VALUE PREMIUM AND INDUSTRY TYPE: EVIDENCE FROM THE NAIROBI STOCK EXCHANGE

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, FACULTY OF COMMERCE, UNIVERSITY OF NAIROBI

## DECLARATION

This Project is My Original Work and has not been presented for a Degree in this or any other University.

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This project has been submitted for examination with my approval as the supervisor.

Signed $\qquad$ Date

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## DEDICATION

To my mother Teresa A.Ooko and my brother Ken Ooko.

## ACKNOWLEGDEMENTS

I would wish to register my appreciation for the great support I received from my supervisor Mr. Josephat Lishenga, advice, comments and corrections were invaluable to me.

To my parents and siblings, thank you for the moral support.

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## LIST OF ABBREVIATIONS

| AMR | - | Average monthly return |
| :---: | :---: | :---: |
| AWR | - | Average weighted return |
| BE | - | Book value per share times shares outstanding' |
| B/M | - | Book value to market value |
| CAPM | - | Capital asset pricing model |
| C/P | - | Cash flow to price ratio |
| D/P | - | Dividend to price ratio dividend yield) |
| E/P | - | Earnings to price ratio (earnings yield) |
| FM | - | Fama Macbeth Regression |
| GARP | - | Growth at reasonable price |
| ME | - | Stock price times shares outstanding |
| NSE | - | Nairobi stock exchange |
| P/B | - | Price to book value |
| P/E | - | Price to earnings ratio |
| P/S | - | Price to sales ratio |


#### Abstract

Investors will always want to invest in projects than can guarantee higher returns than others, holding risk constant. They therefore tend to employ strategies that will contribute to the realization of higher returns. One of the most frequently used strategies is value investing where investors purchase value stocks rather than growth stocks in order to be benefit from potential long term performance of value stocks in the form of superior average returns. In finance, the word value premium refers to the excess return expected as a result of investing in value stocks as opposed to growth stocks.


This study sought to find out whether there exists a value premium at the NSE when stocks are sorted on the basis of book to market value, and whether industry type plays a role in value premium. It's indicative from the study that value stocks outperformed growth stocks for the period under study. This is consistent with other studies done in Kenya. Muhoro (2004) tested a value premium of 0.64 for the period 1999-2002 at the NSE and Ngigi (2006) also tested the existence of value premium at the NSE.

The result of the test in this study, conducted at 0.05 confidence level is that there exist value premium at the NSE. When stocks are grouped according to industries, there still exists value premium. Industrial and allied sector have the highest value premium of 4.125 while agricultural sector have the lowest value premium of -1.162 . Therefore for a value strategist at the NSE, industrial and allied sector stocks are the best to invest in while agricultural sector stocks are the worst to invest in. The findings are also consistent with findings from similar studies in other markets in the world. Previous studies show that for 60 plus years value has outperformed growth. The conclusion of this study is that there exists a value premium at the N.S.E when stocks are sorted on the basis of $\mathrm{B} / \mathrm{M}$ ratio . However there exists no significant difference in value premium across industries. This implies industry type is not a significant determinant of value premium.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background of study

In making investment decisions, investors will always wish to employ strategies that will realize superior performance. For investors to make superior returns from the market, it is imperative for them to be able to choose investment strategies that can help them achieve this. Creating sustained abnormal returns is however inconsistent with the well known efficient market hypothesis which states that in a truly efficient market, at any point in time ,the stock price is fully reflected by all available information. This means that it should be impossible to find undervalued companies unless the market is inefficient (Sharpe et al. 1999).

One of the most important developments in equity management in the last several years is the creation of portfolio strategies based on value and growth oriented styles of picking stocks. Value investing is one of the most frequently used styles, where investors purchase value stocks rather than growth stocks in order to benefit from potential long term performance of value stocks in the form of higher average returns. In finance, the word value premium refers to the excess return expected as a result of investing in value stocks as opposed to growth stocks. It is the superior performance of value stocks over growth stocks (Fama and French, 1992).

Value stocks are defined in various studies, as those in which the market price is relatively low in relation to earnings per share , according to Basu (1997), cash flow per share , according to Lakonishok et al( 1994), book value per share, according to Fama and French (1992), and dividends per share ,according to Blume (1980) and Rozeff (1984). In comparison growth stocks have been defined as having relatively high prices in relation to those same fundamental factors, as well as high past rates of growth in earnings per share (EPS). Stocks with low Price/Earnings ratio (P/E) provide superior returns (Nicholson 1960) Sharpe et al (2003) state that there is no hard and fast rule on
how stocks are divided into growth stocks ( sometimes called glamour stock) and value stocks( sometimes called income stocks).

Loft house (2001) explains that value managers are essentially managers who buy cheap stock with cheap being defined as a lot of current year earnings or assets or immediate income (dividends) per shilling paid; and growth investors are those looking for rapid or sustained growth in future of earnings, assets, dividends e.t.c .He defines a value investor as one who invests in shares with one or more of the following attributes: low price earnings ratio ( $\mathrm{P} / \mathrm{E}$ ) (high earnings yield), high cash flow to price ratio ( $\mathrm{C} / \mathrm{P}$ ), high dividend yield (D/P), High asset value per share and low growth at reasonable price ratio(GARP).

Reily and Brown (2000) give the following distinction between value and growth investors; a growth oriented investor focus on the EPS component of the P/E ratio and its economic determinant, look for companies that he or she expects to exhibit rapid EPS in the future; and often implicitly assume that the $\mathrm{P} / \mathrm{E}$ ratio will remain constant over the near term, meaning that the stock price will rise as forecasted earnings growth is realized. He defines value stocks as stocks that appear to be undervalued for reasons besides earnings growth potential. These stocks are usually identified based on high dividend yields, low P/E ratios and / or low price to book ratios. Growth stocks are known for their lack of dividend and rapidly increasing market prices. Defined by their tendency to grow faster than markets, these companies generally, re-invest all earnings into infrastructure in order to maintain rapid growth, rather than directly pay out their earnings to investors (Reily and Brown 2000).

On the other hand, a value oriented investor will focus on the price component of the $\mathrm{P} / \mathrm{E}$ ratio, he or she must be convinced that the price of the stock is
.low by some means of comparison; not care a great deal about current earnings of the fundamental driver of growth earnings and often implicitly assume that $\mathrm{P} / \mathrm{E}$ ratio is below its natural level and that the market will soon correct the situation by increasing the stock price, with little or no change in earnings.

Growth stocks are usually associated with high quality, successful companies whose earnings are expected to continue growing at an above average rate relative to the market. Growth stocks generally have high price to earnings ( $\mathrm{P} / \mathrm{E}$ ) ratios and high price to book ratios.. The open market often places a high value on growth stocks. Therefore, growth stock investors also may see these stocks as having great worth and may be willing to pay more to own these shares. As compared with value stocks, growth stocks are characterized as having high recent growth rates in earnings per share (EPS) and market price appreciation. Because the worth of stocks is estimated on the basis of expectations, Kahneman and Tversky (1982) suggest that forecasters overweight more recent information relative to older data. Lakonishok et al (1994)) conclude that investors tend to extrapolate recent past performance.

Apart from the value and growth strategies there is momentum strategy-where investor seeks out to purchase those stocks that have recently risen significantly in price on the belief that they will continue to rise owing to an upward shift in their demand curves. Conversely, those stocks that have recently fallen significantly in price are sold on the belief that their demand curves have shifted downwards (Berger et al 2009). Contrarian investors on the other hand buy stock that others have ignored and think of as losers, and they sell stocks that others have feverishly purchased and think of as winners. They do so in the belief that investors tend to over react to news -that bad news leads stocks falling too far in price and good news leads to stocks rising too far in the price (Hamberg et al 2005).

Different industries may be affected differently from a "value" perspective. This is because there are many factors that influence investment performance of securities and industries. Some factors are related to the general economy, some unrelated. Demographics, lifestyles, technology, politics and regulations are some of the factors influencing industry performance. Fisher and Jordan (2002) explain that at various times in the economic cycle, certain stock groups-that is stocks whose businesses are in certain industries or sectors of the economy tend to be out of favour. This means that investors tend to shy away from owning these stocks because they feel that the economic
environment is not conducive to solid business in these industries. When this occurs, there are a few buyers around and lots of sellers; the prices of these securities tend to drop; sometimes they drop way out of line with the earnings of these companies.

Athanassakos (2009) documents a consistently strong value premium over the sample period, which persists in both bull and bear markets, as well as in recessions and recoveries. He shows that value premium is not driven by a particular industry as the value premium is positive for most industries and concludes that value premium seems to be pervasive and not concentrated only in a few sectors/industries of the economy.

Thuku (2009) finds out that there is a relationship between value premium and firm size. It is therefore possible that there might exist a relationship between value premium and industry type since some industries are mainly composed of big firms while others mainly composed of small firms. I therefore in this proposed study, seek to establish the existence of a value premium at the NSE and also establish whether the value premium has a relationship to industry type.

### 1.2 Statement of the problem

Investors will always want to invest in projects that can guarantee higher returns than others, risk remaining constant. They therefore tend to employ strategies that will contribute to the realization of higher returns. One of the most frequently used strategies is value investing where investors purchase value stocks rather than growth stocks in order to benefit from potential long term performance of value stocks in the form of superior average returns.

Asienwa (1992) sought to find out whether there is a relationship between share performance and investment ratios of companies quoted at the NSE .The conclusion was that there is a strong relationship between investment ratios and share prices of companies listed at the NSE. However the study focuses on performance as indicated by the share price and not returns. Returns encompass both changes in price and dividends paid. Also the above study looked at investment ratios in general while this proposed
study is restricted to those ratios that are used to sort stocks into value and growth, specifically book to market value ratio .Asienwa's study also does not focus on performances per industry. The problem therefore is to determine whether the superior performance of value stocks is influenced by industry type.

Most finance researchers agree that simple value strategies based on such ratios as book-to-market, earnings to price and cash flow to price have produced superior returns over a long period of time. Interpreting these superior returns, however has been more controversial. On one side, Fama and French (1992) argue that these superior returns represent compensation for risk. On the other side, Lakonishok et al (1994) contend that there is little evidence that high book to market and high cash -flow-to-price stocks are riskier based on conventional notions of systematic risk. Lakonishok et al (1994) argue instead that value stocks have been under priced relative to their risk and return characteristics for various behavioural and institutional reasons. Fama and French(1998) suggests that the value premium is evident in emerging market returns but admit that there is still a knowledge gap due to the fact that the sample period used in the study is short (1975 to 1995) and the returns are highly volatile.

Similar studies have been done in Kenya though none has investigated the value premium and industry type. Muhoro (2004) and Ngigi (2006) sought to find out if there's a significant difference in performance between value and growth stocks at the NSE. Thuku (2009) sought to find out if there is a relationship between value premium and firm size. Muhoro (2004), Ngigi (2006) and Thuku (2009) simply grouped the stocks into value versus growth, based on certain ratios, without first separating the firms into industries. Industry type of a firm is an important factor to many investors. Some prefer investing in agricultural industries, some commercial and services, some finance and investment and some industrial and allied. The ratio to be used in this study to sort out stocks into value and growth will be book -to-market value ratio.

Muhoro (2004) in his study analyzed stocks for the periods 1997 to 2001.He found out that the weighted average monthly return for the value stocks was 1.99 against 1.32 for growth stocks. He concluded that there exists a value premium at the NSE. Ngigi (2006) used the same methodology used by Muhoro (2004) in portfolio formation. Using the data for years 2000-2004, he had different findings. The 5 year average monthly return for value stocks was found to be 0.50 against 0.64 for growth stock. In this analysis the value stocks had higher average monthly returns than growth stocks only in two years and in the other three years growth stocks had higher returns. The critical z value indicates that the difference is not statistically significant. Thuku (2009) in his study to establish the existence of value premium and the effect of size at the NSE based on both $B / M$ and $E / P$ ratio, found the existence of value premium at NSE.

Athanassakos (2009) in his study of the Canadian market, documents a consistently strong value premium over the sample period, which persists in both bull and bear markets, as well as in recessions and recoveries. He shows that value premium is not driven by a particular industry as the value premium is positive for most industries. He also observes that it is only in the cases of positive value premiums that the difference between the value and growth stocks annual returns is statistically significant and not when the value premium is negative. Hence he concludes that value premium seems to be pervasive and not concentrated only in a few sectors/industries of the economy. Athanassakos (2009) however used P/E and P/BV to sort out stocks into value and growth. This study will use $B / M$ ratio to sort out stocks into value versus growth.

There is a lot of literature analyzing the cross section of stock returns in developed markets. Few studies have investigated whether such findings are corroborated in emerging markets. The purpose of this study therefore, is to establish the presence of value premium by carrying out an investigation into the value premium at the NSE when stocks are grouped according to industry type. This proposed study is different from recent studies by Muhoro(2004), Ngigi (2006) and Thuku (2009) in that it seeks to first group the firms into four industry types-agriculture, commercial and services, finance and investment and industrial and allied.

### 1.3 Objectives of the Study

The objectives of this study are:
1).To establish the existence of value premium among stocks in various industries
2) To establish any differences in value premiums across industries.

### 1.4 Importance of the Study

The study will be of significance to several people:
(i) Academics and Researchers

The result of this study will add value to the body of knowledge in the field of finance in general and to the area of value premium in particular. This will help students and researchers in finance in gaining more knowledge.

## (ii)Investment practitioners

The result of this study will be useful to investors, investment advisors and security analysts in selecting the best investment strategy. It will offer a fruitful exchange of ideas between academic research and investment practice. The results from academic studies have formed the basis for investment strategies that are widely applied in equity markets. Investors using the value premium investment strategy can use the study to decide whether to invest in agricultural, commercial and services, finance and investment or industrial and allied industries/sectors.

## (iii)The government

The government will be able to know which industries are not performing well so that they can be accorded more attention and allocated more funds during budget allocation.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

Value premium is one of the most currently discussed topics in finance. Going through the literature, it is evident that different theories have different explanations for the superior performance of value stocks over growth stocks. There are still conflicting findings of the existence of value premium especially in the emerging markets. However most studies done in developed markets acknowledge the presence of values premiums.

The researcher has endeavoured to get in-depth knowledge on the issues above and in particular the relationship between value premium and industry type. In addition, the research has concentrated in reviewing of theories and going through empirical studies in the topic beginning with the global context then narrowing down to the empirical studies done in Kenya. Theories and issues on methodology, an analysis of the ratios often used to sort out stocks into value and growth are discussed then finally a summary of the literature review.

### 2.2 Theoretical framework

De Bondt and Thaler $(1985,1987)$ argue that extreme losers outperform the market over the subsequent several years. Value strategies might produce higher returns because they use contrarian to 'naïve' strategies followed by other investors. These naïve strategies might range from extrapolating past earnings growth too far into the future, to assuming a trend in stock prices, to overreacting to good or bad news, or to simply equating a good investment with a well run company irrespective of price. Regardless of the reasons, some investors tend to get overly excited about stocks that have done very well in the past and buy them up, so that these 'glamour' stocks (growth stocks) become overpriced. Similarly, they overreact to stocks that have done very badly, oversell them, and these out of favour "value" stocks become under priced. Contrarian investors bet against such "naïve" investors. Because contrarian strategies invest disproportionately in stocks that are underpriced, they outperform the market.

Fama and French (1992) in his study of USA stocks of July 1963 to December 1990 found a clear inverse relationship between size and average returns. He also found a strong positive relationship between average return and book -to-market equity. He observed that the cross section of average equity returns in the USA bears little or no relation to the betas of the traditional capital asset pricing model (CAPM). They identified three risk factors - overall market factors, firm size and book-to market equity to explain the cross section of returns on USA stocks. They argue that superior returns present compensation for risk. They argue that markets are efficient and that better performance of value investing could be explained by value stocks being more risky, i.e. being more prone to financial distress. At the other extreme, Lakonishok et al (1994) had the view that investors' cognitive biases and agency costs of professional investment, which lead both individuals and institutional investors to prefer growth stocks and dislike value stocks could explain the value premium anomaly. However the question of whether institutions or individual investors buy growth stocks has not been directly answered in the literature.

Fama and French (1996) provide a multifactor model explanation to the patterns in stock returns not explained by the traditional capital asset pricing model (CAPM) and claim that anomalies disappear in their multifactor model. Their model states that the excess expected return on a portfolio is explained by (i) the excess return on a broad market portfolio, (ii) the difference between the return on a portfolio of small stocks and return on large stocks and (iii) the difference between the return of high book-to -market stocks and return on low book -to- market stocks.

Fama and French (1996) argue that value premium is compensation for risk missed by the CAPM. This conclusion is based on the evidence that there is a common variation in the earnings of distressed firms that is not explained by market earnings and there are common variations in the returns on distressed stocks that is not explained by the market return. They argue that stocks with high book value-to-market value ratios are more prone to financial distress and hence riskier than growth stocks.

In their study, Chen and Zhang (1998) compare the return experience of value stocks across six countries-USA, Hongkong, Japan, Malaysia, Taiwan and Thailand. They found out that value premium arises because of firms that are in distress with high financial leverage and facing substantial earnings uncertainty.

Chan et al (2000) draws on behavioural considerations to explain value premium. He asserts that studies in Psychology have suggested that individuals tend to use heuristics (past experiences) for decision making which opens up the possibility of judgmental biases in investment behaviour. In particular investors may extrapolate past performance too far into the future. Value stocks tend to have a history of poor performance relative to growth stocks with respect to earnings, cash flow and sales. Therefore in so far as investors and brokerage analysts overlook the lack of persistence in growth rates, and project past growth into the future, favourable sentiments is created for growth stocks.

Gonene and Karan (2003) did a study in Instanbul stock exchange which is one of the emerging markets. In their two factor regression to explain monthly excess return on value and growth portfolios, they found out that market movement does not explain the average return difference between value and growth stocks. Gonene and Karan (2003) asserts that even though the Fama and French three factors model is able to explain $73 \%$ of variation in average growth portfolio returns, there is still unexplained portion of average returns on each portfolio. The significant negative intercept in all regressions shows that excess returns (Ri-Rf) for portfolios once negative indicating underperformance of value and growth stock when the other factors (market premium in one factor model and size and $\mathrm{B} / \mathrm{M}$ in two and three factor models).

Chan et al (2004) argue that agency factors may play a role in the higher prices of growth stocks. They argue that analysts have self-interests in recommending successful stocks to generate trading commissions, as well as investment banking business. Growth stocks are typically in exciting industries and are thus easier to tout in terms of analysts' reports and media coverage. Professional money managers and pension plan executives may feel vulnerable holding a portfolio of companies that are tainted by lackluster past
performance so they gravitate towards successful growth oriented stocks. In effects value stocks become under priced and growth stock becomes over priced relative to their fundamentals.

Athanassakos (2009) seeks to find out if value premium is industry specific .His research is done in Canada and covers the period 1985-2002. He documents a consistently strong value premium over the sample period, which persists in both bull and bear markets, as well as in recessions and recoveries. He shows that value premium is not driven by a particular industry as the value premium is positive for most industries. He also observes that it is only in the cases of positive value premiums that the difference between the value and growth stocks annual returns is statistically significant and not when the value premium is negative. Hence he concludes that value premium seems to be pervasive and not concentrated only in a few sectors/industries of the economy.

### 2.3 Empirical studies

### 2.3.1 Global context

There are distinct differences between the emerging markets and the developed markets. Emerging markets are small in size, have high return volatility, low market concentration, high risk and low technology. Chan et at (1991), after extensive examination of Japanese data 1971-1988 period, concluded that there is significant relation between returns in the Japanese market and four fundamental variables - earnings yield, size, book-tomarket ratio and cash flow yield.

Fama and French (1992) uses the month by month Fama - Macbeth (FM) regression of the cross-section of stocks returns on size, B and the other variables (Leverage, EP and book-to- market equity) used to explain average return. The average slopes provide standard FM test for determining which explanatory variable on average have non-zero expected premiums during the July 1963 to Dec 1990 period.

Capaul et al (1993) found evidence of a $\mathrm{B} / \mathrm{M}$ effect on each of the six major equity markets (United States, Japan, Germany, the United Kingdom, France and Switzerland).

They concluded that during the study period, (January 1981 through June 1990) portfolios of high $\mathrm{B} / \mathrm{M}$ stocks (value stocks) provided risk-equities returns superior to those from low B/M equities (growth stocks).

La Porta et al (1997) findings indicate that in the first year after portfolio formation, investors tended to be disappointed as news emerged about the earnings of growth stocks. The cumulative event return was -0.5 percent for the growth portfolio. Investors were pleasantly surprised around announcement of value stocks earnings, the cumulative event return for these stocks was 3.5 percent in the first year. In the second and third years, the contrast between the markets responses to the subsequent earnings performance of the two portfolios continued to be large and satisfactorily significant. This evidence supports the argument that expectations errors are at least part of the reason for the superior returns on value stocks. Specifically, investors have exaggerated hope about growth stocks and end up being disappointed when future performance falls short of their expectations. By the same token, they are unduly pessimistic about value stocks and wind up being pleasantly surprised.

Fama and French (1998) study 16 emerging markets which include Argentina, Brazil, Chile, Colombia, Greece, India, Jordan, Malaysia, Mexico, Nigeria, Pakistan, Philippines, Taiwan, Venezuela, Korea and Zimbabwe. Examining the returns for portfolios formed on book to market value ratio Fama and French shows that there is a value premium in emerging market returns. Thus, values versus growth portfolio returns in emerging markets confirm the superior performance of value stocks in developed markets. The value growth spread for the 12 out of 16 countries is positive.

Chen and Shang (1998) compare the return experience of value stocks across six countries, the United States of America, Hongkong, Japan, Malaysia, Taiwan and Thailand. They show that the value weighted market returns are lowest for the United States and Japan and highest for Taiwan and Thailand, indicating a negative correlation between markets. By using the same structure as Fama and French $(1992,1996)$ to measure the return of a portfolio, they find that the high average return for the value stock
tends to persist in the United States; is less persistent for the growth markets of Japan , Hong Kong and Malaysia, and is almost non- existent for the high growth markets of Taiwan and Thailand. They demonstrate that the value premium arises because of firms that are in distress with high financial leverage and facing substantial earnings uncertainty.

### 2.3.2 Empirical studies done in Kenya

Muhoro (2004) in his study where portfolios were created on the basis of the break point for the bottom $30 \%$ and top $30 \%$ of the ranked value of the $\mathrm{B} / \mathrm{M}$, the mid $40 \%$ was assumed to consist of the grey area and hence stock falling under that range was ignored. The top $30 \%$ (high B/M) companies were classified as value stocks and the bottom $30 \%$ (Low $\mathrm{B} / \mathrm{M}$ ) were classified as growth stocks such that at the formation date, there were two growth portfolios each in respect of the single growth portfolios each in respect of the single variable which was the B/M. He analyzed stocks for the periods 1997 to 2001 .He established the existence of a value premium at the NSE.

Ngigi (2006) used the same methodology used by Muhoro (2004) in portfolio formation. Using the data for years 2000-2004, he had different findings. The 5 year average monthly return for value stocks was found to be 0.50 against 0.64 for growth stock and a standard deviation of 28.69 for value stocks against 26.96 for growth stocks. The critical Z value was 0.10 against the 1.64 (for one tail test) which implies that there was no significant difference between the performance of growth and value stocks. In this analysis the stocks had higher average monthly returns than growth stocks only in two years and in the other three years growth stocks had higher returns. The critical Z value indicates that the difference is not statistically significant.

Thuku (2009) in his study to establish the existence of value premium and the effect of size at the NSE based on both $\mathrm{B} / \mathrm{M}$ and $\mathrm{E} / \mathrm{P}$ ratio, found the existence of value premium at NSE. The test was conducted at 0.05 confidence level.He used both B/M ration and E/P in differentiating growth from value stock. He first created portfolios which were based on size (market capitalization) in order to differentiate between small capitalized
firms and large capitalized firms. Secondly, portfolios were created based on B/M and $\mathrm{E} / \mathrm{P}$ ratios to categorize stock as either growth or value stock. He found out that small value stocks perform better than the large value stock when portfolios are ranked according to $\mathrm{P} / \mathrm{E}$ ratio as compared to when they are sorted out based on $\mathrm{B} / \mathrm{M}$ ratio. The difference is however very small to be significant to fail the 0.5 confidence level.

### 2.4 Theories and issues on methodology.

This study will be conducted through a quantitative research design. According to Creswell (2009), quantitative research is a means of testing objective theories by examining the relationship among variables. . Since the total population is small- 55 listed companies, it is easy to deal with all of them.

BE/ME ratio will be used in this study to sort out stocks into growth stocks and value stocks. This ratio has been widely accepted and has been used in several studies focussing on value premium .Favourable growth prospects raise a firm's stock price and hence reduce its $\mathrm{BE} / \mathrm{ME}$ ratio. In contrast, high $\mathrm{BE} / \mathrm{ME}$ stocks are more likely than others to have a high asset value and less growth potential.

Fama and French (1992) FM regression confirm the importance of book-to-market equity in explaining the cross-section of average stock return. The average slope from the monthly regression of returns on $\ln \left(\frac{B E}{M E}\right)$ alone is 0.505 . With a statistics of 5.71 , this book to market relations is stronger than the size effect which produces a t-statistics of 2.58 in the regression of return on in (ME) alone.

Loghran (1997) finds that in the 358 non January months, the BE/ME effect is strong for the overall sample of firms. The average coefficient on BE/ME during February through December is 0.31 ( t -statistics of 4.42) and this implies that a firm with a BE/ME ratio of They concluded that during the study period, (January 1981 through June 1990) portfolios of high $\mathrm{B} / \mathrm{M}$ stocks (value stocks) provided risk-equities returns superior to those from low B/M equities (growth stocks).

### 2.4.1 Ratios often used to sort stocks into value and growth.

(a) Price earnings ratio (P/E)

It relates the earning per share to the price the shares sell at the market. A high P/E ratio indicates strong shareholders' confidence in the company and its future. It indicates investors' judgement or expectations about the firm's performance, Pandey(1999).It indicates how the stock market is judging the company's earnings performance and prospects, Asienwa ( 1992). One weakness with the $\mathrm{P} / \mathrm{E}$ ratio is that companies can manipulate their earnings to make them look better than they really are. A crafty chief finance officer can fool with a firm's tax assumption and in a given quarter and add several percentage points of earnings growth, Macharia (2002). Because of this weakness the $\mathrm{P} / \mathrm{E}$ ratio was not used to sort out stocks in this study.

## (b) Earnings yield (E/P)

Earnings Yield $=\frac{\text { Earnings per share }}{\text { Market price Per share }}$

Earnings yield is the reciprocal of P/E. It's preferred to P/E ratio because:-
i) Companies with negative earnings are automatically ranked as the lowest $\mathrm{E} / \mathrm{P}$ Ratios, whereas they are not automatically ranked as having the highest $\mathrm{P} / \mathrm{E}$ ratios.
ii) $\quad \mathrm{P} / \mathrm{E}$ ratios tend to infinity or blow up when earnings approach zero. This can cause statistical problems.
(c)Dividend yield.

Dividend yield $(\mathrm{D} / \mathrm{P})=\frac{\text { Dividend per share }}{\text { Market price Per share }}$

It is the measure of return on the owner's investment from cash dividends. It evaluates an investor's return in relation to the market value of the share .High dividend yield might produce abnormal returns. Loft house (2001) argues that based on a simple dividend model $\mathrm{K}=\mathrm{D} / \mathrm{P}+\mathrm{g}$, if we expect all stocks with the same risks to offer the same return ,then the growth stocks will have to offer higher initial dividend yields (D/P). However if investors are poor at assessing growth prospects, it is possible that the growth rate assumed for high growth rate stocks will be too high and that for low growth stocks will be too low. Accordingly, high yield stocks might be expected to offer a higher total yield.

Another reason why high dividend yields might produce abnormal returns is because of taxation. In many countries income is taxed at a higher rate than capital gains (though in Kenyan capital gains tax was abolished). Even where income tax and capital gains are taxed the same, capital gain is typically not paid until the gain in realized and thus the capital gains tax can be postponed in a way that income taxes can not. If investors are interested in after tax income, they will presumably only purchase high yielding stocks. In this study dividend yield was not used since not all firms pay dividends and in any case some might pay one year and not pay another year.

## (d) Book to market value ratio ( $\mathbf{B} / \mathbf{M}$ )

Fama and French $(1992,1996)$ used book -to-market value ratio to sort out stocks into value versus growth.

Book to market value ratio $=\frac{\text { Book value per share }}{\text { Market price per share }}$
Capaul et al (1993) discussed the merits of book to market value as a single variable to distinguish between value and growth stocks. The logic is that favourable growth prospects raise a firm's stock price and hence reduce its $\mathrm{B} / \mathrm{M}$ ratio.
In contrast, high $B / M$ stocks are more likely than others to have high asset values and less growth potential.. This ratio was used to sort out stocks in this study because it has more merits and it has widely been accepted and used in several studies than other ratios thus making comparisions easier.

## (e) Cash flow to price ratio (C/P)

Cash flow to price $=\frac{\text { Cash flow per share }}{\text { Market price per share }}$

Where cash flow per share =

Profit after taxes + Depreciation + amortisation
Weighted average number of ordinary shares

Earnings per share and earnings yield are not good measures for measuring performance of firms because of the differences between firms in how they calculate depreciation and amortization. Investors will therefore tend not to use the two ratios EPS and dividend yield and choose to use some measure of cash instead of earnings and calculate a cash flow ratio. Cash flows are a result of adjusted earnings and therefore cash flow to price ratio may not give results that are significantly different from the earnings yield ratio. This ratio was therefore not be used to sort out stocks in this study.

## (f) Price to sales ratio (P/S)

Some investors do not trust the net earnings since they are subject to a accounting manipulations. Sales are harder to manipulate. Proponents of price to sales ratio approach argue that the sales are more stable and less subject to accounting manipulation than are earnings. Fisher (1984a) claims that the reason for purchasing low price to sales ratio stock is essentially contrarian. He argues that profit growth often comes from margin expansion and investors then form excessive expectations. He notes that the technique (using price to sales ratio to sort stocks) is not applicable in every sector. For example the ratio is not appropriate for service companies such as banks and insurance companies that do not have traditional sales. Also, the definition of a low ratio varies with the type of sector and this makes the techniques very subjective (Fisher 1984a). Because of these shortcomings this ratio was not used to sort out stocks in this study.

## (g) Growth at reasonable price (GARP)

GARP $=\frac{\text { Price Earning Ratio }}{\text { Growth rate }}$
GARP typically relate P/E ratios to growth rates. Suppose there are four stocks with P/E ratio of 50, 60,70 and 80 and growth rates of $40 \%, 60 \% 60 \%$ and $70 \%$ respectively. The GARP Ratios would be $1.25,1,1.17$, and 1.14 respectively. The stock with P/E of $60 \%$ would be deemed the cheapest, although it has neither the lowest $\mathrm{P} / \mathrm{E}$ ratio nor the highest growth rate. GARP is neither a pure value nor a pure growth tool but it lies somewhere in between. The basic assumption however is that growth prospects can be over-rated which has value overtones because of this overlap, this ratio was not used to sort out stocks in this study.

### 2.5 Summary of literature review

From the literature review, It is evident that there is a near consensus that the value stocks have a superior performance. Most of the studies were conducted in developed capital markets. However, there are still conflicting findings of the existence of value premium especially in the emerging markets. Studies done in the developed markets are however near unanimous that value stock outperforms growth stock.

Similar studies have been done in Kenya though none has investigated the value premium across industries. Muhoro (2004) and Ngigi (2006) sought to find out if there's a significant difference in performance between value and growth stocks at the NSE. Thuku (2009) sought to find out if there is a relationship between value premium and firm size. The studies done in Kenya so far on value premium have not been conclusive hence this study.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter provides a discussion of the research methodology that was used in this study. It discusses the research design especially with respect to the choice of the design. It also discusses the population of study, data collection methods as well as data analysis and data presentation methods that were employed in the study.

### 3.2 Research design and scope

This study covered all common stocks listed at the NSE between the years 2005 to 2009.They are 55 in number. It was conducted through a quantitative research design. According to Creswell (2009), quantitative research is a means of testing objective theories by examining the relationship among variables. Quantitative research design was chosen for this study because it will best explain the value versus growth strategies, value premium and industry type for stocks listed at the Nairobi stock exchange.

### 3.2 Population of the study

The study was a census study and focused on all the common stocks and the Nairobi stock exchange. Since the total population is small- 55 (47 listed in the main market segment and 8 listed in the alternative market segment) listed companies, it is easy to deal with all of them. The study consisted of all the 55 common stocks quoted at the Nairobi stock exchange for the period 2005-2009. Only stocks quoted at the NSE for two consecutive years will be included in the study. This is because classification done in one year will be used to analyze performance during the following year. This means some stocks will have to be excluded in the process because of delisting or enlisting. The stocks in the alternative investment segments were absorbed into their various industries .

### 3.3 Data collection methods and instruments

This study was facilitated by the use of secondary data from NSE. Data will be extracted from published financial reports of quoted companies. Annual data availed by the Nairobi stock exchange includes the $\mathrm{P} / \mathrm{B}$ ratio, dividend yield, price to book value ratio as well as divided per share. However the variables of concern in this study are return and book to market ratios which was calculated using the above available ratios. $\mathrm{P} / \mathrm{B}$ and $B / M$ ratios can be used as proxy to value premium.

In this study growth and value portfolios were created using book to market ratios (B/M). Daily stock prices were availed in excel spreadsheets. First the stocks are grouped into four industries as done by the Nairobi Stock Exchange. The four industries areagricultural, commercial and services, finance and investment, and industrial and allied. The book value of the firms common stock was determined by using the most recent balance sheet data and calculating the total value of stockholders equity. Second, the value of the firms' common stocks was determined by taking the most recent market price for the firms' common stock and multiplying it by the number of outstanding shares. Lastly the book value of stockholders equity was divided by the market capitalization to arrive at the book to market value ratio. Stock holders' equity= Total assets -Total liabilities.

### 3.4 Data analysis and presentation

Data analysis was be performed by use of Microsoft excel package and SPSS. First, all the stocks will be sorted out on the basis of industry type as grouped by the NSE. These four groups are-agricultural, commercial and services, finance and investment and industrial and allied. Four portfolios will therefore be created. The reciprocals price to book value ratios was used to calculate book to market value ratios.

Secondly value and growth stocks were identified in each of the four industry portfolios using book-to-market ratios (B/M). To form value and growth portfolios, stocks were ranked by their $\mathrm{B} / \mathrm{M}$ ratio at the end of each calendar year. Firms in each portfolio were grouped based on the break points from the bottom 50\% (low B/M), and top 50\% (High
$\mathrm{B} / \mathrm{M})$ of the ranked value of the $\mathrm{B} / \mathrm{M}$ ratios. The end of each of the years 2004 to 2008 constitutes the portfolio formation dates. At these dates, all the companies were ranked according to $\mathrm{B} / \mathrm{M}$ ratio. The top $50 \%$ represents value stocks while bottom $50 \%$ represents growth stocks.

The rankings formed the criteria for classifying stocks into value and growth during each of the following year. The year following each portfolio formation date was the test period. For example, the returns for the year 2004 was analyzed using the end of 2003 classifications, the 2005 returns was analyzed using 2004 classifications and so on. This is consistent with Fama and French (1998).

Since the value and growth portfolios were formed annually, the composition of each portfolio kept on changing and took into account any de-listing and or enlisting. The end month price for stocks classified as value or growth was calculated by getting the weighted average of the prices at which a stock traded during the last day of trading in that month. The monthly returns for each stock classified as value or growth for the period 2005 to 2009 was then determined.

## CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

### 4.1 Introduction

This chapter deals with data analyses and interpretation of the research findings. The data in this study was summarized in the form of weighted average returns, rank ordering and standard deviation and presentation was made through tables and graphs. The data was analysed through creation of portfolios based on industry type.

### 4.2 Portfolio formation and analysis

Portfolios were formed based on industries. The four industry categorizations were agricultural, commercial and services, finance and investment, industrial and allied. The stocks in the alternative investment sectors are included in their various industry portfolios. The reciprocals of price to book value ratios were used to derive the book to market value ratios(B/M).

To calculate monthly returns the following formula was used:

Monthly Returns (Ri) $=\frac{\text { Dividends }+(\text { Ending Price-Eeginning Price })}{\text { Eeginning Price }} \times 100$

This formula was used by Ngigi (2006), Muhoro (2004) and Thuku (2009) in their study of value premium at the NSE .It is also widely accepted and used in several finance literature thus making comparision easier.

Since dividends are paid annually, the annual dividends were spread across all months of the year.
The next step was to calculate average monthly return for each stock for each of the five years as follows:
Average monthly returns for stock $i$ at year $t$ :

$$
\text { Rit }=\frac{1}{12} \sum_{i=1}^{12} R i t
$$

where $\mathrm{i}=$ stock, $\mathrm{Ri}=$ monthly return for stock $\mathrm{i}, \mathrm{t}=$ number of years

The next step was to calculate the average monthly return for each portfolio as follows.:
Average monthly return for an equally weighted portfolio at year $\mathrm{t}=(\mathrm{Rpt})=\frac{1}{n} \sum_{i=1}^{n} R_{i t}$
Where $\mathrm{n}=$ number of stocks in a portfolio at year t .
After calculating the average monthly return for each of the five years, the five years monthly return was calculated as follows: Five year average monthly return = $\frac{1}{5} \sum_{t=1}^{5} R p t$

A comparison of the five year average monthly returns in each portfolio was done by performing tests of significance to determine whether there is a significant difference between the average returns of value stocks and growth stock. This was done by use of z-statistics.

Standard derivation for each portfolio $\mathrm{S}=\sqrt{\frac{\sum(x-\bar{x})^{2}}{n}}$.
Then the z statistic will be calculated as follows: $z=\frac{\bar{x}_{1}-\bar{x}_{2}}{\sqrt{S_{1}^{2} / n_{1}+S_{2}^{2} / n_{2}}}$
Where $\bar{X}_{1}$ = the five year average monthly returns for value stocks
$\bar{X}_{2}=$ The five year average monthly return for growth stocks.
$S_{1}=$ the standard deviation of the value stocks in the portfolio.
$S_{2}=$ the standard deviation of the growth stocks in the portfolio.
n is the number of observations =number of stocks $\times 12$ months $\times 5$ years
Finally, a comparison of the five year average monthly returns for the four portfolios was be done by performing Analysis of variance (ANOVA) tests to determine whether there is a significant difference between the average returns and industry type. For the 4 portfolios, each one contains $n$ observations,
$\mathrm{n} 1+\mathrm{n} 2+\mathrm{n} 3+\mathrm{n} 4=\mathrm{N}$,
where $\mathrm{n} 1=$ number of observations for portfolio 1 ,
$\mathrm{n} 2=$ number of observations for portfolio 2 ,
n3=number of observations for portfolio 3,
n4=number of observations for portfolio 4 and
$\mathrm{N}=$ total number of all observations for the four portfolios.
$\mathrm{F}(\mathrm{K}-1),(\mathrm{N}-\mathrm{K})=$ between group means
Within group means
Where k is the degree of freedom.
To test whether the variation in returns found among the means of the different industry portfolios is large relative to the variation within the portfolios, the analysis of variance (ANOVA) tests were performed by use of F-tests. If the value is large, we conclude that there are significant differences among the means, implying returns vary according to industry type. ANOVA tests were performed by use of SPSS. To calculate the value premium, we deduct the average returns from growth stock from the average returns of value stock in each industry portfolio. That is: value premium per industry=A2-A1. Where A2 is the 5 year average monthly returns from value stocks in a given industry, And A1 is the 5 year average monthly returns from growth stocks in a given industry. This method was also used by Fama and French (1993, 1996). We then compared them across industries to find out the highest.

### 4.3 A comparision of Value vs growth for all listed stocks

Table 4.3 (a) All listed companies for 5 years

| Year | 2005 | 2006 | 2007 | 2008 | 2009 | A.W.R | St.d |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Value stocks | 5.155 | 5.432 | -0.957 | -2.063 | 14.150 | 4.3443 | 6.464 |
| Growth stocks | 4.952 | 4.465 | 2.689 | -2.053 | 11.110 | 4.232 | 4.737 |
| Premium(A2-A1) | 0.202 | 0.966 | -2.268 | -0.01 | 3.039 | 0.349 | 1.910 |

Z score is 0.597


From table 4.3(a) and accompanying graph, it can be seen that value stocks have a higher average weighted return than growth stocks. The average weighted returns for the 5 year period is 4.3443 for value stocks and 4.232 for growth stocks. There exists value premium of 0.349 . Using ANOVA, $\mathrm{p}=0.12$ meaning there is no significant difference in returns of growth and value stocks. The Z-score is 0.597 . At critical z of 1.64 for a one tail test, the Z- value (0.597) is lower than 1.64 and we conclude that there is no significant difference in performance of value stocks and growth stocks . This implies that the value premium exists though not significant.

### 4.4 Value premium in industries/sectors based on B/M

Table 4.4 (a)Agricultural sector
Agricultural

| Year | 2005 | 2006 | 2007 | 2008 | 2009 | A.W.R | St.d |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Value stocks | 1.854 | 0.485 | -0.972 | -2.762 | 6.638 | 1.048 | 3.564 |
| Growth stocks | 2.433 | 0.603 | 4.42 | -3.156 | 9.400 | 2.740 | 4.653 |
| Premium(A2-A1) | -0.579 | -0.118 | -5.392 | 0.394 | -0.118 | -1.162 | 2.389 |

$Z=-10.916$


Table 4.4(a) and accompanying graph shows the summary of performance of value and growth stocks in the agricultural sector for stocks listed at the NSE for the period 20052009 based on the B/M ratios.The weighted average annual return for value stocks is $1.048 \%$ against 2.740 for growth stocks.It is worth noting that it is only in 2008 that value stocks outperformed growth stocks. There was a 5 year average premium of -1.162 . At critical z of 1.64 for a one tail test, the Z- value (-10.916) is lower than 1.64 and we conclude that there is no significant difference in performance of value stocks and growth stocks. This implies that the value premium exists though not significant.

Table 4.4(b) Commercial and services

| Year | 2005 | 2006 | 2007 | 2008 | 2009 | A.W.R | St.d |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Value stocks | 10.537 | 6.248 | -0.594 | -2.363 | 9.081 | 4.581 | 5.777 |
| Growth stocks | 3.195 | 5.832 | 1.034 | -2.573 | 12.085 | 3.914 | 5.507 |
| Premium(A2-A1) | 7.342 | -0.416 | -1.560 | 0.243 | -3.004 | 0.521 | 3.547 |

$\mathrm{Z}=3.923$


Table 4.4(b) and accompanying graph shows the summary statistic for the performance of value and growth stocks in the commercial and services sector. The average weighted return for the 5 year period for value stocks is 4.581 with a standard deviation of 5.777 while growth stock has an average return of 3.914 with a standard deviation of 5.507.The value premium is positive( 0.521 ) meaning value stocks outperformed growth stocks. At critical z of 1.64 for a one tail test, the Z - value (3.923) is higher than 1.64 and we conclude that there is a significant difference in performance of value stocks and growth stocks. This implies that the value premium exist and is significant.

Table 4.4(c) Finance and investment

|  | 2005 | 2006 | 2007 | 2008 | 2009 | A.W.R | St.d |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Value stocks | 3.191 | 6.931 | -0.841 | -2.111 | 9.039 | 3.241 | 4.809 |
| Growth stocks | 3.915 | 8.132 | 0.673 | -2.477 | 16.805 | 5.409 | 7.485 |
| Premium(A2-A1 | -0.724 | -1.201 | -1.514 | 0.336 | -7.766 | -1.693 | 3.547 |

$\mathrm{Z}=-9.225$


Table 4.4(c) and accompanying graph shows summary results of performance of stocks in the finance and investment sector. Growth stocks performed better than value stocks. The average weighted returns for value stocks was 3.241 while growth stocks was 5.409.There was a premium of -1.693 . At critical z of 1.64 for a one tail test, the Z - value $(-9.225)$ is lower than 1.64 and we conclude that there is no significant difference in performance of value stocks and growth stocks. This implies that the value premium exists though not significant.

Table 4.4(d) Industrial and allied

| Year | 2005 | 2006 | 2007 | 2008 | 2009 | A.W.R | St.d |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Value stocks | 8.672 | 5.269 | -1.264 | -1.077 | 24.024 | 7.124 | 10.356 |
| Growth stocks | 5.414 | 2.837 | 0.209 | -1.496 | 8.032 | 2.999 | 3.846 |
| Premium(A2-A1) | 3.258 | 2.432 | -1.473 | 0.419 | 15.992 | 4.125 | 6.883 |

$\mathrm{Z}=13.667$


Table 4.4(d) and accompanying graph shows the performance of growth stocks and value stocks in the industrial and allied sector .Value stocks outweighed growth stocks for the 5 -year period .The average weighted returns for value stocks is 7.124 with a standard deviation of 10.353 , while for growth stocks is 2.999 with a standard deviation of 3.846.There was a positive value premium of 4.125 . At critical $z$ of 1.64 for a one tail test, the Z - value (13.667) is higher than 1.64 and we conclude that there is a significant difference in performance of value stocks and growth stocks. This implies that the value premium exists and is significant.

Table 4.4 (e): Comparison of value premium for all industries

| Industry | 5-year average weighted premium |
| :--- | :--- |
| Agriculture | -1.162 |
| Commercial and services | 0.521 |
| Finance and investment | -1.693 |
| Industrial and allied | 4.125 |



From table 4.4 (e) and the subsequent graph, Industrial and allied sector have the highest value premium while finance and investment sector have the lowest value premium across the 5 year period.

Table 4.5 ANOVA table analyzing premium variances

|  | Sum of Squares | Degree of freedom | Mean Square | F | Sig. |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Between Groups | 103.548 | 3 | 34.516 | 1.689 | 0.209 |
| Within Groups | 326.931 | 16 | 20.433 |  |  |

There is no significant difference in premiums of the different industry portfolios considered. $\mathrm{p}=0.209, \mathrm{~F}=1.689$. This implies that value premium is not influenced by industry type. This is consistent with the findings of Athanassakos (2009) in his study of the Canadian market. However industrial and allied sector have the highest value premium and finance and investment sector have the lowest value premium.

## CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Introduction

This chapter presents the summary discussions and conclusions from the research study as per the objective of the study. Recommendation has been given based on the findings of this study. Limitation of the study as well as suggestion for further research have also been discussed.

### 5.2 Summary

The objective of the study was to establish the existence of value premium at the NSE and whether industry type has an influence /effect on value premium. The result of the test conducted at 0.05 confidence level in that thee exist value premium at the NSE. However the difference in performance of growth and value stocks is not significant . When stocks are grouped accordingly to industries, there still exists value premium, industrial and allied sector have the highest value premium of 4.125 while agricultural sector have the lowest value premium. This is consistent with other study done in Kenya. Therefore for a value strategist at the NSE, industrial and allied sector stocks are the best to invest in while agricultural sector stocks are the worst to invest in. Muhoro (2004) tested a value premium of 0.64 for the period 1999-2002. Ngigi (2006) also tested the existence of value premium at the NSE. The findings are also consistent with findings from similar studies in other markets in the world. Previous studies show that for 60 plus years value has out performed growth.

### 5.3 Conclusion

The conclusion of this study is that there exists a value premium at the N.S.E when stocks are sorted on the basis of $B / M$ ratio though not significant. Still there exists no significant difference in value premium across industries. This implies industry type is not a significant determinant of value premium.

### 5.4 Recommendations

The researcher recommends that investors using value investment strategic need to be aware that industry type is not a major factor in determining the expected returns from
either value or growing stocks. Over the period of study industrial and allied sector firms earned higher value premium than other sectors. During the period covered by the study value stocks out performed growth stocks though not significantly. However for those investors whose objective in higher earning in the long run period, value stocks may be the ideal investment.

### 5.5 Limitations of the study

The findings of the study should be viewed in light of the following limitations
(i) The period covered by the study, that is, five years in short as compared to periods covered by other studies such as that by Fama and French ( 25 years). In any study, the higher the sample size (in this case the period of study) the more reliable the findings will be. Because of time limitation within which the study had to be done, the researcher confined himself to five years.
(ii) Lack of compiled data especially for the year 2009.This forced the researcher to look for individual firms' reports to get the details. This ended up consuming a lot of time.
(iii) Only stocks quoted at the NSE for two consecutive years were included in the study. This is because classification done in one year was used to analyze performance during the following year. Exclusion of some of the stocks may have distorted the results.
(iii) The classification ratio ( $\mathrm{P} / \mathrm{B}$ and $\mathrm{B} / \mathrm{M}$ ) were available only for the dates that mark the financial year-end of each firm. When the financial year-end was not $31^{\text {st }}$ December, the ratios were assumed to apply at $31^{\text {st }}$ December. This is a limitation in that the ratio at $31^{\text {st }}$ December may have been quite different from the ratio at the financial year -end.
(iv) The stock prices used to calculate returns are those on the last day of trading on a particular stock during that month. This was not necessarily the month end date and in some cases, the last day of trading was very far from the month-end date. The returns in such a case would only be an approximation.

### 5.6 Suggestions for further research

A similar study can be undertaken for a longer period of time, say 10,20 or 25 years. This may give more reliable and authoritative results.

A similar study could be undertaken while stocks are sorted into growth or value stocks using different ratios such as $\mathrm{E} / \mathrm{P}, \mathrm{D} / \mathrm{P}$ or $\mathrm{C} / \mathrm{P}$.

A similar study could be undertaken to establish whether Kenyan firms actually apply value investment strategies in portfolio management.

Future research could also be done to test the models behind value premium and their applicability in the Kenyan market. For example Fama and French (1996) multifactor model and CAPM can be tested.

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## APPENDIX I: LIST OF NSE STOCKS

Main investment market segment:

## Agricultural

Kakuzi
Rea Vipingo Plantation
Sasini Ltd

## Commercial and Service

Access Kenya Group
Car \& General (K)
CMC Holdings
Hutchings Biemer
Kenya Airways
Marshalls (E.A)
Nation Media Group
Safaricom Ltd
ScanGroup
Standard Group
TPS EA (Serena)
Uchumi Supermarket
Finance and Investment
Barclays Bank
Centum Investment Co.
CFC Stanbic Holdings
Diamond Trust Bank
Equity Bank
Housing Finance Co.
Jubilee Holdings
KCB
Kenya Re Corporation
NBK
NIC Bank

Olympia Capital Holdings
Pan Africa Insurance
Standard Chartered
Co-op Bank of Kenya
Industrial and Allied
Athi River Mining
B.O.C Kenya

Bamburi Cement
BAT Kenya Ltd
Carbacid Investments
Crown Berger
E.A Cables
E.A Portland Cement

East African Breweries
Eveready EA
KenGen
KenolKobil Ltd
KP\&LC
Mumias Sugar Co.
Sameer Africa
Total Kenya
Unga Group

## Alternative investment segment

A.Baumann \& Co.

City Trust
Eaagads Ord
Express
Wiliamson Tea Kenya
Kapchorua Tea Co.
Kenya Orchards
Limuru Tea Co.

## APPENDIX II : Industry/sector P/B, B/M and AMR

Agricultural sector/industry returns : 2005

|  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | :--- |
|  |  | $\mathbf{P / B}$ | $\mathbf{B / M}$ | A.M.R | Value/Growth |
| 1 | Kakuzi | 0.6500 | 1.54 | 1.7200 | Value |
| 2 | Kapchorua Tea Co | 0.4200 | 2.38 | 4.8100 | Value |
| 3 | Rea Vipingo <br> Plantation | 1.5300 | 0.65 | 9.6250 | Growth |
| 4 | Eaagads | 0.7500 | 1.33 | 0.0000 | Value |
| 5 | Limuru Tea | 4.5100 | 0.22 | -0.0700 | Growth |
| 6 | Unilever Tea | 1.0800 | 0.93 | 0.1800 | Growth |
| 7 | Williamson Tea | 0.2300 | 4.35 | 0.7290 | Value |
|  |  |  |  |  |  |

## Agricultural sector/industry returns : 2006

|  |  | $\mathbf{P / B}$ |  | $\mathbf{B / M}$ | A.M.R |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Kakuzi | 0.4900 | 2.04 | -1.0700 | Value/Growth |
| 2 | Kapchorua Tea <br> Co | 0.4200 | 2.38 | -3.7300 |  |
| 3 | Rea Vipingo <br> Plantation | 1.8600 | 0.54 | 2.2200 |  |
| 4 | Eaagads | 1.8700 | 0.53 | 0.6120 | Growth |
| 5 | Limuru Tea | 3.3100 | 0.30 | 0.3100 | Growth |
| 6 | Unilever Tea | 0.8900 | 1.12 | -0.7300 | Growth |
| 7 | Williamson Tea | 0.3400 | 2.94 | -1.5870 | Value |

Agricultural sector/industry returns : 2007

|  |  | P/B | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Kakuzi | 5.8100 | 0.17 | 0.6200 | Growth |
| 2 | Kapchorua Tea Co | 0.3700 | 2.70 | -1.1800 | Value |
| 3 | Rea Vipingo <br> Plantation | 0.6600 | 1.52 | -0.6300 |  |
| 4 | Eaagads | 1.3500 | 0.74 | 19.0000 | Growth |
| 5 | Limuru Tea | 1.7500 | 0.57 | -1.1200 | Growth |
| 6 | Unilever Tea | 4.5500 | 0.22 | 0.7140 | Growth |
| 7 | Williamson Tea | 0.8400 | 1.19 | -1.5600 | Value |

Agricultural sector/industry returns: 2008

|  |  | P/B |  | B/M | A.M.R |
| :--- | :--- | ---: | ---: | ---: | :--- |
| Value/Growth |  |  |  |  |  |
| 1 | Kapchorua Tea Co | 5.7400 | 0.17 | -4.5100 | Growth |
| 2 | Rea Vipingo Plantation | 0.3800 | 2.63 | -2.8160 | Value |
| 3 | Eaagads | 0.6700 | 1.49 | -1.8000 | Value |
| 4 | Limuru Tea | 1.4600 | 0.68 | -3.0300 | Growth |
| 5 | Williamson Tea | 4.5500 | 0.22 | -1.4400 | Growth |

## Agricultural sector/industry returns : 2009

|  |  | $\mathbf{P / B}$ | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Kakuzi | 5.6500 | 0.18 | 25.0833 | Growth |
| 2 | Kapchorua Tea Co | 0.3700 | 2.70 | 8.9431 | Value |
| 3 | Rea Vipingo <br> Plantation | 0.6900 | 1.45 | 4.6875 |  |
| 4 | Eaagads | 1.4500 | 0.69 | 6.8182 | Growth |
| 5 | Limuru Tea | 0.5000 | 2.00 | 6.2861 | Value |
| 6 | Unilever Tea | 4.0000 | 0.25 | 0.2465 | Growth |


| 7 | Williamson Tea | 1.9200 | 0.52 | 4.8148 | Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |

Commerce and Services returns : 2005

|  |  | P/B | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Car and General | 0.8900 | 1.12 | 4.8160 | Value |
| 2 | CMC holding | 0.6700 | 1.49 | -0.6250 | Value |
| 3 | Standard Group | 5.8400 | 0.17 | -0.9200 | Growth |
| 4 | TPS E.A | 1.47 | 0.68 | 6.0220 | Growth |
| 5 | Express | 1.52 | 0.66 | 6.4100 | Growth |
| 6 | Kenya Airways | 0.3600 | 2.78 | 32.6900 | Value |
| 7 | Marshall E.A | 0.4600 | 2.17 | 5.2700 | Value |
| 8 | Nation media Group | 4.1500 | 0.24 | 1.2700 | Growth |

Commerce and Services returns 2006

|  |  | P/B |  | B/M | A.M.R |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Car and General | 1.1300 | 0.88 | 8.5900 | Value/Growth |
| 2 | CMC holding | 1.4600 | 0.68 | 10.3300 | Growth |
| 3 | Standard Group | 5.8400 | 0.17 | 2.7080 | Growth |
| 4 | TPS E.A | 1.4200 | 0.70 | 0.5400 | Value |
| 5 | Express | 1.5300 | 0.65 | 5.7900 | Growth |
| 6 | Kenya Airways | 0.9100 | 1.10 | 5.1500 | Value |
| 7 | Marshall E.A | 0.4500 | 2.22 | 6.6300 | Value |
| 8 | Diamond trust bank | 3.5300 | 0.28 | 12.3300 | Growth |
|  | Nation media Group | 5.7900 | 0.17 | 2.5000 | Growth |

Commerce and Services returns 2007

|  |  | $\mathbf{P / B}$ | $\mathbf{B} / \mathbf{M}$ | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Car and General | 1.1800 | 0.85 | 1.2700 | Value |
| 2 | CMC holding | 1.7300 | 0.58 | 0.9500 | Growth |
| 3 | Standard Group | 2.7800 | 0.36 | -1.0600 | Growth |
| 4 | TPS E.A | 1.1100 | 0.90 | -0.6500 | Value |
| 5 | Express | 1.3900 | 0.72 | -0.2570 | Value |
| 6 | Kenya Airways | 0.7000 | 1.43 | -3.7640 | Value |
| 7 | Marshalls E.A | 0.5300 | 1.89 | 0.4300 | Value |
| 8 | Diamond trust bank | 2.8100 | 0.36 | 2.6800 | Growth |
| 9 | Scan Group | 7.7900 | 0.13 | 1.9800 | Growth |
| 10 | Nation media Group | 5.8100 | 0.17 | 0.6200 | Growth |
|  |  |  |  |  |  |

Commerce and Services sector returns : 2008

|  |  | $\mathbf{P} / \mathbf{B}$ | $\mathbf{B} / \mathbf{M}$ | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Car and General | 1.1800 | 0.85 | -1.8000 | Value |
| 2 | CMC holding | 1.7500 | 0.57 | -0.9200 | Value |
| 3 | Standard Group | 2.8500 | 0.35 | -0.8600 | Growth |
| 4 | TPS E.A | 1.2000 | 0.83 | -2.6270 | Value |
| 5 | Express | 1.5600 | 0.64 | -3.9110 | Growth |
| 6 | Kenya Airways | 3.9000 | 0.26 | -4.4600 | Growth |
| 7 | Marshall E.A | 0.5400 | 1.85 | -2.5600 | Value |
| 8 | Diamond trust bank | 2.8100 | 0.36 | -2.1690 | Growth |
| 9 | Scan Group | 7.5400 | 0.13 | -0.8700 | Growth |
| 10 | Nation media Group | 5.7400 | 0.17 | -4.5100 | Growth |

Commerce and Services returns 2009

|  |  | $\mathbf{P / B}$ | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Car and General | 1.1800 | 0.85 | 4.3750 | Value |
| 2 | CMC holding | 1.8200 | 0.55 | 9.8148 | Value |
| 3 | Standard Group | 2.5000 | 0.40 | 4.0448 | Growth |
| 4 | TPS E.A | 1.2500 | 0.80 | 6.7274 | Value |
| 5 | Express | 3.0200 | 0.33 | 6.2500 | Growth |
| 6 | Kenya Airways | 3.5000 | 0.29 | 22.3485 | Growth |
| 7 | Marshall E.A | 0.3800 | 2.63 | 4.7222 | Value |
| 8 | Diamond trust bank | 2.7500 | 0.36 | 10.2583 | Growth |
| 9 | Scan Group | 7.5200 | 0.13 | 4.5290 | Growth |
| 10 | Access Kenya | 1.5000 | 0.67 | 13.7097 | Value |
| 11 | Safaricom | 0.8000 | 1.25 | 15.1389 | Value |
| 12 | Nation media Group | 5.6500 | 0.18 | 25.0833 | Growth |

Finance and Investment returns : 2005

|  |  | $\mathbf{P / B}$ | $\mathbf{B / M}$ | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Housing Finance | 1.2600 | 0.79 | 5.3400 | Value |
| 2 | Jubilee Insurance | 1.1400 | 0.88 | 4.1667 | Value |
| 3 | Baumann Co.ltd | 0.1100 | 9.09 | 5.3687 | Value |
| 4 | Kenya Commercial | 2.2400 | 0.45 | 6.7800 | Growth |
| 5 | National Bank | 1.7800 | 0.56 | 4.6452 | Growth |
| 6 | NIC Bank | 1.5100 | 0.66 | 0.8794 | Growth |
| 7 | Olympia Capital Holdings | 0.7200 | 1.39 | 0.0788 | Value |
| 8 | Pan Africa Insurance | 2.0600 | 0.49 | 8.2600 | Growth |
| 9 | Centum | 0.9300 | 1.08 | 2.1527 | Value |
| 10 | CFC Stanbic Holdings | 2.9400 | 0.34 | 1.9700 | Growth |
| 11 | City Trust | 0.6100 | 1.64 | 2.0400 | Value |
| 12 | Standard chartered ban | 3.9400 | 0.25 | 1.6840 | Growth |


| 13 | Barclays Bank | 30.9200 | 0.03 | 3.1700 | Growth |
| :--- | :--- | :--- | :--- | :--- | :--- |

Finance and Investment 2006

|  |  | $\mathbf{P / B}$ | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Housing Finance | 4.0200 | 0.25 | 24.8200 | Growth |
| 2 | Jubilee Insurance | 3.2200 | 0.31 | 10.1650 | Growth |
| 3 | Baumann Co.ltd | 0.2000 | 5.00 | -0.7200 | Value |
| 4 | Kenya Commercial | 4.1400 | 0.24 | 6.3400 | Growth |
| 5 | National Bank | 3.0100 | 0.33 | 11.7300 | Growth |
| 6 | NIC Bank | 2.7700 | 0.36 | 7.8100 | Value |
| 7 | Olympia Capital | 0.8200 | 1.22 | -0.7000 |  |
| 8 | Holdings | 5.3100 | 0.19 | 10.7300 | Growth |
| 9 | Centum | 0.8800 | 1.14 | 26.0300 | Value |
| 10 | CFC Stanbic Holdings | 2.4700 | 0.40 | 2.3300 | Value |
| 11 | City Trust | 1.2500 | 0.80 | 2.0400 | Value |
| 13 | Equity Bank | 3.6400 | 0.27 | 0.7790 | Growth |
| 14 | Standard chartered | 5.84 | 0.17 | 1.6700 |  |
|  | bank | 7.0400 | 0.14 | 2.4200 | Growth |
| 15 | Barclays Bank |  |  | Value |  |

Finance and Investment 2007

|  |  |  | P/B | B/M | A.M.R |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Housing Finance | 3.6400 | 0.27 | -0.3400 | Growth |
| 2 | Jubilee Insurance | 2.4800 | 0.40 | -2.7200 | Growth |
| 3 | Baumann co.ltd | 0.4100 | 2.44 | -3.3000 | Value |
| 4 | Kenya Commercial | 4.3100 | 0.23 | 1.7600 | Growth |
| 5 | National Bank | 1.8800 | 0.53 | -1.6160 | Value |
| 6 | NIC Bank | 1.3 | 0.77 | -3.1610 | Value |
| 7 | Olympia Capital Holding | 1.0100 | 0.99 | -4.4200 | Value |
| 8 | Pan Africa Insurance | 3.3200 | 0.30 | 0.8700 | Growth |
| 9 | Centum | 1.76 | 0.57 | 0.9500 | Value |
| 10 | CFC Stanbic Holdings | 3.3500 | 0.30 | 3.9230 | Growth |
| 11 | City Trust | 1.25 | 0.80 | 6.5000 | Value |
| 12 | Equity Bank | 3.64 | 0.27 | 0.7790 | Growth |
| 13 | Standard chartered bank | 5.1300 | 0.19 | 0.4400 | Growth |
| 15 | Barclays bank | 6.11 | 0.16 | 0.39 | Growth |

Finance and Investment 2008

|  |  | $\mathbf{P / B}$ | $\mathbf{B} / \mathbf{M}$ | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Housing Finance | 3.6700 | 0.27 | -4.7440 | Growth |
| 2 | Jubilee Insurance | 3.0000 | 0.33 | -3.3500 | Value |
| 3 | Baumann co.ltd | 0.4900 | 2.04 | -3.6800 | Value |
| 4 | National Bank | 1.8500 | 0.54 | -0.6680 | Value |
| 5 | NIC Bank | 1.5 | 0.67 | -2.4600 | Value |
| 6 | Olympia Capital Holding | 1.0500 | 0.95 | -2.5400 | Value |
| 7 | Pan Africa Insurance | 3.2900 | 0.30 | -3.0060 | Growth |
| 8 | CFC Stanbic Holdings | 3.5900 | 0.28 | -4.3300 | Growth |
| 9 | City Trust | 1.26 | 0.79 | 0.0270 | Value |
| 10 | Equity Bank | 3.64 | 0.27 | 1.4600 | Growth |
| 11 | Standard chartered ban | 5.1600 | 0.19 | -1.4500 | Growth |
| 12 | Barclays Bank | 6.3400 | 0.16 | -2.7950 | Growth |

Finance and Investment 2009

|  |  | P/B | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Housing Finance | 4.6500 | 0.22 | 32.2368 | Growth |
| 2 | Jubilee Insurance | 3.0000 | 0.33 | 13.3838 | Growth |
| 3 | Baumann co.ltd | 0.4800 | 2.08 | 9.4697 | Value |
| 4 | Kenya Commercial | 4.3100 | 0.23 | 10.2865 | Growth |
| 5 | National Bank | 2.2000 | 0.45 | 9.2239 | Value |
| 6 | NIC Bank | 3.2400 | 0.31 | 36.7325 | Growth |
| 7 | Olympia Capital Holding | 1.2500 | 0.80 | 10.7542 | Value |
| 8 | Pan Africa Insurance | 3.1500 | 0.32 | 5.5599 | Growth |
| 9 | Centum | 2.0000 | 0.50 | 16.1111 | Value |
| 10 | City | 1.2700 | 0.79 | 3.9295 | Value |
| 11 | Coop bank | 0.5000 | 2.00 | 4.9451 | Value |
| 12 | Equity Bank | 6.5200 | 0.15 | 21.6140 | Growth |
| 13 | Standard chartered ban | 5.2300 | 0.19 | 5.0773 | Growth |
| 14 | KenyaRe | 0.2700 | 3.70 | 8.8439 | Value |
| 15 | Barclays Bank | 6.3700 | 0.16 | 9.5528 | Growth |

Industrial and allied returns : 2005

|  |  | P/B | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Athi river mining | 1.3500 | 0.74 | 14.0200 | Value |
| 2 | B.O.C Kenya | 2.1400 | 0.47 | 3.6500 | Growth |
| 3 |  | $\mathbf{1 . 1 6 0 0}$ |  |  |  |
|  | Crown Berger |  | 0.86 | 2.6720 | Value |
| 4 | Diamond Trust | 2.4200 | 0.41 | 1.4732 | Growth |
| 5 | Total | 1.5400 | 0.65 | 1.3230 | Value |
| 6 | E.A Cables | 4.3800 | 0.23 | 14.8600 | Growth |
| 7 | E.A breweries | 5.2500 | 0.19 | 3.2200 | Growth |
| 8 | Kenol Kobil | 2.9600 | 0.34 | 9.6784 | Growth |
| 9 | KPLC | 0.3500 | 2.86 | 4.0415 | Value |
| 10 | Unga Group | 0.5500 | 1.82 | 6.6000 | Value |
| 11 | Bamburi cement | 3.7600 | 0.27 | 4.3300 | Growth |
| 12 | Mumias | 1.5800 | 0.63 | 20.0139 | Value |

Industrial and allied 2006

|  |  | P/B | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Athi river mining | 2.4300 | 0.41 | 11.2800 | Growth |
| 2 | B.O.C Kenya | 2.3300 | 0.43 | 0.5800 | Growth |
| 3 | Crown Berger | 1.1700 | 0.85 | 0.5800 | Value |
| 4 | Total | 1.4200 | 0.70 | -0.3040 | Value |
| 5 | E.A Cables | 1.4100 | 0.71 | 37.8900 | Value |
| 6 | E.A breweries | 4.4300 | 0.23 | 1.1212 | Growth |
| 7 | Kenol Kobil | 2.0700 | 0.48 | -1.8360 | Growth |
| 8 | KPLC | 0.5000 | 2.00 | 5.1630 | Value |
| 9 | Unga Group | 0.5000 | 2.00 | -0.8500 | Value |
| 10 | KenGen | 0.6 | 1.67 | -0.1990 | Value |
| 11 | Kenya Orchards | 5.8400 | 0.17 | 2.7000 | Growth |
| 12 | Sameer Africa | 3.2900 | 0.30 | -1.3700 | Growth |
| 13 | Bamburi cement | 4.8600 | 0.21 | 2.9400 | Growth |
| 14 | Mumias | 3.2100 | 0.31 | 5.1700 | Growth |

Industrial and allied 2007

|  |  | $\mathbf{P / B}$ | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Athi river mining | 2.6800 | 0.37 | 1.1290 | Growth |
| 2 | B.O.C Kenya | 2.1400 | 0.47 | 0.4800 | Growth |
| 3 | Crown Berger | 1.3100 | 0.76 | 1.4760 | Value |
| 4 | Total | 1.2400 | 0.81 | 0.3590 | Value |
| 5 | E.A Cables | 4.7900 | 0.21 | 0.8800 | Growth |
| 6 | E.A breweries | 4.4300 | 0.23 | 2.2000 | Growth |
| 7 | Kenol Kobil | 1.7800 | 0.56 | 0.5400 | Growth |
| 8 | KPLC | 0.5600 | 1.79 | -1.5430 | Value |
| 9 | Unga Group | 0.3900 | 2.56 | -1.1800 | Value |
| 10 | KenGen | 0.6000 | 1.67 | -0.1990 | Value |
| 11 | Sameer Africa | 1.5900 | 0.63 | -4.1700 | Value |
| 12 | Bamburi cement | 4.0700 | 0.25 | -0.5300 | Growth |
| 13 | Mumias | 1.3200 | 0.76 | -5.8100 | Value |

Industrial and allied 2008

|  |  | $\mathbf{P / B}$ | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Athi river mining | 2.5600 | 0.39 | -0.1100 | Growth |
| 2 | B.O.C Kenya | 2.1400 | 0.47 | 0.3540 | Growth |
| 3 | Crown Berger | 1.3800 | 0.72 | -4.0840 | Value |
| 4 | Total | 1.2400 | 0.81 | 0.1800 | Value |
| 5 | E.A Cables | 4.8300 | 0.21 | -2.9260 | Growth |
| 6 | E.A breweries | 4.5000 | 0.22 | -1.1700 | Growth |
| 7 | Kenol Kobil | 1.9100 | 0.52 | -2.9300 | Growth |
| 8 | KPLC | 0.5800 | 1.72 | 2.9569 | Value |
| 9 | Unga Group | 0.3800 | 2.63 | -0.9970 | Value |
| 10 | KenGen | 1.6000 | 0.63 | -4.2000 | Value |
| 11 | Sameer Africa | 4.0700 | 0.25 | -1.0620 | Growth |
| 12 | Bamburi cement | 1.3800 | 0.72 | 4.3070 | Value |
| 13 | Mumias |  | -3.3033 | Value |  |

Industrial and allied 2009

|  |  | $\mathbf{P / B}$ | B/M | A.M.R | Value/Growth |
| :--- | :--- | ---: | ---: | ---: | :--- |
| 1 | Athi river mining | 2.6500 | 0.38 | 4.3229 | Growth |
| 2 | B.O.C Kenya | 2.0700 | 0.48 | 1.3103 | Growth |
| 3 | Crown Berger | 1.3200 | 0.76 | 52.0833 | Value |
| 4 | Total | 1.1500 | 0.87 | 4.3403 | Value |
| 5 | E.A Cables | 4.8100 | 0.21 | 11.2319 | Growth |
| 6 | E.A breweries | 4.3000 | 0.23 | 1.7542 | Growth |
| 7 | Kenol Kobil | 1.9100 | 0.52 | 10.1032 | Growth |
| 8 | KPLC | 0.6100 | 1.64 | 12.3967 | Value |
| 9 | Unga Group | 0.3500 | 2.86 | 6.2389 | Value |
| 10 | KenGen | 0.71 | 1.39 | 17.4236 | Value |
| 11 | Sameer Africa |  | 0.59 | 16.5833 | Value |
| 12 | Eveready E.A | 2.5000 | 0.26 | 15.1515 | Growth |
| 13 | Carbarcid Investment | 4.0000 | 0.40 | 22.1569 | Growth |
| 14 | Bamburi cement | 1.4200 | 0.70 | 61.6071 | Value |
| 15 | Mumias |  |  |  |  |

## APPENDIX III: VALUE VS GROWTH STOCKS ACROSS THE YEARS FOR ALL NSE STOCKS

2005

|  | Stock | Start <br> Price | Return | \% Return | End Price | Divide nd | $\begin{aligned} & \text { A.M. } \\ & \text { R } \end{aligned}$ | P/B | B/M | $\begin{aligned} & \text { Value/G } \\ & \text { rowth } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Athi River Mining | 15 | 24.5 | 163.33\% | 39.5 | 0.75 | 14.02 | 1.35 | 0.74 | Value |
| 2 | B.O.C Kenya | 115 | 45 | 39.13\% | 160 | 5.5 | 3.65 | 2.14 | 0.47 | Growth |
| 3 | Bamburi cement | 95.57 | 44.43 | 46.49\% | 140 | 5.3 | 4.33 | 3.76 | 0.27 | Growth |
| 4 | Barclays Bank | 200.6 | 62.4 | 31.11\% | 263 | 14 | 3.17 | 30.92 | 0.03 | Growth |
| 5 | BAT | 200 | 4 | 2.00\% | 204 | 12.5 | 0.6875 | 4.48 | 0.22 | Growth |
| 6 | Baumann Co.Ltd | 8 | 5.15 | 64.38\% | 13.15 | 0 | 5.364 | 0.11 | 9.09 | Value |
| 7 | Car \& General | 15 | 8 | 53.33\% | 23 | 0.67 | 4.816 | 0.89 | 1.12 | Value |
| 8 | Centum | 60 | 12.5 | 20.83\% | 72.5 | 3 | 2.1527 | 0.93 | 1.08 | Value |
| 9 | CFC Stanbic holdings | 57.75 | 12.88 | 22.29\% | 70.63 | 0.84 | 1.97 | 2.94 | 0.34 | Growth |
| 10 | City | 50 | 6 | 12.00\% | 56 | 6.25 | 2.041 | 0.61 | 1.64 | Value |
| 11 | CMC Holdings | 60 | -6 | -10.00\% | 54 | 1.5 | -0.625 | 0.67 | 1.49 | Value |
| 12 | Crown Berger | 28 | 7.98 | 28.49\% | 35.98 | 1 | 2.672 | 1.16 | 0.86 | Value |
| 13 | Diamond trust K. | 28 | 4.25 | 15.18\% | 32.25 | 0.7 | 1.4732 | 2.42 | 0.41 | Growth |
| 14 | E.A Cables | 51 | 86 | 168.63\% | 137 | 5 | 14.86 | 4.38 | 0.23 | Growth |
| 15 | EA.Porland | 46 | 64 | 139.13\% | 110 | 2.5 | 12.04 | 1.28 | 0.78 | Value |
| 16 | Eaagads | 17 | 0 | 0.00\% | 17 | 0 | 0 | 0.75 | 1.33 | Value |


| 17 | E. A. breweries | 100.56 | 34.44 | $34.24 \%$ | 135 | 4.5 | 3.22 | 5.25 | 0.19 | Growth |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 18 | Express | 7.8 | 6 | $76.92 \%$ | 13.8 | 0 | 6.41 | 1.51 | 0.66 | Growth |
| 19 | Housing Finance | 8.5 | 5.45 | $64.12 \%$ | 13.95 | 0 | 5.34 | 1.26 | 0.79 | Value |
| 20 | Jubilee Insurance | 58 | 25 | $43.10 \%$ | 83 | 4 | 4.1666 | 1.14 | 0.88 | Value |
| 21 | Kakuzi | 40 | 8.25 | $20.63 \%$ | 48.25 | 0 | 1.72 | 0.65 | 1.54 | Value |
| 22 | Kapchorua Tea Co. | 100 | 54 | $54.00 \%$ | 154 | 3.75 | 4.81 | 0.42 | 2.38 | Value |
| 23 | Kenol Kobil | 63.5 | 71.5 | $112.60 \%$ | 135 | 2.25 | 9.6784 | 2.96 | 0.34 | Growth |
| 24 | Kenya Airways | 16.91 | 65.09 | $384.82 \%$ | 82 | 1.25 | 32.692 | 0.36 | 2.78 | Value |
| 25 | Kenya Commercial | 64.47 | 48.53 | $75.27 \%$ | 113 | 4 | 6.78 | 2.24 | 0.45 | Growth |
| 26 | KPLC | 93.94 | 44.06 | $46.91 \%$ | 138 | 1.5 | 4.0415 | 0.35 | 2.86 | Value |
| 27 | Limuru Tea | 355 | -8 | $-2.25 \%$ | 347 | 5 | -0.07 | 4.51 | 0.22 | Growth |
| 28 | Marshalls (E.A) | 15 | 9.5 | $63.33 \%$ | 24.5 | 0 | 5.27 | 0.46 | 2.17 | Value |
| 29 | Mumias | 10.73 | 24.27 | $226.27 \%$ | 35 | 1.5 | 20.014 | 1.58 | 0.63 | Growth |
| 30 | Nation media Group | 170 | 20 | $11.76 \%$ | 190 | 6 | 1.27 | 4.15 | 0.24 | Growth |
| 31 | National Bank, Kenya | 18.46 | 10.29 | $55.77 \%$ | 28.75 | 0 | 4.6451 | 1.78 | 0.56 | Growth |
| 32 | NIC bank | 49.75 | 2.75 | $5.53 \%$ | 52.5 | 2.5 | 0.8794 | 1.51 | 0.66 | Growth |
|  | Olympia Capital |  |  |  |  |  |  |  |  | Value |
| 33 | Holdings Ltd | 15.85 | 0.15 | $0.95 \%$ | 16 | 0 | 0.0788 | 0.72 | 1.39 |  |
| 34 | Pan Africa Insurance | 21 | 19.63 | $93.45 \%$ | 40.63 | 1.2 | 8.26 | 2.06 | 0.49 | Growth |
| 35 | Rea vipingo Plantation | 10 | 10.75 | $107.50 \%$ | 20.75 | 0.8 | 9.625 | 1.53 | 0.65 | Growth |


| 36 | Sasini Tea Coffee | 26.25 | 0.5 | $1.90 \%$ | 26.75 | 0 | 0.158 | 0.38 | 2.63 | Value |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 37 | Standard Bank | 121.88 | 17.13 | $14.05 \%$ | 139 | 7.5 | 1.6840 | 3.94 | 0.25 | Growth |
| 38 | Standard group | 45 | -5 | $-11.11 \%$ | 40 | 0 | -0.92 | 5.84 | 0.17 | Growth |
| 39 | Total | 37.54 | 3.46 | $9.23 \%$ | 41 | 2.5 | 1.3230 | 1.54 | 0.65 | Growth |
| 40 | TPS eastern Africa | 47.25 | 33.75 | $71.43 \%$ | 81 | 0.4 | 6.022 | 1.47 | 0.68 | Growth |
| 41 | Unga Group | 10.6 | 8.4 | $79.25 \%$ | 19 | 0 | 6.6 | 0.55 | 1.82 | Value |
| 42 | Uniliver Tea Kenya | 90.5 | 0 | $0.00 \%$ | 90.5 | 2 | 0.18 | 1.08 | 0.93 | Value |
| 43 | Williamson Tea Kenya | 100 | 5 | $5.00 \%$ | 105 | 3.75 | 0.729 | 0.23 | 4.35 | Value |


|  | Stock | $\begin{aligned} & \text { Start } \\ & \text { Price } \end{aligned}$ | Return | $\%$ <br> Return | End <br> Price | Dividend | A.M.R | P/B | B/M | Value/ <br> Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Athi River Mining | 39.5 | 52.5 | 132.91\% | 92 | 1 | 11.28 | 2.43 | 0.41 | Growth |
| 2 | B.O.C Kenya | 160 | 0 | 0.00\% | 160 | 11.3 | 0.58 | 2.33 | 0.43 | Growth |
| 3 | Bamburi Cement | 140 | 44 | 31.43\% | 184 | 5.5 | 2.94 | 4.86 | 0.21 | Growth |
| 4 | Barclays Bank | 263 | 75 | 28.52\% | 338 | 1.65 | 2.42 | 7.04 | 0.14 | Growth |
| 5 | Baumann | 13.15 | -1.15 | -8.75\% | 12 | 0 | -0.72 | 0.2 | 5.00 | Value |
| 6 | B.A. T Kenya | 204 | -5 | -2.45\% | 199 | 12.01 | 0.28 | 3.98 | 0.25 | Growth |
| 7 | Car \& General | 23 | 22.25 | 96.74\% | 45.25 | 1.48 | 8.59 | 1.13 | 0.88 | Value |
| 8 | Centum Investment | 72.5 | 222.5 | 306.90\% | 295 | 4 | 26.03 | 0.88 | 1.14 | Value |
| 9 | CFC Stanbic holding | 70.63 | 17.88 | 25.31\% | 88.5 | 1.9 | 2.33 | 2.47 | 0.40 | Growth |
| 10 | City Trust | 56 | 11 | 19.64\% | 67 | 2.75 | 2.046 | 1.25 | 0.80 | Value |
| 11 | CMC Holdings | 54 | 65 | 120.37\% | 119 | 2.3 | 10.38 | 1.46 | 0.68 | Value |
| 12 | Crown Berger | 35.98 | 1.02 | 2.84\% | 37 | 1.5 | 0.58 | 1.17 | 0.85 | Value |
| 13 | Diamond Trust Bank | 32.25 | 46.75 | 144.96\% | 79 | 1 | 12.33 | 3.53 | 0.28 | Growth |
| 14 | E.A Cables | 13.7 | 62.3 | 454.74\% | 76 | 0.7 | 37.89 | 1.41 | 0.71 | Value |
| 15 | E.A Portland cement | 110 | 20 | 18.18\% | 130 | 2.6 | 1.71 | 1.55 | 0.65 | Value |
| 16 | Eaagads | 17 | 0 | 0.00\% | 17 | 1.25 | 0.612 | 1.87 | 0.53 | Growth |
| 17 | E.A Breweries | 135 | 12 | 8.89\% | 147 | 7.7 | 1.1216 | 4.43 | 0.23 | Growth |


| 18 | Equity Bank | 139 | 11 | $7.91 \%$ | 150 | 2 | 0.779 | 3.64 | 0.27 | Growth |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| 19 | Express | 13.8 | 9.2 | $66.67 \%$ | 23 | 0.4 | 5.79 | 1.53 | 0.65 | Value |
| 20 | Housing Finance Co. | 13.95 | 41.55 | $297.85 \%$ | 55.5 | 0 | 24.82 | 4.02 | 0.25 | Growth |
| 21 | Jubilee insurance | 83 | 97 | $116.87 \%$ | 180 | 4.25 | 10.165 | 3.22 | 0.31 | Growth |
| 22 | Kakuzi | 48.25 | -6.25 | $-12.95 \%$ | 42 | 0 | -1.07 | 0.49 | 2.04 | Value |
| 23 | Kapchurua | 154 | -74 | $48.05 \%$ | 80 | 5 | -3.73 | 0.42 | 2.38 | Value |
| 24 | KenGen. | 29.25 | -1.5 | $5.13 \%$ | 27.75 | 0.8 | -0.199 | 0.6 | 1.67 | Value |
| 25 | Kenya Airways | 82 | 49 | $59.76 \%$ | 131 | 1.75 | 5.15 | 0.91 | 1.10 | Value |
| 26 | K. C. B | 113 | 80 | $70.80 \%$ | 193 | 6 | 6.34 | 4.14 | 0.24 | Growth |
| 27 | Kenya Oil Co | 135 | -32 | $-23.70 \%$ | 103 | 2.25 | -1.836 | 2.07 | 0.48 | Growth |
| 28 | Kenya Orchards | 40 | 13 | $32.50 \%$ | 53 | 0 | 2.7 | 5.84 | 0.17 | Growth |
| 29 | K.P.L C | 138 | 84 | $60.87 \%$ | 222 | 1.5 | 5.163 | 0.5 | 2.00 | Value |
| 30 | limuru tea co. | 347 | 3 | $0.86 \%$ | 350 | 10 | 0.31 | 3.31 | 0.30 | Growth |
| 31 | Marshalls E.A | 24.5 | 18.5 | $75.51 \%$ | 43 | 1 | 6.63 | 0.45 | 2.22 | Value |
| 32 | Mumias Sugar Co. | 35 | 20 | $57.14 \%$ | 55 | 1.75 | 5.17 | 3.21 | 0.31 | Growth |
| 33 | Nation Media group | 190 | 45 | $23.68 \%$ | 235 | 12 | 2.5 | 5.79 | 0.17 | Growth |
| 34 | National Bank | 28.75 | 38.75 | $134.78 \%$ | 67.5 | 0 | 11.23 | 3.01 | 0.33 | Growth |
| 35 | NIC Bank | 52.5 | 46.5 | $88.57 \%$ | 99 | 2.7 | 7.81 | 2.77 | 0.36 | Growth |
| 36 | Olympia Holdings | 16 | -1.35 | $-8.44 \%$ | 14.65 | 0 | -0.7 | 0.82 | 1.22 | Value |
| 37 | Pan African Insurance | 40.63 | 50.88 | $125.23 \%$ | 91.5 | 1.44 | 10.73 | 5.31 | 0.19 | Growth |


| 38 | Rea Vipingo Plantation | 20.75 | 4.75 | $22.89 \%$ | 25.5 | 0.8 | 2.22 | 1.86 | 0.54 | Growth |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 39 | Sameer Africa | 21.5 | -3.55 | $-16.51 \%$ | 17.95 | 0 | -1.37 | 3.29 | 0.30 | Growth |
| 40 | Sasini Tea | 26.75 | 25.75 | $96.26 \%$ | 52.5 | 1 | 8.33 | 0.59 | 1.69 | Value |
| 41 | Standard Chartered Bank | 139 | 28 | $20.14 \%$ | 167 | 0 | 1.67 | 5.84 | 0.17 | Growth |
| 42 | Standard Group | 40 | 13 | $32.50 \%$ | 53 | 0 | 2.708 | 5.84 | 0.17 | Growth |
| 43 | Total Kenya | 41 | -4 | $-9.76 \%$ | 37 | 2.5 | -0.304 | 1.29 | 0.70 | Value |
| 44 | TPS Eastern Africa | 81 | 4 | $4.94 \%$ | 85 | 1.25 | 0.54 | 1.42 | 0.70 | Value |
| 45 | Unga Group | 19 | -1.95 | $10.26 \%$ | 17.05 | 0 | -0.85 | 0.5 | 2.00 | Value |
| 46 | Uniliver Tea Kenya | 90.5 | -10 | $11.05 \%$ | 80.5 | 2 | -0.73 | 0.89 | 1.12 | Value |
| 47 | Williamson Tea | 105 | -25 | $23.81 \%$ | 80 | 5 | -1.587 | 0.34 | 2.94 | Value |


|  | Stock | Start <br> Price | Return | $\%$ <br> Return | End <br> Price | Dividend | A.M.R | P/B | B/M | Value/Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A. Baumann | 33 | -13.1 | -39.70 | 19.9 | 0 | -3.3 | 0.41 | 2.44 | Value |
| 2 | Athi River mining | 83 | 10 | 12.05 | 93 | 1.25 | 1.129 | 2.68 | 0.37 | Growth |
| 3 | B.O.C Kenya | 160 | 0 | 0.00 | 160 | 9.25 | 0.48 | 2.14 | 0.47 | Growth |
| 4 | Barclays | 263 | 75 | 28.52\% | 338 | 1.65 | 2.42 | 7.04 | 0.14 | Growth |
| 4 | Bamburi Cement | 215 | -19 | 8.84 | 196 | 6 | -0.503 | 4.07 | 0.25 | Growth |
| 5 | B. A. T | 197 | -58 | -29.44 | 139 | 17 | -1.734 | 2.43 | 0.41 | Growth |
| 6 | Car \& General (K) | 50 | 7 | 14.00 | 57 | 0.67 | 1.27 | 1.18 | 0.85 | Value |
| 7 | Centum investment | 32.5 | -2.75 | -8.46 | 29.75 | 0.45 | 0.95 | 1.76 | 0.57 | Growth |
| 8 | CFC Stanbic holdings | 89 | 40 | 44.94 | 129 | 1.9 | 3.923 | 3.35 | 0.30 | Growth |
| 9 | City Trust | 86 | 64 | 74.42 | 150 | 3.1 | 6.5 | 1.25 | 0.80 | Value |
| 10 | CMC Holdings | 17.6 | 0.8 | 4.55 | 18.4 | 0.35 | 0.95 | 1.73 | 0.58 | Growth |
| 11 | Crown Berger | 43.75 | 6.75 | 15.43 | 50.5 | 1 | 1.476 | 1.31 | 0.76 | Value |
| 12 | Diamond Trust Bank | 72.5 | 22 | 30.34 | 94.5 | 1.4 | 2.68 | 2.81 | 0.36 | Growth |
| 13 | E.A. Cables | 48 | -6 | -12.5 | 42 | 0.9 | 0.88 | 4.79 | 0.21 | Growth |
| 14 | E.A.portland cement | 128 | 12 | 9.38 | 140 | 2.6 | 0.95 | 1.32 | 0.76 | Value |
| 15 | Eaagads | 52 | -7 | -13.46 | 45 | 0 | -1.12 | 1.75 | 0.57 | Growth |


| 16 | East Africa Breweries | 139 | 29 | 20.86 | 168 | 7.7 | 2.2 | 4.43 | 0.23 | Growth |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- | :--- | :--- |
| 17 | Equity bank | 139 | 11 | 7.91 | 150 | 2 | 0.779 | 3.64 | 0.27 | Growth |
| 18 | Eveready East Africa | 17.95 | -10 | -55.71 | 7.95 | 0 | -4.64 | 3.06 | 0.33 | Growth |
| 19 | Express | 24.25 | 0.25 | 1.03 | 24.5 | 0.5 | -0.257 | 1.39 | 0.72 | Value |
| 20 | Housing finance | 48 | -2.25 | -4.69 | 45.75 | 0.25 | -0.34 | 3.64 | 0.27 | Growth |
| 21 | Jubilee insurance Co. | 323 | -110 | -34.06 | 213 | 4.25 | -2.72 | 2.48 | 0.40 | Growth |
| 22 | Kakuzi | 42.25 | -6 | -14.20 | 36.25 | 0 | -1.18 | 0.37 | 2.70 | Value |
| 23 | Kapchorua tea co. | 98 | -8 | -8.16 | 90 | 0.5 | -0.63 | 0.66 | 1.52 | Value |
| 24 | KenGen | 29.25 | -1.5 | -5.13 | 27.75 | 0.8 | -0.199 | 0.6 | 1.67 | Value |
| 25 | Kenya Airways | 119 | -55.5 | -46.64 | 63.5 | 1.75 | -3.764 | 0.7 | 1.43 | Value |
| 26 | K.C. B | 24.1 | 4.4 | 18.26 | 28.5 | 0.7 | 1.76 | 4.31 | 0.23 | Growth |
| 27 | Kenya Oil Co. | 108 | 7 | $6.48 \%$ | 115 | 0 | 0.54 | 1.78 | 0.56 | Growth |
| 28 | K.P.L.C | 270 | -53 | -19.63 | 217 | 3 | -1.543 | 0.56 | 1.79 | Value |
| 29 | Limuru Tea Co. | 350 | 25 | 7.14 | 375 | 5 | 0.714 | 4.55 | 0.22 | Growth |
| 30 | Marshalls(E.A) | 38 | 1 | 2.63 | 39 | 1 | 0.43 | 0.53 | 1.89 | Value |
| 31 | Mumias Sugar co. | 54 | -39.2 | 72.59 | 14.8 | 1.5 | -5.81 | 1.32 | 0.76 | Value |
| 32 | Nation media Group | 313 | $13.00 \%$ | 4.15 | 326 | 10.5 | 0.62 | 5.81 | 0.17 | Growth |
| 33 | National Bank | 58 | -11.25 | -19.40 | 46.75 | 0 | -1.616 | 1.88 | 0.53 | Growth |
| 34 | Nic Bank | 102 | -39.5 | -38.73 | 62.5 | 0.8 | -3.161 | 1.3 | 0.77 | Value |


| 35 | Olympia Capital Holdings | 16 | 16.45 | -53.06 | 14.55 | 0 | -4.42 | 1.01 | 0.99 | Value |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- | :--- | :--- |
| 36 | Pan Africa Insurance | 91.5 | 8 | 8.74 | 99.5 | 1.6 | 0.87 | 3.32 | 0.30 | Growth |
| 37 | Rea Vipingo | 25.75 | -3.5 | -13.59 | 22.25 | 0.8 | 19 | 1.35 | 0.74 | Value |
| 38 | Sameer Africa | 24.25 | 12.15 | -50.10 | 12.1 | 0 | -4.17 | 1.59 | 0.63 | Value |
| 39 | Sasini tea | 28.2 | -10.7 | -37.94 | 17.5 | 0 | -0.89 | 0.93 | 1.08 | Value |
| 40 | Scan Group | 24.75 | 5 | $20.20 \%$ | 29.75 | 0.9 | 1.98 | 7.79 | 0.13 | Growth |
| 41 | Standard chartered bank | 205 | $1.00 \%$ | 49.00 | 206 | 10 | 0.44 | 5.13 | 0.19 | Growth |
| 42 | Standard Group | 66.5 | -9.5 | -14.29 | 57 | 1 | -1.06 | 2.78 | 0.36 | Growth |
| 43 | Total Kenya | 34.75 | -1 | -2.88 | 33.75 | 2.5 | 0.359 | 1.24 | 0.81 | Value |
| 44 | TPS eastern Africa | 86.5 | -8 | -9.25 | 78.5 | 1.25 | -0.65 | 1.11 | 0.90 | Value |
| 45 | Unga Group | 18 | -2.55 | -14.17 | 15.45 | 0 | -1.18 | 0.39 | 2.56 | Value |
| 46 | Unilever Tea Kenya | 80 | -15 | -18.75 | 65 | 0 | -1.56 | 0.84 | 1.19 | Value |
| 47 | Williamson Tea Kenya | 118 | -8 | -6.78 | 110 | 0.5 | -0.52 | 0.28 | 3.57 | Value |
|  |  |  |  |  |  |  |  |  |  |  |


|  | STOCK | START PRICE | RETURN | $\%$ <br> RETURN | END <br> PRICE | DIVIDEND | A.M.R | P/B | B/M | Value/Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A. <br> Baumann | 19.9 | -8.8 | -44.22\% | 11.1 | 0 | -3.68 | 0.49 | 2.04 | Value |
| 2 | Athi River <br> Mining | 93 | -2.5 | -2.69\% | 90.5 | 1.25 | -0.11 | 2.56 | 0.39 | Growth |
| 3 | $\begin{aligned} & \text { B.O.C } \\ & \text { Kenya } \end{aligned}$ | 160 | 0 | 0.00\% | 160 | 6.8 | 0.354 | 2.14 | 0.47 | Growth |
| 4 | Bamburi <br> Cement | 196 | -31 | 15.82\% | 165 | 6 | -1.062 | 4.07 | 0.25 | Growth |
| 5 | Barclays <br> Bank | 79 | -28.5 | -36.08\% | 50.5 | 2 | -2.795 | 6.34 | 0.16 | Growth |
| 6 | B. A.T | 139 | -8 | -5.76\% | 131 | 17 | 0.53 | 2.43 | 0.41 | Growth |
| 7 |  <br> General <br> (K) | 57 | -13 | -22.81\% | 44 | 0.67 | -1.8 | 1.18 | 0.85 | Value |
| 8 | CFC <br> Holdings $5.00$ | 129 | -69 | -53.49\% | 60 | 1.9 | -4.33 | 3.59 | 0.28 | Growth |


| 9 | City Trust | 150 | 0 | 0.00\% | 150 | 0.5 | 0.027 | 1.26 | 0.79 | Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | CMC <br> Holdings | 18.4 | -2.4 | -13.04\% | 16 | 0.35 | -0.92 | 1.75 | 0.57 | Value |
| 11 | Crown <br> Berger | 50.5 | 25.75 | -50.97\% | 24.75 | 1 | -4.084 | 1.38 | 0.72 | Value |
| 12 | Diamond Trust Bank | 94.5 | -26 | -27.51\% | 68.5 | 1.4 | -2.169 | 2.81 | 0.36 | Growth |
| 13 | E.A. <br> Portland | 140 | -60.5 | -43.21\% | 79.5 | 0 | -3.6 | 1.48 | 0.68 | Value |
| 14 | E.A.Cables | 42 | 15.75 | -37.50\% | 26.25 | 1 | -2.926 | 4.83 | 0.21 | Growth |
| 15 | E.A. <br> Breweries | 168 | -24 | 14.29\% | 144 | 0.35 | -1.17 | 4.5 | 0.22 | Growth |
| 16 | Equity <br> Bank | 150 | 26 | 17.33\% | 176 | 0.3 | 1.46 | 3.64 | 0.27 | Growth |
| 17 | Eveready east Africa | 7.95 | -4.45 | -55.97\% | 3.5 | 0 | -4.66 | 3.75 | 0.27 | Growth |
| 18 | Express | 24.5 | -11.5 | -46.94\% | 13 | 0 | -3.911 | 1.56 | 0.64 | Value |
| 19 | Housing finance | 45.75 | -26.35 | -57.60\% | 19.4 | 0.3 | -4.744 | 3.67 | 0.27 | Growth |
| 20 | Jubilee | 213 | -90 | -42.25\% | 123 | 4.25 | -3.35 | 3 | 0.33 | Growth |


|  | Insurance |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | Kakuzi | 36.25 | 13.25 | -36.55\% | 23 | 1 | -2.816 | 0.38 | 2.63 | Value |
| 22 | Kapchorua <br> Tea Co. | 90 | -22 | -24.44\% | 68 | 2.5 | -1.8 | 0.67 | 1.49 | Value |
| 23 | KenGen | 27.75 |  |  | 15.85 | 0.9 | -3.3033 | 0.59 | 1.69 | Value |
| 24 | Kenya <br> Airways | 63.5 | -35 | -55.12\% | 28.5 | 1 | -4.46 | 3.9 | 0.26 | Growth |
| 25 | Kenya Oil <br> Company | 115 | -49 | -42.61\% | 66 | 8.56 | -2.93 | 1.91 | 0.52 | Growth |
| 26 | K..P.L.C | 217 | -81 | -37.33\% | 136 | 4 | 2.95699 | 0.58 | 1.72 | Value |
| 27 | Limuru <br> Tea Co. | 375 | -70 | 18.67\% | 305 | 5 | -1.44 | 4.55 | 0.22 | Growth |
| 28 | Marshalls (E.A) | 39 | -12 | -30.77\% | 27 | 0 | -2.56 | 0.54 | 1.85 | Value |
| 29 | Mumias <br> Sugar Co. | 14.8 | 8.05 | -54.39\% | 6.75 | 0.4 | 4.30743 | 1.38 | 0.72 | Value |
| 30 | nation <br> Media <br> Group | 326 | -182 | 55.83\% | 144 | 5.5 | -4.51 | 5.74 | 0.17 | Growth |
| 31 | National | 46.75 | -3.75 | -8.02\% | 43 | 0 | -0.668 | 1.85 | 0.54 | Growth |


|  | Bank of Kenya |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32 | NIC Bank | 62.5 | -19 | -30.40\% | 43.5 | 0.5 | -2.46 | 1.5 | 0.67 | Value |
| 33 | Olympia <br> Capital <br> holding | 14.55 | -4.55 | -31.27\% | 10 | 0.1 | -2.54 | 1.05 | 0.95 | Value |
| 34 | Pan Africa Insurance | 99.5 | -37.5 | -37.69\% | 62 | 1.6 | -3.006 | 3.29 | 0.30 | Growth |
| 35 | Rea <br> Vipingo <br> Plantations | 22.25 | -8.3 | -37.30\% | 13.95 | 0.2 | -3.03 | 1.46 | 0.68 | Value |
| 36 | Sameer <br> Africa | 12.1 | -6.1 | -50.41\% | 6 | 0 | -4.2 | 1.6 | 0.63 | Value |
| 37 | Sasini Tea | 17.5 | -10.5 | -60.00\% | 7 | 0 | -5 | 0.96 | 1.04 | Value |
| 38 | Scan <br> Group | 29.75 | -3.75 | -12.61\% | 26 | 0.62 | -0.87 | 7.54 | 0.13 | Growth |
| 39 | Standard <br> Chartered <br> bank | 206 | -46 | -22.33\% | 160 | 10 | -1.45 | 5.16 | 0.19 | Growth |
| 40 | Standard | 57 | -7 | -12.28\% | 50 | 1.1 | -0.86 | 2.85 | 0.35 | Growth |


|  | Group |  |  |  |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- | :--- |
| 41 | Total <br> Kenya | 33.75 | -1.75 | $-5.19 \%$ | 32 | 2.5 | 0.18 | 1.24 | 0.81 |  |
| 42 | TPS <br> Eastern <br> Africa | 78.5 | -26 | $-33.12 \%$ | 52.5 | 1.25 | -2.627 | 1.2 | 0.83 |  |
| 43 | Unga <br> Group | 15.45 | -1.85 | $-11.97 \%$ | 13.6 |  | 0 | -0.997 | 0.38 | 2.63 |

2009

|  | Stock | Start <br> Price | Return | Return | End <br> Price | Dividend | A.M.R | P/B | B/M | Value/ <br> Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A. Baumann | 11 | 12.5 | 113.636 | 23.5 | 0 | 9.4697 | 0.48 | 2.08 | Value |
| 2 | Access Kenya | 15.5 | 24.5 | 158.06 | 40 |  | 22.1569 | 1.5 | 0.40 | Growth |
| 3 | Athi River mining | 80 | 40 | 50 | 120 | 1.5 | 4.3229 | 2.65 | 0.38 | Growth |
| 4 | B.O.C Kenya | 145 | 16 | 11.034 | 161 | 6.8 | 1.3103 | 2.07 | 0.48 | Growth |
| 5 | Bamburi cement | 168 | 37 | 22.02 | 205 | 7.5 | 2.2073 | 4 | 0.25 | Growth |
| 6 | Barclays | 41 | 44 | 107.32 | 85 | 3 | 9.5528 | 6.37 | 0.16 | Growth |
| 7 | B.A.T | 128 | 52 | 40.625 | 180 | 10.25 | 4.0527 | 2.85 | 0.35 | Growth |
| 8 | Car \& general | 40 | 20 | 50 | 60 | 1 | 4.3750 | 1.18 | 0.85 | Value |
| 9 | Carbacid investment | 85 | 226 | 265.88 | 311 | 0 | 22.1569 | 2.5 | 0.40 | Growth |
| 10 | Centum | 12 | 22.75 | 189.58 | 34.75 | 0.45 | 16.1111 | 2 | 0.50 | Growth |
| 11 | City Trust | 123 | 57 | 46.34 | 180 | 1 | 3.9295 | 1.27 | 0.79 | Value |
| 12 | CMC | 11.25 | 12.25 | 108.89 | 23.5 | 1 | 9.8148 | 1.82 | 0.55 | Value |
| 13 | Co-op bank | 9.1 | 4.4 | 48.35 | 13.5 | 1 | 4.9451 | 0.5 | 2.00 | Value |
|  | crown Berger | 8 | 48 | 600 | 56 |  | 52.0833 | 1.32 | 0.76 | Value |
| 15 | Diamond trust Kenya | 50 | 60 | 120 | 110 | 1.55 | 10.2583 | 2.75 | 0.36 | Growth |
|  | E.A Cables | 23 | 30 | 130.43 | 53 | 1 | 11.2319 | 4.81 | 0.21 | Growth |


|  | E.A. breweries | 100 | 20 | 20 | 120 | 1.05 | 1.7542 | 4.3 | 0.23 | Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | E.A. Portland cement | 40 | 102 | 255 | 142 | 1.3 | 21.5208 | 1.45 | 0.69 | Value |
| 19 | Eaagards | 30 | 22 | 73.33 | 52 | 0.63 | 6.2861 | 0.5 | 2.00 | Value |
| 20 | Equity | 95 | 246 | 258.95 | 341 |  | 21.6140 | 6.52 | 0.15 | Growth |
| 21 | Eveready East Africa | 3.3 | 6 | 181.82 | 9.3 | 0 | 15.1515 | 3.82 | 0.26 | Growth |
| 22 | Express | 8 | 5.5 | 68.75 | 13.5 | 0.5 | 6.2500 | 3.02 | 0.33 | Growth |
| 23 | Housing Finance | 11.4 | 43.6 | 382.45 | 55 | 0.5 | 32.2368 | 4.65 | 0.22 | Growth |
| 24 | Jubilee | 99 | 154 | 155.55 | 253 | 5 | 13.3838 | 3 | 0.33 | Growth |
| 25 | Kakuzi | 20.5 | 19.5 | 95.12 | 40 | 2.5 | 8.9431 | 0.37 | 2.70 | Value |
| 26 | Kapchorua Tea | 68 | 32 | 47.06 | 100 | 6.25 | 4.6875 | 0.69 | 1.45 | Value |
| 27 | Kengen |  | 25 | 208.33 | 37 | 0.09 | 17.42 | 0.72 | 1.31 | value |
| 28 | Kenol kobil | 56.5 | 63.5 | 112.39 | 120 | 5 | 10.1032 | 1.91 | 0.52 | Growth |
| 29 | Kenya Airways | 22 | 58 | 26.36 | 80 | 1 | 22.3485 | 3.5 | 0.29 | Growth |
| 30 | K. C.B | 16 | 18.75 | 117.19 | 34.75 | 1 | 10.2865 | 4.31 | 0.23 | Growth |
| 31 | KenyaRe | 9.35 | 10 | 106.95 | 19.35 | 0.5 | 8.8439 | 0.27 | 3.70 | Value |
| 32 | KPLC | 121 | 174 | 143.80 | 295 |  | 12.3967 | 0.61 | 1.64 | Value |
| 33 | Limuru Tea | 338 | 0 | 0 | 338 | 10 | 0.2465 | 4 | 0.25 | Growth |
| 34 | Marshalls E.A | 30 | 17 | 56.67 | 47 | 0 | 4.7222 | 0.38 | 2.63 | Value |
| 35 | Mumias | 5.6 | 40.9 | 730.357 | 46.5 | 0.5 | 61.6071 | 1.42 | 0.70 | Value |


|  | Nation Media group | 100 | 295 | 295 | 395 |  | 25.0833 | 5.65 | 0.18 | Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | National Bank | 32.75 | 36.25 | 110.69 | 69 | 0 | 9.2239 | 2.2 | 0.45 | Growth |
| 38 | NIC bank | 38 | 167 | 439.47 | 205 | 0.5 | 36.7325 | 3.24 | 0.31 | Growth |
| 39 | Olympia | 8.95 | 11.55 | 129.05 | 20.5 |  | 10.7542 | 1.25 | 0.80 | Value |
| 40 | Pan Africa insurance | 64 | 41 | 64.06 | 105 | 1.7 | 5.5599 | 3.15 | 0.32 | Growth |
| 41 | Rea Vipingo | 13.2 | 9.8 | 74.24 | 23 | 1 | 6.8182 | 1.45 | 0.69 | Value |
| 42 | Safaricom | 3 | 5.5 | 183.33 | 8.15 | 0.3 | 15.1389 | 0.8 | 1.25 | Value |
| 43 | Sameer Africa | 5 | 9.45 | 189 | 14.45 | 0.5 | 16.5833 | 1.7 | 0.59 | Value |
| 44 | Sasini Tea | 5.2 | 15.05 | 289.42 | 20.25 |  | 25.7212 | 0.95 | 1.05 | Value |
| 45 | Scan Group | 23 | 12 | 0.52 | 35 | 0.5 | 4.5290 | 7.52 | 0.13 | Growth |
| 46 | Standard Chartered Bank | 151 | 85 | 56.29 | 236 | 7 | 5.0773 | 5.23 | 0.19 | Growth |
| 47 | Standard Group | 42.75 | 20.25 | 47.37 | 63 | 0.5 | 4.0448 | 2.5 | 0.40 | Growth |
| 48 | Total | 24 | 11.5 | 47.92 | 35.5 | 1 | 4.3403 | 1.15 | 0.87 | Value |
| 49 | TPS E.A(Serena) | 48 | 37.5 | 78.125 | 85.5 | 1.25 | 6.7274 | 1.25 | 0.80 | Value |
|  | Unga Group | 9.35 | 7 | 74.87 | 16.35 | 0 | 6.2389 | 0.35 | 2.86 | Value |
| 51 | Uniliver Tea | 45 | 26 | 57.78 | 71 | 0 | 4.8148 | 1.92 | 0.52 | Growth |
|  | Williamson Tea | 52 | 96 | 184.62 | 148 | 6.25 | 16.3862 | 0.46 | 2.17 | Value |

