

**AN EMPIRICAL INVESTIGATION OF THE CORRELATION BETWEEN  
ACCOUNTING BASED AND MARKET BASED PERFORMANCE  
MEASURES FOR COMPANIES QUOTED AT THE NAIROBI STOCK  
EXCHANGE (NSE)**

**BY**

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**A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL  
FULFILMENT OF THE FACULTY REQUIREMENTS FOR THE DEGREE OF  
MASTERS IN BUSINESS ADMINISTRATION, FACULTY OF COMMERCE,  
UNIVERSITY OF NAIROBI.**

**OCTOBER 2005**

## DECLARATION

This Research Project is my original work, which has not been submitted for a degree in any other university

*Atieno*  
Signed: Lindah Atieno Odhiambo      DATE 31/10/2005



This Research Paper has been submitted for examination with my approval as a university supervisor.

for *[Signature]*  
Signed: Josiah Aduda

DATE: 01-11-05

## DEDICATION

This work is dedicated to my father, *Samuel Odhiambo*, Mother, *Caroline Akoth*, My siblings *Roggers, Chris, Maurine* and Nephew *Vegas* who with deep sacrifice taught me the virtue and value of hard work, commitment, perseverance and self-determination during the entire period of study. Their moral support, love and prayers throughout the long and tenuous path never waned even when life was overwhelming.

**ACKNOWLEDGEMENTS**

I am indebted to my supervisor *Mr. Josiah Aduda* for his invaluable encouragement, guidance and insights.

I thank my employers *Intertek International* and *TACFCB* and more importantly the then Country Directors *Mr. Noel Holland* and *Mr. Paul Owora* and my colleagues for their unconditional support during the period of the study.

I would especially like to thank *Mr. Chris Mallam*, the then Regional Finance Director at *Intertek International* who encouraged me to pursue further academic work in Finance and finally, *Dr. Raymond Muhula*, a source of great inspiration and encouragement.

## ABSTRACT

This study analyzed the extent of correlation between accounting ratios and market based performance measures (stock return and risk) of selected companies quoted at the Nairobi Stock Exchange.

The paper is divided in several chapters. The first chapter introduced the topic of study. The second chapter gave a description of the accounting ratios and market based variables as well as empirical studies on risk, return and accounting ratios as well as gaps in the work already done.

Finally the study tested empirically the hypothesis established. Although the basic methodology was the one used in Timo et al (1997), located on the USA, in addition to the analysis, I considered the individual and incremental information content of short and long-term adjustments. Due to the probable bias that the combination of accounting and stock-market information in the variables would produce, it used several accounting variables (Net asset value per share, return on equity, current ratio, earnings per share, dividend yield and pay out ratio) As an extension of the basic methodology, it gave an all market summary and another per sector analysis of descriptive statistics.

The empirical study was located at Nairobi Stock Exchange, and focused on a sample of fifty firms quoted at Nairobi Stock Exchange from 1996 to 2001 as representative of Nairobi Stock Exchange (NSE).

From data analysis, the findings of this study did indicate that there exists a general association between the firm's accounting ratios and its stock return and risk, but the association is structurally unstable and that the accounting variables making up the relationship vary along time.

10. The magnitude of a cross-sectional variation that accounting ratios did not explain indicate that accounting ratios do not contain sufficient information about investors' opinions to effectively measure the risk of equities with extreme exposure to non-accounting determinants.

#### 1.1. Background to the study

Generally, market-based variables reflect future expectations, as measured through accounting data reflect past performance. The market-based variables are indicators of risk and returns. The change in price is a response in a wide set of information that reflect revision of the capital market's expectations in relation to future cash flows. In comparison, accounting variables measure the relationship between past or interim financial figures in the form of percentages or amounts. Accounting variables have only a limited ability to reflect revision of investors' expectations in relation to future cash flows. This is because accounting uncertainty and other uncertainties that influence Generally Accepted Accounting Principles (GAAP) limit the ability of accounting measures to reflect the market's revision of expectations in future cash flows.

The correlation coefficient measures the degree to which the movements of two variables are related. It indicates how close the relationship is to the regression line. The study used the extent of correlation between accounting ratios and annual stock performance measures of selected companies quoted at the Nigeria Stock Exchange from 1996-2001.

The stock exchange that is the exchange of securities issued by publicly traded companies and the Government. The major role of the stock exchange is to provide a platform where savers can safely invest their money and in return earn a return, and there is an incentive to people to consume less and save.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the study

Generally, market-based variables reflect future expectations of earnings whereas accounting data reflect past performance. The market-based variables are measures of risk and return. The change in prices is a response to a wider set of information that reflect revision of the capital market's expectation in relation to future cash flows. In comparison, accounting variables express the relationship between two or more financial figures in the form of percentages or fractions. Accounting variables have only a limited ability to reflect revision of the capital market's expectation in relation to future cash flows. This is because; objectivity, verifiability and other conventions that underlie Generally Accepted Accounting Principles (GAAP) limit the ability of accounting earnings to reflect the market's revision of expectations for future net cash flows.

The correlation coefficient measures the degree to which the movements of two variables are related. It indicates how close the residuals are to the regression line. This study analyzed the extent of correlation between accounting ratios and market based performance measures of selected companies quoted at the Nairobi Stock Exchange from 1996-2001

Nairobi Stock Exchange deals with the exchange of securities issued by publicly quoted companies and the Government. The major role of the stock exchange is that it provides a mechanism where savers can safely invest their money and in addition earn a return, and thus is, an incentive to people to consume less and save more.

In the period 1996 to 2001, the Nairobi Stock exchange made a concerted decision to transform the Exchange into a more relevant participant, the focal point for the capital markets in Kenya and by extension East Africa. It is divided into three segments.

- The main investments Market segment (MIMS): this is the main quotation market, with stringent listing requirements similar to the current structure of the Exchange.
- The Alternative Investments Market Segment (AIMS): provides access to the capital markets for small and medium-sized companies with high growth potential. This provides alternative method of raising capital to those companies that find it difficult to meet the more stringent listing requirements of MIMS
- Fixed Income Securities Market Segment (FISMS): it is aimed at providing a separate independent market for fixed income securities such as treasury bonds, corporate bonds, preference shares and debenture stocks it also lists other short term financial instruments such as treasury bills and commercial paper.
- Futures and options market Segment (FOMS) has not been developed

The primary reason behind this segmentation was to improve the level of market access to all investors with each market segment catering to the varied investment needs and risk profiles of investors, and allowing it to focus specifically on growth strategies for each specific segment.



The period covered in this study (1996 – 2001) was a very challenging one for companies and adversely affected company results. The massive power rationing which ran from September 1999 to May 2000 led to a decline in hydro generation. This necessitated supplementing the shortfall with the more expensive fuel-based generation at a time when the price of fuel was high. The situation was aggravated by the worsening economy, which experienced a drop in Gross Domestic Product (GDP) growth rate to  $-0.3\%$  from  $1.4\%$  the previous year (1998) (NSE Handbook 2002), thus eroding the purchasing power of all categories of customers. This resulted in decline in sales, operating expenditure increased substantially due to stepped up power generation.

## 1.2 Statement of the problem

Share Beta and return and therefore share values depend on firm's expected future cash flows. Accounting information will be useful if it facilitates the prediction of these variables.

The kind of association expected between correlations of return on equity, current ratio, and earnings per share and return is positive and a negative correlation expected between correlations of the ratios and risk. On the other hand, however, correlations of payout ratio, net asset value per share and dividend yield and return is generally expected to be negative while a positive correlation is expected between the above ratios and risk.

A number of market research studies have analyzed the information content of operating cash flow considering the association between unexpected cash flows and abnormal returns, which are the unsystematic risks, which may be eliminated through diversification.

Despite the expectation that earnings response coefficient for companies can be regarded as reliable predictor of individual companies future returns, Jindrichovska (2001) found an empirical evidence to suggest that a relationship exists on the response coefficients of returns and annual earnings on the emerging Czech market. It was, albeit, rather unstable and vague and not statistically significant for each company. The relation was statistically significant for a period of one year and longer. The increase in the mean response coefficient reported in the study suggested sensitivity of returns to annual earnings changes. It could not be inferred with a degree of confidence that the Czech capital market views earnings changes to be largely permanent.

Timo et al (1997) concluded however, that there exists a general association between a firm's accounting ratios and its stock return and risk. They found a significant association between accrual-based accounting variables and market based variables in the USA.

Due to conflicting results in past studies, there is therefore need to conduct Timo's (1997) line of research in this area. There is no similar study that has been conducted at the Nairobi Stock Exchange, hence the need for this research. This research, therefore, attempts to conduct an investigation into the relationship between accounting and market based performance measures for selected companies quoted at the Nairobi Stock Exchange.

### 1.3 Objective of the study

The objective of the study was to determine the extent of correlation or association between accounting ratios and market based performance measures of selected companies quoted at the Nairobi Stock Exchange.

## 1.4 Importance of the study

The findings of this study will be useful to the following groups

- **Underwriters and investment bankers:** the results of this study will form a critical input in their advisory roles and hence understanding of the correlation between accounting variables and market variables and therefore help them maintain a favorable reputation among the investing public.
- **Investors:** the study will encourage and enlighten investors to make informed decisions when trading as they may wish to analyze performance of specific sectors.
- **Academicians and Researchers:** the conclusions arrived at in this study will form the basis of further research and will add to the existing body of knowledge in Business Finance.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 The accounting variables

Accounting ratios express the relationship between two or more financial figures in the form of percentages or fractions. They are used to assess the performance and the financial position of a firm and enable users of the accounts to make useful comparisons between different companies and over different periods. The reduction of the twelve financial ratios given in the Nairobi Stock Exchange handbook (2002) to six key ratios prevented overlap of the stock price variable found on both accounting and market-based variables but retains a significant association. The six accounting ratios used in the study are as described below.

1. Net Asset Value Per Share (Kshs) = 
$$\frac{\text{Total Net Assets}}{\text{Number of shares issued in a year.}}$$

This is the net tangible assets attributable to the ordinary shareholders divided by the number of shares in issue.

2. Return on equity = 
$$\frac{\text{Net income (profit after tax)}}{\text{Equity}}$$

Return to Equity is the profit after tax (adjusted for preference dividend) divided by the net worth or the shareholder's equity as at the end of that year/ period. It measures the return on shareholders' equity and tells shareholders how much money the company is making for them. No matter what industry, the company is in, or what its assets size is, all shareholders would rightfully want to invest in a company, which has a high return on equity.

$$3. \text{ Current ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

This represents the ability of the firm to pay off its current liabilities by liquidating current assets.

$$4. \text{ Earnings per share} = \frac{\text{Earnings attributed to shareholders}}{\text{Number of outstanding shares}}$$

This is calculated by dividing the net profit after tax of a company (less any dividends on preference shares that the company may have paid) for a given year or period by the number of equity shares outstanding at the end of the year. The EPS does not reveal the quality of earnings, but as a thumb rule, the higher the EPS, the better.

$$5. \text{ Dividend yield} = \frac{\text{Dividend Per share}}{\text{Market Price Per Share}}$$

$$= \frac{\text{Total Dividend}}{\text{Market capitalization}}$$

This is dividend paid per share expressed as a percentage of current market prices per share. The Dividend Yield is an easy way to compare the relative attractiveness of various dividend-paying stocks. It tells an investor the yield expected by purchasing a stock. This allows a basis of comparison between other investments such as bonds, and certificates of deposit. Dividend yield is normally heavily influenced by market's expectation of future growth in dividend itself and in the share price. Companies with high dividend yields tend to have a low share price because the market has considerable doubts about the future of the company and its ability to maintain, let alone increase the dividend level in future. High dividend yield is in most cases accompanied by high risk. Dividend yield is used in estimating share price, i.e, dividend per share, divided by dividend yield equal market price per share.

$$6. \text{ Pay out Ratio} = \frac{\text{Dividend Per Share}}{\text{Earnings per share}}$$

Calculated by dividing dividends declared per share by Earning per share in that particular year and the result expressed as a percentage (%). It gives the percentage of earnings distributed as dividends.

## 2.2 The market-based variables

The market-based variables used in the study are beta, covariance, and return. They are measures that reflect revision of the capital market's expectation in relation to future cash flows.

1 Security's beta.

$$\beta_i = \frac{\text{Cov}(R_i, R_m)}{\text{Var}(R_m)}$$

The beta coefficient is a measure of the security's volatility relative to the market. To implement the beta estimation process, the market return is proxied by the value-weighted average return on the NSE.

2. Covariance

This is the sensitivity of security prices to changes in general economic conditions

Given  $n$  sets of variates denoted  $\{X_1\}, \dots, \{X_n\}$ , the covariance  $\sigma_{ij} \equiv \text{cov}(x_i, x_j)$  of  $x_i$  and  $x_j$  is defined by

$$\text{cov}(x_i, x_j) \equiv \langle (x_i - \mu_i)(x_j - \mu_j) \rangle \quad (1)$$

$$= \langle x_i x_j \rangle - \langle x_i \rangle \langle x_j \rangle, \quad (2)$$

where  $\mu_i = \langle x_i \rangle$  and  $\mu_j = \langle x_j \rangle$  are the means of  $x_i$  and  $x_j$ , respectively. The

matrix  $(V_{ij})$  of the quantities  $V_{ij} = \text{cov}(x_i, x_j)$  is called the covariance matrix. This study is a special case where  $i = j$ ,

$$\text{cov}(x_i, x_i) = \langle x_i^2 \rangle - \langle x_i \rangle^2 = \sigma_i^2, \quad (3)$$

giving the usual variance  $\sigma_{ii} = \sigma_i^2 = \text{var}(x_i)$

3 Return on the security: Specifically, this description would present the year-by-year components of the stock return, dividend payouts and capital gains (increase in the share price)

$$R = \frac{(P_{t+1} - P) + d}{P}$$

### 2.3 Empirical studies

Timo et al (1997) set to find out the association between accounting and Market-Based Variables using a canonical correlation approach with U.S. Data. In their study, the nature of the association between the firm's accounting and market-based variables was investigated using canonical correlation analysis.

A clear relationship between the firm's accounting and stock-market variables was observed. However, the accounting variables making up the relationship varied along time. The decomposed analysis of the association suggested that when taken alone, both the accrual-based and cash based variables are significantly associated with market-based variables and that the accrual-based variable set has a stronger relationship with the market-based set than the cash based set. The accrual-based financial ratios are crucial for security analysis while Cash-based financial ratios showed increasing relevance over time.

Jindrichovska (2001) investigated the nature of the relationship between accounting earnings and returns on the Czech market. It was conducted using a data sample covering the years 1993-1998. The results of firm-specific and pooled regression models suggested that for a short estimation window of up to three-quarters, there is a statistically significant relationship between studies on earnings-to-price ratios and price relatives. However, the coefficients estimated from pooled regression did not behave as expected. The one-quarter coefficient was by far the biggest, whereas the following two quarters was much smaller. In the case of firm-specific estimates, the differences were much smaller but the general pattern of non-monotonic remained the same. The earnings response coefficient for individual companies could not be regarded, as a reliable predictor of individual companies' future earnings, but it was significant for the sample as a whole.

One of the limitations of this study was that during the period under review (1993 -1998), prices on the Prague stock exchange was mostly falling. That trend may have influenced the earnings/return relation, which had been central to the analysis. Such a trend was unlikely to persist and, when a similar analysis was repeated later (and on a market which by then may be consolidated and hence more tractable), one could expect to find that more pronounced and stable results were obtained. Another limitation was that, the analysis was performed on a relatively short time series, and due to that the sample size decreased as the lag between observed price response coefficients increased.

Tetsuya (2003) provided a framework to study an agent's optimal dynamic consumption and portfolio decisions in an incomplete market with jump and volatility risk. The optimal portfolio rule derived by the study implied that a consumer with only financial wealth and logarithmic utility should borrow and hold a position in stocks. He examined how alternative assumptions on the



process that governs stock prices affected consumption and portfolio decisions and how well one could estimate the optimal portfolio choice of a consumer, given the statistical uncertainty about the stochastic process that describe stock returns. He added that incorporating jump and volatility risk had a substantial impact on the optimal portfolio weight and that jump and volatility risk should be incorporated in accounting for the statistical uncertainty.

Jones (2003) suggested that risk is an important factor in the setting of market prices. As risk increase, a firm's value declines so that risk averse investors are rewarded for taking on additional risk with a greater return on their investment. The study used the residual income valuation model to demonstrate, empirically that as the riskiness of a firm's earnings increased, its market value declined. The residual income model (RIM), had been used by accounting researchers in the USA to study firm value because it was consistent with well-accepted theories in finance and its primary inputs were familiar accounting measures. RIM showed that firm value was equal to the present value of a firm's expected future residual income flow. Empirical implementations of RIM typically expressed stock price as a function of book value, earnings, and/or earnings forecasts. The study added to the literature by more rigorously incorporating earnings risk into the residual income model. The risk adjusted residual income model proposed included several indicators of earnings risk: the variability in analyst forecasts, short term refinancing exposure, geographical diversification, operational diversification, operating leverage, and size. The results confirmed that earnings risk was an important component of the market valuation process.

Using a sample of more than twenty thousand firms over the 1983 to 2001 time period, the analysis found that the additional earnings risk measures significantly improve RIM's ability to explain market prices. In addition, the evidence showed that each risk measure conveys meaningful information about

the pricing process. She found that variability of earnings expectations, exposure to interest rate fluctuations, geographical diversification, operating leverage, and size, all significantly affect stock prices. The evidence suggested that while operational diversification did not have an overall impact on firm value, it did significantly affect how the market individually priced earnings and earnings forecasts. The study explained how earnings and earnings risk factors created value in the eyes of investors.

Lawson (2003) claimed that a number of firm characteristics explain the cross-section of common stock returns. These characteristics either are functions of stock prices, or are not functions of stock prices and hence depend only on accounting disclosures. Characteristics in the first class reflected and summarized investors' risk opinions while characteristics in the second class contributed to the determination of investors' risk opinions. The study drew a distinction between the two classes in order to characterize the accounting disclosures that determined investors' opinions of risk and to evaluate the importance of accounting disclosures for determining investors' opinions relative to non-accounting information. The results showed that: Investors' opinions about systematic risk are determined by profitability, firm size and the growth of firm size and that there are strong seasonal patterns in the expected return premia of the accounting determinants of opinions.

The study suggested that, although investors' opinions depended on non-accounting information, investors' opinions are determined primarily by accounting disclosures and that the cross-sectional variation that accounting determinants did not explain had implications for risk measurement; its magnitude indicated that accounting disclosures did not contain sufficient information about investors' opinions to measure the risk of equities with extreme exposure to non-accounting determinants.

Gyourko and Nelling(1996) investigated the factors that affect Companies that have equity in real estate as their primary investments (REIT). They measured asset level of systematic risk, by its equity beta and found that large capitalization and retail-oriented REITs tend to have large beta. They also found no relationship between a REIT's beta and its geographical property distribution. Using ordinary least squares regression (OLS) and nonparametric techniques, the authors' found that the greater the percentage of retail properties in a REIT's portfolio, the higher its beta. The other property types had no explanatory power at standard significance levels. The authors also found that a REIT's capitalization bears a small, but statistically significant, positive relationship to its market beta. Using two alternative geographical classifications, the authors found no statistically significant relationship between a REIT's beta and its Investment Policy and Portfolio Management. They concluded that, although increasing the number of properties increases diversification, increasing the range of property types or locations had no significant effect on diversification.

Daves et al (2001) examined the return interval and estimation period the financial manager should select when estimating beta. The results showed that the financial manager should select the daily return interval and an estimation period of three years or less. They identify Capital budgeting as one of the most important strategic decisions that face financial managers. In contrast to previous studies, the results show that for a given estimation period, daily returns provide a smaller standard error of the estimated beta than do weekly, two-weekly, or monthly returns. Thus, the financial manager should use the daily return interval to estimate beta because it increases its precision. The paper also concluded that a much shorter estimation period, two to three years, is more appropriate for financial managers to use when estimating beta with daily returns. The study examined four return intervals, which include daily, weekly, two-weekly, and monthly returns. It also examined eight estimation periods ranging from one

year to eight years over the 1982 to 1989 period.

Dietsch and Petey (2002) did a study of probabilities of default and assets correlations in French and German Small Micro Enterprises (SMEs) They used the same one factor model used by the Basel Committee to compute the risk weights functions and provide estimates of correlations in two large populations of SMEs. The test confirmed the relatively low level of assets correlations in SMEs portfolios. However, it showed that portfolios of large businesses had a greater likelihood to exhibit high values of the assets correlation.

The results did show that, in the two samples of French and German SMEs, the sensitivity to a one systematic risk factor ("the state of the economy") is quite low and that the estimated defaults correlations are well under the assumed 10% to 20% levels in the new formulas of risk-weights proposed by the Basel Committee. However, the same result did not hold for large businesses and results showed that portfolios of large borrowers had a greater likelihood to exhibit a higher correlation. Moreover, their results did not show a negative relationship between assets correlations.

Shuetrim (1998) set to find out what could be inferred about the behavior of publicly listed corporations from the behavior of their security returns? The focus was on how the degree of co-movement changes through time and on how it was related to observed characteristics of the firms. The evidence strongly suggested that the degree of co-movement associated with a given firm's equity converges, through time, to the market average degree of co-movement. Previously, this convergence phenomenon was thought to have been a statistical artifact of the estimation techniques. Robust evidence in the paper refuted the hypothesis, suggesting instead that the driving force behind convergence is the preferences of the managers or owners who control firms. That type of analysis is shown to

deliver greater insight, especially in the analysis of the link between firm size and systematic risk. Aside from providing robust evidence that the convergence of systematic risk is driven by the behavior of firms rather than by flaws in the estimation techniques, the paper developed several interesting relationships between the systematic risk of equity returns and characteristics of firms. For example, firms with extremely high systematic risk and firms with extremely low systematic risk both had a relatively high probability of being restructured compared to firms with systematic risk that is closer to the market average. The paper also showed that larger firms and older firms had systematic risk exposure that was closer to the market average than did smaller and more recently listed firms.

The study established that there was evidence that equity beta convergence was a behavioral phenomenon. Evidence for that conclusion took the form of estimated laws of motion for equity betas of individual firms. By dealing with firm level data rather than portfolio data, the study sidestepped the complications introduced by portfolio formation while emphasizing the connection between the characteristics of individual firms and their systematic risk. The empirical analysis of the paper strongly suggested that equity returns followed a particular pattern over the corporate life cycle of publicly listed corporations. Upon listing, a firm's beta tended to be relatively mobile and was more likely to be extreme relative to unity compared to firms that had been listed longer.

Roll (1977) pointed out that market portfolio included all possible assets. Specifically, it was not sufficient to use an average of returns within the *equity* market alone. Roll showed that the only valid way to test the CAPM was to test whether the true market portfolio was mean-variance efficient. Because the true market portfolio was impossible to construct, Roll concluded that standard

CAPM testing strategies, using proxies for the market portfolio, are uninformative.

Blume (1970) suggested that measurement error in estimates of equity betas for individual securities was ameliorated to some extent by using the equity returns on *portfolios* formed from groups of firms in the sample. First, equity betas are estimated for all stocks individually. The stocks are ranked by these initial beta estimates and grouped into a number of portfolios. The ranking process is intended to retain variation in equity betas across portfolios of firms. The most popular explanation for the convergence phenomenon was that it was driven by measurement error. That explanation has Bayesian foundations.

Fama et al (1973) explained that forming portfolios of securities that have been ranked by their estimated betas 'causes bunching of positive and negative sampling errors within portfolios'. The intuition was that, again from Fama et al (1973), 'in a cross section of betas, high betas tend to be above the corresponding true *beta* and low observed beta tend to be below the true *beta*'. A firm was grouped into a low beta portfolio either because it had a low beta *or* because its beta estimate had a negative measurement error. Thus negative measurement errors were bunched in the low beta portfolios. Similarly, the positive measurement errors tended to be bunched in the high beta portfolios. When new betas were estimated for the portfolios in subsequent time spans, the measurement errors within each portfolio had zero expected value and so a convergence of extreme portfolios towards the market beta should have been observed.

However, other authors have discovered a similar convergence phenomenon when estimating the equity betas of individual firms rather than portfolios. The paper shows that naive, no-change forecasts of a firm's beta often have twice the

mean-square forecasting error of methodologies that explicitly adjust OLS beta estimates towards the market beta. The paper and other studies did focus on the betas of individual firms suggesting that portfolio formation was not the only reason for the convergence witnessed in CAPM tests. The finding has provoked a more focused study of the convergence phenomenon.

The study concluded that firms with extreme

Blume (1975) using the Bayesian concept of prior distributions argued that in the cross section we tend to observe equity betas that are normally distributed around unity and concentrated between zero and two. Using the prior information to form a Bayesian estimator of equity betas would eliminate the measurement error bias because it was a weighted average of the classical estimator and the prior expected value of the equity beta. The weight placed on the classical estimator depended on the information content in the data sample. With such short data samples being used to estimate equity betas in tests of the CAPM, the sample likelihood function did not dominate the prior information and so the prior information did adjust estimates of equity betas toward unity. The adjustment required the loss function to be quadratic to eliminate the measurement errors that had affected previous tests of the CAPM.

To explore whether the

Using portfolios of equity securities, Blume (1975) tested whether the beta convergence observed in the CAPM tests could be entirely explained by the omission of prior information and found that the convergence tendency of adjusted estimates of equity betas remained significant at the five per cent level. The test was of the null hypothesis that a cross-section regression of adjusted betas in period one on actual betas in period two yields a slope coefficient equal to zero. Blume concluded that 'a major reason for the observed regression [to unity] is real non-stationarities in the underlying values of beta and that so-called 'order bias' is not of dominant importance'.

Blume's paper characterized the relationships between the distribution of equity

betas across firms and observed characteristics of firms. The measurement error view of beta convergence could not explain the increased probability of delisting for firms with extreme betas or the relationship between the concentration of betas and the size and age of firms. By demonstrating that such relationships are a robust feature of the data, the view that beta convergence was a statistical artifact was more strongly refuted. The study concluded that firms with extreme betas seemed to take on investment projects with less extreme risk characteristics. The conclusion ignored the many channels through which firms may adjust the risk characteristics of their equity returns by manipulation of their financial structures. Equity issues, leveraged buy-outs and equity carve-outs are examples of such manipulations that would influence the systematic risk profile of the income stream generated by equity holdings. Nonetheless, the essential point that beta convergence was not merely a statistical artifact remained clear.

Dichev (1997), stated that properly anticipated equity values for instance prices in efficient markets, summarize all available information and change only in response to new information. New information by Dichev's definition was unpredictable, which implies that unpredictability of changes is a fundamental characteristic of all proper measures of equity value. To explore whether the unpredictability approach is suitable for practical applications, he formulated predictions based on existing market-based research. Using first-order autocorrelation in changes as a proxy for predictability. He obtained results, which suggested that the unpredictability approach is powerful and flexible enough to be of practical use and serves the needs of standard setters in accounting.



Giner et al (1997) analyzed the information content of operating cash flow considering the association between expected cash flows and abnormal returns and found out that share prices depend on firm's expected future cash flows and risk.

Davis (2001) examined the claim that the book-to-market ratio no longer contains any information that can be used to identify value stocks. Book to market ratio is the ratio of a firm's book value of equity to its market value of equity. The study determined book value of equity using historic cost information. Buyers and sellers of the stock using current information determined market value of equity.

The study found no evidence of book-to market ratio becoming irrelevant for identifying value stocks. Compared to popular alternatives, (Earning to price (E/P), Cash flow to price (CF/P), and sales to price (S/P)). The ability of book to market at producing dispersion in average returns had not declined and changes in the composition of the US economy had not eliminated the strong cross-sectional relation between book to market and realized returns. Book to market rankings were somewhat more stable over time than rankings based on other three variables thus reduce the number of transactions that are triggered by stocks moving in and out of the portfolio's buy range.

Clark (2000), disputed many investors and financial commentators believe that high earnings growth rates and high rates of return are synonymous. What is true he claimed was that differences in earnings growth rates influence the breakdown of expected rates of return into their capital gain and dividend components and that else equal, a higher rate of earnings growth produces relatively more capital appreciation and less dividend yield. Earnings growth, he concluded does not affect expected total rates of return (which are sums of expected price appreciation and dividend yield) he concluded that expected

returns are determined by risk alone and the greater the risk, the higher the expected rate of return.

Munywoki (1998) justified relationship between systematic risk and return as positive, but did not make any adjustments to prices (bonuses were not considered). He used the mean variance criteria and used market capitalization with prices not adjusted to formulate his weights on the portfolio. Results revealed market risk of 3.55% and market return of 14.8%, which added to the coupon rate on the 1 year CBK TB of 15% gives a total of 29.8%. He claimed that it did not deviate much from the general market interest rate that ranged between 28-32% towards end of 1997.

Muli (1991) on estimation of systematic return and risk for Nairobi Stock Exchange indicated a 4% risk and 6% return. He considered treasury bonds having a coupon rate of 15% (July 1991). When the study was conducted in 1991 the full market was consistent with the general market interest rates in the commercial sector and the market was at a very low stage of development. One limitation of the study was a lack of a trading floor which might have affected the diversification effectiveness of the market there by affecting activity level. Another is that there were 6 brokers in the market. Currently over fifty brokers and more securities have been listed, thus opening up more avenues for investment diversification.

Gitari (1990) found that companies quoted in the Nairobi Stock Exchange do exhibit a positive relationship between systematic risk and return. This relationship though was not statistically significant there by suggesting that investors may either be over or under compensated for taking high risk. The results also indicate negative but statistically insignificant relationship.

Nature of risk-return was independent of nature of industry. This study however

attempts to conduct an investigation into the relationship between accounting and market-based variables (risk and return)

Ndegwa (2001) in a study to find out whether a relationship exists between business risk and systematic risk and to determine whether companies with high return exhibit high risk concluded that there is a very low relationship between earnings variability (business risk) and systematic risk. She expected a positive relationship between earnings variability and systematic risk and found that there was direct relationship between these two. She estimated business risk by variance of the firm's earnings interim earnings, and final earnings plotted to get the monthly earnings and estimated Systematic risk using the covariance between the return of the market and the return of the firm divided by variance of the return on the market portfolio. She then applied linear regression in approximating the beta coefficient. The beta here depicts the sensitivity of the security's returns to that of the market as a whole. Regressing capital gain, weighted return or non-weighted return with risk. Here capital gain, weighted return and non-weighted return all represent compensation to the investor while standard deviation of earnings represents the risk. She found out that the relationship between business risk and systematic risk only holds for some companies (30%) while she expected it to hold for the market as a whole. She suggested further research on this area.

Sawaya (2000) set out to determine to what extent market risk as measured by relating returns of individual securities to returns of the market is a useful indicator in analyzing risk characteristics of firms quoted at Nairobi Stock Exchange. He set to find answers to whether Nairobi Stock exchange derived beta contains sufficient information and if the relationship between return and risk (as measured by beta) is linear and positive. The objective was to establish whether beta calculated is not zero and whether there is a relationship between

return on security that is linear and positive. He observed that stocks with below average risk have higher returns than those with below average risk and concluded that there is a positive relationship between asset return and beta. He stated the beta coefficient of securities at the Nairobi Stock Exchange derived betas contain sufficient information on the market. He found out that TPS, BAT, ATHI, REA, CMC, EXPRESS, Kakuzi companies in Finance and investment sector have below average market risk signifying their low volume of trading. Agricultural sector portrayed a negative beta (Asset returns negatively sensitive to change in market level) being a justification for the conclusion that companies with low betas are those that are inactive in trading. He discovered a negative alpha (alpha representing average value over the time of unsystematic returns of the security) representing a negative correlation for companies in finance and investment sector and suggested that high turnover or high trading of shares in the two sectors caused this.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 The population**

The population of this study consisted of all companies listed at the Nairobi Stock Exchange.

#### **3.2 The sample**

The sample consisted of companies that have been continuously listed at the NSE from 1996 to 2001. The five-year period was selected as the period with the most recent data extracted from the annual accounts. It was the period, which had a concise and authoritative compilation of key assessment statistics, and ratios that would assist investors in making prudent decisions. The sample consisted of fifty companies, which was representative of Nairobi Stock Exchange. Source of the data is Nairobi Stock Exchange handbook (2002).

#### **3.3 Data Collection**

Secondary data from Nairobi Stock exchange Handbook 2002 was used due to reliability and conclusiveness of the data.

#### **3.4 Data analysis**

##### **3.4.1 Data**

This study used the secondary data from the annual reports of the companies quoted at the Nairobi Stock Exchange.

### 3.4.2 Variables

-The independent variables: The six key ratios in the predictor set included return on equity, current ratio, earnings per share, pay out ratio, net asset value per share and dividend yield.

- The dependent variables were yearly return per sector and yearly risk (beta) per sector.

### 3.4.3 Data analysis

Data was analyzed using MS excel package. Correlation analysis between accounting based variables (independent variables) and market-based (return and risk) variables as dependent variables was conducted.

Correlation is the covariance of standardized variables - that is, of variables after making them comparable by subtracting the mean and dividing by the standard deviation. Correlation is the ratio of the observed covariance of two standardized variables, divided by the highest possible covariance when their values are arranged in the best possible match by order. When the observed covariance is as high as the possible covariance, the correlation will have a value of 1, indicating perfectly matched order of the two variables. A value of -1 is perfect negative co variation, matching the highest positive values of one variable with the highest negative values of the other. A correlation value of 0 indicates a random relationship by order between the two variables.

The first part of data analysis dealt with the correlation between the six key accounting ratios and return and risk in a sector basis. The second part of the data analysis deals with descriptive statistics such as maximum, minimum, means and standard deviation.

## CHAPTER FOUR

### DATA PRESENTATIONS AND FINDINGS

#### 4.1 Results of the correlations.

##### 4.1.1 Introduction

This research attempts to find the correlation between accounting and market based performance measures (risk and return) for selected companies quoted at the Nairobi Stock Exchange. The study analyzes an all market summary and each sector categorized into agricultural, commercial and services, finance and investment and industrial and allied sectors and alternative investment market segment. The categories are based on the classification given at the Nairobi Stock Exchange.

##### 4.1.2 Return on equity, current ratio, earnings per share

It is generally expected that correlations of the above ratios and return should be positive. A negative correlation is generally expected between the above ratios and risk. This is because firms expected cash flows and risk dictate return. The expectations of correlation between earnings per share and return is positive while correlation between earnings per share and risk is negative. It is generally expected that earnings response coefficient for companies can be regarded as reliable predictor of individual companies future returns.

• Table 1: Agricultural sector

**TABLE 1**

|                      | Correlation<br>between Return<br>on Equity and<br>Return | Correlation<br>between Return<br>on Equity and<br>Risk | Correlation<br>between<br>Current<br>and<br>Return | Ratio | Correlation<br>between<br>Current<br>and<br>Risk | Ratio | Correlation<br>between<br>Earnings<br>Per<br>Share and<br>Return | Per | Correlation<br>between<br>Earnings<br>Per<br>Share and<br>Risk | Per |
|----------------------|--|--|--|-------|--|-------|--|-----|--|-----|
| <b>AGRICULTURE</b>   |  |  |  |       |  |       |  |     |  |     |
| 2001                 | 0.32   | -0.24  | 1.00   |       | -1.00  |       | 0.48   |     | -0.46  |     |
| 2000                 | 0.16   | 0.24   | 1.00   |       | -1.00  |       | 0.84   |     | -0.58  |     |
| 1999                 | 0.24   | -0.16  | -1.00  |       | 1.00   |       | 0.39   |     | -0.31  |     |
| 1998                 | -0.68  | 0.29   | -1.00  |       | 1.00   |       | 0.91   |     | -0.64  |     |
| 1997                 | 0.25   | -0.77  | 1.00   |       | -1.00  |       | 0.47   |     | -0.56  |     |
| <b>MAXIMUM</b>       | 0.32   | 0.29   | 1.00   |       | 1.00   |       | 0.91   |     | -0.31  |     |
| <b>MINIMUM</b>       | -0.68  | -0.77  | -1.00  |       | -1.00  |       | 0.39   |     | -0.64  |     |
| <b>MEAN</b>          | 0.06   | -0.13  | 0.20   |       | -0.20  |       | 0.62   |     | -0.51  |     |
| <b>STD.DEVIATION</b> | 0.42   | 0.43   | 1.10   |       | 1.10   |       | 0.24   |     | 0.13   |     |

Standard deviations of correlations between return on equity and current ratio for the agricultural sector return and risk are similar at 0.425 and 1.10 respectively for period 1997 to 2001.

A wider margin is observed between correlation between earnings per share and return and correlation between earnings per share and risk for firms in the agricultural sector.

Mean for correlation between return on equity, current ratio, earning per share versus agricultural sector return are positive while the above correlations versus agricultural sectors risk are negative.

Where as return on equity and current ratio did not behave as expected, the majority of results are as expected with earnings per share meeting expectations.

The results imply that earnings per share can be used to predict individual companies returns and risk in the Agricultural sector.



• Table 2: Commercial and Services sector

**TABLE 2**

|                         | Correlation<br>between Return<br>on Equity and<br>Return | Correlation<br>between Return<br>on Equity and<br>Risk | Correlation<br>between<br>Current<br>and<br>Return<br>Ratio | Correlation<br>between<br>Current<br>and<br>Risk<br>Ratio | Correlation<br>between<br>Earnings<br>Share and<br>Return<br>Per | Correlation<br>between<br>Earnings<br>Share and<br>Return<br>Per<br>Risk |
|-------------------------|--|--|---|---|--|--|
| COMMERCIAL AND SERVICES |  |  |   |   |  |  |
| 2001                    | 0.14   | 0.58   | -0.14   | 0.26  | 0.01   | 0.50   |
| 2000                    | -0.22  | -0.24  | -0.48   | -0.35   | -0.27  | -0.19  |
| 1999                    | 0.43   | -0.76  | 0.32  | -0.21   | 0.48   | -0.84  |
| 1998                    | 0.09   | -0.07  | 0.11  | 0.00  | -0.06  | -0.41  |
| 1997                    | 0.74   | -0.76  | 0.30  | -0.53   | 0.53   | -0.44  |
| MAXIMUM                 | 0.74   | 0.58   | 0.32  | 0.26  | 0.53   | 0.50   |
| MINIMUM                 | -0.22  | -0.76  | -0.48   | -0.53   | -0.27  | -0.84  |
| MEAN                    | 0.24   | -0.25  | 0.02  | -0.17   | 0.14   | -0.28  |
| STD.DEVIATION           | 0.36   | 0.56   | 0.34  | 0.31  | 0.35   | 0.49   |

Mean for correlations between return on equity, current ratio, earning per share versus commercial and services sector return are positive while the above correlations versus commercial and services sector risk are negative. Standard deviation of correlations between return on equity, current ratio, earning per share versus commercial and services sector return and risk vary from 0.31 to 0.56.

Majority of results in the commercial and allied sector behaved as expected with stronger relations observed with return on equity and earnings per share. Return on equity and earnings per share can therefore be used to predict returns and risk in commercial and services sector.

• Table 3: Finance and Investment sector

**TABLE 3**

|                               | Correlation<br>between Return<br>on Equity and<br>Return | Correlation<br>between Return<br>on Equity and<br>Risk | Correlation<br>between<br>Current Ratio<br>and<br>Return | Correlation<br>between<br>Current Ratio<br>and<br>Risk | Correlation<br>between<br>Earnings Per<br>Share and<br>Return | Correlation<br>between<br>Earnings Per<br>Share and<br>Risk |
|-------------------------------|--|--|--|--|---|---|
| <b>FINANCE AND INVESTMENT</b> |  |  |  |  |   |   |
| 2001                          | -0.04  | -0.14  | -0.50  | 0.16   | 0.24  | 0.09  |
| 2000                          | 0.22   | -0.09  | 0.58   | -0.40  | 0.54  | -0.32   |
| 1999                          | 0.53   | -0.47  | 0.52   | 0.10   | 0.63  | -0.62   |
| 1998                          | 0.31   | 0.21   | -0.30  | -0.19  | 0.64  | -0.02   |
| 1997                          | 0.54   | 0.36   | -0.55  | 0.02   | 0.14  | -0.13   |
| MAXIMUM                       | 0.54   | 0.36   | 0.58   | 0.16   | 0.64  | 0.09  |
| MINIMUM                       | -0.04  | -0.47  | -0.55  | -0.40  | 0.14  | -0.62   |
| MEAN                          | 0.31   | -0.03  | -0.05  | -0.06  | 0.44  | -0.20   |
| STANDARD DEVIATION            | 0.24   | 0.32   | 0.56   | 0.23   | 0.23  | 0.28  |

The means of correlations between return on equity, current ratio, earning per share versus return and risk are negative different from correlation between return on equity and earning per share versus return which give positive figures and negative figures versus risk. The standard deviations however, do not give very wide margins for the period covered.

Results in the finance and investment sector behaved in a similar manner to the results in commercial and services sector. Return on equity and earnings per share can be used to predict future returns and risk in finance and investment sector.

• Table 4: Industrial and Allied sector

**TABLE 4**

|                          | Correlation                               | Correlation                             | Correlation                         | Correlation          | Correlation                         | Correlation            |  |
|--------------------------|---|---|-------------------------------------|----------------------|-------------------------------------|------------------------|--|
|                          | between Return<br>on Equity and<br>Return | between Return<br>on Equity and<br>Risk | between<br>Current<br>and<br>Return | Ratio<br>and<br>Risk | between<br>Current<br>and<br>Return | Ratio<br>and<br>Return | between<br>Earnings<br>Share and<br>Return |
| INDUSTRIAL AND<br>ALLIED |   |   |                                     |                      |                                     |                        |  |
| 2001                     | 0.43                                      | -0.35                                   | 0.13                                | -0.26                | 0.43                                | -0.19                  |  |
| 2000                     | 0.54                                      | -0.21                                   | -0.16                               | -0.30                | 0.32                                | 0.39                   |  |
| 1999                     | 0.52                                      | -0.05                                   | 0.10                                | -0.24                | 0.34                                | -0.03                  |  |
| 1998                     | 0.53                                      | 0.28                                    | -0.06                               | 0.11                 | 0.50                                | -0.11                  |  |
| 1997                     | 0.25                                      | 0.24                                    | -0.39                               | -0.25                | 0.37                                | 0.38                   |  |
| MAXIMUM                  | 0.54                                      | 0.28                                    | 0.13                                | 0.11                 | 0.50                                | 0.39                   |  |
| MINIMUM                  | 0.25                                      | -0.35                                   | -0.39                               | -0.30                | 0.32                                | -0.19                  |  |
| MEAN                     | 0.45                                      | -0.02                                   | -0.08                               | -0.19                | 0.39                                | 0.09                   |  |
| STANDARD<br>DEVIATION    | 0.12                                      | 0.28                                    | 0.21                                | 0.17                 | 0.07                                | 0.28                   |  |

Correlations between current ratio and earning per share versus industrial and allied sector return and risk give similar signs both negatives and positives respectively. The standard deviations do not give a very wide margin for period covered. The results here show that return on equity and earnings per share can be used to predict returns in industrial and allied sector, as all correlations obtained are positive as expected.

• Table 5: Alternative Investments Market segment sector

**TABLE 5**

|   | Correlation                               | Correlation                             | Correlation                         | Correlation          | Correlation                         | Correlation            |  |
|---|---|---|-------------------------------------|----------------------|-------------------------------------|------------------------|--|
|   | between Return<br>on Equity and<br>Return | between Return<br>on Equity and<br>Risk | between<br>Current<br>and<br>Return | Ratio<br>and<br>Risk | between<br>Current<br>and<br>Return | Ratio<br>and<br>Return | between<br>Earnings<br>Share and<br>Return |
| ALTERNATIVE<br>INVESTMENT<br>MARKET SEGMENT |   |   |                                     |                      |                                     |                        |  |
| 2001  | 0.32                                      | -0.08                                   | -0.20                               | -0.37                | 0.29                                | 0.29                   |  |
| 2000  | 0.55                                      | -0.66                                   | 0.53                                | -0.45                | 0.40                                | -0.15                  |  |
| 1999  | 0.04                                      | -0.21                                   | 0.13                                | -0.79                | -0.13                               | -0.27                  |  |
| 1998  | 0.45                                      | 0.18                                    | 0.52                                | 0.59                 | 0.47                                | 0.29                   |  |
| 1997  | -0.20                                     | 0.06                                    | -0.20                               | -0.18                | -0.25                               | -0.08                  |  |
| MAXIMUM                                     | 0.55                                      | 0.18                                    | 0.53                                | 0.59                 | 0.47                                | 0.29                   |  |
| MINIMUM                                     | -0.20                                     | -0.66                                   | -0.20                               | -0.79                | -0.25                               | -0.27                  |  |
| MEAN  | 0.23                                      | -0.14                                   | 0.16                                | -0.24                | 0.16                                | 0.02                   |  |
| STANDARD<br>DEVIATION                       | 0.31                                      | 0.32                                    | 0.36                                | 0.51                 | 0.33                                | 0.26                   |  |

Standard deviations do not give wide margins. Correlations between return on equity, current ratio versus alternative investment market segment sector return give positive figures and negative figures versus risk. Correlation between earnings per share versus alternative investments market segment sector return and risk both give positive figures.

Majority of results in alternative investments market segment behaved as expected though a strong relationship is not observed. The implication in the alternative investments market segment shows the response coefficient could not be regarded as a reliable predictor of future returns and risk.

• Table 6: Nairobi Stock Exchange

| <b>TABLE 6</b>   |        | Correlation<br>between Return<br>on Equity and | Correlation<br>between Return<br>on Equity and | Correlation<br>between<br>Current Ratio<br>and | Correlation<br>between<br>Current Ratio<br>and | Correlation<br>between<br>Earnings Per<br>Share and | Correlation<br>between<br>Earnings Per<br>Share and |
|------------------|--------|--|--|--|--|---|---|
| WHOLE<br>SEGMENT | MARKET | Return   | Risk   | Return   | Risk   | Return  | Risk  |
| 2001             |        | 0.32   | -0.15  | -0.03  | -0.17  | 0.31  | -0.07   |
| 2000             |        | 0.29   | -0.08  | 0.04   | -0.20  | 0.24  | -0.01   |
| 1999             |        | 0.35   | -0.18  | 0.18   | -0.13  | 0.26  | -0.16   |
| 1998             |        | 0.36   | 0.24   | 0.01   | 0.09   | 0.38  | 0.01  |
| 1997             |        | -0.20  | -0.06  | -0.13  | -0.06  | -0.08   | -0.04   |
| MAXIMUM          |        | 0.36   | 0.24   | 0.18   | 0.09   | 0.38  | 0.01  |
| MINIMUM          |        | -0.20  | -0.18  | -0.13  | -0.20  | -0.08   | -0.16   |
| MEAN             |        | 0.22   | -0.05  | 0.01   | -0.09  | 0.22  | -0.05   |
| STD. DEVIATION   |        | 0.24   | 0.17   | 0.11   | 0.12   | 0.18  | 0.07  |

The table represents market average helps to get around some country-specific inefficiency. Mean for correlation between return on equity, current ratio, earnings per share versus whole market return are positive while the above correlations versus whole market risk are negative. Standard deviations give narrow margins. A positive correlation to returns and negative correlations to risk is observed for Nairobi Stock exchange. The unstable relationship implies that correlations of return on equity, current ratio and earnings per share do not contain sufficient information to predict risk and return.

### 4.1.3 Pay out ratio, net asset value per share, dividend yield

It is generally expected that correlation of the above ratios and return should be negative. A positive correlation is generally expected between the above ratios and risk. This is because a higher capitalization translates to higher risk.

The dividend yield shows market expectations of future growth. High dividend yield reflect low share price due to doubts on future of company and the ability of a firm to maintain the high yield. High dividend yield should be accompanied by high risk. A high dividend yield reflects low growth of firm size and thus negatively correlated with returns.

- Table 7: Agricultural sector

| Main Market Segment | Investment | Correlation between Pay out Ratio and Return | Correlation between Pay out Ratio and Risk | Correlation between Net asset Value per Share and Return | Correlation between Net asset value per Share and Risk | Correlation between Dividend Yield and Return | Correlation between Dividend Yield and Risk |
|---------------------|------------|--|--|--|--|---|---|
| <b>TABLE 7</b>      |            |  |  |  |  |   |   |
| <b>AGRICULTURE</b>  |            |  |  |  |  |   |   |
| 2001                |            | -0.72  | 0.78                                       | -0.25  | 0.17   | -0.52   | 0.57  |
| 2000                |            | 0.44   | -0.29                                      | 0.02   | 0.42   | 0.38  | -0.09                                       |
| 1999                |            | -0.20  | 0.27                                       | -0.29  | 0.37   | 0.25  | -0.17                                       |
| 1998                |            | 0.36   | 0.09                                       | 0.96   | -0.72  | 0.24  | 0.17  |
| 1997                |            | 0.92   | 0.17                                       | 0.00   | 0.16   | 0.45  | -0.46                                       |
| MAXIMUM             |            | 0.92   | 0.78                                       | 0.96   | 0.42   | 0.45  | 0.57  |
| MINIMUM             |            | -0.72  | -0.29                                      | -0.29  | -0.72  | -0.52   | -0.46                                       |
| MEAN                |            | 0.16   | 0.20                                       | 0.09   | 0.08   | 0.16  | 0.00  |
| STANDARD DEVIATION  |            | 0.63   | 0.39                                       | 0.51   | 0.46   | 0.39  | 0.39  |

Standard deviations of correlations between pay out ratio, net asset value per share and dividend yield per share for the agricultural sector return and risk give a wider margin compared to means of the correlations between the above ratios for the agricultural sector return and risk. Standard deviations of correlations between dividend yield per share for the agricultural sector return and risk as

similar at 0.39. All means in the above table are positive with very narrow margins.

The correlations did not behave as expected. This means pay out ratio, net asset value per share and dividend yield could not be regarded as a reliable predictor of returns and risk in the Commercial and Services sector.

• Table 8: Commercial and Services sector

| COMMERCIAL AND SERVICES | Correlation                      | Correlation                    | Correlation                                  | Correlation                                | Correlation                       | Correlation                     |
|-------------------------|----------------------------------|--------------------------------|--|--|-----------------------------------|---------------------------------|
|                         | between Pay out Ratio and Return | between Pay out Ratio and Risk | between Net asset Value per Share and Return | between Net asset value per Share and Risk | between Dividend and Yield Return | between Dividend Yield and Risk |
| 2001                    | 0.74                             | -0.38                          | -0.09  | -0.29                                      | 0.61                              | -0.12                           |
| 2000                    | -0.30                            | -0.50                          | -0.65  | -0.23                                      | -0.14                             | -0.14                           |
| 1999                    | 0.59                             | -0.04                          | -0.60  | 0.17                                       | 0.66                              | -0.06                           |
| 1998                    | 0.78                             | 0.40                           | -0.43  | -0.20                                      | 0.53                              | 0.33                            |
| 1997                    | 0.11                             | -0.52                          | 0.60   | 0.35                                       | 0.02                              | -0.61                           |
| MAXIMUM                 | 0.78                             | 0.40                           | 0.60   | 0.35                                       | 0.66                              | 0.33                            |
| MINIMUM                 | -0.30                            | -0.52                          | -0.65  | -0.29                                      | -0.14                             | -0.61                           |
| MEAN                    | 0.38                             | -0.21                          | -0.23  | -0.04                                      | 0.34                              | -0.12                           |
| STANDARD DEVIATION      | 0.47                             | 0.39                           | 0.52   | 0.28                                       | 0.37                              | 0.33                            |

Standard deviations for the correlations of the above ratios and commercial and services sectors return and risk give very slim margins. Where as both means for the correlations between net asset value per share to both return and risk in the sector are negative, correlations between pay out ratios, and dividend yield and versus risk and return are positive and negative respectively.

The correlations did not behave as expected. This means pay out ratio, net asset value per share and dividend yield could not be regarded as a reliable predictor of returns and risk in the Agricultural sector.

• Table 9: Finance and Investment sector

**TABLE 9**

|                    | Correlation<br>between Pay<br>out Ratio and<br>Return | Correlation<br>between Pay<br>out Ratio and<br>Risk | Correlation<br>between Net<br>asset Value per<br>Share and<br>Return | Correlation<br>between Net<br>asset value per<br>Share and<br>Risk | Correlation<br>between<br>Dividend Yield<br>and<br>Return | Correlation<br>between<br>Dividend Yield<br>and<br>Risk |
|--------------------|---|---|--|--|---|---|
|                    |   |   |  |  |   |   |
| FINANCE INVESTMENT |   |   |  |  |   |   |
| 2001               | 0.00  | -0.05   | -0.07  | -0.08  | 0.34  | -0.03   |
| 2000               | -0.02   | -0.04   | 0.15   | -0.23  | 0.62  | -0.45   |
| 1999               | 0.54  | -0.49   | 0.14   | -0.15  | 0.48  | -0.41   |
| 1998               | 0.58  | 0.34  | -0.31  | -0.43  | 0.34  | -0.13   |
| 1997               | 0.59  | 0.44  | -0.34  | -0.02  | 0.36  | 0.02  |
| MAXIMUM            | 0.59  | 0.44  | 0.15   | -0.02  | 0.62  | 0.02  |
| MINIMUM            | -0.02   | -0.49   | -0.34  | -0.43  | 0.34  | -0.45   |
| MEAN               | 0.34  | 0.04  | -0.09  | -0.18  | 0.43  | -0.20   |
| STD. DEVIATION     | 0.32  | 0.37  | 0.24   | 0.16   | 0.12  | 0.22  |

The mean of correlations between payout ratio and return and risk give positive figures while correlations between net asset value per share and return and risk give negative figures. The means of correlations between dividend yield and return is positive while the mean of correlation between dividend yield and risk is negative. The correlations did not behave as expected. This means pay out ratio, net asset value per share and dividend yield could not be regarded as a reliable predictor of returns and risk in the Finance and Investment sector.

• Table 10: Industrial and Allied sector

**TABLE 10**

|                    | Correlation<br>between Pay<br>out Ratio and<br>Return | Correlation<br>between Pay<br>out Ratio and<br>Risk | Correlation<br>between Net<br>asset Value per<br>Share and<br>Return | Correlation<br>between Net<br>asset value per<br>Share and<br>Risk | Correlation<br>between<br>Dividend Yield<br>and<br>Return | Correlation<br>between<br>Dividend Yield<br>and<br>Risk |
|--------------------|---|---|--|--|---|---|
|                    |   |   |  |  |   |   |
| INDUSTRIAL ALLIED  |   |   |  |  |   |   |
| 2001               | 0.43  | -0.47   | 0.35   | -0.15  | 0.51  | -0.29   |
| 2000               | -0.05   | -0.22   | 0.41   | 0.59   | 0.19  | -0.30   |
| 1999               | 0.08  | -0.13   | 0.31   | 0.13   | 0.37  | 0.02  |
| 1998               | 0.17  | 0.19  | 0.51   | 0.28   | 0.38  | 0.10  |
| 1997               | 0.42  | 0.24  | 0.48   | 0.63   | 0.07  | 0.05  |
| MAXIMUM            | 0.43  | 0.24  | 0.51   | 0.63   | 0.51  | 0.10  |
| MINIMUM            | -0.05   | -0.47   | 0.31   | -0.15  | 0.07  | -0.30   |
| MEAN               | 0.21  | -0.08   | 0.41   | 0.30   | 0.30  | -0.08   |
| STANDARD DEVIATION | 0.21  | 0.30  | 0.08   | 0.33   | 0.17  | 0.19  |

The means of correlations between pay out ratio, net asset value per share and dividend yield per share against industrial and allied sector return are positive.

Whereas means of correlations between payout ratio and dividend yield against risk in the above sector are negative, the mean of correlations between net asset per share against risk is positive. The margins of standard deviations for the above correlations are narrow ranging from 0.08 to 0.33

The correlations did not behave as expected. This means pay out ratio, net asset value per share and dividend yield could not be regarded as a reliable predictor of returns and risk in the Industrial and Allied sector.

• Table 11: Alternative Investments Market segment sector

| ALTERNATIVE INVESTMENT MARKET SEGMENT | Correlation between Pay out Ratio and | Correlation between Pay out Ratio and | Correlation between Net asset Value per Share and | Correlation between Net asset value per Share and | Correlation between Dividend Yield and | Correlation between Dividend Yield and |
|---------------------------------------|---------------------------------------|---------------------------------------|---|---|--|--|
|                                       | Return                                | Risk                                  | Return  | Risk  | Return                                 | Risk                                   |
| 2001                                  | 0.40                                  | -0.77                                 | 0.38  | 0.52  | -0.38                                  | 0.62                                   |
| 2000                                  | 0.75                                  | -0.58                                 | 0.48  | -0.35   | 0.54                                   | -0.65                                  |
| 1999                                  | -0.34                                 | -0.12                                 | 0.07  | -0.06   | 0.11                                   | -0.37                                  |
| 1998                                  | 0.31                                  | 0.47                                  | 0.42  | 0.03  | 0.70                                   | 0.46                                   |
| 1997                                  | -0.18                                 | 0.01                                  | -0.34   | -0.40   | 0.03                                   | 0.14                                   |
| MAXIMUM                               | 0.75                                  | 0.47                                  | 0.48  | 0.52  | 0.70                                   | 0.62                                   |
| MINIMUM                               | -0.18                                 | -0.77                                 | -0.34   | -0.40   | -0.38                                  | -0.65                                  |
| MEAN                                  | 0.32                                  | -0.20                                 | 0.20  | -0.05   | 0.20                                   | 0.04                                   |
| STANDARD DEVIATION                    | 0.33                                  | 0.49                                  | 0.34  | 0.37  | 0.43                                   | 0.54                                   |

Standard deviations for the above correlations are wide ranging from 0.33 to 0.54. While all means of the correlations of pay out ratio, net asset value per share and dividend yield against returns of the alternative investment market segment are positive, the mean of the correlations of the first two ratios give a negative



figure against risk different from correlation between dividend yield and risk which gives a positive value.

The correlations did not behave as expected. This means pay out ratio, net asset value per share and dividend yield could not be regarded as a reliable predictor of returns and risk in the Alternative Investments Market Segment Sector.

• Table 12: Nairobi Stock Exchange

**TABLE 12**

| WHOLE MARKET SEGMENT | Correlation between Pay out Ratio and Return | Correlation between Pay out Ratio and Risk | Correlation between Net asset Value per Share and Return | Correlation between Net asset value per Share and Risk | Correlation                |                            |
|----------------------|--|--|--|--|----------------------------|----------------------------|
|                      |  |  |  |  | between Dividend and Yield | between Dividend and Yield |
| 2001                 | 0.19   | -0.23                                      | 0.15   | -0.02  | 0.36                       | -0.10                      |
| 2000                 | 0.08   | -0.24                                      | 0.15   | -0.01  | 0.21                       | -0.28                      |
| 1999                 | 0.16   | -0.09                                      | 0.13   | 0.04   | 0.34                       | 0.00                       |
| 1998                 | 0.28   | 0.27                                       | 0.31   | -0.13  | 0.43                       | 0.21                       |
| 1997                 | 0.03   | -0.07                                      | 0.00   | -0.07  | 0.01                       | -0.02                      |
| MAXIMUM              | 0.28   | 0.27                                       | 0.31   | 0.04   | 0.43                       | 0.21                       |
| MINIMUM              | 0.03   | -0.24                                      | 0.00   | -0.13  | 0.01                       | -0.28                      |
| MEAN                 | 0.15   | -0.07                                      | 0.15   | -0.04  | 0.27                       | -0.04                      |
| STD. DEVIATION       | 0.10   | 0.21                                       | 0.11   | 0.06   | 0.17                       | 0.18                       |

The main trend of correlations between pay out ratio, net asset value per share and dividend yield and return is positive different from the correlations between the above ratios and risk which is negative. Standard deviations for the whole market are in a small margin ranging from 0.06 and 0.21.

A general expectation of negative correlation to returns and positive correlation to risk with pay out ratio, net asset value per share and dividend yield is not met and the accounting ratios can not be regarded as a reliable predictor of individual companies returns and risk.

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary and Conclusions

This study set to find the correlation between accounting ratios (Net Asset Value Per Share, Return on equity, Current ratio, Earnings per share, Dividend yield and Pay out ratio) and market-based performance measures (risk and return) for companies quoted at the Nairobi Stock Exchange.

This study confirms alternative hypothesis that there exists a general association between the firm's accounting ratios and its stock return and risk. It finds an unstable association. The association generated by different accounting variable combinations in the different sectors varies along time. This implies that correlations of the various accounting variables do not contain sufficient information to predict risk and return.

The study finds that firms take actions, which result in their equity betas adjusting toward unity, where equity betas are a common measure of systematic risk. For instance, difficulties in trading conditions in the agricultural sector were offset by investment in improved manufacturing equipment, development of further added value products and stringent cost controls.

For a satisfactory return on capital employed in commercial and services sector, the firms in the sector embarked on reduction of surplus borrowings, increase to product range and protection of rental and territorial profitability. The unstable association is proof that accounting ratios do not contain sufficient information about investors' opinions to effectively measure the risk of equities with extreme exposure to non-accounting determinants.

The cross-section variation that accounting ratios do not explain, has implications for risk measurement determined by non-accounting factors like firm size and the growth of firm size.

## **5.2 Recommendations for further research**

Data was limited to the companies quoted at the Nairobi Stock Exchange. This study recommends a further analysis for firms not quoted at Nairobi Stock Exchange so as to confirm whether results are applicable across all firms or are peculiar to the quoted firms.

The study suggests variation of estimation period. For instance a study carried out to include weekly, monthly and a range of one to eight years to confirm whether results are applicable across different periods.

## **5.3 Limitations of the study**

This study only covered companies quoted at the Nairobi Stock Exchange. There is no way of knowing whether the results would have differed greatly, but it would have helped to generalize the results if analysis was for both quoted and companies not quoted on Nairobi Stock Exchange.

The analysis was performed per sector and on relatively short time series. Due to that the sample size decreased as the lag between observed price response coefficients increased. The response coefficient for different sectors cannot be regarded as a reliable predictor of individual companies returns and risk, but it is significant for the sample as a whole.

During the period under review (1996-2001), the economy was affected by power rationing which may have influenced the earnings or return relation, which had been central to the analysis. Such a phenomenon was unlikely to persist and if the research is repeated later, one could expect to find that more pronounced and stable results will be obtained.

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# APPENDICES

market information 1996

dividend / share      share price      shares in issue      mkt capitalization

## MAIN INVESTMENT MARKET SEGMENT

### AGRICULTURE

| Company Name                  | dividend / share | share price | shares in issue | mkt capitalization |
|-------------------------------|------------------|-------------|-----------------|--------------------|
| Brooks Bond Kenya Limited     | 2.00             | 177.00      | 48,875,000.00   | 8,650,875,000.00   |
| Kakuzi Limited                | 2.00             | 97.50       | 19,599,999.00   | 1,910,999,907.50   |
| Raa Vipingo Plantations Ltd   | 1.70             | 10.80       | 56,000,000.00   | 604,800,000.00     |
| Sasini Tea and Coffee Limited | 2.50             | 59.50       | 25,339,500.00   | 1,507,700,250.00   |

### COMMERCIAL AND SERVICES

| Company Name                       | dividend / share | share price | shares in issue | mkt capitalization |
|------------------------------------|------------------|-------------|-----------------|--------------------|
| African Lakes Corporation Plc      |                  |             |                 |                    |
| Car and General (Kenya) Limited    |                  | 20.00       | 22,279,616.00   | 445,592,320.00     |
| CMC Holdings Limited               | 2.50             | 65.00       | 12,139,780.00   | 789,065,700.00     |
| Hutchings Blemer Limited           |                  | 25.00       | 360,000.00      | 9,000,000.00       |
| Kenya Airways Limited              |                  | 6.90        | 461,615,484.00  | 4,108,377,807.60   |
| Marshalls (East Africa) Limited    | 4.00             | 38.75       | 9,595,404.00    | 371,821,905.00     |
| Nation Media Group Limited         | 0.92             | 109.00      | 11,884,210.00   | 1,295,378,890.00   |
| Tourism Promotion Services Limited |                  |             |                 |                    |
| Uchumi Supermarkets Limited        | 5.00             | 39.00       | 60,000,000.00   | 2,340,000,000.00   |

### FINANCE AND INVESTMENT

| Company Name                          | dividend / share | share price | shares in issue | mkt capitalization |
|---------------------------------------|------------------|-------------|-----------------|--------------------|
| Barclays Bank of Kenya Limited        |                  |             |                 |                    |
| CFC Bank                              | 0.50             | 19.00       | 100,000,000.00  | 1,900,000,000.00   |
| Diamond Trust Bank (Kenya) Limited    |                  |             |                 |                    |
| Housing Finance Company Limited       | 1.60             | 18.45       | 69,000,000.00   | 1,273,050,000.00   |
| ICDC Investment Company Limited       | 4.50             | 33.50       | 18,837,201.00   | 631,046,233.50     |
| Jubilee Insurance Company Limited     | 2.00             | 34.00       | 30,000,000.00   | 1,020,000,000.00   |
| Kenya Commercial Bank Limited         | 7.00             | 72.00       | 112,200,000.00  | 8,078,400,000.00   |
| National Bank Of Kenya Limited        |                  |             |                 |                    |
| NRC Bank Limited                      | 2.25             | 41.00       | 43,945,313.00   | 1,801,757,833.00   |
| Pan Africa Insurance Company Limited  | 1.75             | 50.00       | 10,000,000.00   | 500,000,000.00     |
| Standard Chartered Bank Kenya Limited | 3.75             | 48.50       | 164,829,100.00  | 7,994,211,350.00   |

### INDUSTRIAL AND ALLIED

| Company Name                             | dividend / share | share price | shares in issue | mkt capitalization |
|--|------------------|-------------|-----------------|--------------------|
| Athi River Mining Limited                | 0.30             |             | 52,000,000.00   |                    |
| Bamburi Cement Company Limited           | 1.25             | 29.25       | 241,944,250.00  | 7,076,869,312.50   |
| British American Tobacco Kenya Limited   | 6.00             | 63.00       | 75,000,000.00   | 4,725,000,000.00   |
| BOC Kenya Limited                        | 3.35             | 65.00       | 19,525,448.00   | 1,269,153,990.00   |
| Carbacid Investments Limited             | 2.00             | 85.50       | 5,899,352.00    | 504,394,596.00     |
| Crown-Berger Kenya Limited               | 1.00             | 9.50        | 21,570,000.00   | 204,915,000.00     |
| Dunlop Kenya Limited                     | 17.05            | 255.00      | 400,000.00      | 102,000,000.00     |
| East African Cables Limited              | 2.50             | 31.25       | 20,250,000.00   | 632,812,500.00     |
| East African Portland Cement Company     | 0.33             | 30.00       | 80,000,000.00   | 2,400,000,000.00   |
| East African Breweries Limited           | 5.00             | 27.50       | 85,521,577.00   | 2,351,843,307.50   |
| Firestone (EA) Limited                   | 2.50             | 27.50       | 185,561,600.00  | 5,102,944,000.00   |
| Kenya Oil Company Limited                | 4.00             | 69.00       | 7,199,800.00    | 496,786,200.00     |
| Mumias Sugar Company Ltd                 |                  |             |                 |                    |
| Kenya Power and Lighting Company Limited | 8.00             | 92.00       | 17,584,000.00   | 1,617,728,000.00   |
| Total Kenya Ltd                          | 2.50             | 65.00       | 56,000,000.00   | 3,640,000,000.00   |
| Unga Group Limited                       | 10.00            | 81.50       | 5,206,529.00    | 424,332,113.50     |

### ALTERNATIVE INVESTMENT MARKET SEGMENT

| Company Name                              | dividend / share | share price | shares in issue | mkt capitalization |
|---|------------------|-------------|-----------------|--------------------|
| A. Baumann & Company Limited              | 0.75             | 16.00       | 2,560,044.00    | 40,960,704.00      |
| City Trust Limited                        | 2.00             | 32.00       | 4,186,046.00    | 133,313,472.00     |
| Eaagady Limited                           | 0.70             | 27.25       | 6,431,400.00    | 175,255,850.00     |
| East African Packaging Industries Limited | 3.50             | 78.00       | 7,680,000.00    | 599,040,000.00     |
| Express Kenya Limited                     | 4.14             | 80.00       | 4,800,000.00    | 384,000,000.00     |
| Kapchorua Tea Company Limited             | 1.00             | 70.00       | 3,912,000.00    | 273,840,000.00     |
| Kenya Orchards Limited                    |                  |             |                 |                    |
| Limuru Tea Company Limited                | 30.00            | 1,300.00    | 200,000.00      | 260,000,000.00     |
| The Standard Newspapers Group Limited     | 1.00             | 7.95        | 8,561,639.00    | 68,065,030.05      |
| Williamson Tea Kenya Limited              | 1.00             | 66.00       | 8,756,320.00    | 577,917,120.00     |

## MAIN INVESTMENT MARKET SEGMENT

KES per share share price shares in issue MKS capitalization

## AGRICULTURE

| Company Name                  | KES per share | share price | shares in issue | MKS capitalization |
|-------------------------------|---------------|-------------|-----------------|--------------------|
| Brooke Bond Kenya Limited     | -             | 110.00      | 48,875,000.00   | 5,376,770,000.00   |
| Kakuzi Limited                | 2.75          | 96.00       | 19,599,999.00   | 1,881,599,904.00   |
| Rea Vipingo Plantations Ltd.  | 0.40          | 9.15        | 60,000,000.00   | 549,000,000.00     |
| Sasini Tea and Coffee Limited | 3.00          | 98.00       | 25,339,500.00   | 2,483,271,000.00   |

## COMMERCIAL AND SERVICES

| Company Name                       | KES per share | share price | shares in issue | MKS capitalization |
|------------------------------------|---------------|-------------|-----------------|--------------------|
| African Lakes Corporation Plc      | -             | -           | -               | -                  |
| Car and General (Kenya) Limited    | -             | 16.00       | 22,279,616.00   | 356,473,856.00     |
| CMC Holdings Limited               | 2.50          | 80.00       | 12,139,780.00   | 971,182,400.00     |
| Hutchings Biener Limited           | -             | 35.25       | 360,000.00      | 12,690,000.00      |
| Kenya Airways Limited              | 0.75          | 8.35        | 461,615,484.00  | 3,854,489,291.40   |
| Marshall's (East Africa) Limited   | 4.00          | 48.00       | 9,595,404.00    | 460,579,392.00     |
| Nation Media Group Limited         | 1.38          | 131.00      | 17,800,000.00   | 2,331,800,000.00   |
| Tourism Promotion Services Limited | 1.00          | 14.00       | 38,679,000.00   | 541,506,000.00     |
| Uchumi Supermarkets Limited        | 5.00          | 40.00       | 60,000,000.00   | 2,400,000,000.00   |

## FINANCE AND INVESTMENT

| Company Name                          | KES per share | share price | shares in issue | MKS capitalization |
|---------------------------------------|---------------|-------------|-----------------|--------------------|
| Barclays Bank of Kenya Limited        | 12.00         | 115.00      | 154,305,000.00  | 17,745,075,000.00  |
| CFC Bank                              | 0.67          | 17.60       | 100,000,000.00  | 1,760,000,000.00   |
| Diamond Trust Bank (Kenya) Limited    | 0.60          | 21.75       | 79,500,000.00   | 1,729,125,000.00   |
| Housing Finance Company Limited       | 1.50          | 19.05       | 92,000,000.00   | 1,752,100,000.00   |
| ICDC Investment Company Limited       | 4.00          | 50.00       | 18,837,201.00   | 941,860,050.00     |
| Jubilee Insurance Company Limited     | 1.75          | 36.75       | 30,000,000.00   | 1,102,500,000.00   |
| Kenya Commercial Bank Limited         | 8.00          | 77.00       | 112,200,000.00  | 8,639,400,000.00   |
| National Bank Of Kenya Limited        | 1.25          | 12.50       | 200,000,000.00  | 2,500,000,000.00   |
| NIC Bank Limited                      | 2.00          | 50.00       | 65,931,641.00   | 3,296,582,050.00   |
| Pan Africa Insurance Company Limited  | 1.75          | 41.75       | 13,000,000.00   | 542,750,000.00     |
| Standard Chartered Bank Kenya Limited | 3.75          | 46.00       | 164,828,896.00  | 7,582,129,216.00   |

## INDUSTRIAL AND ALLIED

| Company Name                             | KES per share | share price | shares in issue | MKS capitalization |
|--|---------------|-------------|-----------------|--------------------|
| Athi River Mining Limited                | 0.30          | 9.05        | 75,000,000.00   | 678,750,000.00     |
| Bamburi Cement Company Limited           | 1.12          | 36.25       | 362,918,111.00  | 13,155,781,523.75  |
| British American Tobacco Kenya Limited   | 6.00          | 50.00       | 75,000,000.00   | 3,750,000,000.00   |
| BOC Kenya Limited                        | 3.35          | 71.00       | 19,525,446.00   | 1,388,306,666.00   |
| Carback Investments Limited              | 2.00          | 77.00       | 9,438,963.00    | 728,800,151.00     |
| Crown-Berger Kenya Limited               | 1.35          | 9.90        | 21,570,000.00   | 213,543,000.00     |
| Dunlop Kenya Limited                     | 2.00          | 100.00      | 2,000,000.00    | 200,000,000.00     |
| East African Cables Limited              | 2.00          | 29.00       | 20,250,000.00   | 587,250,000.00     |
| East African Portland Cement Company     | 0.67          | 44.00       | 90,000,000.00   | 3,960,000,000.00   |
| East African Breweries Limited           | 6.00          | 60.00       | 65,521,577.00   | 3,931,294,620.00   |
| Firestone (E.A.) Limited                 | 1.50          | 23.50       | 165,561,600.00  | 4,369,697,600.00   |
| Kenya Oil Company Limited                | 4.00          | 58.50       | 7,199,800.00    | 421,188,300.00     |
| Mumias Sugar Company Ltd                 | -             | -           | -               | -                  |
| Kenya Power and Lighting Company Limited | 8.00          | 170.00      | 52,752,000.00   | 8,967,840,000.00   |
| Total Kenya Ltd                          | 2.60          | 52.50       | 56,000,000.00   | 2,940,000,000.00   |
| Unga Group Limited                       | 10.00         | 113.00      | 7,809,793.00    | 1,194,898,329.00   |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

| Company Name                              | KES per share | share price | shares in issue | MKS capitalization |
|---|---------------|-------------|-----------------|--------------------|
| A. Beumers & Company Limited              | 0.50          | 40.50       | 3,480,066.00    | 140,942,673.00     |
| City Trust Limited                        | 1.50          | 35.00       | 4,186,046.00    | 145,811,610.00     |
| Eaagads Limited                           | 2.00          | 26.00       | 6,431,400.00    | 167,218,400.00     |
| East African Packaging Industries Limited | -             | 67.00       | 7,680,000.00    | 514,560,000.00     |
| Express Kenya Limited                     | 2.70          | 56.00       | 4,800,000.00    | 278,400,000.00     |
| Kapchorua Tea Company Limited             | 1.50          | 70.00       | 3,912,000.00    | 273,840,000.00     |
| Kenya Orchards Limited                    | 0.28          | 19.40       | 400,000.00      | 7,760,000.00       |
| Limuru Tea Company Limited                | 85.00         | 750.00      | 200,000.00      | 150,000,000.00     |
| The Standard Newspapers Group Limited     | 0.67          | 50.00       | 12,811,858.00   | 640,592,950.00     |
| Williamson Tea Kenya Limited              | 1.50          | 73.50       | 6,756,320.00    | 443,569,520.00     |

dividend /share      share price      shares in issue      net capitalization

## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

|                               |      |        |               |                  |
|-------------------------------|------|--------|---------------|------------------|
| Brooke Bond Kenya Limited     | 4.00 | 141.00 | 48,875,000.00 | 6,891,375,000.00 |
| Kakuzi Limited                | 2.75 | 141.00 | 19,599,992.00 | 2,763,598,872.00 |
| Rea Vipingo Plantations Ltd.  | -    | 6.50   | 60,000,000.00 | 390,000,000.00   |
| Sasini Tea and Coffee Limited | 3.00 | 78.00  | 38,009,250.00 | 2,964,721,500.00 |

## COMMERCIAL AND SERVICES

|                                    |      |        |                |                  |
|------------------------------------|------|--------|----------------|------------------|
| African Lakes Corporation Plc      |      |        |                |                  |
| Car and General (Kenya) Limited    | -    | 12.00  | 22,279,616.00  | 267,355,392.00   |
| CMC Holdings Limited               | 0.50 | 36.00  | 24,779,560.00  | 874,064,160.00   |
| Hutchings Biscuit Limited          |      |        |                |                  |
| Kenya Airways Limited              | 1.00 | 7.30   | 461,615,184.00 | 3,369,790,843.20 |
| Marshalls (East Africa) Limited    | 1.00 | 42.00  | 14,393,106.00  | 604,510,452.00   |
| Nation Media Group Limited         | 1.65 | 137.00 | 35,652,630.00  | 4,884,410,310.00 |
| Tourism Promotion Services Limited | 1.00 | 14.50  | 38,679,000.00  | 560,845,500.00   |
| Uchumi Supermarkets Limited        | 3.35 | 46.00  | 60,000,000.00  | 2,760,000,000.00 |

## FINANCE AND INVESTMENT

|                                       |       |        |                |                   |
|---------------------------------------|-------|--------|----------------|-------------------|
| Barclays Bank of Kenya Limited        | 11.00 | 130.00 | 154,305,000.00 | 20,059,650,000.00 |
| CFC Bank                              | 0.67  | 15.10  | 100,000,000.00 | 1,510,000,000.00  |
| Diamond Trust Bank (Kenya) Limited    | 0.80  | 22.00  | 79,500,000.00  | 1,749,000,000.00  |
| Housing Finance Company Limited       | 1.50  | 16.05  | 115,000,000.00 | 1,845,750,000.00  |
| ICDC Investment Company Limited       | 3.00  | 39.25  | 28,258,429.00  | 1,109,143,338.25  |
| Jubilee Insurance Company Limited     | 1.75  | 30.00  | 36,000,000.00  | 1,080,000,000.00  |
| Kenya Commercial Bank Limited         | 6.00  | 61.50  | 112,200,000.00 | 6,900,300,000.00  |
| National Bank Of Kenya Limited        | 0.50  | 8.80   | 200,000,000.00 | 1,720,000,000.00  |
| NIC Bank Limited                      | 1.00  | 37.50  | 65,931,641.00  | 2,472,436,537.50  |
| Pan Africa Insurance Company Limited  | 1.75  | 25.00  | 13,000,000.00  | 325,000,000.00    |
| Standard Chartered Bank Kenya Limited | 5.00  | 50.50  | 164,828,876.00 | 8,323,863,286.00  |

## INDUSTRIAL AND ALLIED

|  |      |        |                |                   |
|--|------|--------|----------------|-------------------|
| Atta River Mining Limited                |      | 6.60   | 75,000,000.00  | 495,000,000.00    |
| Bamburi Cement Company Limited           | 0.75 | 36.00  | 362,931,725.00 | 13,065,542,100.00 |
| British American Tobacco Kenya Limited   | 7.50 | 76.50  | 75,000,000.00  | 5,737,500,000.00  |
| BOC Kenya Limited                        | 3.49 | 70.00  | 19,525,446.00  | 1,366,781,220.00  |
| Carbacid Investments Limited             | 2.20 | 65.00  | 9,438,963.00   | 613,532,595.00    |
| Crown-Barger Kenya Limited               | 1.00 | 8.05   | 21,570,000.00  | 173,636,500.00    |
| Dunlop Kenya Limited                     | 0.40 | 20.00  | 10,000,000.00  | 200,000,000.00    |
| East African Cables Limited              | 2.00 | 20.00  | 20,250,000.00  | 405,000,000.00    |
| East African Portland Cement Company     | 1.00 | 23.50  | 90,000,000.00  | 2,115,000,000.00  |
| East African Breweries Limited           | 6.00 | 53.00  | 93,802,252.00  | 4,960,919,356.00  |
| Firestone (E.A.) Limited                 | 1.50 | 16.10  | 278,342,400.00 | 4,481,312,640.00  |
| Kenya Oil Company Limited                | 6.00 | 58.50  | 7,199,800.00   | 421,188,300.00    |
| Mumias Sugar Company Ltd                 |      |        |                |                   |
| Kenya Power and Lighting Company Limited | 8.00 | 190.00 | 52,752,000.00  | 10,022,880,000.00 |
| Total Kenya Ltd                          | 3.00 | 49.00  | 56,000,000.00  | 2,744,000,000.00  |
| Unga Group Limited                       | 1.20 | 56.50  | 40,050,756.00  | 2,047,519,627.00  |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

|   |       |        |               |                  |
|---|-------|--------|---------------|------------------|
| A. Baumann & Company Limited              | 0.75  | 16.00  | 3,480,000.00  | 55,081,050.00    |
| City Trust Limited                        | 2.00  | 25.50  | 4,160,040.00  | 108,234,173.00   |
| Esagads Limited                           | 4.75  | 37.00  | 6,431,400.00  | 237,991,600.00   |
| East African Packaging Industries Limited |       | 20.00  | 7,080,000.00  | 153,800,000.00   |
| Express Kenya Limited                     | 1.70  | 30.00  | 4,800,000.00  | 144,000,000.00   |
| Kapchora Tea Company Limited              | 7.50  | 81.00  | 3,912,000.00  | 316,872,000.00   |
| Kenya Orchards Limited                    | 0.28  | 5.00   | 400,000.00    | 2,000,000.00     |
| Limuru Tea Company Limited                | 85.00 | 750.00 | 200,000.00    | 150,000,000.00   |
| The Standard Newspapers Group Limited     | 0.10  | 12.00  | 12,811,850.00 | 153,742,308.00   |
| Williamson Tea Kenya Limited              | 7.50  | 136.00 | 8,756,320.00  | 1,180,859,570.00 |

## INDUSTRIAL AND ALLIED

|  |       |        |                |                  |
|--|-------|--------|----------------|------------------|
| AINH River Mining Limited                |       | 5 75   | 75,000,000 00  | 431,250,000 00   |
| Bamburl Cement Company Limited           | 1 00  | 26 25  | 302,940,725 00 | 9,527,194,031 25 |
| British American Tobacco Kenya Limited   | 10 50 | 77 50  | 75,000,000 00  | 5,812,500,000 00 |
| BOC Kenya Limited                        | 3 55  | 70 00  | 10,525,446 00  | 1,366,781,220 00 |
| Carbacid Investments Limited             | 5 00  | 72 00  | 9,438,963 00   | 679,005,336 00   |
| Crown Berger Kenya Limited               | 2 00  | 10 00  | 21,570,000 00  | 215,700,000 00   |
| Dunlop Kenya Limited                     | 0 40  | 10 00  | 10,000,000 00  | 100,000,000 00   |
| East African Cables Limited              | 4 50  | 13 00  | 20,250,000 00  | 263,250,000 00   |
| East African Portland Cement Company     |       | 14 00  | 90,000,000 00  | 1,260,000,000 00 |
| East African Breweries Limited           | 7 00  | 78 00  | 93,802,252 00  | 7,300,975,856 00 |
| Firestone (E.A.) Limited                 | 1 00  | 16 00  | 276,342,400 00 | 4,453,478,400 00 |
| Kenya Oil Company Limited                | 7 50  | 57 50  | 7,199,600 00   | 413,966,500 00   |
| Mumias Sugar Company Ltd.                |       |        |                |                  |
| Kenya Power and Lighting Company Limited | 8 00  | 113 00 | 79,128,000 00  | 6,941,404,000 00 |
| Total Kenya Ltd                          | 3 40  | 48 25  | 54,800,000 00  | 2,644,100,000 00 |
| Unga Group Limited                       |       | 32 25  | 40,858,758 00  | 1,511,194,945 50 |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

|   |       |        |               |                  |
|---|-------|--------|---------------|------------------|
| A. Beaman & Company Limited               | 1 25  | 17 15  | 3,840,000 00  | 65,657,131 90    |
| City Trust Limited                        | 2 00  | 23 50  | 4,160,040 00  | 97,902,081 00    |
| Eggheads Limited                          | 1 25  | 42 25  | 6,431,400 00  | 271,726,650 00   |
| East African Packaging Industries Limited |       | 12 85  | 7,660,000 00  | 106,368,000 00   |
| Espress Kenya Limited                     |       | 16 05  | 4,600,000 00  | 66,529,000 00    |
| Kapchorua Tea Company Limited             | 2 50  | 125 00 | 3,912,000 00  | 469,000,000 00   |
| Kenya Orchards Limited                    |       |        |               |                  |
| Limuru Tea Company Limited                | 30 00 | 050 00 | 200,000 00    | 130,000,000 00   |
| The Standard Newspapers Group Limited     |       | 16 05  | 12,811,654 00 | 205,630,336 95   |
| Williamson Tea Kenya Limited              | 2 50  | 140 00 | 6,750,320 00  | 1,225,684,600 00 |

dividend /share      share price      shares in issue      mkt capitalization

## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

|                               |      |        |               |                  |
|-------------------------------|------|--------|---------------|------------------|
| Brooke Bond Kenya Limited     | 4.00 | 104.00 | 48,875,000.00 | 5,083,000,000.00 |
| Kakuzi Limited                | 2.00 | 87.00  | 19,599,999.00 | 1,705,199,913.00 |
| Rea Vipingo Plantations Ltd.  | -    | 4.80   | 60,000,000.00 | 276,000,000.00   |
| Saskil Tea and Coffee Limited | 0.50 | 55.50  | 38,009,250.00 | 2,109,513,375.00 |

## COMMERCIAL AND SERVICES

|                                    |      |        |                |                  |
|------------------------------------|------|--------|----------------|------------------|
| African Lakes Corporation Plc      | -    | -      | 91,700,000.00  | -                |
| Car and General (Kenya) Limited    | -    | 10.00  | 22,279,616.00  | 222,796,160.00   |
| CMC Holdings Limited               | 0.75 | 30.00  | 24,279,500.00  | 728,385,000.00   |
| Hutchings Biener Limited           | -    | -      | -              | -                |
| Kenya Airways Limited              | -    | 8.00   | 461,615,184.00 | 3,692,921,472.00 |
| Marshalls (East Africa) Limited    | -    | 26.00  | 14,393,106.00  | 374,220,756.00   |
| Nation Media Group Limited         | 1.75 | 100.00 | 35,652,630.00  | 3,565,263,000.00 |
| Tourism Promotion Services Limited | 1.00 | 16.05  | 38,679,000.00  | 620,797,950.00   |
| Uchumi Supermarkets Limited        | 3.05 | 48.00  | 60,000,000.00  | 2,880,000,000.00 |

## FINANCE AND INVESTMENT

|                                       |       |        |                |                   |
|---------------------------------------|-------|--------|----------------|-------------------|
| Barclays Bank of Kenya Limited        | 10.00 | 103.00 | 154,305,000.00 | 15,893,415,000.00 |
| CFC Bank                              | 0.67  | 14.25  | 100,000,000.00 | 1,425,000,000.00  |
| Diamond Trust Bank (Kenya) Limited    | 0.80  | 26.00  | 79,500,000.00  | 2,067,000,000.00  |
| Housing Finance Company Limited       | 0.50  | 10.55  | 115,000,000.00 | 1,213,250,000.00  |
| ICDC Investment Company Limited       | 2.50  | 48.00  | 37,677,905.00  | 1,808,539,440.00  |
| Jubilee Insurance Company Limited     | 1.75  | 25.75  | 36,000,000.00  | 927,000,000.00    |
| Kenya Commercial Bank Limited         | -     | 31.50  | 112,200,000.00 | 3,534,300,000.00  |
| National Bank Of Kenya Limited        | -     | 5.00   | 200,000,000.00 | 1,000,000,000.00  |
| NIC Bank Limited                      | 1.80  | 27.00  | 82,414,551.00  | 2,225,192,877.00  |
| Pan Africa Insurance Company Limited  | 0.75  | 27.00  | 16,000,000.00  | 432,000,000.00    |
| Standard Chartered Bank Kenya Limited | 7.40  | 56.50  | 164,828,976.00 | 9,312,837,144.00  |



dividend /share      share price      shares in issue      mkt capitalization

## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

| Company Name                  | dividend /share | share price | shares in issue | mkt capitalization |
|-------------------------------|-----------------|-------------|-----------------|--------------------|
| Brooks Bond Kenya Limited     | 6.00            | 97.00       | 48,875,000.00   | 4,740,875,000.00   |
| Kakuzi Limited                | 0.40            | 55.00       | 19,599,999.00   | 1,077,999,945.00   |
| Rea Vipingo Plantations Ltd.  | -               | 3.70        | 60,000,000.00   | 222,000,000.00     |
| Sasini Tea and Coffee Limited | 2.00            | 34.75       | 38,009,250.00   | 1,320,821,437.50   |

## COMMERCIAL AND SERVICES

| Company Name                       | dividend /share | share price | shares in issue | mkt capitalization |
|------------------------------------|-----------------|-------------|-----------------|--------------------|
| African Lakes Corporation Plc      | -               | 57.00       | 95,985,000.00   | 5,471,145,000.00   |
| Car and General (Kenya) Limited    | -               | 19.00       | 22,279,616.00   | 423,312,704.00     |
| CMC Holdings Limited               | 0.75            | 16.00       | 24,279,560.00   | 388,472,960.00     |
| Hutchings Bismar Limited           | -               | -           | -               | -                  |
| Kenya Airways Limited              | 1.25            | 7.50        | 451,615,484.00  | 3,462,116,130.00   |
| Marshalls (East Africa) Limited    | -               | 23.50       | 14,393,106.00   | 338,237,991.00     |
| Nation Media Group Limited         | 1.75            | 69.00       | 35,652,630.00   | 2,460,031,470.00   |
| Tourism Promotion Services Limited | 1.10            | 15.80       | 38,679,000.00   | 611,128,200.00     |
| Uchumi Supermarkets Limited        | 3.00            | 42.75       | 60,000,000.00   | 2,565,000,000.00   |

## FINANCE AND INVESTMENT

| Company Name                          | dividend /share | share price | shares in issue | mkt capitalization |
|---------------------------------------|-----------------|-------------|-----------------|--------------------|
| Barclays Bank of Kenya Limited        | 10.00           | 75.50       | 185,166,000.00  | 13,980,033,000.00  |
| CFC Bank                              | 0.67            | 10.05       | 120,000,000.00  | 1,206,000,000.00   |
| Diamond Trust Bank (Kenya) Limited    | 0.60            | 14.00       | 79,500,000.00   | 1,113,000,000.00   |
| Housing Finance Company Limited       | 0.38            | 5.50        | 115,000,000.00  | 632,500,000.00     |
| ICDC Investment Company Limited       | 3.00            | 49.50       | 38,363,958.00   | 1,895,015,921.00   |
| Jubilee Insurance Company Limited     | 1.75            | 18.50       | 36,000,000.00   | 666,000,000.00     |
| Kenya Commercial Bank Limited         | -               | 25.50       | 112,200,000.00  | 2,861,100,000.00   |
| National Bank of Kenya Limited        | -               | 3.15        | 200,000,000.00  | 630,000,000.00     |
| NIC Bank Limited                      | 1.80            | 17.75       | 82,414,551.00   | 1,462,858,280.25   |
| Pan Africa Insurance Company Limited  | -               | 11.00       | 48,000,000.00   | 528,000,000.00     |
| Standard Chartered Bank Kenya Limited | 11.00           | 49.50       | 247,243,464.00  | 12,238,551,468.00  |

## INDUSTRIAL AND ALLIED

| Company Name                             | dividend /share | share price | shares in issue | mkt capitalization |
|--|-----------------|-------------|-----------------|--------------------|
| AtN River Mining Limited                 | -               | 4.00        | 75,000,000.00   | 300,000,000.00     |
| Bamburi Cement Company Limited           | 0.75            | 33.75       | 302,959,925.00  | 12,249,897,400.75  |
| British American Tobacco Kenya Limited   | 7.90            | 60.50       | 100,000,000.00  | 6,050,000,000.00   |
| BOC Kenya Limited                        | 3.55            | 43.00       | 10,525,448.00   | 456,594,178.00     |
| Carback Investments Limited              | 2.75            | 49.00       | 9,438,963.00    | 462,509,187.00     |
| Crown-Berger Kenya Limited               | 0.50            | 9.00        | 21,570,000.00   | 194,130,000.00     |
| Dunlop Kenya Limited                     | 0.40            | 6.40        | 10,000,000.00   | 64,000,000.00      |
| East African Cables Limited              | 1.10            | 9.25        | 20,250,000.00   | 187,312,500.00     |
| East African Portland Cement Company     | -               | 12.40       | 90,000,000.00   | 1,116,000,000.00   |
| East African Breweries Limited           | 7.50            | 65.50       | 97,402,198.00   | 6,379,843,969.00   |
| Firestone (E.A.) Limited                 | 1.00            | 11.50       | 278,242,393.00  | 3,199,787,519.50   |
| Kenya Oil Company Limited                | 6.00            | 81.00       | 7,199,800.00    | 583,181,800.00     |
| Mumias Sugar Company Ltd                 | -               | -           | -               | -                  |
| Kenya Power and Lighting Company Limited | 2.00            | 51.50       | 79,128,000.00   | 4,075,002,000.00   |
| Total Kenya Ltd                          | -               | 55.00       | 54,800,000.00   | 3,014,000,000.00   |
| Unga Group Limited                       | -               | 15.40       | 40,850,750.00   | 629,104,875.00     |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

| Company Name                              | dividend /share | share price | shares in issue | mkt capitalization |
|---|-----------------|-------------|-----------------|--------------------|
| A. Baumann & Company Limited              | 1.00            | 14.30       | 3,840,066.00    | 54,912,943.80      |
| City Trust Limited                        | 2.00            | 20.00       | 4,100,046.00    | 82,200,920.00      |
| Esagads Limited                           | -               | 25.00       | 6,431,400.00    | 160,785,000.00     |
| East African Packaging Industries Limited | -               | 27.50       | 7,800,000.00    | 214,500,000.00     |
| Express Kenya Limited                     | -               | 16.75       | 4,800,000.00    | 80,400,000.00      |
| Kapchorua Tea Company Limited             | 2.50            | 150.00      | 3,912,000.00    | 586,800,000.00     |
| Kenya Orchards Limited                    | -               | -           | -               | -                  |
| Limuru Tea Company Limited                | 55.00           | 850.00      | 200,000.00      | 170,000,000.00     |
| The Standard News, Sports Group Limited   | -               | 7.40        | 12,811,659.00   | 94,807,750.60      |
| Williamson Tea Kenya Limited              | 2.50            | 87.00       | 6,750,570.00    | 587,190,840.00     |

dividend / share      share price      shares in issue      mkt capitalization

## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

| Company Name                   | Dividend / share | Share Price | Shares in Issue | Mkt Capitalization |
|--------------------------------|------------------|-------------|-----------------|--------------------|
| Brooke Bond Kenya Limited      | 2.00             | 72.00       | 48,875,000.00   | 3,519,000,000.00   |
| Kakuzi Limited                 | -                | 36.00       | 19,599,999.00   | 705,599,964.00     |
| Rea Vipingo Plantations Ltd.   | -                | 2.90        | 60,000,000.00   | 174,000,000.00     |
| Saskini Tea and Coffee Limited | 1.00             | 19.80       | 38,009,250.00   | 752,583,150.00     |

## COMMERCIAL AND SERVICES

| Company Name                       | Dividend / share | Share Price | Shares in Issue | Mkt Capitalization |
|------------------------------------|------------------|-------------|-----------------|--------------------|
| African Lakes Corporation Plc      | -                | 28.75       | 148,605,000.00  | 4,272,393,750.00   |
| Car and General (Kenya) Limited    | -                | 10.00       | 22,279,616.00   | 222,796,160.00     |
| CMC Holdings Limited               | 0.75             | 9.00        | 24,279,560.00   | 218,516,040.00     |
| Hutchings Biemer Limited           | -                | -           | -               | -                  |
| Kenya Airways Limited              | 1.25             | 7.55        | 461,615,484.00  | 3,485,196,904.20   |
| Maschalls (East Africa) Limited    | -                | 18.30       | 14,393,106.00   | 263,393,839.80     |
| Nation Media Group Limited         | 1.60             | 43.25       | 35,652,630.00   | 1,541,976,247.50   |
| Tourism Promotion Services Limited | 1.10             | 17.00       | 38,679,000.00   | 657,543,000.00     |
| Uchumi Supermarkets Limited        | 1.60             | 45.50       | 60,000,000.00   | 2,730,000,000.00   |

## FINANCE AND INVESTMENT

| Company Name                          | Dividend / share | Share Price | Shares in Issue | Mkt Capitalization |
|---------------------------------------|------------------|-------------|-----------------|--------------------|
| Barclays Bank of Kenya Limited        | 14.00            | 72.50       | 185,166,000.00  | 13,424,535,000.00  |
| CFC Bank                              | 0.67             | 9.00        | 120,000,000.00  | 1,080,000,000.00   |
| Diamond Trust Bank (Kenya) Limited    | 0.40             | 9.00        | 79,500,000.00   | 715,500,000.00     |
| Housing Finance Company Limited       | -                | 6.00        | 115,000,000.00  | 690,000,000.00     |
| ICDC Investment Company Limited       | 2.00             | 47.00       | 46,031,291.00   | 2,163,470,677.00   |
| Jubilee Insurance Company Limited     | 1.75             | 15.50       | 36,000,000.00   | 558,000,000.00     |
| Kenya Commercial Bank Limited         | -                | 16.35       | 149,600,000.00  | 2,445,960,000.00   |
| National Bank Of Kenya Limited        | -                | 2.90        | 200,000,000.00  | 580,000,000.00     |
| NIC Bank Limited                      | 1.60             | 15.00       | 82,414,551.00   | 1,236,218,265.00   |
| Pan Africa Insurance Company Limited  | -                | 13.10       | 48,000,000.00   | 628,800,000.00     |
| Standard Chartered Bank Kenya Limited | 8.25             | 47.00       | 247,243,464.00  | 11,620,442,808.00  |

## INDUSTRIAL AND ALLIED

| Company Name                             | Dividend / share | Share Price | Shares in Issue | Mkt Capitalization |
|--|------------------|-------------|-----------------|--------------------|
| Athi River Mining Limited                | 0.20             | 4.00        | 93,000,000.00   | 372,000,000.00     |
| Bambui Cement Company Limited            | 1.12             | 16.70       | 302,959,025.00  | 6,061,415,117.50   |
| British American Tobacco Kenya Limited   | 7.90             | 49.00       | 100,000,000.00  | 4,900,000,000.00   |
| BOC Kenya Limited                        | 3.55             | 30.00       | 19,525,446.00   | 585,763,380.00     |
| Carback Investments Limited              | 2.75             | 35.00       | 11,376,755.00   | 398,436,425.00     |
| Crown-Burger Kenya Limited               | 0.50             | 5.00        | 21,570,000.00   | 107,850,000.00     |
| Dunlop Kenya Limited                     | -                | -           | -               | -                  |
| East African Cables Limited              | 1.10             | 9.20        | 20,250,000.00   | 186,300,000.00     |
| East African Portland Cement Company     | 1.00             | 11.00       | 80,000,000.00   | 880,000,000.00     |
| East African Breweries Limited           | 9.00             | 79.50       | 109,030,000.00  | 8,667,925,221.00   |
| Firestone (E.A) Limited                  | 1.00             | 7.00        | 278,342,400.00  | 1,948,396,800.00   |
| Kenya Oil Company Limited                | 7.50             | 68.50       | 10,079,812.00   | 690,453,422.00     |
| Mumias Sugar Company Ltd                 | 0.11             | 0.35        | 910,000,000.00  | 3,238,500,000.00   |
| Kenya Power and Lighting Company Limited | -                | 29.25       | 70,128,000.00   | 2,314,494,000.00   |
| Total Kenya Ltd                          | -                | 19.00       | 103,245,000.00  | 1,961,655,000.00   |
| Unga Group Limited                       | -                | 7.75        | 52,854,408.00   | 410,397,127.00     |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

| Company Name                              | Dividend / share | Share Price | Shares in Issue | Mkt Capitalization |
|---|------------------|-------------|-----------------|--------------------|
| A. Baumann & Company Limited              | 1.00             | 6.95        | 3,840,000.00    | 26,688,450.70      |
| City Trust Limited                        | -                | -           | -               | -                  |
| Esagads Limited                           | 0.50             | 70.50       | 8,039,200.00    | 104,804,620.00     |
| East African Packaging Industries Limited | -                | 8.20        | 7,880,000.00    | 62,976,000.00      |
| Express Kenya Limited                     | -                | 16.65       | 4,800,000.00    | 89,520,000.00      |
| Kapchorua Tea Company Limited             | 2.50             | 140.00      | 3,917,000.00    | 547,680,000.00     |
| Kenya Orchards Limited                    | -                | -           | -               | -                  |
| Limuru Tea Company Limited                | -                | 394.00      | 600,000.00      | 236,400,000.00     |
| The Standard Newspapers Group Limited     | -                | 5.50        | 12,811,850.00   | 70,465,274.50      |
| Williamson Tea Kenya Limited              | 5.00             | 100.00      | 6,756,170.00    | 675,617,000.00     |

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## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

|                               |       |       |       |      |       |       |
|-------------------------------|-------|-------|-------|------|-------|-------|
| Brooke Bond Kenya Limited     | 0.06  | 0.09  | 0.04  | 0.03 | -0.04 | 0.02  |
| Kakuzi Limited                | -0.64 | -0.02 | 0.02  | 0.04 | 0.09  | 0.074 |
| Rea Vipingo Plantations Ltd.  | -0.04 | -0.15 | -0.02 | 0.11 | 0.1   | 0.14  |
| Sasini Tea and Coffee Limited | 0.02  | 0.08  | 0.01  | 0.04 | 0.04  | 0.04  |

## COMMERCIAL AND SERVICES

|                                    |       |       |       |       |       |       |
|------------------------------------|-------|-------|-------|-------|-------|-------|
| African Lakes Corporation Plc      |       |       |       |       |       |       |
| Car and General (Kenya) Limited    | -0.03 | -0.01 | 0.08  | -0.13 | -0.34 | -0.24 |
| CMC Holdings Limited               | 0.45  | 0.32  | 0.23  | 0.18  | 0.19  | 0.22  |
| Hutchings Blemer Limited           |       |       |       |       | 0.14  | -0.63 |
| Kenya Airways Limited              | 0.39  | 0.84  | 0.33  | 0.39  | 0.22  | 0.45  |
| Marshalls (East Africa) Limited    | -1.17 | -0.31 | -0.56 | 0.06  | 0.16  | 0.21  |
| Nation Media Group Limited         | 0.17  | 0.44  | 0.44  | 0.06  | 0.12  | 0.16  |
| Tourism Promotion Services Limited | 0.15  | 0.14  | 0.13  | 0.1   | 0.08  |       |
| Uchumi Supermarkets Limited        | 0.03  | 0.12  | 0.08  | 0.11  | 0.09  | 0.15  |

## FINANCE AND INVESTMENT

|                                       |        |       |        |        |        |        |
|---------------------------------------|--------|-------|--------|--------|--------|--------|
| Barclays Bank of Kenya Limited        | 0.22   | 0.15  | 0.14   | 0.15   | 0.15   |        |
| CFC Bank                              | 0.13   | 0.16  | 0.13   | 0.16   | 0.15   | 0.1    |
| Diamond Trust Bank (Kenya) Limited    | 0.06   | 0.15  | 0.05   | 0.12   | 0.09   |        |
| Housing Finance Company Limited       | -0.27  | 0.08  | 0.06   | 0.15   | 0.17   | 0.2    |
| ICDC Investment Company Limited       | 0.0576 | 0.058 | 0.0589 | 0.2353 | 0.2506 | 0.0248 |
| Jubilee Insurance Company Limited     | 0.18   | 0.12  | 0.1    | 0.13   | 0.12   | 0.09   |
| Kenya Commercial Bank Limited         | 0.16   | 0.16  | 0.44   | 0.10   | 0.3    | 0.31   |
| National Bank Of Kenya Limited        | 0.52   | -3.5  | -2.43  | -1.27  | 0.16   |        |
| NIC Bank Limited                      | 0.21   | 0.21  | 0.14   | 0.12   | 0.12   | 0.2    |
| Pan Africa Insurance Company Limited  | 0.24   | -0.12 | 0.07   | 0.23   | 0.12   | 0.08   |
| Standard Chartered Bank Kenya Limited | 0.19   | 0.18  | 0.19   | 0.19   | 0.14   | 0.14   |

## INDUSTRIAL AND ALLIED

|  |      |      |      |      |      |      |
|--|------|------|------|------|------|------|
| Athi River Mining Limited              | 0.09 | 0.1  | 0.05 | 0.03 | 0.05 | 0    |
| Bamburi Cement Company Limited         | 0.13 | 0.03 | 0.08 | 0.03 | 0.06 | 0.11 |
| British American Tobacco Kenya Limited | 0.12 | 0.1  | 0.21 | 0.2  | 0.17 | 0.13 |
| BOC Kenya Limited                      | 0.13 | 0.09 | 0.08 | 0.11 | 0.12 | 0.13 |
| Carbacid Investments Limited           | 0.11 | 0.2  | 0.17 | 0.13 | 0.08 | 0.11 |
| Crown-Berger Kenya Limited             | 0.22 | 0.1  | 0.21 | 0.13 | 0.21 | 0.03 |

## return on equity

|  |       |       |       |       |      |      |
|--|-------|-------|-------|-------|------|------|
| Dunlop Kenya Limited                     |       | 0.05  | 0.08  | 0.03  | 0.04 | 0.15 |
| East African Cables Limited              | 0.1   | 0.16  | 0.08  | 0.16  | 0.11 | 0.12 |
| East African Portland Cement Company     | 0.74  | -0.38 | -0.7  | 0.18  | 0.02 | 0.02 |
| East African Breweries Limited           | 0.18  | 0.19  | 0.15  | 0.05  | 0.22 | 0.23 |
| Firestone (E.A) Limited                  | 0.17  | 0.09  | 0.09  | 0.13  | 0.15 | 0.14 |
| Kenya Oil Company Limited                | 0.56  | 0.26  | 0.51  | 0.4   | 0.32 | 0.19 |
| Mumias Sugar Company Ltd                 | 0.15  |       |       |       |      |      |
| Kenya Power and Lighting Company Limited | -1.24 | -0.78 | 0.15  | 0.15  | 0.17 | 0.69 |
| Total Kenya Ltd                          | -0.11 | 0.07  | 0.21  | 0.12  | 0.04 | 0.05 |
| Unga Group Limited                       | -0.32 | -0.64 | -0.18 | -0.21 | 0.13 | 0.12 |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

|   |       |       |       |       |       |      |
|---|-------|-------|-------|-------|-------|------|
| A. Baumann & Company Limited              | -0.1  | 0.08  | 0.19  | 0.06  | -2.07 | 4.97 |
| City Trust Limited                        |       | 0.05  | 0.04  | 0.16  | 0.13  | 0.44 |
| Eaagads Limited                           | 0.43  | 0.42  | 0.31  | 0.45  | 0.42  | 0.29 |
| East Africa: Packaging Industries Limited | 0.82  | -1.73 | -0.23 | -0.24 | 0.01  | 0.16 |
| Express Kenya Limited                     | -0.35 | -0.07 | -0.12 | 0.09  | 0.06  | 0.09 |
| Kapchorua Tea Company Limited             | 0.01  | 0.03  | 0.03  | 0.24  | 0.07  | 0.02 |
| Kenya Orchards Limited                    |       |       |       | 3.53  | 1     |      |
| Limuru Tea Company Limited                | -0.01 | 0.09  | 0.07  | 0.14  | 0.11  | 0.03 |
| The Standard Newspapers Group Limited     | -0.59 | -1.33 | -0.59 | -0.02 | 0.05  | 0.25 |
| Williamson Tea Kenya Limited              | 0.16  | 0.11  | 0.04  | 0.24  | 0.09  | 0.02 |

2001 2000 1999 1998 1997 1996

## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

|                               |      |      |      |      |      |      |
|-------------------------------|------|------|------|------|------|------|
| Brooke Bond Kenya Limited     |      |      |      |      |      |      |
| Kakuzi Limited                | 0.88 | 0.89 | 1.06 | 0.87 | 1.23 | 1.43 |
| Rea Vipingo Plantations Ltd.  | 1.21 | 1.13 | 0.74 | 0.92 | 1.09 | 1.23 |
| Sasini Tea and Coffee Limited |      |      |      |      |      |      |

## COMMERCIAL AND SERVICES

|                                    |      |      |      |      |      |      |
|------------------------------------|------|------|------|------|------|------|
| African Lakes Corporation Plc      | 1.52 | 2.65 | 2.44 |      |      |      |
| Car and General (Kenya) Limited    | 0.84 | 0.87 | 0.86 | 0.77 | 1    | 1.01 |
| CMC Holdings Limited               | 1.54 | 1.43 | 1.22 | 1.36 | 1.78 | 1.27 |
| Hutchings Blumar Limited           |      |      |      |      | 1.16 | 1.18 |
| Kenya Airways Limited              | 1.6  | 1.67 | 1.53 | 1.3  | 1.3  | 1.42 |
| Marshalls (East Africa) Limited    | 0.76 | 0.78 | 1.05 | 1.23 | 1.27 | 1.31 |
| Nation Media Group Limited         | 1.74 | 1.69 | 1.33 | 1.96 | 1.82 | 1.83 |
| Tourism Promotion Services Limited | 1.05 | 0.91 | 1.06 | 0.96 | 0.94 |      |
| Uchumi Supermarkets Limited        | 0.98 | 1.15 | 1.29 | 1.2  | 1.31 | 1.47 |

## FINANCE AND INVESTMENT

|                                       |      |      |      |      |      |      |
|---------------------------------------|------|------|------|------|------|------|
| Barclays Bank of Kenya Limited        | 1.15 | 1.14 | 1.11 | 1.09 | 1.08 |      |
| CFC Bank                              | 1.12 | 1.11 | 1.16 | 1.18 | 1.16 | 1.17 |
| Diamond Trust Bank (Kenya) Limited    | 4.11 | 1.24 | 1.15 | 1.13 | 1.06 |      |
| Housing Finance Company Limited       | 1.07 | 1.09 | 1.09 | 1.09 | 1.11 | 1.1  |
| ICDC Investment Company Limited       | 0.51 | 2.61 | 4.28 | 0.88 | 0.93 | 0.99 |
| Jubilee Insurance Company Limited     | 1.72 | 2.1  | 1.8  | 2.09 | 0.78 | 1.05 |
| Kenya Commercial Bank Limited         | 1.07 | 0.93 | 1    | 1.01 | 1.11 | 1.02 |
| National Bank Of Kenya Limited        | 1.05 | 1.04 | 1.04 | 0.96 | 1.07 |      |
| NBC Bank Limited                      | 1.32 | 1.35 | 1.32 | 1.26 | 1.2  | 1.14 |
| Pen Africa Insurance Company Limited  | 1.42 | 0.69 | 1.98 | 1.7  | 1.77 | 1.32 |
| Standard Chartered Bank Kenya Limited | 1.08 | 1.11 | 1.12 | 1.07 | 1.05 | 1.03 |

## INDUSTRIAL AND ALLIED

|  |       |      |       |      |      |      |
|--|-------|------|-------|------|------|------|
| Athi River Mining Limited                | 1.36  | 1.24 | 0.75  | 0.73 | 0.98 | 0.55 |
| Bamburi Cement Company Limited           | 1.72  | 1.06 | 1.37  | 2.56 | 4.19 | 4.24 |
| British American Tobacco Kenya Limited   | 1.84  | 1.62 | 2.84  | 1.83 | 1.43 | 1.36 |
| BOC Kenya Limited                        | 2.75  | 3.43 | 3.16  | 2.81 | 2.4  | 2.2  |
| Carback Investments Limited              | 17.27 | 6.53 | 12.14 | 8.88 | 7.45 | 4.33 |
| Crown-Barge Kenya Limited                | 1.9   | 1.7  | 1.68  | 1.49 | 1.43 | 1.46 |
| Dunlop Kenya Limited                     |       | 2.51 | 3.01  | 2.97 | 3.5  | 2.70 |
| East African Cables Limited              | 7.25  | 5.05 | 9.83  | 4.25 | 5    | 4.05 |
| East African Portland Cement Company     | 2.2   | 1.93 | 1.55  | 1.31 | 1.02 | 1.86 |
| East African Breweries Limited           | 1.84  | 1.21 | 0.98  | 1.14 | 1.29 | 1.17 |
| Freetown (E.A.) Limited                  | 2.83  | 2.8  | 1.98  | 1.94 | 1.8  | 2.17 |
| Kenya Oil Company Limited                | 1.33  | 1.62 | 1.83  | 1.88 | 1.73 | 1.67 |
| Mumias Sugar Company Ltd                 | 1.35  |      |       |      |      |      |
| Kenya Power and Lighting Company Limited | 0.68  | 0.85 | 0.93  | 0.97 | 0.98 | 1.03 |
| Total Kenya Ltd                          | 0.91  | 1.01 | 1.11  | 1.03 | 1.05 | 1.09 |
| Unga Group Limited                       | 0.93  | 0.86 | 0.85  | 0.91 | 1.27 | 1.15 |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

|   |       |      |      |      |       |       |
|---|-------|------|------|------|-------|-------|
| A. Baumann & Company Limited              | 2.69  | 2.15 | 1.38 | 1.84 | 1.57  | 1.99  |
| City Trust Limited                        |       | 8.37 | 3.69 | 3.68 | 10.23 | 11.97 |
| Eagles Limited                            | 10.15 | 4.14 | 2.38 | 2.27 | 2.54  | 4.08  |
| East African Packaging Industries Limited | 0.97  | 0.98 | 1.2  | 1.24 | 1.4   | 1.36  |
| Express Kenya Limited                     | 0.74  | 0.78 | 0.8  | 0.93 | 0.94  | 0.93  |
| Kapchorua Tea Company Limited             |       |      |      |      |       |       |
| Kenya Orchards Limited                    |       |      |      | 0.74 | 0.83  |       |
| Limsuru Tea Company Limited               | 1.19  | 5.27 | 2.65 | 1.88 | 1.49  | 2.70  |
| The Standard Newspapers Group Limited     | 0.59  | 0.78 | 0.86 | 1    | 1.19  | 1.18  |
| Williamson Tea Kenya Limited              |       |      |      |      |       |       |

## earnings per share

2001 2000 1999 1998 1997 1996

## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

|                               |        |        |      |      |        |        |
|-------------------------------|--------|--------|------|------|--------|--------|
| Brooke Bond Kenya Limited     | 4.51   | 9.19   | 4.40 | 4.62 | (4.85) | (0.35) |
| Kakuzi Limited                | (2.31) | (1.44) | 1.87 | 5.11 | 10.32  | 7.25   |
| Rua Vipingo Plantations Ltd.  | 0.11   | 0.57   | 0.11 | 0.73 | 0.93   | 1.66   |
| Sasini Tea and Coffee Limited | 0.36   | 2.91   | 0.32 | 3.20 | 3.93   | 2.50   |

## COMMERCIAL AND SERVICES

|                                    |         |        |         |        |        |         |
|------------------------------------|---------|--------|---------|--------|--------|---------|
| African Lakes Corporation Plc      | 3.01    | 0.01   | 1.42    |        |        |         |
| Cia and General (Kenya) Limited    | (0.26)  | (0.19) | 0.80    | (1.52) | (0.23) | (4.45)  |
| CNIC Holdings Limited              | 4.04    | 5.05   | 6.61    | 8.07   | 15.56  | 16.00   |
| Hutchings Blower Limited           |         |        |         |        | 4.66   | (18.53) |
| Kenya Airways Limited              | 2.94    | 6.33   | 2.61    | 2.85   | 1.84   | 3.07    |
| Marshalls (East Africa) Limited    | (21.45) | (7.21) | (14.67) | 2.60   | 7.55   | 8.30    |
| Nation Media Group Limited         | 7.20    | 5.70   | 6.94    | 9.16   | 15.98  | 17.40   |
| Tourism Promotion Services Limited | 2.50    | 2.15   | 2.05    | 1.48   | 1.17   |         |
| Uchumi Supermarkets Limited        | 1.49    | 5.33   | 4.07    | 5.21   | 3.75   | 6.48    |

## FINANCE AND INVESTMENT

|                                       |        |         |         |         |       |       |
|---------------------------------------|--------|---------|---------|---------|-------|-------|
| Barclays Bank of Kenya Limited        | 15.96  | 11.17   | 14.61   | 19.44   | 17.41 |       |
| CFC Bank                              | 1.18   | 1.61    | 1.58    | 2.39    | 2.58  | 1.88  |
| Diamond Trust Bank (Kenya) Limited    | 0.51   | 2.06    | 1.31    | 1.87    | 1.99  |       |
| Housing Finance Company Limited       | (1.61) | 0.45    | 0.61    | 2.48    | 3.23  | 3.66  |
| ICOC Investment Company Limited       | 4.56   | 5.92    | 7.17    | 5.20    | 5.77  | 0.07  |
| Jubilee Insurance Company Limited     | 2.82   | 2.17    | 2.82    | 4.00    | 3.73  | 3.14  |
| Kenya Commercial Bank Limited         | 2.55   | (4.14)  | (13.86) | 10.04   | 22.81 | 22.29 |
| National Bank Of Kenya Limited        | 1.49   | (11.03) | (12.14) | (10.96) | 1.94  |       |
| NIC Bank Limited                      | 3.08   | 3.79    | 3.85    | 4.38    | 8.05  | 8.01  |
| Pan Africa Insurance Company Limited  | (3.17) | (1.46)  | 1.28    | 3.08    | 4.90  | 3.99  |
| Standard Chartered Bank Kenya Limited | 9.04   | 8.77    | 7.03    | 8.73    | 8.46  | 8.97  |

## INDUSTRIAL AND ALLIED

|  |        |         |        |       |       |       |
|--|--------|---------|--------|-------|-------|-------|
| Athi River Mining Limited                | 0.41   | 0.40    | 0.26   | 0.17  | 0.46  | 0.60  |
| Bambui Cement Company Limited            | 2.32   | 0.80    | 1.74   | 1.03  | 2.15  | 3.17  |
| Bithni African Tobacco Kenya Limited     | 6.04   | 5.83    | 12.37  | 14.98 | 8.45  | 8.42  |
| BOC Kenya Limited                        | 3.84   | 3.87    | 5.75   | 7.81  | 8.73  | 6.20  |
| Caribick Investments Limited             | 3.76   | 8.14    | 12.04  | 8.57  | 6.26  | 9.48  |
| Crown-Berger Kenya Limited               | 1.06   | 0.95    | 2.13   | 1.08  | 1.77  | 0.29  |
| Dunlop Kenya Limited                     |        | 0.30    | 0.80   | 0.80  | 4.40  | 38.20 |
| East African Cables Limited              | (0.88) | 1.50    | 1.08   | 3.14  | 3.18  | 3.64  |
| East African Portland Cement Company     | 8.18   | (4.86)  | (9.76) | 4.17  | 1.00  | 0.75  |
| East African Breweries Limited           | 14.67  | 12.91   | 11.49  | 2.82  | 13.29 | 6.45  |
| Firestone (E.A.) Limited                 | 1.20   | 1.05    | 1.40   | 2.20  | 2.40  | 3.70  |
| Kenya Oil Company Limited                | 37.21  | 21.61   | 29.32  | 17.67 | 16.89 | 13.22 |
| Mumias Sugar Company Ltd                 | 0.95   |         |        |       |       |       |
| Kenya Power and Lighting Company Limited | (4.36) | 20.35   | 16.47  | 17.00 | 29.46 | 63.46 |
| Total Kenya Ltd                          | (2.23) | 2.46    | 9.85   | 5.73  | 2.32  | 3.09  |
| Unga Group Limited                       | 2.52   | (14.57) | 5.84   | 11.92 | 3.41  | 9.50  |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

|   |        |         |        |         |         |        |
|---|--------|---------|--------|---------|---------|--------|
| A. Baumann & Company Limited              | (0.87) | 1.12    | 3.30   | 0.97    | (2.11)  | (3.02) |
| City Trust Limited                        |        | 2.24    | 2.00   | 8.09    | 5.83    | 17.33  |
| Esagade Limited                           | 0.38   | (1.06)  | 1.14   | 7.56    | 3.01    | 1.42   |
| East African Packaging Industries Limited | 7.50   | (12.97) | (3.12) | (4.89)  | 0.84    | 0.40   |
| Espresso Kenya Limited                    | (6.50) | (1.24)  | (2.79) | 1.73    | 2.80    | 2.45   |
| Kapchorua Tea Company Limited             | 1.60   | 3.81    | 3.94   | 19.08   | 4.82    | 1.37   |
| Kenya Orchards Limited                    |        |         |        | (17.82) | (19.45) |        |
| Lituru Tea Company Limited                | 4.97   | 59.12   | 40.50  | 10.81   | 83.34   | 40.78  |
| The Standard Newspapers Group Limited     | 4.90   | 9.84    | (9.41) | (0.21)  | 2.07    | 1.33   |
| Williamson Tea Kenya Limited              | 15.58  | 8.94    | 5.42   | 31.79   | 6.58    | 1.30   |



2001 2000 1999 1998 1997 1996

## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

|                              |      |      |      |      |      |       |
|------------------------------|------|------|------|------|------|-------|
| Brooks Bond Kenya Limited    | 2.78 | 6.19 | 3.85 | 2.86 | -    | 1.13  |
| Kakuzi Limited               | -    | 0.73 | 2.30 | 1.96 | 2.52 | 2.26  |
| Rea Vipingo Plantations Ltd. | -    | -    | -    | -    | 4.37 | 15.74 |
| Saski Tea and Coffee Limited | 5.05 | 5.76 | 0.90 | 3.85 | 3.06 | 4.20  |

## COMMERCIAL AND SERVICES

|                                    |       |       |      |       |       |       |
|------------------------------------|-------|-------|------|-------|-------|-------|
| African Lakes Corporation Plc      | -     | -     | -    | -     | -     | -     |
| Car and General (Kenya) Limited    | -     | -     | -    | -     | -     | -     |
| CMC Holdings Limited               | 8.33  | 4.69  | 2.50 | 1.39  | 3.13  | 3.00  |
| Hutchings Blomer Limited           | -     | -     | -    | -     | -     | -     |
| Kenya Airways Limited              | 16.56 | 16.67 | -    | 13.70 | 8.98  | -     |
| Marshalls (East Africa) Limited    | -     | -     | -    | 2.38  | 8.33  | 10.32 |
| Nation Media Group Limited         | 3.70  | 2.54  | 1.75 | 1.20  | 1.05  | 0.84  |
| Tourism Promotion Services Limited | 6.47  | 6.96  | 6.23 | 6.90  | 7.14  | -     |
| Uchumi Supermarkets Limited        | 3.52  | 7.02  | 6.35 | 8.38  | 12.82 | 11.83 |

## FINANCE AND INVESTMENT

|                                       |       |       |       |      |       |      |
|---------------------------------------|-------|-------|-------|------|-------|------|
| Barclays Bank of Kenya Limited        | 19.31 | 13.25 | 9.71  | 8.46 | 10.43 | -    |
| CFC Bank                              | 7.44  | 6.67  | 4.70  | 3.05 | 3.61  | 2.63 |
| Diamond Trust Bank (Kenya) Limited    | 4.44  | 4.29  | 3.08  | 3.84 | 2.78  | -    |
| Housing Finance Company Limited       | -     | 6.91  | 4.74  | 9.35 | 7.67  | 8.74 |
| KCDC Investment Company Limited       | 4.26  | 6.45  | 5.00  | 7.84 | 8.00  | -    |
| Jubilee Insurance Company Limited     | 11.29 | 9.46  | 6.80  | 5.83 | 4.76  | 5.86 |
| Kenya Commercial Bank Limited         | -     | -     | -     | 9.76 | 10.39 | 9.72 |
| National Bank Of Kenya Limited        | -     | -     | -     | 5.81 | 10.00 | -    |
| NIC Bank Limited                      | 10.67 | 10.14 | 6.67  | 2.67 | 4.00  | 5.49 |
| Pan Africa Insurance Company Limited  | -     | -     | 2.78  | 7.00 | 4.10  | 4.40 |
| Standard Chartered Bank Kenya Limited | 17.60 | 22.20 | 13.10 | 9.90 | 8.20  | 7.70 |

## INDUSTRIAL AND ALLIED

|  |         |        |       |        |        |        |
|--|---------|--------|-------|--------|--------|--------|
| Afri River Mining Limited                | 5.44    | -      | -     | -      | 5.00   | -      |
| Bamburi Cement Company Limited           | 6.71    | 2.22   | 3.81  | 2.08   | 3.09   | 4.27   |
| British American Tobacco Kenya Limited   | 16.12   | 13.06  | 13.50 | 10.27  | 12.00  | 9.52   |
| BOC Kenya Limited                        | 11.83   | 8.26   | 5.07  | 4.99   | 4.72   | 5.15   |
| Carback Investments Limited              | 7.86    | 6.61   | 6.94  | 3.38   | 2.80   | 2.34   |
| Crown-Berger Kenya Limited               | 10.00   | 5.56   | 20.00 | 11.70  | 13.64  | 10.53  |
| Dunlop Kenya Limited                     | -       | 6.25   | 4.00  | 2.00   | 2.00   | 7.04   |
| East African Cables Limited              | 11.98   | 11.89  | 34.62 | 10.00  | 6.90   | 6.00   |
| East African Portland Cement Company     | 9.09    | -      | -     | 4.28   | 1.52   | 1.10   |
| East African Breweries Limited           | 11.32   | 11.45  | 6.97  | 11.32  | 10.43  | 16.16  |
| Firestone (E.A.) Limited                 | (14.29) | 6.70   | 6.25  | 9.32   | 10.04  | 9.09   |
| Kenya Oil Company Limited                | 10.95   | 7.41   | 13.04 | 10.26  | 6.84   | 8.00   |
| Mumias Sugar Company Ltd                 | 11.18   | -      | -     | -      | -      | -      |
| Kenya Power and Lighting Company Limited | -       | (3.68) | 7.10  | 7.11   | 4.59   | 6.58   |
| Total Kenya Ltd                          | -       | -      | 7.20  | (0.12) | (4.95) | (3.85) |
| Unga Group Limited                       | -       | -      | -     | -      | 0.01   | 0.01   |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

|   |       |      |      |        |        |       |
|---|-------|------|------|--------|--------|-------|
| A. Baumann & Company Limited              | 14.39 | 6.99 | 7.29 | 5.17   | 1.36   | 4.69  |
| City Trust Limited                        | -     | 6.60 | 9.00 | 7.84   | 5.86   | 3.91  |
| Esagods Limited                           | 2.44  | -    | 2.06 | 12.84  | 7.69   | 2.67  |
| East African Packaging Industries Limited | -     | -    | -    | -      | -      | 6.07  |
| Express Kenya Limited                     | -     | -    | -    | 5.91   | 0.73   | 0.92  |
| Kapchorua Tea Company Limited             | 1.79  | 1.67 | 2.00 | 6.26   | 2.14   | 0.66  |
| Kenya Orchards Limited                    | -     | -    | -    | (2.75) | (0.71) | -     |
| Limuru Tea Company Limited                | -     | 6.46 | 4.62 | 11.33  | 8.67   | 2.31  |
| The Standard Newspapers Group Limited     | -     | -    | -    | 0.63   | 4.69   | 12.56 |
| Williamson Tea Kenya Limited              | 5.00  | 2.67 | 1.79 | 5.31   | 2.04   | 1.72  |

2001 2000 1999 1998 1997 1996

## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

|                        |        |         |        |       |       |         |
|------------------------|--------|---------|--------|-------|-------|---------|
| Brooks Bond Kenya L    | 44.35  | 65.31   | 90.81  | 86.53 |       | (57.21) |
| Kakuzi Limited         | -      | (27.73) | 106.80 | 53.78 | 26.64 | 30.35   |
| Rea Vipingo Plantation | -      | -       | -      | -     | 43.15 | 110.69  |
| Sasini Tea and Coffee  | 274.18 | 68.63   | 72.95  | 93.69 | 73.08 | 99.65   |

## COMMERCIAL AND SERVICES

|                           |        |       |       |       |        |        |
|---------------------------|--------|-------|-------|-------|--------|--------|
| African Lakes Corpora     | -      | -     | -     | -     | -      | -      |
| Car and General (Kenya)   | -      | -     | -     | -     | -      | -      |
| CMC Holdings Limited      | 18.57  | 14.85 | 11.35 | 6.20  | 16.07  | 15.00  |
| Hutchings Steiner Limited | -      | -     | -     | -     | -      | -      |
| Kenya Airways Limited     | 42.52  | 19.75 | -     | 35.13 | 40.66  | -      |
| Marshalls (East Africa)   | -      | -     | -     | 38.36 | 79.52  | 48.12  |
| Nation Media Group Ltd    | 22.22  | 30.72 | 25.20 | 18.01 | 8.64   | 5.29   |
| Tourism Promotion Bd      | 44.00  | 51.23 | 48.75 | 67.57 | 85.36  | -      |
| Uchumi Supermarkets       | 107.63 | 56.24 | 74.88 | 64.30 | 133.36 | 115.57 |

## FINANCE AND INVESTMENT

|                                      |       |       |        |        |       |       |
|--------------------------------------|-------|-------|--------|--------|-------|-------|
| Barclays Bank of Kenya               | 87.73 | 89.54 | 66.46  | 56.58  | 68.91 | -     |
| CFC Bank                             | 56.86 | 41.52 | 42.41  | 26.01  | 25.07 | 26.58 |
| Diamond Trust Bank (Kenya)           | 77.69 | 29.16 | 61.02  | 42.78  | 30.13 | -     |
| Housing Finance Company              | -     | 83.69 | 81.35  | 80.37  | 46.44 | 43.66 |
| ICDC Investment Company              | 43.83 | 50.67 | 34.86  | 57.69  | 69.32 | 4.18  |
| Jubilee Insurance Company            | 62.02 | 80.06 | 66.82  | 43.75  | 40.92 | 63.72 |
| Kenya Commercial Bank                | -     | -     | -      | 59.78  | 35.07 | 31.40 |
| National Bank of Kenya               | -     | -     | -      | (4.50) | 64.48 | -     |
| NBC Bank Limited                     | 51.95 | 47.46 | 49.27  | 22.77  | 33.08 | 26.09 |
| Pan Africa Insurance Company Limited | -     | -     | -      | -      | -     | -     |
| Standard Chartered Bank              | 1.26  | 25.43 | 105.26 | 57.27  | 58.05 | 53.70 |

## INDUSTRIAL AND ALLIED

|  |        |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|--------|
| Athi River Mining Limited                | 48.50  | -      | -      | -      | 64.50  | 50.00  |
| Bambui Cement Company                    | 48.28  | 93.75  | 87.47  | 72.82  | 52.09  | 39.43  |
| British American Tobacco                 | 130.77 | 135.57 | 84.88  | 80.08  | 70.97  | 71.29  |
| BOC Kenya Limited                        | 97.36  | 91.79  | 61.79  | 44.67  | 36.38  | 54.03  |
| Carbacid Investments                     | 73.05  | 33.78  | 41.52  | 25.88  | 31.94  | 21.11  |
| Crown-Barger Kenya                       | 46.47  | 52.63  | 95.80  | 91.74  | 78.49  | 342.36 |
| Dunlop Kenya Limited                     | -      | 133.33 | 50.00  | 66.97  | 45.45  | 46.99  |
| East African Cables Ltd                  | 125.00 | 73.33  | 416.07 | 83.69  | 63.29  | 68.66  |
| East African Portland Cement             | 12.21  | -      | -      | 24.00  | 67.00  | 44.00  |
| East African Breweries                   | 80.52  | 58.09  | 60.92  | 717.77 | 46.16  | 77.57  |
| Firestone (E.A.) Limited                 | 83.33  | 95.24  | 71.43  | 66.16  | 62.50  | 68.00  |
| Kenya Oil Company Limited                | 20.16  | 27.76  | 25.56  | 33.90  | 21.18  | 30.26  |
| Mumias Sugar Company                     | 74.74  | -      | -      | -      | -      | -      |
| Kenya Power and Lighting Company Limited | -      | -      | -      | -      | -      | -      |
| Total Kenya Ltd                          | -      | -      | 34.52  | 52.36  | 112.07 | 60.91  |
| Unga Group Limited                       | -      | -      | -      | 10.07  | 291.55 | 104.26 |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

|                        |          |       |        |         |         |         |
|------------------------|----------|-------|--------|---------|---------|---------|
| A. Baumann & Company   | (148.72) | 89.20 | 37.86  | 70.92   | (24.88) | (20.72) |
| City Trust Limited     | -        | 69.27 | 99.98  | 24.72   | 25.72   | 11.54   |
| Esagadi Limited        | 131.70   | -     | 109.69 | 62.06   | 51.16   | 49.26   |
| East African Packaging | -        | -     | -      | -       | -       | 54.09   |
| Express Kenya Limited  | -        | -     | -      | 98.27   | 3.02    | 9.56    |
| Kapchorua Tea Company  | 136.25   | 65.79 | 63.45  | 39.35   | 31.17   | 72.90   |
| Kenya Orchards Limited | -        | -     | -      | (1.54)  | (1.41)  | -       |
| Limuru Tea Company     | -        | 93.03 | 64.52  | 81.88   | 77.09   | 73.57   |
| The Standard Newspaper | -        | -     | -      | (47.62) | 25.09   | 75.19   |
| Williamson Tea Kenya   | 32.13    | 27.96 | 46.13  | 23.59   | 72.80   | 73.33   |

2001 2000 1999 1998 1997 1996

## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

|                               |        |        |        |        |        |        |
|-------------------------------|--------|--------|--------|--------|--------|--------|
| Brooke Bond Kenya Limited     | 117.81 | 118.30 | 113.30 | 109.43 | 107.98 | 112.92 |
| Kakuz Limited                 | 125.03 | 135.02 | 140.62 | 128.28 | 125.71 | 91.68  |
| Rea Vipingo Plantations Ltd.  | 10.20  | 10.06  | 8.45   | 8.55   | 8.18   | 8.24   |
| Sasini Tea and Coffee Limited | 61.04  | 61.84  | 61.55  | 62.12  | 62.83  | 90.74  |

## COMMERCIAL AND SERVICES

|                                    |        |        |       |       |        |        |
|------------------------------------|--------|--------|-------|-------|--------|--------|
| African Lakes Corporation Plc      | 0.32   | 0.36   | 0.39  |       |        |        |
| Car and General (Kenya) Limited    | 15.85  | 18.61  | 18.62 | 15.35 | 16.83  | 21.04  |
| CMC Holdings Limited               | 103.77 | 101.15 | 92.44 | 60.09 | 101.99 | 88.00  |
| Hutchings Bi-mer Limited           |        |        |       |       | 875.76 | 264.48 |
| Kenya Airways Limited              | 35.94  | 33.82  | 29.76 | 20.86 | 16.70  | 13.63  |
| Marshalls (East Africa) Limited    | 27.47  | 23.89  | 67.68 | 87.07 | 129.65 | 136.82 |
| Nation Media Group Limited         | 62.37  | 62.59  | 55.02 | 50.12 | 88.85  | 124.32 |
| Tourism Promotion Services Limited | 37.55  | 33.31  | 31.11 | 16.58 | 16.44  |        |
| Uchumi Supermarkets Limited        | 18.27  | 15.72  | 13.30 | 12.30 | 10.84  | 10.44  |

## FINANCE AND INVESTMENT

|                                       |        |        |        |        |        |        |
|---------------------------------------|--------|--------|--------|--------|--------|--------|
| Barclays Bank of Kenya Limited        | 61.57  | 55.86  | 56.63  | 52.94  | 44.52  |        |
| CFC Bank                              | 18.83  | 17.86  | 19.93  | 17.94  | 15.50  | 12.34  |
| Diamond Trust Bank (Kenya) Limited    | 15.72  | 15.99  | 14.71  | 13.90  | 10.11  |        |
| Housing Finance Company Limited       | 9.56   | 12.78  | 13.80  | 13.43  | 15.83  | 18.96  |
| ICDC Investment Company Limited       | 48.40  | 56.18  | 63.90  | 21.84  | 27.31  | 1.73   |
| Jubilee Insurance Company Limited     | 119.27 | 107.24 | 110.67 | 98.70  | 107.98 | 89.01  |
| Kenya Commercial Bank Limited         | 56.01  | 74.82  | 78.80  | 92.30  | 87.40  | 72.54  |
| National Bank Of Kenya Limited        | 12.28  | 10.78  | 10.57  | 2.03   | 10.64  |        |
| NIC Bank Limited                      | 29.23  | 27.86  | 25.82  | 28.66  | 25.90  | 21.02  |
| Pan Africa Insurance Company Limited  | 41.13  | 50.36  | 127.60 | 138.99 | 137.75 | 177.85 |
| Standard Chartered Bank Kenya Limited | 3.48   | 5.89   | 37.40  | 24.70  | 19.57  | 16.88  |

## INDUSTRIAL AND ALLIED

|  |        |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|--------|
| Afri Rhw Mining Limited                  | 11.63  | 13.02  | 10.71  | 10.65  | 10.53  | 11.60  |
| Bamburi Cement Company Limited           | 38.50  | 33.70  | 32.10  | 29.00  | 29.20  | 42.30  |
| British American Tobacco Kenya Limited   | 47.70  | 48.90  | 77.17  | 56.48  | 50.55  | 46.21  |
| BOC Kenya Limited                        | 57.98  | 52.67  | 52.34  | 53.79  | 48.98  | 45.34  |
| Carback Investments Limited              | 63.30  | 69.81  | 68.14  | 57.64  | 51.28  | 75.23  |
| Crown-Burger Kenya Limited               | 28.51  | 27.69  | 27.78  | 26.95  | 26.57  | 31.97  |
| Dunlop Kenya Limited                     |        | 11.31  | 11.37  | 10.58  | 91.90  | 109.27 |
| East African Cables Limited              | 15.01  | 15.22  | 18.28  | 17.25  | 16.10  | 17.77  |
| East African Portland Cement Company     | 81.29  | 80.90  | 59.12  | 58.29  | 57.31  | 59.09  |
| East African Breweries Limited           | 104.18 | 99.01  | 96.62  | 111.54 | 151.77 | 136.69 |
| Firestone (E.A.) Limited                 | 7.89   | 7.73   | 7.26   | 6.75   | 6.08   | 6.75   |
| Kenya Oil Company Limited                | 207.04 | 185.62 | 157.67 | 135.14 | 100.62 | 86.34  |
| Mumias Sugar Company Ltd                 | 14.66  |        |        |        |        |        |
| Kenya Power and Lighting Company Limited | 80.36  | 121.09 | 103.80 | 137.32 | 121.26 | 305.00 |
| Total Kenya Ltd                          | 20.42  | 29.16  | 29.80  | 19.15  | 16.41  | 16.70  |
| Unga Group Limited                       | 5.37   | 3.22   | 1.76   | 1.15   | 2.51   | 6.50   |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

|   |        |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|--------|
| A. Baumann & Company Limited              | 114.50 | 116.32 | 114.61 | 132.91 | 101.30 | 149.41 |
| City Trust Limited                        |        | 49.09  | 49.91  | 49.91  | 43.62  | 39.49  |
| Eaagets Limited                           | 73.47  | 28.77  | 28.51  | 28.63  | 26.60  | 23.69  |
| East African Packaging Industries Limited | 35.72  | 28.61  | 41.96  | 45.37  | 50.26  | 49.61  |
| Express Kenya Limited                     | 64.28  | 65.30  | 89.42  | 74.21  | 5.28   | 6.66   |
| Kapchoro Tea Company Limited              | 144.22 | 139.68 | 131.18 | 99.03  | 65.27  | 64.94  |
| Kenya Orchards Limited                    |        |        |        | 56.61  | 72.56  |        |
| Limuzu Tea Company Limited                | 62.76  | 215.38 | 175.15 | 150.04 | 139.81 | 121.49 |
| The Standard Newspapers Group Limited     | 8.54   | 8.73   | 10.44  | 15.11  | 9.40   | 11.21  |
| Williamson Tea Kenya Limited              | 249.48 | 233.80 | 228.23 | 145.92 | 124.80 | 122.78 |

## INDUSTRIAL AND ALLIED

|  |       |       |       |      |       |      |       |       |       |      |      |
|--|-------|-------|-------|------|-------|------|-------|-------|-------|------|------|
| Athi River Mining Limited                | 0.05  | 0.43  | -0.30 | 0.70 | -0.13 | 0.08 | -0.27 | -0.30 |       | 0.09 | 0    |
| Bamburi Cement Company Limited           | -0.47 | 2.18  | 0.31  | 2.88 | -0.24 | 0.56 | 0.01  | 0.00  | 0.28  | 0.09 | 0.11 |
| British American Tobacco Kenya Limited   | -0.06 | 0.04  | -0.12 | 0.01 | 0.15  | 0.74 | 0.68  | -2.48 | -0.11 | 0.30 | 0.13 |
| BOC Kenya Limited                        | -0.22 | 0.20  | -0.34 | 0.92 | 0.05  | 0.20 | 0.04  | -0.01 | 0.14  | 0.00 | 0.13 |
| Carbacid Investments Limited             | 0.23  | 0.74  | -0.28 | 0.55 | -0.18 | 1.00 | 0.13  | -0.05 | 0.08  | 0.72 | 0.11 |
| Crown-Burger Kenya Limited               | -0.39 | 1.30  | -0.05 | 0.04 | 0.49  | 5.05 | -0.09 | -0.02 | 0.18  | 0.01 | 0.03 |
| Dunlop Kenya Limited                     | -1.00 | 13.20 | -0.32 | 0.81 | -0.48 | 2.94 | -0.80 | -2.97 | -0.60 | 2.61 | 0.15 |
| East African Cables Limited              | 0.11  | 0.83  | -0.20 | 0.18 | -0.13 | 0.07 | -0.24 | -0.23 | 0.01  | 0.10 | 0.12 |
| East African Portland Cement Company     | -0.03 | 0.10  | -0.11 | 0.00 | -0.40 | 1.98 | -0.44 | -0.87 | 0.49  | 0.58 | 0.02 |
| East African Breweries Limited           | 0.35  | 3.54  | -0.06 | 0.02 | 0.60  | 7.34 | -0.02 | 0.00  | 1.40  | 7.56 | 0.23 |
| Firestone (E.A.) Limited                 | -0.30 | 0.63  | -0.22 | 0.24 | 0.06  | 0.22 | -0.25 | -0.25 | -0.09 | 0.25 | 0.14 |
| Kenya Oil Company Limited                | -0.06 | 0.04  | 0.51  | 6.26 | 0.11  | 0.49 | 0.10  | -0.08 | -0.09 | 0.26 | 0.19 |
| Munias Sugar Company Ltd                 |       | 0.00  |       |      |       |      |       |       |       | 0.09 |      |
| Kenya Power and Lighting Company Limited | -0.43 | 1.73  | -0.53 | 3.03 | -0.36 | 1.53 | 0.16  | -0.18 | 0.93  | 3.01 | 0.69 |
| Total Kenya Ltd                          | -0.65 | 4.94  | 0.14  | 0.96 | 0.05  | 0.22 | -0.01 | 0.00  | -0.15 | 0.41 | 0.05 |
| Unga Group Limited                       | -0.50 | 2.49  | -0.52 | 2.97 | -0.43 | 2.27 | -0.62 | -1.78 | 1.00  | 3.52 | 0.12 |

## ALTERNATIVE INVESTMENT MARKET SEGMENT

|   |       |       |       |      |       |       |       |       |       |        |      |
|---|-------|-------|-------|------|-------|-------|-------|-------|-------|--------|------|
| A. Baumann & Company Limited              | -0.44 | 1.86  | -0.11 | 0.00 | 0.15  | 0.73  | -0.59 | -1.57 | 1.56  | 9.64   | 4.97 |
| City Trust Limited                        | -1.00 | 13.20 | -0.06 | 0.02 | 0.00  | 0.06  | 0.21  | -0.18 | 0.14  | 0.00   | 0.44 |
| Esagade Limited                           | -0.16 | 0.04  | -0.41 | 1.58 | 0.18  | 0.93  | 0.61  | -1.99 | 0.03  | 0.06   | 0.29 |
| East African Packaging Industries Limited | 0.09  | 0.69  | -0.46 | 2.14 | -0.31 | 1.02  | -0.70 | -2.29 | -0.14 | 0.38   | 0.16 |
| Express Kenya Limited                     | 0.11  | 0.83  | -0.10 | 0.90 | -0.38 | 1.69  | -0.45 | -0.91 | -0.25 | 0.72   | 0.09 |
| Kapchorua Tea Company Limited             | -0.05 | 0.06  | 0.22  | 1.71 | 0.57  | 6.70  | 0.26  | -0.42 | 0.02  | 0.07   | 0.02 |
| Kenya Orchards Limited                    |       | 0.00  |       |      | -1.00 | 14.73 | -0.73 | -2.47 |       | 0.09   |      |
| Limuru Tea Company Limited                | -0.39 | 1.34  | 0.08  | 0.57 | -0.09 | 0.02  | 0.11  | -0.09 | -0.37 | 1.25   | 0.03 |
| The Standard Newspapers Group Limited     | -0.26 | 0.36  | -0.54 | 3.21 | 0.34  | 2.63  | -0.76 | -2.68 | 5.37  | 130.43 | 0.25 |
| Williamson Tea Kenya Limited              | 0.21  | 1.67  | -0.36 | 1.13 | 0.05  | 0.19  | 0.95  | -4.77 | 0.14  | 0.00   | 0.02 |

2001 2000 1999 1998 1997 1996

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## MAIN INVESTMENT MARKET SEGMENT

## AGRICULTURE

|                               |       |      |       |      |       |      |       |       |       |      |       |
|-------------------------------|-------|------|-------|------|-------|------|-------|-------|-------|------|-------|
| Brooke Bond Kenya Limited     | -0.24 | 0.27 | -0.01 | 0.14 | -0.23 | 0.50 | 0.32  | -0.59 | -0.36 | 1.28 | 0.02  |
| Kakuzi Limited                | -0.35 | 0.92 | -0.36 | 1.15 | -0.37 | 1.59 | 0.50  | -1.36 | 0.01  | 0.08 | 0.074 |
| Rea Vipingo Plantations Ltd.  | -0.22 | 0.19 | -0.20 | 0.15 | -0.29 | 0.90 | -0.29 | -0.35 | -0.12 | 0.31 | 0.14  |
| Sasini Tea and Coffee Limited | -0.40 | 1.42 | -0.34 | 0.94 | -0.28 | 0.82 | -0.17 | -0.11 | 0.70  | 1.48 | 0.04  |

## COMMERCIAL AND SERVICES

|                                    |       |      |       |       |       |      |       |       |       |      |       |
|------------------------------------|-------|------|-------|-------|-------|------|-------|-------|-------|------|-------|
| African Lakes Corporation Plc      | -0.50 | 2.48 |       |       |       |      |       |       |       |      |       |
| Car and General (Kenya) Limited    | -0.47 | 2.20 | 0.90  | 16.67 | -0.17 | 0.19 | -0.25 | -0.25 | -0.20 | 0.55 | -0.24 |
| CMC Holdings Limited               | -0.39 | 1.31 | -0.44 | 1.95  | -0.15 | 0.12 | -0.54 | -1.34 | 0.27  | 0.08 | 0.22  |
| Hutchings Blamer Limited           |       | 0.00 |       |       |       | 0.06 | -1.00 | -4.75 | 0.41  | 0.35 | -0.63 |
| Kenya Airways Limited              | 0.17  | 1.34 | 0.09  | 0.63  | 0.10  | 0.41 | -0.01 | 0.00  | 0.02  | 0.07 | 0.45  |
| Marshalls (East Africa) Limited    | -0.22 | 0.21 | -0.10 | 0.00  | -0.38 | 1.72 | -0.10 | -0.03 | 0.34  | 0.19 | 0.21  |
| Nation Media Group Limited         | -0.35 | 0.96 | -0.29 | 0.62  | -0.26 | 0.65 | 0.06  | -0.03 | 0.21  | 0.03 | 0.16  |
| Tourism Promotion Services Limited | 0.15  | 1.09 | 0.05  | 0.39  | 0.18  | 0.93 | 0.11  | -0.08 |       | 0.09 |       |
| Uchumi Supermarkets Limited        | 0.10  | 0.75 | 0.05  | 0.05  | 0.11  | 0.48 | 0.21  | 0.33  | 0.15  | 0.00 | 0.15  |

## FINANCE AND INVESTMENT

|                                       |       |      |       |      |       |      |       |       |       |      |        |
|---------------------------------------|-------|------|-------|------|-------|------|-------|-------|-------|------|--------|
| Barclays Bank of Kenya Limited        | 0.15  | 1.09 | -0.17 | 0.06 | -0.13 | 0.08 | 0.23  | -0.31 |       | 0.09 |        |
| CFC Bank                              | -0.04 | 0.09 | -0.25 | 0.36 | -0.01 | 0.04 | -0.10 | -0.03 | -0.04 | 0.15 | 0.1    |
| Diamond Trust Bank (Kenya) Limited    | -0.33 | 0.80 | -0.44 | 1.91 | 0.22  | 1.29 | 0.05  | -0.02 |       | 0.09 |        |
| Housing Finance Company Limited       | 0.09  | 0.67 | -0.44 | 1.96 | -0.31 | 1.05 | -0.08 | -0.01 | 0.11  | 0.00 | 0.2    |
| ICDC Investment Company Limited       | -0.01 | 0.17 | 0.09  | 0.63 | 0.29  | 2.00 | -0.16 | -0.08 | 0.61  | 1.06 | 0.0248 |
| Jubilee Insurance Company Limited     | -0.07 | 0.03 | -0.21 | 0.22 | -0.08 | 0.01 | -0.14 | -0.06 | 0.13  | 0.00 | 0.09   |
| Kenya Commercial Bank Limited         | -0.36 | 1.03 | -0.19 | 0.14 | -0.49 | 3.05 | -0.12 | -0.05 | 0.18  | 0.01 | 0.31   |
| National Bank Of Kenya Limited        | -0.08 | 0.02 | -0.37 | 1.22 | -0.42 | 2.14 | -0.27 | -0.30 |       | 0.09 |        |
| NIC Bank Limited                      | -0.06 | 0.03 | -0.28 | 0.52 | -0.23 | 0.49 | 0.23  | -0.21 | 0.27  | 0.08 | 0.2    |
| Pan Africa Insurance Company Limited  | 0.19  | 1.51 | -0.59 | 4.04 | 0.11  | 0.48 | -0.36 | -0.56 | -0.13 | 0.35 | 0.06   |
| Standard Chartered Bank Kenya Limited | 0.12  | 0.85 | 0.07  | 0.49 | 0.27  | 1.76 | 0.21  | -0.26 | 0.03  | 0.06 | 0.14   |