growth vs. ROA Growth	Slope is zero	-0.1852	0.8533	-0.0151	No
EVA Growth vs. EBITDA	Slope is zero	0.1166	0.9074	0.0095	No

Conclusion:

The results obtained from the linear regression indicate that there is statistically insufficient evidence to reject the null hypothesis and therefore suggests that there is insignificant correlation between EVA® and other conventional performance measures.

CHAPTER 6 - CONCLUSION

During the research process, it has been established that EVA® is widely used by investors and analysts as a measure of company performance when deciding on which shares to invest in. Furthermore, it has also been established that extensive research was done on EVA® and share price performance with varying views on whether EVA® leads to share price growth.

The aim of this research was to determine whether a positive EVA® leads to growth in its share price, specifically for retail and banking shares listed on the Johannesburg Securities Exchange (JSE) by performing statistical tests on turnover growth rates, EVA® growth rates, EVA® and Turnover, EVA® and share price growth and finally EVA® and other common performance measures.

6.1 Turnover Growth Rates

Hypothesis testing was used to determine if the companies in the retail and banking sectors were able to grow their turnovers in line with each other as well as the overall sector as indicated in section 2.7 and 2.8.

After analysing the results, this study found that companies within the banking sector were able to grow its turnover rates at statistically similar rates whereas companies within the retail sector were unable to grow its turnover rates at statistically similar rates.

6.2 Economic Value Added (EVA®)

Based on the above finding where turnover growth rates were found to be statistically similar for the banking sector while not for the retail sector, it was expected that EVA® growth rates would be statistically similar for the banking sector, but not for the retail sector. Hypothesis testing was done and it was indeed found that EVA® growth rates for the banking sector were statistically similar while not for the retail sector.

Thereafter, statistical testing was done comparing the EVA® growth rates to the turnover growth rates for the banking and retail sector of JSE. No statistical correlation could be found between EVA® growth and turnover growth rates for both, the banking sector and the retail sector.

6.3 Economic Value Added and Share Price

Hypothesis testing was also done to identify whether there is a correlation between EVA® and share price growth. Young and O'Byrne (2000) acknowledge that shareholders make funds available to companies with the expectation of gaining a return. Based on this, it would be expected that share price growth would correlate well with EVA®.

Linear regression was used to determine the correlation between share price and EVA® for the banking sector as well as the retail sector. Significant correlation was found between EVA® and share price within the banking sector

however there was insufficient statistical evidence to confirm correlation between EVA® and share price within the retail sector.

6.4 Other performance measures

Since most companies still rely on other more common performance measures as a tool for analysis, further statistical tests were done between EVA® and these measures. Common performance measures were limited to Price/Earnings (P/E), Earnings per share (EPS), Return on Assets (ROA) and Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA). It was found that the correlation between EVA® and these more common performance measures were statistically insignificant for both the banking sector and retail sector.

6.5 Recommendation

While taking the above statistical data analysis into consideration, it is recommended that EVA® be used as indicator for predicting future performance of share prices within the banking sector however not for the retail sector of the Johannesburg Stock Exchange.

However it should be noted that analysis was only performed on banking and retail shares listed on the JSE for the period 1998 to 2007. Furthermore corporate activities such as mergers and acquisitions were considered as the normal course of business.

6.6 Future Research

This study specifically focused on EVA® within the banking and retail sector of companies listed on the Johannesburg Securities Exchange (JSE) for the period 1998 to 2007. It would be interesting if future research was to be conducted on other sectors within the JSE or if the time period of the research was to be expanded.

Statistical analysis was also performed on the banking and retail sector in its entirety. It would be interesting if research was done on individual companies within subsectors. For example, companies within the retail sector are subdivided into food and drug retailers as well as general retailers. This could possibly be the reason why no significant correlation was found between EVA® growth and share price growth in the retail sector.

It would also be of interest to identify correlations of EVA® and share price in a high interest rate environment and a low interest rate environment as the interest rate plays a vital role in the Capital Asset Pricing Model (CAPM) and the calculation of the Weighted Average Cost of Capital (WACC) which in turn plays an integral role in calculating EVA®.

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APPENDICES

1 EVA calculations for banking shares listed on the JSE

EVA® STANDARD BANK	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	65,379,000	52,433,000	39,871,000	36,504,000	36,207,000	29,216,000	24,285,000	19,887,000	18,255,000	18,346,000
- Tax on Operating Profit (at effective Tax rate of 30%)	19,613,700	15,729,900	11,961,300	10,951,200	10,862,100	8,764,800	7,285,500	5,966,100	5,476,500	5,503,800
=NOPAT (Before Adjustments)	45,765,300	36,703,100	27,909,700	25,552,800	25,344,900	20,451,200	16,999,500	13,920,900	12,778,500	12,842,200
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	315,000	278,000	689,000	257,000	448,000	278,000	95,000	0	2,815,000	36,000
+Amortisation of goodwill	0	15,000	421,000	100,000	212,000	165,000	65,000	0	2,815,000	36,000
= NOPAT (After Adjustments)	46,080,300	36,981,100	28,598,700	25,809,800	25,792,900	20,729,200	17,094,500	13,920,900	15,593,500	12,878,200
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	40,992,000	34,201,000	25,710,000	23,755,000	25,359,000	20,697,000	16,159,000	13,465,000	14,524,000	15,916,000
=Tax saved on interest	12,297,600	10,260,300	7,713,000	7,126,500	7,607,700	6,209,100	4,847,700	4,039,500	4,357,200	4,774,800
After tax cost of debt	28,694,400	23,940,700	17,997,000	16,628,500	17,751,300	14,487,900	11,311,300	9,425,500	10,166,800	11,141,200
Long Term Loans + Short term interest bearing borrowings	1,086,623,000	851,563,000	568,343,000	446,868,000	474,022,000	328,786,000	294,368,000	220,275,000	263,177,000	246,049,000
Effective Interest Rate, Kd	2.64%	2.81%	3.17%	3.72%	3.74%	4.41%	3.84%	4.28%	3.86%	4.53%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.53299	0.61617	0.48515	0.7808	0.6038	0.6215	0.6228	0.6572	0.6263	0.6320
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	12.57%	13.07%	12.28%	14.05%	12.99%	13.10%	13.11%	13.31%	13.13%	13.16%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	68,502,000	55,244,000	40,236,000	38,921,000	35,105,000	32,535,000	30,686,000	21,927,000	20,354,000	13,790,000
Ke (%)	12.57%	13.07%	12.28%	14.05%	12.99%	13.10%	13.11%	13.31%	13.13%	13.16%
Cost of Equity (Rand)	8609290.259	7218744.529	4941342.924	5470268.708	4561075.048	4261709.627	4021953.511	2919202.58	2672052.388	1814999.317
Debt:										
Debt (Balance Sheet)	1,128,404,000	925,665,000	722,747,000	586,490,000	511,731,000	363,644,000	369,775,000	266,694,000	239,586,000	147,789,000
Kd (%)	2.64%	2.81%	3.17%	3.72%	3.74%	4.41%	3.84%	4.28%	3.86%	4.53%
Cost of Debt (Rand)	29797708.81	26023991.26	22886316.47	21824003.88	19163436.51	16023911.93	14208867.67	11411754.84	9255455.244	6691946.754
=WACC (Rand)	38406999.07	33242735.78	27827659.39	27294272.59	23724511.56	20285621.56	18230821.18	14330957.42	11927507.63	8506946.07
=WACC (%)	3.2%	3.4%	3.6%	4.4%	4.3%	5.1%	4.6%	5.0%	4.6%	5.3%
STEP 5: CALCULATE EVA										
NOPAT	46,080,300	36,981,100	28,598,700	25,809,800	25,792,900	20,729,200	17,094,500	13,920,900	15,593,500	12,878,200
- Cost of Capital	38,406,999	33,242,736	27,827,659	27,294,273	23,724,512	20,285,622	18,230,821	14,330,957	11,927,508	8,506,946
EVA	7,673,301	3,738,364	771,041	-1,484,473	2,068,388	443,578	-1,136,321	-410,057	3,665,992	4,371,254

EVA® ABSA	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	50,211,000	34,507,000	44,275,000	25,287,000	25,940,000	17,676,000	18,326,000	17,357,000	24,001,000	19,352,000
- Tax on Operating Profit (at effective Tax rate of 30%)	15,063,300	10,352,100	13,282,500	7,586,100	7,782,000	5,302,800	5,497,800	5,207,100	7,200,300	5,805,600
=NOPAT (Before Adjustments)	35,147,700	24,154,900	30,992,500	17,700,900	18,158,000	12,373,200	12,828,200	12,149,900	16,800,700	13,546,400
NOPAT EVA Adjustments (Add back Non Cash Items)										
	85,000	103,000	177,000	49,000	96,000	176,000	76,000	658,000	63,000	118,000
+Intangible Assets Written Off	85,000	103,000	70,000	0	0	0	59,000	0	0	24,000
+Amortisation of goodwill	0	0	107,000	49,000	96,000	176,000	17,000	658,000	63,000	94,000
= NOPAT (After Adjustments)	35,232,700	24,257,900	31,169,500	17,749,900	18,254,000	12,549,200	12,904,200	12,807,900	16,863,700	13,664,400
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	36,233,000	23,246,000	30,133,000	19,183,000	21,467,000	16,133,000	14,708,000	15,843,000	21,336,000	16,992,000
=-Tax saved on interest	10,869,900	6,973,800	9,039,900	5,754,900	6,440,100	4,839,900	4,412,400	4,752,900	6,400,800	5,097,600
After tax cost of debt	25,363,100	16,272,200	21,093,100	13,428,100	15,026,900	11,293,100	10,295,600	11,090,100	14,935,200	11,894,400
Long Term Loans + Short term interest bearing borrowings	543,565,000	419,056,000	344,464,000	241,418,000	229,907,000	220,854,000	172,942,000	157,250,000	150,125,000	137,026,000
Effective Interest Rate, Kd	4.67%	3.88%	6.12%	5.56%	6.54%	5.11%	5.95%	7.05%	9.95%	8.68%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.60483	0.65261	0.53286	0.69743	0.62193	0.62621	0.61961	0.64129	0.62726	0.62859
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	13.00%	13.29%	12.57%	13.55%	13.10%	13.13%	13.09%	13.22%	13.13%	13.14%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	42,687,000	34,935,000	26,100,000	19,909,000	17,454,000	15,110,000	14,283,000	12,028,000	12,064,000	10,833,000
Ke (%)	13.00%	13.29%	12.57%	13.55%	13.10%	13.13%	13.09%	13.22%	13.13%	13.14%
Cost of Equity (Rand)	5548874.593	4641345.321	3280028.76	2698581.332	2286752.391	1983527.286	1869308.469	1589833.066	1584433.194	1423624.826
Debt:										
Debt (Balance Sheet)	603,334,000	463,419,000	381,667,000	286,015,000	252,198,000	231,965,000	183,097,000	165,628,000	157,292,000	142,982,000
Kd (%)	4.67%	3.88%	6.12%	5.56%	6.54%	5.11%	5.95%	7.05%	9.95%	8.68%
Cost of Debt (Rand)	28151960.81	17994842.34	23371209.18	15908664.73	16483857.06	11861247.44	10900148.45	11680960.78	15648209.68	12411404.41
=WACC (Rand)	33700835.4	22636187.66	26651237.94	18607246.06	18770609.46	13844774.72	12769456.92	13270793.85	17232642.88	13835029.24
=WACC (%)	5.2%	4.5%	6.5%	6.1%	7.0%	5.6%	6.5%	7.5%	10.2%	9.0%
STEP 5: CALCULATE EVA										
NOPAT	35,232,700	24,257,900	31,169,500	17,749,900	18,254,000	12,549,200	12,904,200	12,807,900	16,863,700	13,664,400
- Cost of Capital	33,700,835	22,636,188	26,651,238	18,607,246	18,770,609	13,844,775	12,769,457	13,270,794	17,232,643	13,835,029
EVA	1,531,865	1,621,712	4,518,262	-857,346	-516,609	-1,295,575	134,743	-462,894	-368,943	-170,629

<i>EVA® CAPITEC- As of listing date</i>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	383,350	322,245	185,093	106,407	68,423	50,489	69,767			
- Tax on Operating Profit (at effective Tax rate of 30%)	115,005	96,674	55,528	31,922	20,527	15,147	20,930			
=NOPAT (Before Adjustments)	268,345	225,572	129,565	74,485	47,896	35,342	48,837			
NOPAT EVA Adjustments (Add back Non Cash Items)										
	21,032	19,883	27,111	0	1,206	4,901	-85,121			
+Intangible Assets Written Off	21,032	19,883	27,111	0	0	0	690			
+Amortisation of goodwill	0	0	0	0	1,206	4,901	-85,811			
= NOPAT (After Adjustments)	289,377	245,455	156,676	74,485	49,102	40,243	-36,284			
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	101,449	69,836	40,079	16,890	3,518	3,402	6,000			
=Tax saved on interest	30,435	20,951	12,024	5,067	1,055	1,021	1,800			
After tax cost of debt	71,014	48,885	28,055	11,823	2,463	2,381	4,200			
Long Term Loans + Short term interest bearing borrowings	247,502	350,590	280,908	210,337	60,836	12,893	3,876			
Effective Interest Rate, Kd	28.69%	13.94%	9.99%	5.62%	4.05%	18.47%	108.36%			
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%			
Beta (B)	0.64077	1.0446	0.53849	1.13342	0.83932	0.88896	0.85005			
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%			
Cost of Equity, Ke	13.21%	15.64%	12.60%	16.17%	14.41%	14.70%	14.47%			
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	1,217,427	1,117,457	563,816	476,472	428,153	385,933	391,248			
Ke (%)	13.21%	15.64%	12.60%	16.17%	14.41%	14.70%	14.47%			
Cost of Equity (Rand)	160878.3518	174743.4558	71046.11587	77048.00005	61679.37866	56746.60419	56614.68599			
Debt:										
Debt (Balance Sheet)	1,873,551	1,228,791	687,456	327,433	82,331	48,497	17,629			
Kd (%)	28.69%	13.94%	9.99%	5.62%	4.05%	18.47%	108.36%			
Cost of Debt (Rand)	537567.0208	171338.8682	68658.72213	18404.94235	3332.703015	8957.632498	19102.63158			
=WACC (Rand)	698445.3726	346082.324	139704.838	95452.9424	65012.08167	65704.23669	75717.31756			
=WACC (%)	22.6%	14.8%	11.2%	11.9%	12.7%	15.1%	18.5%			
STEP 5: CALCULATE EVA										
NOPAT	289,377	245,455	156,676	74,485	49,102	40,243	-36,284			
- Cost of Capital	698,445	346,082	139,705	95,453	65,012	65,704	75,717			
EVA	-409,068	-100,628	16,971	-20,968	-15,910	-25,461	-112,001			

EVA® FIRSTRAND	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	42,897,000	29,186,000	25,881,000	22,222,000	23,990,000	18,642,500	14,697,600	13,758,500	19,032,300	4,195,600
- Tax on Operating Profit (at effective Tax rate of 30%)	12,869,100	8,755,800	7,764,300	6,666,600	7,197,000	5,592,750	4,409,280	4,127,550	5,709,690	1,258,680
=NOPAT (Before Adjustments)	30,027,900	20,430,200	18,116,700	15,555,400	16,793,000	13,049,750	10,288,320	9,630,950	13,322,610	2,936,920
NOPAT EVA Adjustments (Add back Non Cash Items)										
	422,000	131,000	68,000	103,000	314,000	147,000	50,000	8,300	3,600	119,100
+Intangible Assets Written Off	369,000	131,000	64,000	85,000	67,000	68,500	0	0	3,600	119,100
+Amortisation of goodwill	53,000	0	4,000	18,000	247,000	78,500	50,000	8,300	0	0
= NOPAT (After Adjustments)	30,449,900	20,561,200	18,184,700	15,658,400	17,107,000	13,196,750	10,338,320	9,639,250	13,326,210	3,056,020
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	25,844,000	15,383,000	13,920,000	13,552,000	17,189,000	12,304,500	9,769,700	9,701,300	15,478,900	3,114,500
=Tax saved on interest	7,753,200	4,614,900	4,176,000	4,065,600	5,156,700	3,691,350	2,930,910	2,910,390	4,643,670	934,350
After tax cost of debt	18,090,800	10,768,100	9,744,000	9,486,400	12,032,300	8,613,150	6,838,790	6,790,910	10,835,230	2,180,150
Long Term Loans + Short term interest bearing borrowings	487,032,000	376,657,000	250,771,000	230,860,000	226,522,000	205,133,100	141,087,000	121,256,000	117,735,600	118,680,200
Effective Interest Rate, Kd	3.71%	2.86%	3.89%	4.11%	5.31%	4.20%	4.85%	5.60%	9.20%	1.84%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.6035	0.58494	0.58422	0.46968	0.56059	0.54986	0.54109	0.53030	0.54546	0.54168
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	12.99%	12.88%	12.88%	12.19%	12.73%	12.67%	12.62%	12.55%	12.64%	12.62%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	47,220,000	39,504,000	34,917,000	28,594,000	24,495,000	22,586,500	18,744,200	15,173,500	11,413,400	9,882,900
Ke (%)	12.99%	12.88%	12.88%	12.19%	12.73%	12.67%	12.62%	12.55%	12.64%	12.62%
Cost of Equity (Rand)	6134350.2	5087972.986	4495675.484	3485059.595	3119073.275	2861514.741	2364864.219	1904548.867	1442966.75	1247226.959
Debt:										
Debt (Balance Sheet)	682,530,000	547,776,000	435,367,000	400,909,000	373,407,000	354,494,800	247,905,300	209,009,200	188,596,300	185,697,400
Kd (%)	3.71%	2.86%	3.89%	4.11%	5.31%	4.20%	4.85%	5.60%	9.20%	1.84%
Cost of Debt (Rand)	25352571.75	15660154.32	16916693.11	16473980.5	19834475.44	14884564.64	12016502.49	11705504.6	17356553.9	3411252.986
=WACC (Rand)	31486921.95	20748127.31	21412368.59	19959040.09	22953548.72	17746079.38	14381366.71	13610053.47	18799520.65	4658479.945
=WACC (%)	4.3%	3.5%	4.6%	4.6%	5.8%	4.7%	5.4%	6.1%	9.4%	2.4%
STEP 5: CALCULATE EVA										
NOPAT	30,449,900	20,561,200	18,184,700	15,658,400	17,107,000	13,196,750	10,338,320	9,639,250	13,326,210	3,056,020
- Cost of Capital	31,486,922	20,748,127	21,412,369	19,959,040	22,953,549	17,746,079	14,381,367	13,610,053	18,799,521	4,658,480
EVA	-1,037,022	-186,927	-3,227,669	-4,300,640	-5,846,549	-4,549,329	-4,043,047	-3,970,803	-5,473,311	-1,602,460

<u>EVA® MERCANTILE</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	412,543	288,418	179,624	-106,763	100,322	-97,207	207,579	115,746	492,736	404,093
- Tax on Operating Profit (at effective Tax rate of 30%)	123,763	86,525	53,887	-32,029	30,097	-29,162	62,274	34,724	147,821	121,228
=NOPAT (Before Adjustments)	288,780	201,893	125,737	-74,734	70,225	-68,045	145,305	81,022	344,915	282,865
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	3,716	3,108	4,798	6,651	6,255	23,400	12,500	244	8,613	1,977
+Amortisation of goodwill	0	0	0	0	0	0	0	31,990	-67	17,093
= NOPAT (After Adjustments)	292,496	205,001	130,535	-68,083	76,480	-44,645	157,805	113,256	353,461	301,935
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	250,012	189,044	113,144	107,036	161,152	363,572	283,513	338,299	378,508	386,624
-Tax saved on interest	75,004	56,713	33,943	32,111	48,346	109,072	85,054	101,490	113,552	115,987
After tax cost of debt	175,008	132,331	79,201	74,925	112,806	254,500	198,459	236,809	264,956	270,637
Long Term Loans + Short term interest bearing borrowings	3,783,539	3,568,336	2,675,078	2,147,779	1,984,154	1,921,314	3,308,514	3,715,741	3,164,329	2,523,292
Effective Interest Rate, Kd	4.63%	3.71%	2.96%	3.49%	5.69%	13.25%	6.00%	6.37%	8.37%	10.73%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.63128	0.43498	0.82763	0.64123	0.6338	0.6344	0.6843	0.6484	0.6502	0.6543
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	13.16%	11.98%	14.34%	13.22%	13.17%	13.18%	13.48%	13.26%	13.27%	13.30%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	839,914	667,418	550,179	500,939	163,899	183,500	536,736	653,051	894,448	329,050
Ke (%)	13.16%	11.98%	14.34%	13.22%	13.17%	13.18%	13.48%	13.26%	13.27%	13.30%
Cost of Equity (Rand)	110513.1964	79955.8755	78872.45105	66211.0112	21589.89079	24178.74905	72328.22198	86597.92173	118704.8593	43750.33157
Debt:										
Debt (Balance Sheet)	3,865,870	3,781,800	2,856,203	2,220,129	2,061,594	1,991,930	3,376,254	3,838,081	3,291,139	2,597,794
Kd (%)	4.63%	3.71%	2.96%	3.49%	5.69%	13.25%	6.00%	6.37%	8.37%	10.73%
Cost of Debt (Rand)	178816.6379	140247.0562	84563.35201	77449.12738	117209.1468	263854.311	202522.4407	244606.197	275573.6551	278627.545
=WACC (Rand)	289329.8343	220202.9317	163435.8031	143660.1386	138799.0376	288033.0601	274850.6626	331204.1187	394278.5143	322377.8765
=WACC (%)	6.1%	4.9%	4.8%	5.3%	6.2%	13.2%	7.0%	7.4%	9.4%	11.0%
STEP 5: CALCULATE EVA										
NOPAT	292,496	205,001	130,535	-68,083	76,480	-44,645	157,805	113,256	353,461	301,935
- Cost of Capital	289,330	220,203	163,436	143,660	138,799	288,033	274,851	331,204	394,279	322,378
EVA	3,166	-15,202	-32,901	-211,743	-62,319	-332,678	-117,045	-217,948	-40,817	-20,443



EVA^o NEDBANK	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	36,600,000	24,399,000	19,975,000	17,988,000	20,552,000	19,042,000	12,864,000	17,394,000	13,480,000	18,262,000
- Tax on Operating Profit (at effective Tax rate of 30%)	10,980,000	7,319,700	5,992,500	5,396,400	6,165,600	5,712,600	3,859,200	5,218,200	4,044,000	5,478,600
=NOPAT (Before Adjustments)	25,620,000	17,079,300	13,982,500	12,591,600	14,386,400	13,329,400	9,004,800	12,175,800	9,436,000	12,783,400
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	431,000	438,000	423,000	395,000	0	22,000	101,000	3,000	25,000	0
+Amortisation of goodwill	0	70,000	1,000	374,000	1,803,000	501,000	47,000	251,000	1,330,000	0
= NOPAT (After Adjustments)	26,051,000	17,587,300	14,406,500	13,360,600	16,189,400	13,852,400	9,152,800	12,429,800	10,791,000	12,783,400
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	27,855,000	17,558,000	14,705,000	16,258,000	21,333,000	17,522,000	11,918,000	10,504,000	11,901,000	15,305,000
= Tax saved on interest	8,356,500	5,267,400	4,411,500	4,877,400	6,399,900	5,256,600	3,575,400	3,151,200	3,570,300	4,591,500
After tax cost of debt	19,498,500	12,290,600	10,293,500	11,380,600	14,933,100	12,265,400	8,342,600	7,352,800	8,330,700	10,713,500
Long Term Loans + Short term interest bearing borrowings	410,550,000	348,684,000	286,930,000	293,038,000	244,407,000	235,655,000	168,646,000	133,919,000	113,576,000	103,539,000
Effective Interest Rate, Kd	4.75%	3.52%	3.59%	3.88%	6.11%	5.20%	4.95%	5.49%	7.33%	10.35%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.45315	0.58224	0.45823	0.42988	0.48088	0.48781	0.46420	0.46569	0.47464	0.47308
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	12.09%	12.86%	12.12%	11.95%	12.26%	12.30%	12.16%	12.16%	12.22%	12.21%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	35,106,000	30,467,000	26,669,000	21,899,000	15,556,000	20,286,000	16,111,000	16,615,000	13,753,000	9,219,000
Ke (%)	12.09%	12.86%	12.12%	11.95%	12.26%	12.30%	12.16%	12.16%	12.22%	12.21%
Cost of Equity (Rand)	4243929.234	3919104.265	3232117.452	2616772.827	1906426.69	2494536.455	1958322.157	2021071.627	1680321.356	1125501.989
Debt:										
Debt (Balance Sheet)	458,663,000	399,796,000	329,768,000	309,143,000	272,731,000	256,738,000	182,843,000	142,703,000	120,083,000	108,396,000
Kd (%)	4.75%	3.52%	3.59%	3.88%	6.11%	5.20%	4.95%	5.49%	7.33%	10.35%
Cost of Debt (Rand)	21783559.87	14092223.09	11830296.27	12006063.47	16663676.97	13362730.54	9044898.852	7835084.031	8807982.744	11216068.79
=WACC (Rand)	26027489.11	18011327.36	15062413.72	14622836.29	18570103.66	15857266.99	11003221.01	9856155.659	10488304.1	12341570.77
=WACC (%)	5.3%	4.2%	4.2%	4.4%	6.4%	5.7%	5.5%	6.2%	7.8%	10.5%
STEP 5: CALCULATE EVA										
NOPAT	26,051,000	17,587,300	14,406,500	13,360,600	16,189,400	13,852,400	9,152,800	12,429,800	10,791,000	12,783,400
- Cost of Capital	26,027,489	18,011,327	15,062,414	14,622,836	18,570,104	15,857,267	11,003,221	9,856,156	10,488,304	12,341,571
EVA	23,511	-424,027	-655,914	-1,262,236	-2,380,704	-2,004,867	-1,850,421	2,573,644	302,696	441,829



EVA® NEDBANK	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	1,416,900	1,039,100	1,191,600	561,900	198,200	217,800	-75,100	476,300	248,700	575,684
- Tax on Operating Profit (at effective Tax rate of 30%)	425,070	311,730	357,480	168,570	59,460	65,340	-22,530	142,890	74,610	172,705
=NOPAT (Before Adjustments)	991,830	727,370	834,120	393,330	138,740	152,460	-52,570	333,410	174,090	402,979
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	5,500	6,800	4,100	0	0	0	8,500	0	0	0
+Amortisation of goodwill	0	0	0	225,000	218,500	136,100	161,500	-3,300	0	0
= NOPAT (After Adjustments)	997,330	734,170	838,220	618,330	357,240	288,560	117,430	330,110	174,090	402,979
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	296,100	232,400	29,800	26,300	33,100	29,300	51,400	60,800	111,100	36,724
=Tax saved on interest	88,830	69,720	8,940	7,890	9,930	8,790	15,420	18,240	33,330	11,017
After tax cost of debt	207,270	162,680	20,860	18,410	23,170	20,510	35,980	42,560	77,770	25,707
Long Term Loans + Short term interest bearing borrowings	748,900	541,700	544,500	577,100	629,200	574,300	406,900	195,300	346,200	100,000
Effective Interest Rate, Kd	27.68%	30.03%	3.83%	3.19%	3.68%	3.57%	8.84%	21.79%	22.46%	25.71%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.51195	0.59821	0.53971	0.5417	0.5479	0.5569	0.5465	0.5483	0.5499	0.5504
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	12.44%	12.96%	12.61%	12.62%	12.66%	12.71%	12.65%	12.66%	12.67%	12.67%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	40,881,600	29,920,900	29,847,300	22,940,100	17,999,200	18,035,000	20,024,300	10,141,500	9,625,300	3,949,214
Ke (%)	12.44%	12.96%	12.61%	12.62%	12.66%	12.71%	12.65%	12.66%	12.67%	12.67%
Cost of Equity (Rand)	5086366.027	3877527.225	3763225.187	2895086.5	2278222.641	2292477.319	2532927.96	1283865.593	1219463.387	500458.3975
Debt:										
Debt (Balance Sheet)	6,780,600	5,060,500	4,614,100	3,834,200	3,028,300	2,526,800	2,407,200	1,676,100	1,382,400	2,000,797
Kd (%)	27.68%	30.03%	3.83%	3.19%	3.68%	3.57%	8.84%	21.79%	22.46%	25.71%
Cost of Debt (Rand)	1876639.02	1519738.121	176767.9082	122314.3684	111515.7517	90239.71443	212855.8761	365257.6344	310540.8666	514340.8832
=WACC (Rand)	6963005.047	5397265.346	3939993.095	3017400.869	2389738.393	2382717.033	2745783.836	1649123.228	1530004.254	1014799.281
=WACC (%)	14.6%	15.4%	11.4%	11.3%	11.4%	11.6%	12.2%	14.0%	13.9%	17.1%
STEP 5: CALCULATE EVA										
NOPAT	997,330	734,170	838,220	618,330	357,240	288,560	117,430	330,110	174,090	402,979
- Cost of Capital	6,963,005	5,397,265	3,939,993	3,017,401	2,389,738	2,382,717	2,745,784	1,649,123	1,530,004	1,014,799
EVA	-5,965,675	-4,663,095	-3,101,773	-2,399,071	-2,032,498	-2,094,157	-2,628,354	-1,319,013	-1,355,914	-611,820



2 EVA calculations for retail shares listed on the JSE

EVA® PicknPav Stores	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	1,503,900	1,171,000	1,101,800	1,023,400	834,400	748,700	621,000	503,600	435,400	326,800
- Tax on Operating Profit (at effective Tax rate of 30%)	451,170	351,300	330,540	307,020	250,320	224,610	186,300	151,080	130,620	98,040
=NOPAT (Before Adjustments)	1,052,730	819,700	771,260	716,380	584,080	524,090	434,700	352,520	304,780	228,760
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	32,700	7,800	4,500	0	0	0	0	0	0	0
+Amortisation of goodwill	0	36,300	0	35,300	36,800	38,600	1,600	0	8,100	51,000
= NOPAT (After Adjustments)	1,085,430	863,800	775,760	751,680	620,880	562,690	436,300	352,520	312,880	279,760
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	79,200	49,300	37,600	32,900	46,600	41,400	36,200	28,700	20,800	25,200
=Tax saved on interest	23,760	14,790	11,280	9,870	13,980	12,420	10,860	8,610	6,240	7,560
After tax cost of debt	55,440	34,510	26,320	23,030	32,620	28,980	25,340	20,090	14,560	17,640
Long Term Loans + Short term interest bearing borrowings	717,700	233,400	802,500	235,200	348,100	430,000	258,500	200,500	53,900	165,200
Effective Interest Rate, Kd	7.72%	14.79%	3.28%	9.79%	9.37%	6.74%	9.80%	10.02%	27.01%	10.68%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.3214	0.53944	0.22475	0.18335	0.31724	0.31619	0.26038	0.26929	0.29078	0.28416
MRP (5% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	11.30%	12.61%	10.72%	10.47%	11.27%	11.27%	10.93%	10.99%	11.11%	11.07%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	1,433,700	999,400	849,300	1,078,800	1,132,400	999,100	1,266,300	956,200	805,800	626,600
Ke (%)	11.30%	12.61%	10.72%	10.47%	11.27%	11.27%	10.93%	10.99%	11.11%	11.07%
Cost of Equity (Rand)	161985.1608	125990.7602	91032.2205	112951.4388	127660.0948	112570.2205	138435.6278	105045.6593	89561.86386	69395.71313
Debt:										
Debt (Balance Sheet)	7,870,100	6,793,600	5,887,700	5,167,400	4,873,800	4,326,800	3,653,200	2,866,500	2,640,300	2,331,400
Kd (%)	7.72%	14.79%	3.28%	9.79%	9.37%	6.74%	9.80%	10.02%	27.01%	10.68%
Cost of Debt (Rand)	607939.7297	1004486.444	193101.8866	505974.5833	456717.4835	291606.1953	358112.5261	287221.8703	713223.8961	248946.1017
=WACC (Rand)	769924.8905	1130477.204	284134.1071	618926.0221	584377.5783	404176.4159	496548.154	392267.5297	802785.76	318341.8148
=WACC (%)	8.3%	14.5%	4.2%	9.9%	9.7%	7.6%	10.1%	10.3%	23.3%	10.8%
STEP 5: CALCULATE EVA										
NOPAT	1,085,430	863,800	775,760	751,680	620,880	562,690	436,300	352,520	312,880	279,760
- Cost of Capital	769,925	1,130,477	284,134	618,926	584,378	404,176	496,548	392,268	802,786	318,342
EVA	315,505	-266,677	491,626	132,754	36,502	158,514	-60,248	-39,748	-489,906	-38,582



<u>EVA® Woolworths</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	1,790,900	1,489,500	1,245,800	1,045,400	864,300	661,100	474,400	389,900	461,488	
- Tax on Operating Profit (at effective Tax rate of 30%)	537,270	446,850	373,740	313,620	259,290	198,330	142,320	116,970	138,446	
=NOPAT (Before Adjustments)	1,253,630	1,042,650	872,060	731,780	605,010	462,770	332,080	272,930	323,042	
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	0	0	0	0	0	0	0	0	0	
+Amortisation of goodwill										
= NOPAT (After Adjustments)	1,253,630	1,042,650	872,060	731,780	605,010	462,770	332,080	272,930	323,042	
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	378,700	243,900	152,700	108,700	87,400	661,100	474,400	389,900	461,488	
=Tax saved on interest	113,610	73,170	45,810	32,610	26,220	198,330	142,320	116,970	138,446	
After tax cost of debt	265,090	170,730	106,890	76,090	61,180	462,770	332,080	272,930	323,042	
Long Term Loans + Short term interest bearing borrowings	3,961,900	3,433,600	2,602,200	1,137,900	729,700	480,500	185,300	347,000	323,991	
Effective Interest Rate, Kd	6.69%	4.97%	4.11%	6.69%	8.38%	96.31%	179.21%	78.65%	99.71%	
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	
Beta (B)	0.69938	0.49924	0.51758	0.59649	0.57817	0.54787	0.56003	0.57064	0.56418	
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	
Cost of Equity, Ke	13.57%	12.37%	12.48%	12.95%	12.84%	12.66%	12.73%	12.79%	12.76%	
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	3,289,400	2,634,200	2,116,400	2,873,200	2,433,400	2,377,900	2,360,000	2,104,600	1,915,940	
Ke (%)	13.57%	12.37%	12.48%	12.95%	12.84%	12.66%	12.73%	12.79%	12.76%	
Cost of Equity (Rand)	446249.2143	325730.4205	264031.0587	372048.9441	312425.0777	300976.1236	300432.0046	269259.201	244379.4429	
Debt:										
Debt (Balance Sheet)	7,195,600	6,162,000	4,947,100	2,899,200	2,380,900	1,713,600	1,432,200	1,423,800	1,077,938	
Kd (%)	6.69%	4.97%	4.11%	6.69%	8.38%	96.31%	179.21%	78.65%	99.71%	
Cost of Debt (Rand)	481456.272	306395.113	203210.9442	193866.0058	199621.0251	1650369.765	2566675.532	1119878.196	1074779.288	
=WACC (Rand)	927705.4863	632125.5335	467242.0029	565914.9499	512046.1028	1951345.888	2867107.536	1389137.397	1319158.731	
=WACC (%)	8.8%	7.2%	6.6%	9.8%	10.6%	47.7%	75.6%	39.4%	44.1%	
STEP 5: CALCULATE EVA										
NOPAT	1,253,630	1,042,650	872,060	731,780	605,010	462,770	332,080	272,930	323,042	
- Cost of Capital	927,705	632,126	467,242	565,915	512,046	1,951,346	2,867,108	1,389,137	1,319,159	
EVA	325,925	410,524	404,818	165,865	92,964	-1,488,576	-2,535,028	-1,116,207	-996,117	



<u>EVA® RexTruform</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	23,297	19,848	28,867	7,762	17,742	6,668	3,717	17,282	22,502	21,921
- Tax on Operating Profit (at effective Tax rate of 30%)	6,989	5,954	8,660	2,329	5,323	2,000	1,115	5,185	6,751	6,576
=NOPAT (Before Adjustments)	16,308	13,894	20,207	5,433	12,419	4,668	2,602	12,097	15,751	15,345
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	0	0	0	0	0	0	0	0	64	49
+Amortisation of goodwill	0	0	0	0	0	0	0	0	0	0
= NOPAT (After Adjustments)	16,308	13,894	20,207	5,433	12,419	4,668	2,602	12,097	15,815	15,394
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	12	57	339	333	123	39	57	135	0	248
=Tax saved on interest	4	17	102	100	37	12	17	41	0	74
After tax cost of debt	8	40	237	233	86	27	40	95	0	174
Long Term Loans + Short term interest bearing borrowings	0	0	0	0	0	0	0	3,118	1,703	505
Effective Interest Rate, Kd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.03%	0.00%	34.38%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.34775	0.1886	-0.00739	0.03432	0.14082	0.08909	0.06421	0.08211	0.09406	0.08237
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	11.46%	10.50%	9.33%	9.58%	10.21%	9.90%	9.76%	9.86%	9.93%	9.86%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K'										
WACC										
Equity:										
Equity (Balance Sheet)	160,467	149,450	140,387	173,678	175,072	165,825	162,985	163,020	157,550	146,377
Ke (%)	11.46%	10.50%	9.33%	9.58%	10.21%	9.90%	9.76%	9.86%	9.93%	9.86%
Cost of Equity (Rand)	18383.90186	15694.6412	13092.0143	16631.26634	17883.46474	16424.17858	15899.6044	16078.10069	15651.55132	14438.91114
Debt:										
Debt (Balance Sheet)	37,609	33,508	34,876	32,892	43,371	28,927	28,339	33,340	35,678	30,261
Kd (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.03%	0.00%	34.38%
Cost of Debt (Rand)	0	0	0	0	0	0	0	1010.465042	0	10402.59327
=WACC (Rand)	18383.90186	15694.6412	13092.0143	16631.26634	17883.46474	16424.17858	15899.6044	17088.56573	15651.55132	24841.50441
=WACC (%)	9.3%	8.6%	7.5%	8.1%	8.2%	8.4%	8.3%	8.7%	8.1%	14.1%
STEP 5: CALCULATE EVA										
NOPAT	16,308	13,894	20,207	5,433	12,419	4,668	2,602	12,097	15,815	15,394
- Cost of Capital	18,384	15,695	13,092	16,631	17,883	16,424	15,900	17,089	15,652	24,842
EVA	-2,076	-1,801	7,115	-11,198	-5,464	-11,757	-13,298	-4,991	164	-9,448



<u>EVA® Shoprite Holdings</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	1,791,684	1,524,311	946,008	842,654	666,304	595,506	369,725	387,840	240,998	327,753
- Tax on Operating Profit (at effective Tax rate of 30%)	537,505	457,293	283,802	252,796	199,891	178,652	110,918	116,352	72,299	98,326
=NOPAT (Before Adjustments)	1,254,179	1,067,018	662,206	589,858	466,413	416,854	258,808	271,488	168,699	229,427
NOPAT EVA Adjustments (Add back Non Cash Items)										
	15,493	15,674	26,151	-144,949	-146,169	-69,319	-65,154	1,701	3,309	3,316
+Intangible Assets Written Off	15,493	14,388	0	0	0	0	0	0	0	0
+Amortisation of goodwill	0	1,286	26,151	-144,949	-146,169	-69,319	-65,154	1,701	3,309	3,316
= NOPAT (After Adjustments)	1,269,672	1,082,692	688,357	444,909	320,244	347,535	193,654	273,189	172,008	232,743
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	83,444	89,610	47,646	29,936	63,214	47,339	24,877	61,400	102,515	46,485
=Tax saved on interest	25,033	26,883	14,294	8,981	18,964	14,202	7,463	18,420	30,755	13,946
After tax cost of debt	58,411	62,727	33,352	20,955	44,250	33,137	17,414	42,980	71,761	32,540
Long Term Loans + Short term interest bearing borrowings	25,206	671,267	784,388	5,833	0	31,230	17,374	64,059	347,151	171,356
Effective Interest Rate, Kd	231.73%	9.34%	4.25%	359.25%	0.00%	106.11%	100.23%	67.09%	20.67%	18.99%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.71086	0.62248	0.38497	0.40266	0.53024	0.48509	0.45074	0.46718	0.48331	0.47158
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	13.64%	13.10%	11.68%	11.79%	12.55%	12.28%	12.07%	12.17%	12.27%	12.20%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	3,691,269	3,085,332	2,155,951	2,168,672	1,770,007	1,492,622	1,466,730	1,330,971	1,122,470	1,084,776
Ke (%)	13.64%	13.10%	11.68%	11.79%	12.55%	12.28%	12.07%	12.17%	12.27%	12.20%
Cost of Equity (Rand)	503310.4342	404329.0562	251811.1961	255598.8145	222161.6321	183301.8738	177099.4476	162020.3798	137725.7244	132337.1019
Debt:										
Debt (Balance Sheet)	8,240,492	6,906,529	6,440,970	5,803,151	5,109,164	4,756,435	4,647,420	3,850,611	4,061,844	3,704,764
Kd (%)	231.73%	9.34%	4.25%	359.25%	0.00%	106.11%	100.23%	67.09%	20.67%	18.99%
Cost of Debt (Rand)	19095998.18	645385.2857	273870.227	20847966.71	0	5046923.264	4658092.963	2583544.245	839634.5002	703512.9682
=WACC (Rand)	19599308.61	1049714.342	525681.4231	21103565.53	222161.6321	5230225.138	4835192.41	2745564.625	977360.2246	835850.0701
=WACC (%)	164.3%	10.5%	6.1%	264.7%	3.2%	83.7%	79.1%	53.0%	18.9%	17.5%
STEP 5: CALCULATE EVA										
NOPAT	1,269,672	1,082,692	688,357	444,909	320,244	347,535	193,654	273,189	172,008	232,743
- Cost of Capital	19,599,309	1,049,714	525,681	21,103,566	222,162	5,230,225	4,835,192	2,745,565	977,360	835,850
EVA	-18,329,637	32,977	162,675	-20,658,657	98,082	-4,882,690	-4,641,539	-2,472,376	-805,353	-603,107



<u>EVA® Spar Group (As of Listing Year)</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	807,000	624,500	520,196	428,214	0	0	0	0	0	0
- Tax on Operating Profit (at effective Tax rate of 30%)	242,100	187,350	156,059	128,464	0	0	0	0	0	0
=NOPAT (Before Adjustments)	564,900	437,150	364,137	299,750	0	0	0	0	0	0
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	0	0	0	0	0	0	0	0	0	0
+Amortisation of goodwill	0	0	0	12,338	0	0	0	0	0	0
= NOPAT (After Adjustments)	564,900	437,150	364,137	312,088	0	0	0	0	0	0
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	10,300	6,100	5,457	3,315						
=Tax saved on interest	3,090	1,830	1,637	995						
After tax cost of debt	7,210	4,270	3,820	2,321						
Long Term Loans + Short term interest bearing borrowings	400	65,100	108,624	309,348						
Effective Interest Rate, Kd	1802.50%	6.56%	3.52%	0.75%						
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%						
Beta (B)	0.71141	1.00038	0.65089	-0.30502						
MRP (6% = expected growth)	6%	6%	6%	6%						
Cost of Equity, Ke	13.64%	15.37%	13.28%	7.54%						
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	1,109,700	892,400	749,435	437,261						
Ke (%)	13.64%	15.37%	13.28%	7.54%						
Cost of Equity (Rand)	151345.9906	137182.2267	99490.04433	32968.95469						
Debt:										
Debt (Balance Sheet)	3,947,800	2,644,200	1,946,824	1,770,840						
Kd (%)	1802.50%	6.56%	3.52%	0.75%						
Cost of Debt (Rand)	71159095	173436.7742	68462.52207	13283.53253						
=WACC (Rand)	71310440.99	310619.0009	167952.5664	46252.48721						
=WACC (%)	1410.0%	8.8%	6.2%	2.1%						
STEP 5: CALCULATE EVA										
NOPAT	564,900	437,150	364,137	312,088						
- Cost of Capital	71,310,441	310,619	167,953	46,252						
EVA	-70,745,541	126,531	196,185	265,835						



<u>EVA® TradeHold (As of Listing Year)</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	-10,161	-116,771	26,639	193,412	-115,732	-585,950	-301,924	194,577		
- Tax on Operating Profit (at effective Tax rate of 30%)	-3,048	-35,031	7,992	58,024	-34,720	-175,785	-90,577	58,373		
=NOPAT (Before Adjustments)	-7,113	-81,740	18,647	135,388	-81,012	-410,165	-211,347	136,204		
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	0	0	0	0	0	0	0	0		
+Amortisation of goodwill	0	0	0	0	0	0	0	0		
= NOPAT (After Adjustments)	-7,113	-81,740	18,647	135,388	-81,012	-410,165	-211,347	136,204		
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	2,118	18,468	10,366	6,452	10,407	4,926	35,589	60,423		
=Tax saved on interest	635	5,540	3,110	1,936	3,122	1,478	10,677	18,127		
After tax cost of debt	1,483	12,928	7,256	4,516	7,285	3,448	24,912	42,296		
Long Term Loans + Short term interest bearing borrowings	31,627	427,677	187,467	60,898	107,336	26,429	43,464	825,496		
Effective Interest Rate, Kd	4.69%	3.02%	3.87%	7.42%	6.79%	13.05%	57.32%	5.12%		
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%		
Beta (B)	0.96015	1.09988	0.9786	1.23778	1.06910	1.09634	1.09546	1.12467		
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%		
Cost of Equity, Ke	15.13%	15.97%	15.24%	16.80%	15.78%	15.95%	15.94%	16.12%		
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	46,904	987,455	936,835	978,131	786,140	939,486	1,643,292	847,866		
Ke (%)	15.13%	15.97%	15.24%	16.80%	15.78%	15.95%	15.94%	16.12%		
Cost of Equity (Rand)	7096.997336	157689.4538	142788.6434	164293.5341	124089.1724	149829.6383	261985.6837	136659.1975		
Debt:										
Debt (Balance Sheet)	35,297	1,471,944	1,070,147	946,509	1,077,010	1,162,508	1,468,106	1,961,789		
Kd (%)	4.69%	3.02%	3.87%	7.42%	6.79%	13.05%	57.32%	5.12%		
Cost of Debt (Rand)	1654.641041	44493.16483	41421.69375	70196.28309	73096.72569	151672.7869	841475.6374	100516.5667		
=WACC (Rand)	8751.638377	202182.6187	184210.3371	234489.8171	197185.8981	301502.4252	1103461.321	237175.7642		
=WACC (%)	10.6%	8.2%	9.2%	12.2%	10.6%	14.3%	35.5%	8.4%		
STEP 5: CALCULATE EVA										
NOPAT	-7,113	-81,740	18,647	135,388	-81,012	-410,165	-211,347	136,204		
- Cost of Capital	8,752	202,183	184,210	234,490	197,186	301,502	1,103,461	237,176		
EVA	-15,864	-283,922	-165,563	-99,101	-278,198	-711,667	-1,314,808	-100,972		



<u>EVA® Verimark</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	11,149	23,329	58,345	1,297	-2,843	693	1,498	-498	-758	
- Tax on Operating Profit (at effective Tax rate of 30%)	3,345	6,999	17,504	389	-853	208	449	-149	-227	
=NOPAT (Before Adjustments)	7,804	16,330	40,842	908	-1,990	485	1,049	-349	-531	
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	272	292	203	0	44	43	2,515	0	0	
+Amortisation of goodwill	0	0	0	0	0	0	1,981	0	0	
= NOPAT (After Adjustments)	8,076	16,622	41,045	908	-1,946	528	3,564	-349	-531	
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	2,661	967	911	158	2,561	2,590	2,365	39	39	
=Tax saved on interest	798	290	273	47	768	777	710	12	12	
After tax cost of debt	1,863	677	638	111	1,793	1,813	1,656	27	27	
Long Term Loans + Short term interest bearing borrowings	25,308	15,896	851	2,828	21,372	15,315	15,553	33	313	
Effective Interest Rate, Kd	7.36%	4.26%	74.94%	3.91%	8.39%	11.84%	10.64%	82.73%	8.72%	
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	
Beta (B)	1.05104	0.83586	0.14986	0	0.50919	0.37373	0.25819	0.28528	0.35660	
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	
Cost of Equity, Ke	15.68%	14.39%	10.27%	9.37%	12.43%	11.61%	10.92%	11.08%	11.51%	
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	48,589	61,305	72,141	4,948	2,653	16,375	10,308	649	28,579	
Ke (%)	15.68%	14.39%	10.27%	9.37%	12.43%	11.61%	10.92%	11.08%	11.51%	
Cost of Equity (Rand)	7616.928254	8818.822338	7408.274716	463.6276	329.6389642	1901.524769	1125.547657	71.9200241	3289.32423	
Debt:										
Debt (Balance Sheet)	54,185	35,361	41,719	3,563	24,844	17,872	16,960	907	2,624	
Kd (%)	7.36%	4.26%	74.94%	3.91%	8.39%	11.84%	10.64%	82.73%	8.72%	
Cost of Debt (Rand)	3988.0828	1505.778869	31262.28707	139.3450495	2083.934063	2115.69938	1805.264579	750.3363636	228.8664537	
=WACC (Rand)	11605.01105	10324.60121	38670.56179	602.9726495	2413.573027	4017.224148	2930.812236	822.2563877	3518.190684	
=WACC (%)	11.3%	10.7%	34.0%	7.1%	8.8%	11.7%	10.7%	52.8%	11.3%	
STEP 5: CALCULATE EVA										
NOPAT	8,076	16,622	41,045	908	-1,946	528	3,564	-349	-531	
- Cost of Capital	11,605	10,325	38,671	603	2,414	4,017	2,931	822	3,518	
EVA	-3,529	6,298	2,374	305	-4,360	-3,489	633	-1,171	-4,049	



<i>EVA® Nictus</i>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	10,649	6,425	6,072	7,390	11,406	7,045	4,016	3,300	-2,315	-1,726
- Tax on Operating Profit (at effective Tax rate of 30%)	3,195	1,928	1,822	2,217	3,422	2,114	1,205	990	-695	-518
=NOPAT (Before Adjustments)	7,454	4,498	4,250	5,173	7,984	4,932	2,811	2,310	-1,621	-1,208
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	240	228	0	0	0	470	0	0	0	0
+Amortisation of goodwill	-823	0	367	-757	-237	-226	323	0	0	0
= NOPAT (After Adjustments)	6,871	4,726	4,617	4,416	7,747	5,176	3,134	2,310	-1,621	-1,208
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	4,637	4,522	3,829	5,535	2,954	1,862	2,476	2,586	3,470	2,782
=Tax saved on interest	1,391	1,357	1,149	1,661	886	559	743	776	1,041	835
After tax cost of debt	3,246	3,165	2,680	3,875	2,068	1,303	1,733	1,810	2,429	1,947
Long Term Loans + Short term interest bearing borrowings	48,793	51,387	48,391	34,397	31,472	13,025	17,085	14,829	13,696	13,307
Effective Interest Rate, Kd	6.65%	6.16%	5.54%	11.26%	6.57%	10.01%	10.14%	12.21%	17.74%	14.63%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	-0.36001	0.19633	-0.2741	0.38985	-0.01198	0.07502	0.04470	0.12440	0.05803	0.07554
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	7.21%	10.55%	7.73%	11.71%	9.30%	9.82%	9.64%	10.12%	9.72%	9.82%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	65,531	44,854	44,355	43,480	41,053	39,520	10,590	5,877	5,280	10,037
Ke (%)	7.21%	10.55%	7.73%	11.71%	9.30%	9.82%	9.64%	10.12%	9.72%	9.82%
Cost of Equity (Rand)	4724.745781	4731.190949	3426.60117	5091.11668	3817.151046	3880.921798	1020.684089	594.5399327	513.1212745	985.9577152
Debt:										
Debt (Balance Sheet)	309,489	264,604	228,688	198,141	144,290	90,193	31,642	25,913	20,036	22,292
Kd (%)	6.65%	6.16%	5.54%	11.26%	6.57%	10.01%	10.14%	12.21%	17.74%	14.63%
Cost of Debt (Rand)	20588.41115	16299.40455	12666.66211	22318.72851	9480.26379	9025.532146	3209.945239	3163.241796	3553.405666	3262.301105
=WACC (Rand)	25313.15693	21030.5955	16093.26328	27409.84519	13297.41484	12906.45394	4230.629328	3757.781729	4066.52694	4248.25882
=WACC (%)	6.7%	6.8%	5.9%	11.3%	7.2%	10.0%	10.0%	11.8%	16.1%	13.1%
STEP 5: CALCULATE EVA										
NOPAT	6,871	4,726	4,617	4,416	7,747	5,176	3,134	2,310	-1,621	-1,208
- Cost of Capital	25,313	21,031	16,093	27,410	13,297	12,906	4,231	3,758	4,067	4,248
EVA	-18,442	-16,305	-11,476	-22,994	-5,550	-7,731	-1,096	-1,448	-5,687	-5,456



<u>EVA® JD Group</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	1,651,000	2,134,000	1,876,000	1,351,000	867,000	475,000	510,000	435,000	431,000	413,000
- Tax on Operating Profit (at effective Tax rate of 30%)	495,300	640,200	562,800	405,300	260,100	142,500	153,000	130,500	129,300	123,900
=NOPAT (Before Adjustments)	1,155,700	1,493,800	1,313,200	945,700	606,900	332,500	357,000	304,500	301,700	289,100
NOPAT EVA Adjustments (Add back Non Cash Items)										
	38,000	33,000	20,000	15,600	19,100	14,900	0	140,000	0	0
+Intangible Assets Written Off	38,000	33,000	20,000	13,600	13,700	0	0	0	0	0
+Amortisation of goodwill	0	0	0	2,000	5,400	14,900	0	140,000	0	0
= NOPAT (After Adjustments)	1,193,700	1,526,800	1,333,200	961,300	626,000	347,400	357,000	444,500	301,700	289,100
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	187,000	152,000	205,000	207,000	259,000	176,000	113,000	91,200	83,000	68,000
=Tax saved on interest	56,100	45,600	61,500	62,100	77,700	52,800	33,900	27,360	24,900	20,400
After tax cost of debt	130,900	106,400	143,500	144,900	181,300	123,200	79,100	63,840	58,100	47,600
Long Term Loans + Short term interest bearing borrowings	1,051,000	1,313,000	1,127,000	1,309,000	1,338,000	1,281,000	1,457,000	750,000	487,000	447,000
Effective Interest Rate, Kd	12.45%	8.10%	12.73%	11.07%	13.55%	9.62%	5.43%	8.51%	11.93%	10.65%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.47492	0.46132	0.33185	0.29535	0.39086	0.36985	0.34698	0.35076	0.36461	0.35805
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	12.22%	12.14%	11.36%	11.14%	11.72%	11.59%	11.45%	11.47%	11.56%	11.52%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	5,698,000	5,304,000	4,462,000	3,755,000	3,293,000	1,939,000	1,877,000	1,686,000	1,574,000	1,167,000
Ke (%)	12.22%	12.14%	11.36%	11.14%	11.72%	11.59%	11.45%	11.47%	11.56%	11.52%
Cost of Equity (Rand)	696268.2496	643795.2768	506932.282	418385.855	385780.2188	224712.0673	214951.3653	193460.8603	181917.5463	134418.3654
Debt:										
Debt (Balance Sheet)	4,147,000	4,811,000	3,953,000	3,984,000	3,895,000	2,335,000	2,661,000	1,824,000	1,321,000	1,339,000
Kd (%)	12.45%	8.10%	12.73%	11.07%	13.55%	9.62%	5.43%	8.51%	11.93%	10.65%
Cost of Debt (Rand)	516500.7612	389863.214	503332.2981	441009.6257	527775.4111	224568.306	144464.722	155258.88	157597.7413	142587.0246
=WACC (Rand)	1212769.011	1033658.491	1010264.58	859395.4807	913555.6299	449280.3733	359416.0873	348719.7403	339515.2875	277005.39
=WACC (%)	12.3%	10.2%	12.0%	11.1%	12.7%	10.5%	7.9%	9.9%	11.7%	11.1%
STEP 5: CALCULATE EVA										
NOPAT	1,193,700	1,526,800	1,333,200	961,300	626,000	347,400	357,000	444,500	301,700	289,100
- Cost of Capital	1,212,769	1,033,658	1,010,265	859,395	913,556	449,280	359,416	348,720	339,515	277,005
EVA	-19,069	493,142	322,935	101,905	-287,556	-101,880	-2,416	95,780	-37,815	12,095



<i>EVA® Truworths</i>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	11,149	23,329	58,345	1,297	-2,843	693	1,498	-498	-758	
- Tax on Operating Profit (at effective Tax rate of 30%)	3,345	6,999	17,504	389	-853	208	449	-149	-227	
=NOPAT (Before Adjustments)	7,804	16,330	40,842	908	-1,990	485	1,049	-349	-531	
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	272	292	203	0	44	43	2,515	0	0	
+Amortisation of goodwill	0	0	0	0	0	0	1,981	0	0	
=NOPAT (After Adjustments)	8,076	16,622	41,045	908	-1,946	528	3,564	-349	-531	
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	2,661	967	911	158	2,561	2,590	2,365	39	39	
=Tax saved on interest	798	290	273	47	768	777	710	12	12	
After tax cost of debt	1,863	677	638	111	1,793	1,813	1,656	27	27	
Long Term Loans + Short term interest bearing borrowings	25,308	15,896	851	2,828	21,372	15,315	15,553	33	313	
Effective Interest Rate, Kd	7.36%	4.26%	74.94%	3.91%	8.39%	11.84%	10.64%	82.73%	8.72%	
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	
Beta (B)	1.05104	0.83586	0.14986	0	0.50919	0.37373	0.25819	0.28528	0.35660	
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	
Cost of Equity, Ke	15.68%	14.39%	10.27%	9.37%	12.43%	11.61%	10.92%	11.08%	11.51%	
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	48,589	61,305	72,141	4,948	2,653	16,375	10,308	649	28,579	
Ke (%)	15.68%	14.39%	10.27%	9.37%	12.43%	11.61%	10.92%	11.08%	11.51%	
Cost of Equity (Rand)	7616.928254	8818.822338	7408.274716	463.6276	329.6389642	1901.524769	1125.547657	71.9200241	3289.32423	
Debt:										
Debt (Balance Sheet)	54,185	35,361	41,719	3,563	24,844	17,872	16,960	907	2,624	
Kd (%)	7.36%	4.26%	74.94%	3.91%	8.39%	11.84%	10.64%	82.73%	8.72%	
Cost of Debt (Rand)	3988.0828	1505.778869	31262.28707	139.3450495	2083.934063	2115.69938	1805.264579	750.3363636	228.8664537	
=WACC (Rand)	11605.01105	10324.60121	38670.56179	602.9726495	2413.573027	4017.224148	2930.812236	822.2563877	3518.190684	
=WACC (%)	11.3%	10.7%	34.0%	7.1%	8.8%	11.7%	10.7%	52.8%	11.3%	
STEP 5: CALCULATE EVA										
NOPAT	8,076	16,622	41,045	908	-1,946	528	3,564	-349	-531	
- Cost of Capital	11,605	10,325	38,671	603	2,414	4,017	2,931	822	3,518	
EVA	-3,529	6,298	2,374	305	-4,360	-3,489	633	-1,171	-4,049	



<u>EVA® King Consolidated</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	4,088	5,386	1,871	2,287	-251	-1,722	-3,656	-900	-117,233	-8,807
- Tax on Operating Profit (at effective Tax rate of 30%)	1,226	1,616	561	686	-75	-517	-1,097	-270	-35,170	-2,642
=NOPAT (Before Adjustments)	2,862	3,770	1,310	1,601	-176	-1,205	-2,559	-630	-82,063	-6,165
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	0	0	0	0	0	502	3	6	117,647	27,982
+Amortisation of goodwill	0	0	0	0	0	0	0	0	12,387	27,982
= NOPAT (After Adjustments)	2,862	3,770	1,310	1,601	-176	-703	-2,556	-624	35,584	21,817
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	2,865	2,245	2,275	2,936	6,284	4,001	1,223	1,314	1,284	1,736
=Tax saved on interest	860	674	683	881	1,885	1,200	367	394	385	521
After tax cost of debt	2,006	1,572	1,593	2,055	4,399	2,801	856	920	899	1,215
Long Term Loans + Short term interest bearing borrowings	23,566	20,143	23,877	15,671	14,524	18,817	13,908	10,661	11,495	3,681
Effective Interest Rate, Kd	8.51%	7.80%	6.67%	13.11%	30.29%	14.88%	6.16%	8.63%	7.82%	33.01%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.94342	0.11162	0.87256	-0.07273	0.46372	0.34379	0.40183	0.28415	0.37337	0.35079
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	15.03%	10.04%	14.61%	8.93%	12.15%	11.43%	11.78%	11.07%	11.61%	11.47%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	18,035	16,881	11,921	12,324	4,227	10,762	17,479	17,669	17,954	131,118
Ke (%)	15.03%	10.04%	14.61%	8.93%	12.15%	11.43%	11.78%	11.07%	11.61%	11.47%
Cost of Equity (Rand)	2710.754282	1694.805133	1741.104966	1100.979329	513.6779324	1230.39269	2059.202574	1956.827849	2084.503685	15045.4392
Debt:										
Debt (Balance Sheet)	52,516	45,338	44,231	39,912	49,260	44,859	34,788	38,424	47,646	67,868
Kd (%)	8.51%	7.80%	6.67%	13.11%	30.29%	14.88%	6.16%	8.63%	7.82%	33.01%
Cost of Debt (Rand)	4469.186031	3537.142779	2950.03005	5234.327254	14919.09171	6676.760445	2141.357981	3315.110703	3725.465402	22405.10557
=WACC (Rand)	7179.940313	5231.947912	4691.135015	6335.306583	15432.76964	7907.153135	4200.560555	5271.938552	5809.969088	37450.54477
=WACC (%)	10.2%	8.4%	8.4%	12.1%	28.9%	14.2%	8.0%	9.4%	8.9%	18.8%
STEP 5: CALCULATE EVA										
NOPAT	2,862	3,770	1,310	1,601	-176	-703	-2,556	-624	35,584	21,817
- Cost of Capital	7,180	5,232	4,691	6,335	15,433	7,907	4,201	5,272	5,810	37,451
EVA	-4,318	-1,462	-3,381	-4,734	-15,608	-8,611	-6,757	-5,896	29,774	-15,633



<u>EVA @ Massmart</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	1,729,300	1,358,200	987,400	902,200	729,600	536,600	269,400	90,200		
- Tax on Operating Profit (at effective Tax rate of 30%)	518,790	407,460	296,220	270,660	218,880	160,980	80,820	27,060		
=NOPAT (Before Adjustments)	1,210,510	950,740	691,180	631,540	510,720	375,620	188,580	63,140		
NOPAT EVA Adjustments (Add back Non Cash Items)										
	50,600	21,100	72,400	74,600	54,000	46,900	21,500	764,200		
+Intangible Assets Written Off	38,400	21,100	0	0	4,500	7,200	8,500	8,600		
+Amortisation of goodwill	12,200	0	72,400	74,600	49,500	39,700	13,000	755,600		
= NOPAT (After Adjustments)	1,261,110	971,840	763,580	706,140	564,720	422,520	210,080	827,340		
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	100,400	95,900	71,400	55,500	78,500	40,500	22,700	50,900		
=Tax saved on interest	30,120	28,770	21,420	16,650	23,550	12,150	6,810	15,270		
After tax cost of debt	70,280	67,130	49,980	38,850	54,950	28,350	15,890	35,630		
Long Term Loans + Short term interest bearing borrowings	571,300	760,000	668,600	361,700	356,100	364,700	45,700	38,300		
Effective Interest Rate, Kd	12.30%	8.83%	7.48%	10.74%	15.43%	7.77%	34.77%	93.03%		
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%		
Beta (B)	0.60379	0.79089	0.19401	0.45463	0.51083	0.48759	0.41177	0.46620		
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%		
Cost of Equity, Ke	12.99%	14.12%	10.53%	12.10%	12.43%	12.30%	11.84%	12.17%		
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	2,264,800	1,952,400	1,652,700	1,881,900	1,688,500	1,426,700	1,215,700	613,700		
Ke (%)	12.99%	14.12%	10.53%	12.10%	12.43%	12.30%	11.84%	12.17%		
Cost of Equity (Rand)	294259.5755	275587.8982	174096.4096	227668.1218	209964.6373	175420.4692	143946.0526	74670.24448		
Debt:										
Debt (Balance Sheet)	8,610,600	7,716,600	6,473,000	5,190,200	4,127,900	3,530,900	2,938,800	2,510,700		
Kd (%)	12.30%	8.83%	7.48%	10.74%	15.43%	7.77%	34.77%	93.03%		
Cost of Debt (Rand)	1059256.027	681599.1553	483877.5651	557476.5552	636978.6717	274474.952	1021827.834	2335672.089		
=WACC (Rand)	1353515.602	957187.0534	657973.9747	785144.677	846943.309	449895.4212	1165773.886	2410342.333		
=WACC (%)	12.4%	9.9%	8.1%	11.1%	14.6%	9.1%	28.1%	77.1%		
STEP 5: CALCULATE EVA										
NOPAT	1,261,110	971,840	763,580	706,140	564,720	422,520	210,080	827,340		
- Cost of Capital	1,353,516	957,187	657,974	785,145	846,943	449,895	1,165,774	2,410,342		
EVA	-92,406	14,653	105,606	-79,005	-282,223	-27,375	-955,694	-1,583,002		



<u>EVA® Mr Price</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	678,512	601,367	445,438	333,006	278,155	209,201	139,821	141,772	110,273	
- Tax on Operating Profit (at effective Tax rate of 30%)	203,554	180,410	133,631	99,902	83,447	62,760	41,946	42,532	33,082	
=NOPAT (Before Adjustments)	474,958	420,957	311,807	233,104	194,709	146,441	97,875	99,240	77,191	
NOPAT EVA Adjustments (Add back Non Cash Items)										
	4,626	4,558	5,049	5,490	5,056	5,639	3,735	279	113,001	
+Intangible Assets Written Off	4,626	4,558	5,049	5,112	4,688	4,124	3,409	27	113,001	
+Amortisation of goodwill	0	0	0	378	368	1,515	326	252	0	
= NOPAT (After Adjustments)	479,584	425,515	316,856	238,594	199,765	152,080	101,610	99,519	190,192	
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	6,311	12,762	35,731	36,460	37,706	16,304	17,379	2,796	10,299	
=Tax saved on interest	1,893	3,829	10,719	10,938	11,312	4,891	5,214	839	3,090	
After tax cost of debt	4,418	8,933	25,012	25,522	26,394	11,413	12,165	1,957	7,209	
Long Term Loans + Short term interest bearing borrowings	132,878	118,020	5,657	132,042	63,531	86,484	106,270	856	326	
Effective Interest Rate, Kd	3.32%	7.57%	442.14%	19.33%	41.55%	13.20%	11.45%	228.64%	2211.44%	
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	
Beta (B)	0.78329	0.73656	0.43546	1.0596	0.75373	0.74634	0.74878	0.82711	0.76899	
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	
Cost of Equity, Ke	14.07%	13.79%	11.98%	15.73%	13.89%	13.85%	13.86%	14.33%	13.98%	
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	1,316,808	1,025,647	1,135,154	925,214	788,918	673,010	560,716	470,944	376,192	
Ke (%)	14.07%	13.79%	11.98%	15.73%	13.89%	13.85%	13.86%	14.33%	13.98%	
Cost of Equity (Rand)	185271.4619	141430.1572	136022.7795	145513.9571	109599.3681	93198.56781	77730.30159	67498.84094	52606.44571	
Debt:										
Debt (Balance Sheet)	1,176,854	1,001,192	978,483	930,126	900,712	806,852	683,738	543,769	326,036	
Kd (%)	3.32%	7.57%	442.14%	19.33%	41.55%	13.20%	11.45%	228.64%	2211.44%	
Cost of Debt (Rand)	39126.02474	75784.17737	4326237.096	179781.2497	374204.2888	106475.6545	78271.17617	1243299.868	7210096.119	
=WACC (Rand)	224397.4866	217214.3345	4462259.875	325295.2068	483803.6569	199674.2223	156001.4778	1310798.709	7262702.565	
=WACC (%)	9.0%	10.7%	211.1%	17.5%	28.6%	13.5%	12.5%	129.2%	1034.2%	
STEP 5: CALCULATE EVA										
NOPAT	479,584	425,515	316,856	238,594	199,765	152,080	101,610	99,519	190,192	
- Cost of Capital	224,397	217,214	4,462,260	325,295	483,804	199,674	156,001	1,310,799	7,262,703	
EVA	255,187	208,301	-4,145,404	-86,701	-284,039	-47,595	-54,392	-1,211,279	-7,072,510	



<u>EVA® NewClicks</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	538,846	398,717	349,351	173,424	386,771	278,203	291,608	207,161	193,545	132,372
- Tax on Operating Profit (at effective Tax rate of 30%)	161,654	119,615	104,805	52,027	116,031	83,461	87,482	62,148	58,064	39,712
=NOPAT (Before Adjustments)	377,192	279,102	244,546	121,397	270,740	194,742	204,126	145,013	135,482	92,660
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	6,361	6,386	17,464	275,118	23,719	11,996	1,702	43,065	0	125,609
+Amortisation of goodwill	250	1,254	16,814	274,468	23,719	11,346	23,552	0	0	0
= NOPAT (After Adjustments)	383,553	285,488	262,010	396,515	294,459	206,738	205,828	188,078	135,482	218,269
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	54,693	68,589	56,964	78,086	88,760	70,684	44,185	20,956	22,817	23,232
=Tax saved on interest	16,408	20,577	17,089	23,426	26,628	21,205	13,256	6,287	6,845	6,970
After tax cost of debt	38,285	48,012	39,875	54,660	62,132	49,479	30,930	14,669	15,972	16,262
Long Term Loans + Short term interest bearing borrowings	132,878	118,020	5,657	132,042	63,531	86,484	106,270	856	326	0
Effective Interest Rate, Kd	28.81%	40.68%	704.88%	41.40%	97.80%	57.21%	29.10%	1713.69%	4899.36%	0.00%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.65897	0.58835	0.41069	0.51046	0.54212	0.51290	0.49404	0.51488	0.51599	0.50945
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	13.32%	12.90%	11.83%	12.43%	12.62%	12.45%	12.33%	12.46%	12.47%	12.43%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	1,296,188	1,593,949	1,340,223	1,372,697	1,608,510	1,221,757	1,016,837	827,555	656,319	533,774
Ke (%)	13.32%	12.90%	11.83%	12.43%	12.62%	12.45%	12.33%	12.46%	12.47%	12.43%
Cost of Equity (Rand)	172701.756	205621.0149	158603.8661	170664.1235	203037.4722	152077.3015	125419.2971	103107.4547	81816.19546	66330.6143
Debt:										
Debt (Balance Sheet)	2,714,191	2,090,458	1,849,952	1,760,937	1,845,320	1,240,033	965,400	899,627	809,715	618,113
Kd (%)	28.81%	40.68%	704.88%	41.40%	97.80%	57.21%	29.10%	1713.69%	4899.36%	0.00%
Cost of Debt (Rand)	782018.6476	850429.5597	13039856.11	728958.7299	1804684.677	709441.5707	280976.1861	15416832.23	39670819.04	0
=WACC (Rand)	954720.4036	1056050.575	13198459.98	899622.8534	2007722.15	861518.8722	406395.4832	15519939.68	39752635.24	66330.6143
=WACC (%)	23.8%	28.7%	413.7%	28.7%	58.1%	35.0%	20.5%	898.6%	2711.6%	5.8%
STEP 5: CALCULATE EVA										
NOPAT	383,553	285,488	262,010	396,515	294,459	206,738	205,828	188,078	135,482	218,269
- Cost of Capital	954,720	1,056,051	13,198,460	899,623	2,007,722	861,519	406,395	15,519,940	39,752,635	66,331
EVA	-571,167	-770,563	-12,936,450	-503,108	-1,713,263	-654,781	-200,568	-15,331,862	-39,617,154	151,939



<u>EVA® African & Overseas</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	22,616	19,130	28,551	7,965	20,491	8,767	6,409	19,783	24,472	23,349
- Tax on Operating Profit (at effective Tax rate of 30%)	6,785	5,739	8,565	2,390	6,147	2,630	1,923	5,935	7,342	7,005
=NOPAT (Before Adjustments)	15,831	13,391	19,986	5,576	14,344	6,137	4,486	13,848	17,130	16,344
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	0	0	0	0	0	0	0	0	54	29
+Amortisation of goodwill	0	0	0	0	0	0	0	0	0	0
= NOPAT (After Adjustments)	15,831	13,391	19,986	5,576	14,344	6,137	4,486	13,848	17,184	16,373
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	12	57	339	335	124	39	57	137	180	0
=Tax saved on interest	4	17	102	101	37	12	17	41	54	0
After tax cost of debt	8	40	237	235	87	27	40	96	126	0
Long Term Loans + Short term interest bearing borrowings	3,855	3,353	0	0	0	0	0	3,118	1,703	0
Effective Interest Rate, Kd	0.22%	1.19%	0.00%	0.00%	0.00%	0.00%	0.00%	3.08%	7.40%	0.00%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.13626	0.11883	-0.10487	-0.23147	-0.020313	-0.059456	-0.104027	-0.103816	-0.071903	-0.084800
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	10.19%	10.08%	8.74%	7.98%	9.25%	9.01%	8.75%	8.75%	8.94%	8.86%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	159,736	148,253	139,845	175,686	178,808	168,638	164,374	163,259	156,727	146,185
Ke (%)	10.19%	10.08%	8.74%	7.98%	9.25%	9.01%	8.75%	8.75%	8.94%	8.86%
Cost of Equity (Rand)	16273.20084	14948.32034	12223.54379	14021.81589	16536.38735	15199.79194	14375.88345	14280.43169	14009.17272	12953.74126
Debt:										
Debt (Balance Sheet)	110,914	101,060	98,206	109,749	118,166	103,612	103,159	107,672	108,701	99,763
Kd (%)	0.22%	1.19%	0.00%	0.00%	0.00%	0.00%	0.00%	3.08%	7.40%	0.00%
Cost of Debt (Rand)	241.6803113	1202.592902	0	0	0	0	0	3311.656446	8042.469759	0
=WACC (Rand)	16514.88115	16150.91324	12223.54379	14021.81589	16536.38735	15199.79194	14375.88345	17592.08813	22051.64247	12953.74126
=WACC (%)	6.1%	6.5%	5.1%	4.9%	5.6%	5.6%	5.4%	6.5%	8.3%	5.3%
STEP 5: CALCULATE EVA										
NOPAT	15,831	13,391	19,986	5,576	14,344	6,137	4,486	13,848	17,184	16,373
- Cost of Capital	16,515	16,151	12,224	14,022	16,536	15,200	14,376	17,592	22,052	12,954
EVA	-684	-2,760	7,762	-8,446	-2,193	-9,063	-9,890	-3,744	-4,867	3,420



<u>EVA® Cashbuild</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	194,204	136,749	124,589	90,571	73,577	39,033	23,749	4,531	18,199	22,675
- Tax on Operating Profit (at effective Tax rate of 30%)	58,261	41,025	37,377	27,171	22,073	11,710	7,125	1,359	5,460	6,803
=NOPAT (Before Adjustments)	135,943	95,724	87,212	63,400	51,504	27,323	16,624	3,172	12,739	15,873
NOPAT EVA Adjustments (Add back Non Cash Items)										
	1,795	1,734	1,265	220	134	1	1	5	128	121
+Intangible Assets Written Off	1,333	1,734	1,025	3	1	1	1	5	128	121
+Amortisation of goodwill	462	0	240	217	133	0	0	0	0	0
= NOPAT (After Adjustments)	137,738	97,458	88,477	63,620	51,638	27,324	16,625	3,177	12,867	15,994
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	2,533	1,336	645	681	551	202	1,733	4,129	5,127	8,237
=Tax saved on interest	760	401	194	204	165	61	520	1,239	1,538	2,471
After tax cost of debt	1,773	935	452	477	386	141	1,213	2,890	3,589	5,766
Long Term Loans + Short term interest bearing borrowings	1,645	1,454	47	492	63	178	279	3,105	14,917	5,546
Effective Interest Rate, Kd	107.79%	64.32%	960.64%	96.89%	612.22%	79.44%	434.80%	93.09%	24.06%	103.97%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.25589	-0.09948	-0.07766	0.05708	0.03396	-0.02153	-0.00204	0.01687	0.00682	0.00003
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	10.91%	8.77%	8.90%	9.71%	9.57%	9.24%	9.36%	9.47%	9.41%	9.37%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	383,293	286,845	220,378	184,913	143,846	103,445	91,143	77,576	76,965	71,919
Ke (%)	10.91%	8.77%	8.90%	9.71%	9.57%	9.24%	9.36%	9.47%	9.41%	9.37%
Cost of Equity (Rand)	41799.40485	25165.25606	19622.54527	17959.63814	13771.44923	9559.193403	8528.959432	7347.387627	7243.095592	6738.941851
Debt:										
Debt (Balance Sheet)	683,086	634,223	570,318	412,219	348,453	322,968	239,594	233,902	195,756	191,615
Kd (%)	107.79%	64.32%	960.64%	96.89%	612.22%	79.44%	434.80%	93.09%	24.06%	103.97%
Cost of Debt (Rand)	736279.5055	407926.6503	5478693.128	399399.9945	2133306.7	256559.973	1041761.582	217728.4865	47097.18498	199212.5728
=WACC (Rand)	778078.9104	433091.9064	5498315.673	417359.6327	2147078.149	266119.1664	1050290.542	225075.8741	54340.28058	205951.5146
=WACC (%)	73.0%	47.0%	695.4%	69.9%	436.1%	62.4%	317.6%	72.3%	19.9%	78.1%
STEP 5: CALCULATE EVA										
NOPAT	137,738	97,458	88,477	63,620	51,638	27,324	16,625	3,177	12,867	15,994
- Cost of Capital	778,079	433,092	5,498,316	417,360	2,147,078	266,119	1,050,291	225,076	54,340	205,952
EVA	-640,341	-335,634	-5,409,838	-353,740	-2,095,440	-238,795	-1,033,665	-221,899	-41,473	-189,958



<i>EVA® Combined Motor Holdings</i>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
<i>NOPAT = EBIT - TAX</i>										
Profit Before Interest and Tax (EBIT)	219,455	324,762	263,966	178,434	109,902	95,437	79,133	65,910	49,038	44,114
- Tax on Operating Profit (at effective Tax rate of 30%)	65,837	97,429	79,190	53,530	32,971	28,631	23,740	19,773	14,711	13,234
=NOPAT (Before Adjustments)	153,619	227,333	184,776	124,904	76,931	66,806	55,393	46,137	34,327	30,880
<i>NOPAT EVA Adjustments (Add back Non Cash Items)</i>										
+Intangible Assets Written Off	0	0	0	0	0	0	0	0	3,279	0
+Amortisation of goodwill	0	0	0	5,450	7,882	7,486	9,715	5,756	0	6,920
= NOPAT (After Adjustments)	153,619	227,333	184,776	130,354	84,813	74,292	65,108	51,893	37,606	37,800
STEP 2: CALCULATE THE COST OF DEBT, Kd										
<i>AFTER TAX COST OF INTEREST</i>										
Interest charge (Income statement)	52,690	42,526	23,498	12,533	15,417	17,673	14,768	8,106	3,248	6,150
=Tax saved on interest	15,807	12,758	7,049	3,760	4,625	5,302	4,430	2,432	974	1,845
After tax cost of debt	36,883	29,768	16,449	8,773	10,792	12,371	10,338	5,674	2,274	4,305
Long Term Loans + Short term interest bearing borrowings	6,838	8,556	4,173	2,434	3,784	12,532	9,375	12,002	9,600	5,548
Effective Interest Rate, Kd	539.38%	347.92%	394.17%	360.44%	285.20%	98.72%	110.27%	47.28%	23.68%	77.60%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
<i>Ke = CAPM = Rf + (B x MRP)</i>										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	-0.12822	0.40262	0.25215	0.29473	0.20532	0.28871	0.26023	0.26225	0.25412	0.26633
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	8.60%	11.79%	10.88%	11.14%	10.60%	11.10%	10.93%	10.94%	10.89%	10.97%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
<i>Equity:</i>										
Equity (Balance Sheet)	484,837	450,306	478,430	365,581	272,929	225,937	189,437	160,553	123,501	103,556
Ke (%)	8.60%	11.79%	10.88%	11.14%	10.60%	11.10%	10.93%	10.94%	10.89%	10.97%
Cost of Equity (Rand)	41699.27889	53071.8043	52067.05847	40719.80099	28935.71424	25084.0454	20708.03571	17570.0724	13455.11883	11357.97139
<i>Debt:</i>										
Debt (Balance Sheet)	1,775,129	1,933,076	1,289,687	776,181	585,182	499,764	353,901	296,460	213,631	119,072
Kd (%)	539.38%	347.92%	394.17%	360.44%	285.20%	98.72%	110.27%	47.28%	23.68%	77.60%
Cost of Debt (Rand)	9574741.578	6725595.253	5083523.985	2797663.735	1668928.548	493347.4641	390238.6109	140157.7514	50594.94183	92394.54939
=WACC (Rand)	9616440.856	6778667.057	5135591.043	2838383.536	1697864.262	518431.5095	410946.6467	157727.8238	64050.06066	103752.5208
=WACC (%)	425.5%	284.4%	290.5%	248.6%	197.9%	71.4%	75.6%	34.5%	19.0%	46.6%
STEP 5: CALCULATE EVA										
NOPAT	153,619	227,333	184,776	130,354	84,813	74,292	65,108	51,893	37,606	37,800
- Cost of Capital	9,616,441	6,778,667	5,135,591	2,838,384	1,697,864	518,432	410,947	157,728	64,050	103,753
EVA	-9,462,822	-6,551,334	-4,950,815	-2,708,030	-1,613,051	-444,140	-345,839	-105,835	-26,444	-65,953



<i>EVA® Foschini</i>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	2,092,000	1,756,400	1,199,700	808,100	576,700	383,400	199,600	333,700	348,600	340,100
- Tax on Operating Profit (at effective Tax rate of 30%)	627,600	526,920	359,910	242,430	173,010	115,020	59,880	100,110	104,580	102,030
=NOPAT (Before Adjustments)	1,464,400	1,229,480	839,790	565,670	403,690	268,380	139,720	233,590	244,020	238,070
NOPAT EVA Adjustments (Add back Non Cash Items)										
	1,500	0	0	6,500	5,300	3,100	3,100	200	100	0
+Intangible Assets Written Off	1,500	0	0	0	0	0	0	200	100	0
+Amortisation of goodwill	0	0	0	6,500	5,300	3,100	3,100	0	0	0
= NOPAT (After Adjustments)	1,465,900	1,229,480	839,790	572,170	408,990	271,480	142,820	233,790	244,120	238,070
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	104,700	79,100	58,400	55,500	63,500	100,600	43,200	23,400	37,700	43,000
=Tax saved on interest	31,410	23,730	17,520	16,650	19,050	30,180	12,960	7,020	11,310	12,900
After tax cost of debt	73,290	55,370	40,880	38,850	44,450	70,420	30,240	16,380	26,390	30,100
Long Term Loans + Short term interest bearing borrowings	1,020,500	805,000	556,100	321,300	356,800	489,600	406,800	126,400	90,800	142,100
Effective Interest Rate, Kd	7.18%	6.88%	7.35%	12.09%	12.46%	14.38%	7.43%	12.96%	29.06%	21.18%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.64404	0.64709	0.41945	0.61876	0.58234	0.56691	0.54686	0.57872	0.56871	0.56530
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	13.23%	13.25%	11.89%	13.08%	12.86%	12.77%	12.65%	12.84%	12.78%	12.76%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	4,004,900	3,211,800	2,646,000	2,301,500	2,082,100	1,838,700	1,841,300	1,755,700	1,552,900	1,385,900
Ke (%)	13.23%	13.25%	11.89%	13.08%	12.86%	12.77%	12.65%	12.84%	12.78%	12.76%
Cost of Equity (Rand)	530018.0778	425645.0797	314522.082	301095.1184	267841.5522	234828.6971	232946.1888	225472.2748	198495.3425	176865.6819
Debt:										
Debt (Balance Sheet)	2,960,500	2,789,400	2,091,200	1,516,200	1,308,700	1,256,400	1,087,600	883,200	545,700	615,400
Kd (%)	7.18%	6.88%	7.35%	12.09%	12.46%	14.38%	7.43%	12.96%	29.06%	21.18%
Cost of Debt (Rand)	212616.4086	191862.2087	153728.2072	183331.3725	163037.3178	180710.1471	80848.14159	114452.6582	158601.5749	130355.665
=WACC (Rand)	742634.4864	617507.2884	468250.2892	484426.4909	430878.87	415538.8442	313794.3304	339924.933	357096.9174	307221.3469
=WACC (%)	10.7%	10.3%	9.9%	12.7%	12.7%	13.4%	10.7%	12.9%	17.0%	15.4%
STEP 5: CALCULATE EVA										
NOPAT	1,465,900	1,229,480	839,790	572,170	408,990	271,480	142,820	233,790	244,120	238,070
- Cost of Capital	742,634	617,507	468,250	484,426	430,879	415,539	313,794	339,925	357,097	307,221
EVA	723,266	611,973	371,540	87,744	-21,889	-144,059	-170,974	-106,135	-112,977	-69,151



<u>EVA® Advtech</u>	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
STEP 1: CALCULATING NOPAT, R										
NOPAT = EBIT - TAX										
Profit Before Interest and Tax (EBIT)	178,000	131,683	92,279	60,461	75,351	-200,821	8,119	65,364	-152,483	9,331
- Tax on Operating Profit (at effective Tax rate of 30%)	53,400	39,505	27,684	18,138	22,605	-60,246	2,436	19,609	-45,745	2,799
=NOPAT (Before Adjustments)	124,600	92,178	64,595	42,323	52,746	-140,575	5,683	45,755	-106,738	6,532
NOPAT EVA Adjustments (Add back Non Cash Items)										
+Intangible Assets Written Off	1,068	585	0	0	2,168	440	356	2,615	81,278	227
+Amortisation of goodwill	0	1	0	0	-8,621	244,923	23,770	14,445	206,075	34,733
= NOPAT (After Adjustments)	125,668	92,764	64,595	42,323	46,293	104,788	29,809	62,815	180,615	41,492
STEP 2: CALCULATE THE COST OF DEBT, Kd										
AFTER TAX COST OF INTEREST										
Interest charge (Income statement)	3,131	3,860	5,147	4,463	23,938	41,275	11,615	36,417	17,072	4,718
=Tax saved on interest	939	1,158	1,544	1,339	7,181	12,383	3,485	10,925	5,122	1,415
After tax cost of debt	2,192	2,702	3,603	3,124	16,757	28,893	8,131	25,492	11,950	3,303
Long Term Loans + Short term interest bearing borrowings	10,896	18,144	23,200	35,181	78,551	134,163	129,250	157,043	74,532	6,049
Effective Interest Rate, Kd	20.11%	14.89%	15.53%	8.88%	21.33%	21.54%	6.29%	16.23%	16.03%	54.60%
STEP 3: CALCULATE THE COST OF EQUITY, Ke										
Ke = CAPM = Rf + (B x MRP)										
Rf (Government Bonds)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Beta (B)	0.46285	0.24165	0.59477	0.77125	0.51763	0.53133	0.60374	0.60599	0.56467	0.57643
MRP (6% = expected growth)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Cost of Equity, Ke	12.15%	10.82%	12.94%	14.00%	12.48%	12.56%	12.99%	13.01%	12.76%	12.83%
STEP 4: CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL, K										
WACC										
Equity:										
Equity (Balance Sheet)	416,180	328,628	286,898	252,598	213,941	180,502	439,487	455,344	262,642	246,476
Ke (%)	12.15%	10.82%	12.94%	14.00%	12.48%	12.56%	12.99%	13.01%	12.76%	12.83%
Cost of Equity (Rand)	50553.80078	35557.22097	37120.64201	35357.40505	26690.80849	22667.35091	57100.18367	59221.69059	33507.94228	31619.39828
Debt:										
Debt (Balance Sheet)	244,093	201,777	194,658	170,528	167,803	224,673	232,535	271,108	105,891	57,811
Kd (%)	20.11%	14.89%	15.53%	8.88%	21.33%	21.54%	6.29%	16.23%	16.03%	54.60%
Cost of Debt (Rand)	49098.62593	30048.58102	30229.88397	15143.01824	35795.95104	48384.16443	14627.6659	44007.42488	16978.47645	31563.3342
=WACC (Rand)	99652.42671	65605.80199	67350.52598	50500.42329	62486.75953	71051.51534	71727.84957	103229.1155	50486.41872	63182.73248
=WACC (%)	15.1%	12.4%	14.0%	11.9%	16.4%	17.5%	10.7%	14.2%	13.7%	20.8%
STEP 5: CALCULATE EVA										
NOPAT	125,668	92,764	64,595	42,323	46,293	104,788	29,809	62,815	180,615	41,492
- Cost of Capital	99,652	65,606	67,351	50,500	62,487	71,052	71,728	103,229	50,486	63,183
EVA	26,016	27,158	-2,755	-8,178	-16,194	33,737	-41,919	-40,414	130,128	-21,691

3 Growth rates for banking shares listed on the JSE

Year	Turn Over Growth Rate	BankName	Bank	EVA Growth Rate	Share Price Growth Rate	P/E Growth Rate	EPS Growth Rate	ROA Growth Rate	EBITDA Growth Rate
1999	22.59%	ABSA	2	-1.162248875	-0.237990196	-0.332446809	0.14154073	0.123222749	0.233564536
2000	-24.08%	ABSA	2	-0.254649099	-0.221614667	-0.22310757	0.001937359	-0.312236287	-0.26907876
2001	3.15%	ABSA	2	1.291088512	0.32107438	0.082051282	0.22043184	-0.047034765	0.057807013
2002	-2.96%	ABSA	2	-10.61514843	-0.167031592	0.084123223	-0.231317666	-0.232832618	-0.036467116
2003	43.46%	ABSA	2	0.601250745	0.176492677	-0.351912568	0.813809687	0.34965035	0.453292496
2004	-2.03%	ABSA	2	-0.659563237	0.459623364	0.119730185	0.303977273	-0.141968912	-0.023408099
2005	77.46%	ABSA	2	6.270056363	1.120708506	0.615963855	0.312505447	0.312801932	0.752909441
2006	-23.65%	ABSA	2	-0.641076078	0.214786554	-0.07082945	0.307792754	-0.358785649	-0.225158284
2007	40.95%	ABSA	2	-0.055403005	-0.016042781	-0.170511535	0.186241327	0.12482066	0.446717358
2002	294.19%	Capitec	3	0.772673085	1.032	2.538461538	-0.426433915	-0.31887456	-0.108184886
2003	29.74%	Capitec	3	0.375121903	1.24015748	0.469202899	0.526086957	0.153184165	0.3989651
2004	51.18%	Capitec	3	-0.317917446	1.481546573	0.711467324	0.448717949	-0.011940299	0.567100514
2005	53.41%	Capitec	3	1.809387051	1.114022663	0.303314121	0.622418879	0.16163142	0.412923202
2006	34.64%	Capitec	3	-6.929307085	0.233835846	-0.048577114	0.347878788	-0.025357607	0.661710555
2007	30.42%	Capitec	3	-3.065161665	0.091501493	-0.062801932	0.164568345	-0.118078719	0.196177201
1999	323.39%	Firstrand	4	-2.41556784	-0.303974221	-0.578713312	0.652173913	3.421296296	-0.633784655
2000	-24.27%	Firstrand	4	0.274515239	0.089506173	-0.081632653	0.186403509	-0.352879581	8.804577465
2001	6.98%	Firstrand	4	-0.018193606	0.188385269	-0.052873563	0.255083179	-0.100323625	0.032680912
2002	25.63%	Firstrand	4	-0.125223058	-0.075089392	-0.275889968	0.276877761	-0.102517986	0.035124326
2003	30.47%	Firstrand	4	-0.285145178	-0.009020619	-0.044692737	0.036908881	0.216432866	0.29346548
2004	-7.46%	Firstrand	4	0.264413879	0.319895969	0.076023392	0.226918799	-0.136738056	-0.072727273
2005	16.10%	Firstrand	4	0.249491116	0.38817734	0.047826087	0.325475975	0.070610687	0.064425577
2006	12.74%	Firstrand	4	0.942085967	0.210787793	0.121369295	0.079343365	-0.096256684	0.218421053
2007	44.11%	Firstrand	4	-4.547728552	0.34056272	0.04440333	0.283269962	0.179487179	-0.004319654
2000	-65.18%	Mercantile	5	-4.339594783	-0.588832487	0.156650246	-0.644329897	-0.780798641	0.313165626
2001	54.02%	Mercantile	5	0.462966367	-0.654320988	-1.211243612	-2.637681159	1.085271318	0.144724883
2002	-92.42%	Mercantile	5	-1.842299367	-0.607142857	0.935483871	-5.04159292	-1.836431227	-0.063732975
2003	539.46%	Mercantile	5	0.812675785	0.363636364	-13.1875	0.903325033	2.006666667	-0.536318862
2004	-145.73%	Mercantile	5	-2.397751409	0	0.436123348	-0.772727273	-1.867549669	-0.162563309
2005	-449.42%	Mercantile	5	0.844618401	1.333333333	17.0859375	1.145299145	2.34351145	0.413775724
2006	47.03%	Mercantile	5	0.537937137	-0.257142857	-0.514327343	0.529411765	0.231060606	-0.160596518
2007	37.87%	Mercantile	5	1.208275006	0.307692308	-0.171	0.576923077	0.355384615	-0.007644394
1999	-18.06%	Nedbank	6	-0.314902948	0.264613831	-0.027821294	0.300813008	-0.332046332	-0.021875
2000	19.81%	Nedbank	6	7.502408993	0.270477407	0.026982829	0.237304688	0.061657033	0.476038339
2001	-25.19%	Nedbank	6	-1.718988626	-0.258326002	-0.40366242	0.243883189	-0.40199637	-0.147186147
2002	48.38%	Nedbank	6	-0.083465322	-0.024570025	0.504672897	-0.351522843	0.078907436	-0.04822335
2003	13.43%	Nedbank	6	-0.187462142	-0.444280379	27.38509317	-0.980430528	0.036568214	-0.218666667
2004	-14.91%	Nedbank	6	0.46980537	0.192560175	-0.94051266	19.05	-0.242876526	0.549488055
2005	8.20%	Nedbank	6	0.480355839	0.232372215	-0.379926432	0.987531172	0.03046595	-0.059471366
2006	20.84%	Nedbank	6	0.353531803	0.350420079	-0.030508475	0.39272271	0.010434783	0.067915691
2007	48.04%	Nedbank	6	1.055446644	0.04646401	-0.217657343	0.337837838	0.30292599	0.195175439
1999	-69.57%	RMBHolding	7	-1.216196248	-0.328492393	-0.498958333	0.34063745	-0.605371901	-0.971997115
2000	89.43%	RMBHolding	7	0.027214867	0.038105046	-0.210672211	0.315007429	0.664921466	0.515151515
2001	-78.11%	RMBHolding	7	-0.992666777	0.538690476	0.205443371	0.276836158	-1.149371069	0.26
2002	124.80%	RMBHolding	7	0.203243869	-0.272082527	-0.419519301	0.253982301	3.463157895	0.253968254
2003	-1.94%	RMBHolding	7	0.029443179	-0.04340124	-0.084065245	0.043754411	-0.226495726	0.607594937
2004	158.29%	RMBHolding	7	-0.180355604	0.487037037	0.221917808	0.217714672	1.386740331	0.409448819
2005	105.13%	RMBHolding	7	-0.292905989	0.384184309	0.060538117	0.304275403	0.75	0.111731844
2006	-11.98%	RMBHolding	7	-0.503364432	0.145299145	0.086680761	0.05406556	-0.283068783	0.085427136
2007	34.18%	RMBHolding	7	-0.279337994	0.331500393	0.027237354	0.296042003	0.118081181	-0.009259259
1999	13.39%	Standard	1	1.432772483	0.517707663	0.071428571	0.415934388	-0.370629371	-0.003887942
2000	-1.03%	Standard	1	-1.111854411	0.236741621	0.05025641	0.178320232	-0.027777778	0.093407475
2001	21.21%	Standard	1	-1.771126987	-0.017495712	-0.168945313	0.181530899	-0.122857143	0.215452323
2002	19.37%	Standard	1	1.390363615	0.067039106	-0.094007051	0.177711738	0.223127036	0.207273898
2003	23.64%	Standard	1	3.662959789	0.249018325	0.057068742	0.181680545	-0.106524634	0.23523727
2004	2.46%	Standard	1	-1.717695262	0.59758973	0.293251534	0.235746316	-0.114754098	0.010224728
2005	8.51%	Standard	1	1.519403738	0.17513939	-0.032258065	0.213582167	-0.109427609	0.089248518
2006	28.54%	Standard	1	3.848466041	0.24769746	0.047058824	0.192367934	0.026465028	0.308178876
2007	23.52%	Standard	1	1.052582491	0.170562577	-0.051498127	0.234057798	0.023941068	0.246392294

4 Growth rates for retail shares listed on the JSE

Year	Turn Over		Retailer	Share Price				ROA Growth Rate	EBITDA Growth Rate
	Growth Rate	RetailerName		EVA Growth Rate	Growth Rate	P/E Growth Rate	EPS Growth Rate		
1999	0.343721333	AdvTech	21	6.999183366	-0.534013605	-0.545228216	0.024590164	-10.91148325	-10.33881579
2000	1.683504895	AdvTech	21	-1.310572406	-0.788321168	-0.712591241	-0.264	1.353125754	1.587861923
2001	-0.069077196	AdvTech	21	-0.037220328	-0.172413793	0.228571429	-0.326086957	-0.869446343	-0.684686088
2002	-0.08890784	AdvTech	21	1.804817557	0.458333333	0.705426357	-0.14516129	-27.08900524	-7.895180906
2003	0.033411476	AdvTech	21	-1.480011942	1.171428571	0.309090909	0.660377358	1.396949629	1.52835867
2004	0.173019284	AdvTech	21	0.495017091	0.552631579	0.137731481	0.363636364	-0.275025278	-0.147196895
2005	0.160048365	AdvTech	21	0.663081535	0.711864407	0.309257375	0.308333333	0.340306834	0.442322748
2006	0.255801886	AdvTech	21	10.85701289	0.475247525	0.02020202	0.445859873	0.313215401	0.338783957
2007	0.159712527	AdvTech	21	-0.042076448	0.610738255	0.142421935	0.40969163	0.087559429	0.332982794
1999	0.114270807	African&Overseas	17	-2.423353959	0.043478261	-0.101928375	0.163157895	-0.037205771	0.104783123
2000	0.118758586	African&Overseas	17	0.230778381	0.265625	0.668711656	-0.242081448	-0.206624606	-0.118824048
2001	-0.027571393	African&Overseas	17	-1.641456941	-0.503429355	0.705882353	-0.708955224	-0.669980119	-0.467727517
2002	0.17861297	African&Overseas	17	0.083592146	0.049723757	-0.404633621	0.764102564	0.343373494	0.16110178
2003	0.070672135	African&Overseas	17	0.758058756	0.052631579	-0.509502262	1.145348837	1.114349776	0.696754036
2004	0.053128277	African&Overseas	17	-2.852038411	0.44	4.108856089	-0.718157182	-0.593849417	-0.377050298
2005	-0.16338608	African&Overseas	17	1.918999041	0.128472222	-0.582881907	1.706730769	3.253263708	1.226352091
2006	0.015999667	African&Overseas	17	-1.355560126	0.052307692	0.691774892	-0.378330373	-0.357274401	-0.219222542
2007	0.229946154	African&Overseas	17	0.752281651	-0.159356725	-0.561412487	0.917142857	0.089780325	0.151314754
1999	0.029153013	Cashbuild	18	0.78167291	-0.160714286	-0.307326356	0.211796247	-0.222857143	-0.179860617
2000	0.033869936	Cashbuild	18	-4.350451572	-0.05775076	-10.06043956	-1.103982301	-0.782352941	-0.530070755
2001	0.028221722	Cashbuild	18	-3.658265384	-0.316129032	1.045178896	16.12765957	3.952702703	1.382242232
2002	0.142637887	Cashbuild	18	0.768982203	1.033018868	0.32885906	0.53164557	0.272851296	0.464603278
2003	0.242355873	Cashbuild	18	-7.775056707	2.03712297	0.679292929	0.807162534	0.648445874	0.726249656
2004	0.172392408	Cashbuild	18	0.831185865	0.734912147	0.357894737	0.277439024	0.029258778	0.240548986
2005	0.350817896	Cashbuild	18	-14.29326455	0.712461471	0.239202658	0.382259348	0.032849021	0.378772164
2006	0.227042666	Cashbuild	18	0.937958663	0.088454616	0.031277927	0.055251799	-0.056269113	0.138314945
2007	0.272271388	Cashbuild	18	-0.907857551	0.46680841	0.019064125	0.439869103	0.22294232	0.413806125
1999	0.16565055	CombinedMotorHoldings	19	0.599039125	0.428571429	0.13363029	0.261058109	-0.260458167	0.083033849
2000	0.377255181	CombinedMotorHoldings	19	-3.002154747	0.162162162	-0.125736739	0.330123796	-0.002020202	0.353706062
2001	0.29100502	CombinedMotorHoldings	19	-2.267719776	0.361627907	0.128089888	0.206825233	0.012145749	0.26415175
2002	-0.021203875	CombinedMotorHoldings	19	-0.284239752	-0.004269855	-0.179282869	0.211653813	-0.11	0.138563521
2003	0.242816905	CombinedMotorHoldings	19	-2.631855452	0.569468268	0.298543689	0.208981612	-0.031460674	0.158058895
2004	0.383024512	CombinedMotorHoldings	19	-0.678824766	1.114754098	0.289719626	0.641123135	0.235885538	0.593500175
2005	0.516979767	CombinedMotorHoldings	19	-0.828198109	1.605167959	0.884057971	0.382284798	0.023779725	0.481099527
2006	0.344637396	CombinedMotorHoldings	19	-0.323283917	-0.803808768	-0.125384615	-0.775657555	-0.104523227	0.246197932
2007	-0.030119367	CombinedMotorHoldings	19	-0.444411604	-0.405460061	0.058927001	-0.438505747	-0.288054608	-0.291407093
1999	0.047930646	Foschini	20	-0.633763079	-0.36201469	-0.397922313	0.059233449	-0.036951501	0.054660126
2000	0.052579247	Foschini	20	0.060560905	0.189967105	0.084771193	0.097587719	-0.241606715	-0.002657807
2001	0.126204421	Foschini	20	-0.610914762	-0.635798203	-0.272475795	-0.4995005	-0.458498024	-0.263824117
2002	0.103808086	Foschini	20	0.157424136	0.326375712	-0.244296578	0.754491018	0.820437956	0.539064857
2003	0.17954953	Foschini	20	0.848056048	0.557939914	-0.155974843	0.845278726	0.376102646	0.359270874
2004	0.136422203	Foschini	20	5.008590161	0.7456382	0.195230999	0.461775586	0.244172494	0.332516222
2005	0.197120181	Foschini	20	3.234384	0.934245134	0.274314214	0.517503163	0.19765808	0.429282545
2006	0.218362283	Foschini	20	0.647125983	0.595594234	0.239726027	0.286826014	0.167383653	0.442534827
2007	0.124049688	Foschini	20	0.181859093	0.12306119	-0.026835043	0.153779698	0.037855946	0.188579226
1999	1%	JDGroup	11	-4.126623155	-0.172853064	-0.33243607	0.238864415	-0.050970874	0.048818547
2000	60%	JDGroup	11	3.53284494	0.211895911	0.192876344	0.01596207	-0.207800512	0.036556854
2001	-4%	JDGroup	11	-1.025225316	-0.151621385	-0.378591549	0.365792953	-0.092009685	0.149682182
2002	8%	JDGroup	11	-41.16750489	-0.572572314	-0.333635539	-0.358769932	0.005333333	-0.051186017
2003	46%	JDGroup	11	-1.82248308	0.836858006	0.220408163	0.504440497	0.122015915	0.755827068
2004	52%	JDGroup	11	1.354381931	0.494736842	-0.028985507	0.540731995	0.405831363	0.546515362
2005	10%	JDGroup	11	2.168999981	0.650528169	0.221584386	0.35	0.271300448	0.361622594
2006	20%	JDGroup	11	0.527059216	-0.151333333	-0.273496241	0.168582375	-0.002645503	0.141840366
2007	8%	JDGroup	11	-1.038668436	0.016967793	0.393272962	-0.269823922	-0.206896552	-0.212822796



Year	Turn Over Growth Rate	RetailerName	Retailer	EVA Growth Rate	Share Price Growth Rate	P/E Growth Rate	EPS Growth Rate	ROA Growth Rate	EBITDA Growth Rate
1999	60%	KingConsolidated	12	2.904502261	-0.806722689	10.14389535	-0.98265896	-22.9236948	-14.32109969
2000	4%	KingConsolidated	12	-1.198023518	-0.130434783	-0.813616799	3.66666667	0.99104695	1.014015557
2001	-8%	KingConsolidated	12	-0.14600254	-0.6	-1.622113366	-1.64285714	-3.36875	-2.037911746
2002	2%	KingConsolidated	12	-0.274361148	-0.125	0.606299213	-1.22222222	0.5565093	1.084431138
2003	10%	KingConsolidated	12	-0.812713933	0	0.488571429	-0.95	0.8483871	11.21985816
2004	-1%	KingConsolidated	12	0.69667708	-0.285714286	10.31284916	1.07692308	10.3191489	1.384793964
2005	13%	KingConsolidated	12	0.285774266	1.4	-8.198560288	-1.33333333	-0.23972603	0.014115357
2006	-2%	KingConsolidated	12	0.567713735	12.5	0.846583333	-87	1.6006006	0.696904248
2007	6%	KingConsolidated	12	-1.954230532	-0.166666667	2.063009234	1.78409091	-0.33140878	-0.135200113
2005	14%	LewisGroup	13	0.257253553	0.616526611	0.406568516	0.14889933	-0.03614947	0.083491461
2006	16%	LewisGroup	13	1.92022165	0.185236527	-0.146537842	0.38945102	0.14833544	0.300687054
2002	43%	MassMart	14	0.97135545	0.527252503	-0.084352078	0.66696997	0.66101695	0.824063564
2003	22%	MassMart	14	-9.309368649	0.551347414	0.173564753	0.3231441	0.17176871	0.302738021
2004	17%	MassMart	14	0.720063246	0.461971831	0.11149033	0.31518152	0.01886792	0.236804395
2005	12%	MassMart	14	2.336705995	0.428387925	0.334698055	0.06963614	0.01353276	0.104856619
2006	13%	MassMart	14	-0.861248953	0.088803957	-0.114263804	0.22961877	0.14757554	0.345800926
2007	16%	MassMart	14	-7.306281241	0.825521371	0.416450216	0.28881469	0.12982241	0.254415584
1999	0.196300221	MrPrice	15	0.828734179	0.369747899	-0.026623377	0.40776699	-0.10877863	0.297356111
2000	0.152349603	MrPrice	15	0.955095594	-0.579754601	-0.526350901	-0.11264368	-0.19200571	-0.004499067
2001	0.135765497	MrPrice	15	0.124968436	0.616788321	0.049295775	0.54145078	0.25530035	0.420325229
2002	0.196277064	MrPrice	15	-4.967895946	0.054176072	-0.123489933	0.20168067	0.16467277	0.270890539
2003	0.129819666	MrPrice	15	0.694756851	0.595289079	0.280245023	0.24615385	0.09003021	0.17205261
2004	0.13066272	MrPrice	15	-46.8126429	0.579865772	0.169856459	0.35129068	0.17239468	0.296695745
2005	0.143272882	MrPrice	15	1.050248553	0.790144435	0.332310838	0.34302326	0.4070922	0.30888124
2006	0.172064274	MrPrice	15	0.225089873	0.368296156	0.153491942	0.18614719	-0.08366935	0.143048642
1999	0.449261093	NewClicks	16	-26176%	0.452762923	0.096676737	0.32448378	0.14782609	0.478072091
2000	0.177673339	NewClicks	16	0.612999407	0.365644172	0.099173554	0.24276169	-0.09166667	0.103396911
2001	0.09197641	NewClicks	16	0.986918231	-0.179694519	-0.241102757	0.08064516	0.27773144	0.374212817
2002	0.257167422	NewClicks	16	-2.264634206	-0.286966046	-0.388375165	0.16583748	-0.20300261	0.028005993
2003	0.342569169	NewClicks	16	-1.616545143	0.016897081	0.089632829	-0.06685633	-0.01474201	0.307555762
2004	0.092438535	NewClicks	16	0.70634519	0.145015106	-0.017839445	0.16615854	-0.52452203	-0.424728538
2005	0.082687585	NewClicks	16	-24.71306539	0.134564644	0.330978809	-0.14771242	0.96853147	0.611401906
2006	0.14760536	NewClicks	16	0.940434767	0.184883721	0.056861259	0.12116564	0.10568384	0.105931709
2007	0.005074885	NewClicks	16	0.258766065	0.398429833	-0.036585366	0.45143639	0.19036145	0.268722607
1999	0	Nictus	10	-0.042255999	-0.545454545	0.65942029	-0.3283208	-0.71985158	-1.123115578
2000	0	Nictus	10	0.745423796	-0.4	-14.95744681	0.96226415	2.16828479	3.159171598
2001	0	Nictus	10	0.242683268	1.666666667	1.358	8.45	-0.08125577	0.206631954
2002	90%	Nictus	10	-6.051028048	0.75	2.523277467	-0.5033557	-0.44623116	0.831705655
2003	13%	Nictus	10	0.282078916	-0.464285714	-0.652219873	0.54054054	0.11796733	0.595908246
2004	-14%	Nictus	10	-3.142874802	-0.066666667	8.671732523	-0.90350877	-0.49512987	-0.27705695
2005	1%	Nictus	10	0.500915867	-0.142857143	-0.410747957	0.45454545	-0.27009646	-0.109296077
2006	18%	Nictus	10	-0.420816464	-0.25	-0.7736	2.3125	-0.07048458	0.039816602
2007	-6%	Nictus	10	-0.131048691	0.333333333	0.441696113	-0.0754717	0.3507109	0.418890694
1999	10%	PicknPayStores	3	-11.69784126	0.603498542	0.28089172	0.25171625	0.14414414	0.360716627
2000	10%	PicknPayStores	3	0.918866989	0.184545455	0.013923421	0.16819013	0.0480315	0.159441233
2001	24%	PicknPayStores	3	-0.51577103	-0.191097467	-0.336439431	0.21909233	0.10368144	0.205788672
2002	39%	PicknPayStores	3	3.63101147	0.217267552	-0.072431633	0.31193838	0.11164057	0.179281038
2003	16%	PicknPayStores	3	-0.769720546	0.332813718	0.160956175	0.14872798	-0.02878138	0.088332684
2004	9%	PicknPayStores	3	2.636853988	0.360233918	0.128345916	0.20528109	0.15447667	0.188456376
2005	6%	PicknPayStores	3	2.703285587	0.312983663	0.214111922	0.08127208	0.0043692	0.071229576
2006	12%	PicknPayStores	3	-1.542439298	0.114931238	0.001002004	0.11372549	-0.07558456	0.117312153
2007	15%	PicknPayStores	3	2.18309741	-0.123641703	-0.248748749	0.16666667	0.09	0.270382486



Year	Turn Over Growth Rate	RetailerName	Retailer	EVA Growth Rate	Share Price Growth Rate	P/E Growth Rate	EPS Growth Rate	ROA Growth Rate	EBITDA Growth Rate
1999	11%	RexTruform	4	1.017342514	-0.104761905	-0.215777262	0.14090287	-0.0619469	0.090409554
2000	12%	RexTruform	4	-31.46204347	-0.095744681	0.402366864	-0.35491607	-0.24442539	-0.144527313
2001	-3%	RexTruform	4	-1.664248216	-0.466666667	1.332278481	-0.77137546	-0.77866061	-0.521167138
2002	18%	RexTruform	4	0.115894125	0.158088235	-0.398914518	0.92682927	0.75897436	0.245304683
2003	7%	RexTruform	4	0.535233427	0.13968254	-0.537998495	1.46835443	1.37026239	0.750263435
2004	5%	RexTruform	4	-1.049365603	0.192200557	1.903908795	-0.58974359	-0.53751538	-0.320251355
2005	-16%	RexTruform	4	1.635378695	0.502336449	-0.422882782	1.60416667	3.38829787	1.268862441
2006	2%	RexTruform	4	-1.253137053	0.088646967	0.45675413	-0.2528	-0.34121212	-0.207895186
2007	23%	RexTruform	4	-0.15266761	0.034285714	-0.358905937	0.6124197	0.08371665	0.147076942
1999	19%	ShopriteHoldings	5	-0.335339607	-0.238679245	0.648107873	-0.53796095	-0.32075472	-0.077382292
2000	7%	ShopriteHoldings	5	-2.069929307	-0.154894672	-0.687516495	1.70422535	0.61111111	0.43473392
2001	6%	ShopriteHoldings	5	-0.877359922	-0.146627566	-0.152871622	0.00694444	-0.23872679	0.049213724
2002	13%	ShopriteHoldings	5	-0.051954973	0.360824742	0.11665005	0.21896552	0.59233449	0.424649881
2003	13%	ShopriteHoldings	5	1.02	-0.273989899	-0.108928571	-0.18528996	0.04704595	0.115933708
2004	7%	ShopriteHoldings	5	-211.63	0.577391304	0.137274549	0.38715278	0.11494253	0.213537642
2005	12%	ShopriteHoldings	5	1.007874431	0.55567806	0.033480176	0.50563204	0.04123711	0.129593068
2006	12%	ShopriteHoldings	5	-0.797280945	0.684620836	0.381074169	0.21945137	0.41314131	0.398330208
2007	16%	ShopriteHoldings	5	-556.8249016	0.367269668	-0.008024691	0.37832311	-0.01656051	0.174663596
2006	25%	SparGroup	6	-0.355041235	0.239159892	0.097982709	0.12834979	-0.1059821	0.192984347
2007	28%	SparGroup	6	-560.1162759	0.451612903	0.115485564	0.30125	-0.11643836	0.295392954
2001	43%	TradeHold	7	-12.02152962	0.070247934	-1.857429719	-2.24897119	-2.41556728	-1.453598136
2002	-39%	TradeHold	7	0.458729062	-0.003861004	-1.004683841	0.50329489	-1.76700839	-2.506273311
2003	-10%	TradeHold	7	0.609089459	0.182170543	-0.442757009	0.18076285	0.77803974	0.886938178
2004	-16%	TradeHold	7	0.643774179	-0.085245902	2.660728745	1.55060729	2.76783005	5.471775048
2005	-3%	TradeHold	7	-0.670642478	-0.082437276	0.5221843	-0.39705882	-0.87038627	-0.591047427
2006	21%	TradeHold	7	-0.714889529	-0.1171875	-1.354900705	-3.48780488	-4.49668874	-1.259357927
2007	-98%	TradeHold	7	0.94412437	-0.362831858	-0.055956679	0.39656863	0.84659091	0.696166729
1999	11%	Truworths	8	-0.453437691	0.091068301	0.319593787	-0.17302053	-0.22412318	-0.011285831
2000	-9%	Truworths	8	-2.035607014	-0.125200642	-0.338614758	0.32269504	-0.65435502	-0.536987257
2001	-5%	Truworths	8	3.804630986	-0.042201835	-0.191649555	0.1849866	2.74322169	1.761521012
2002	24%	Truworths	8	0.698177778	0.086206897	-0.243861135	0.43665158	0.37409459	0.435723793
2003	11%	Truworths	8	0.147004062	0.315696649	-0.025755879	0.3496063	-0.0744186	0.195306439
2004	18%	Truworths	8	0.688207397	0.316353887	0.026436782	0.28354726	0.24455611	0.347071232
2005	21%	Truworths	8	0.272205552	0.801425662	0.368421053	0.31636364	0.03606999	0.266923633
2006	16%	Truworths	8	0.353915869	0.252119842	-0.027823241	0.28729282	0.2618862	0.246434683
2007	27%	Truworths	8	0.28231364	0.678103837	0.258417508	0.33369099	0.03705991	0.289855072
2000	-51%	Verimark	9	0.710813307	-0.75	-1.00005	-3880	-0.69994689	0.528183716
2001	-59%	Verimark	9	1.540448658	-0.9	22	1.12554782	1.17275851	7.787610619
2002	12%	Verimark	9	-6.513893201	0	0	-0.90349076	-0.63291139	-0.512385919
2003	90%	Verimark	9	-0.249503555	2	-2.714285714	-2.76595745	-6.1182266	-4.709893048
2004	-72%	Verimark	9	1.069942711	9	-91.58333333	0.89156627	2.466795	1.53981982
2005	11468%	Verimark	9	6.785258379	11.36666667	1.322532253	39.3333333	2.82874016	38.74566088
2006	-10%	Verimark	9	1.652848657	-0.539083558	0.371162791	-0.66376812	-0.51379606	-0.573036161
2007	-13%	Verimark	9	-1.560317533	-0.625730994	0.059023066	-0.64655172	-0.55586888	-0.475158334
2000	7%	Woolworths	1	-0.120558379	-0.382845188	-0.300256082	-0.11764706	-0.28323699	-0.093569559
2001	11%	Woolworths	1	-1.271107989	0.172881356	-0.020128088	0.1962963	0.1281362	0.154003756
2002	23%	Woolworths	1	0.412796955	0.23699422	-0.091503268	0.3622291	0.29864972	0.303891108
2003	10%	Woolworths	1	1.062451567	0.380841121	-0.062692703	0.47272727	0.10519878	0.238397821
2004	12%	Woolworths	1	0.784187788	0.204737733	-0.006578947	0.21296296	0.00608744	0.171156313
2005	15%	Woolworths	1	1.440646759	0.445224719	0.232891832	0.17175573	-0.02640264	0.179705836
2006	16%	Woolworths	1	0.014096383	0.334305151	0.170993733	0.14006515	-0.03785311	0.166788249
2007	22%	Woolworths	1	-0.206077736	0.539694101	0.264525994	0.21714286	0.00939518	0.197908378