# Impact of the 2007-2009 World Financial Crisis on Share Price Behaviour at the Nairobi Stock Exchange 

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A Research Project Report Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Master in Business Administration, School of Business, University of Nairobi.

## DECLARATION

This is my original work and has not been submitted in any University for the award of any degree.


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

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## DEDICATION

This study is dedicated to my loving mother for instilling in me the discipline of hardwork and persistence in life and to my brothers and sisters for their support.

To God be the Glory!


#### Abstract

Numerous studies have been carried out to examine how stock prices respond to various occurances and events. The financial turmoil originating in the developed world in August 2007 spilled over to developing countries, and Sub Saharan Africa was not immune to the secondary effects of the global financial crisis. Private capital inflows to Sub Saharan Africa were relatively robust up to the first half of 2008, but dropped sharply from the third quarter of 2008, owing to a reduced capability and propensity to invest on the part of foreign investors.


The purpose of the study is to examine the effects the $2007-2009$ global financial crisis on share price behaviour at NSE. Secondary data from the Nairobi Stock exchange database for all listed companies was utilised. The population and sample of interest in this study comprised of all companies quoted on the Nairobi stock exchange. The period studied was January 2005 to December 2009. The sample consists of monthly mean share prices of all companies listed at NSE and monthly NSE share indices.

A trend analysis of share price performance and NSE share indices was carried out. The study noted a negative trend characterised by plunging stock market activity between August 2008 and February 2009.The study concludes that the global financial crisis had negative effects on the share price behaviour.

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## CHAPTER 1. INTRODUCTION

### 1.1. Background

### 1.1.1. 2007-2009 World Financial Crisis

This was a pronounced deceleration of economic activity in the industrialized world that took place in late 2000s in a global economic environment characterized by various imbalances and that was sparked by the outbreak of a financial crisis in 2007.

Edey (2009, p.186) contends that the global financial crisis has been one of the most significant economic shocks in the post-war period. At its core, the crisis originated in credit markets in developed countries - centered particularly in the United States, the United Kingdom and Europe - but the fallout has had a significant effect on activity in every country and region.

World output declined by an unprecedented 2.25 percent (annualized) in the last quarter of 2008; and global trade and industrial activity fell substantially since November 2008. All the major industrial economies entered a period of deep recession, and several emerging markets were sputtering in late 2008. Growth in emerging and developing economies decelerated abruptly to 3.25 percent, mostly because of external pressures-lower foreign demand, reversal of capital inflows, and plunging commodity prices. Anemic global growth reversed the commodity price boom and lowered
inflation. These price declines (except for gold) dampened growth prospects for a number of commodity exporting economies. (World Bank, 2009, p. 6)

Sanoussi, Draper \& Te Velde (2009, p.1) points out that the financial crisis generated a global recession that had severe consequences for Africa, Caribbean and Pacific countries, in terms of their prospects for economic growth and development, notably through a decline of trade and investment flows, lower remittances, lower commodity prices with a greater volatility, which lead to a reduction of employment opportunities and an increase in poverty and malnutrition for the most vulnerable people.

Global activity is forecast to expand by 4.8 percent in 2010 and 4.2 percent in 2011, broadly in line with earlier expectations, and downside risks continue to predominate. The IMF projections are that output of emerging and developing economies will expand at rates of 7.1 and 6.4 percent, respectively, in 2010 and 2011. In advanced economies, however, growth is projected at only 2.7 and 2.2 percent, respectively, with some economies slowing noticeably during the second half of 2010 and the first half of 2011, followed by a reacceleration of activity. Slack will remain substantial and unemployment persistently high. Inflation is projected to stay generally low, amid continued excess capacity and high unemployment, with a few exceptions among the emerging economies. (IMF, 2010, p.xvi)

### 1.1.2. The Nairobi Stock Exchange (NSE)

Nairobi stock exchange is Kenya's market for securities where organized issuance and trading of shares takes place. In Kenya, dealing in shares and stocks started in the 1920's when the country was still a British colony. There was however no formal market, no rules and no regulations to govern stock broking activities. Trading took place on a gentleman's agreement in which standard commissions were charged with clients being obligated to honour their contractual commitments of making good delivery, and settling relevant costs. At that time, stock broking was a sideline business conducted by accountants, auctioneers, estate agents and lawyers who met to exchange prices over a cup of coffee. Because these firms were engaged in other areas of specialisation, the need for association did not arise.

In 1951 an Estate Agent by the name of Francis Drummond established the first professional stock broking firm. He also approached the then Finance Minister of Kenya, Sir Ernest Vasey and impressed upon him the idea of setting up a stock exchange in East Africa. The two approached London Stock Exchange officials in July of 1953 and the London officials accepted to recognize the setting up of the Nairobi Stock Exchange as an overseas stock exchange.

In 1954 the Nairobi Stock Exchange was constituted as a voluntary association of stockbrokers registered under the Societies Act. Since Africans and Asians were not permitted to trade in securities until after the attainment of independence in 1963, the
business of dealing in shares was then confined to the resident European community. At the dawn of independence, stock market activity slumped due to uncertainty about the future of independent Kenya. In 1988 there was the first privatization through the NSE is the successful sale of a $20 \%$ government stake in Kenya Commercial Bank. The sale left the Government of Kenya and affiliated institutions retaining $80 \%$ ownership of the bank.

Notably, in 1994 the NSE 20-Share Index recorded an all-record high of 5030 points on Feb. 18, 1994. The NSE was rated by the International Finance Corporation (IFC) as the best performing market in the world with a return of $179 \%$ in dollar terms. The NSE also moved to more spacious premises at the Nation Centre in July 1994, setting up a computerized delivery and settlement system (DASS). For the first time since the formation of the Nairobi Stock Exchange, the number of stockbrokers increased with the licensing of 8 new brokers.

In 1996, the largest share issue in the history of NSE, the privatization of Kenya Airways, came to the market. Having sold a $26 \%$ stake to KLM, the Government of Kenya proceeded to offer $235,423,896$ shares ( $51 \%$ of the fully paid and issued shares of Kshs. 5.00 each) to the public at Kshs. 11.25 per share. More than 110,000 shareholders acquired a stake in the airline and the Government of Kenya reduced its stake from 74\% to $23 \%$.

The Kenya Airways Privatization team was awarded the World Bank Award for Excellence for 1996 for being a model success story in the divestiture of state-owned
enterprises. On Monday 11 September 2006 live trading on the automated trading systems of the Nairobi Stock Exchange was implemented.

### 1.1.3. Share Prices

Share Prices are the prices of the shares of companies trading at the stock exchange. The share price of a company is determined by the demand and supply mechanism. It is thus purely market determined. Expectations of the buyers and sellers of the relevant share work in opposition to each other and the price mechanism helps to discover the price of the share.

Stock prices are known to exhibit significant changes overtime and these changes can be in both directions, particularly in the short run.

### 1.1.3. Share Price Behaviour

Share price behaviour refers to movement of individual share prices in the stock market. The stock price at a unit time interval represents the basic unit of a stock price sequence, it is composed of three elements; which are direction of stock price movement, magnitude of the stock price movement and stock price movement unit intervals.

Movement in stock price can be divided into three patterns. The first is the pattern of continuity, which can be divided into upward continuous pattern and downward continuous pattern. These two patterns can be sub-divided into certain types. Any
combination of two types of upward continuous pattern will result in a brief stock price increase trend, Any combination of any type of upward continuous pattern and downward continuous pattern will result in a brief stock price sequence with variations in increase and decrease.

The second type is non-continuous pattern. Such pattern takes the form of continuous pattern being disrupted, and its quantity is simply too numerous to be counted. The third type is the independent pattern, and can be divided into upward independent pattern and downward independent pattern. Each independent pattern can be further broken down into certain types of categories. The same type of the same or different independent pattern occurs with great frequency. In stock price sequence, we often see continuous skyrocketing or nose-diving, and these are manifestations of the continuous occurrence of the same or different types independent patterns.

### 1.2. $\quad$ Statement of the Problem

Numerous studies have been carried out to examine how stock prices respond to various occurances and events.

Graham and Dodd (1951), Gordon (1959) and Miller and Scholes (1982) found that dividend affects stock price positively. Black and Scholes (1974) found no clear cut relationship between these two variables. Modigliani and Miller (1961) advanced the theory of dividend irrelevance in stock valuation in the world of no taxes, no transaction costs or any other market imperfections.

Litzenberger and Ramaswamy (1979) suggested a negative relationship between dividend and stock price through their argument of higher tax rate on dividend than on capital gain. Ball and Brown (1968) provided evidence on the positive effect of accounting earnings on stock price. Reilly, Johnson and Smith (1970) and Cagan (1974) have provided evidence of a positive relationship between stock price and inflation rate, which was subsequently challenged by Fama (1981). Sharpe's capital market model (1963) suggests that stock price is negatively influenceby the level of risk in the underlying security.

Macias and Massa (2009, p.1) report that the financial turmoil originating in the developed world in August 2007 spilled over to developing countries, and Sub Saharan Africa has not been immune to the secondary effects of the global financial crisis. Private capital inflows to Sub Saharan Africa were relatively robust up to the first half of 2008, but dropped sharply from the third quarter of 2008 , owing to a reduced capability and propensity to invest on the part of foreign investors.

This study predominantly focuses on share price behaviour of all actively trading firms at the NSE in the period January 2005 to December 2009 and the monthly NSE 20 share indices for the same period.

Kenya was not spared from the negative effects of the global economic meltdown. This was reflected by fluctuating and plunging stock market activity at the Nairobi Stock Exchange. It is worth noting that the 2007 - 2009 financial crisis is a recent phenomenon.

There has been no study that has specifically focussed on its effects on share price behaviour at the NSE.This study will carried out a trend analysis of the share price behaviour at the NSE during the 2007-2009 global financial down turn.

### 1.3. Research Objective

To examine the impact of the 2007-2009 global financial crisis on share price behaviour at the NSE.

### 1.4. Significance of the Study

An analysis of the effects of 2007-2009 global financial crisis on stock market activity in Kenya will benefit the following groups;

1. This study will enable investors and stock brokers to assess how negative stock market activity in the developed world can be transmitted to developing countries and the impact on stock market performance
2. The events that led to the crisis and the aftermath is useful to policy makers such as the Central Bank of Kenya (CBK) and the Capital Markets Authority (CMA) in making macroeconomic decisions. It is important to have proper regulations and policies that ensure that investment decisions do not lead to negative economic activity such as subprime mortgages in the USA which are believed to have triggered the crisis. Subprime mortgages were introduced to improve access by poor people, with minimal or non-existent credit profiles, to the housing market.
3. The study will also be useful to scholars who are interested in carrying out research on financial crisis and related fields
4. Economic analysts will benefit from assessing the extent to which various response mechanism have been effective in preventing further negative effects and ensuring recovery is achieved.

## CHAPTER 2. LITERATURE REVIEW

### 2.1. Introduction

This chapter reviews share price theories and existing literature by scholars on causes and effects of 2007-2009 financial crisis on global economy. The effects on developing countries specifically Kenya will be examined. Previous global financial crises will also be reviewed.

### 2.2. Stock Price Theories

Much time and effort have been devoted in the field of financial research to investigate the movement of share prices. This study will review three theories that have been used in the study of share price behaviour. The theories are as follow:-

### 2.2.1. Efficient Market Hypothesis (EMH)

Fama first defined the term "efficient market" in financial literature in 1965 as one in which security prices fully reflect all available information. The market is efficient if the reaction of market prices to new information should be instantaneous and unbiased. Efficient market hypothesis is the idea that information is quickly and efficiently incorporated into asset prices at any point in time, so that old information cannot be used
to foretell future price movements. Consequently, three versions of EMH distinguished here under depend on the level of available information.

The weak form EMH stipulates that current asset prices already reflect past price and volume information. The information contained in the past sequence of prices of a security is fully reflected in the current market price of that security. It is named weak form because the security prices are the most publicly and easily accessible pieces of information. It implies that no one should be able to outperform the market using something that "everybody else knows".

The semi strong form EMH states that all publicly available information is similarly already incorporated into asset prices. In other words, all publicly available information is fully reflected in a security's current market price. The public information stated not only past prices but also data reported in a company's financial statements, company's announcement, economic factors and others. It also implies that no one should be able to outperform the market using something that "everybody else knows". This indicates that a company's financial statements are of no help in forecasting future price movements and securing high investment returns.

The strong form EMH stipulates that private information or insider information too, is quickly incorporated by market prices and therefore cannot be used to reap abnormal trading profits. Thus, all information, whether public or private, is fully reflected in a security's current market price. That means, even the company's management (insiders)
are not able to make gains from inside information they hold. They are not able to take the advantages to profit from information such as take over decision which has been made ten minutes ago. The rationale behind to support is that the market anticipates in an unbiased manner, future development and therefore information is incorporated and evaluated into market price in much more objective and informative way than insiders.

### 2.2.2. The Technical Analysis Theory

The technical school (chartist) is totally opposed to the EMH.According to them, historical data on stock prices and their trade volumes could be used to obtain meaningful forecasts on future stock prices, which in tum, could be used to earn above average profit from investment in stocks.

The (chartist) theory suggests that by plotting the market price of shares, over a period of time, on a chart (hence the term chartist theory) one can discern certain patterns which tend to repeat themselves.

### 2.2.3. Intrinsic value analysis theory

The theory holds that the market value of a share is based on certain intrinsic or fundamental factors such as the earnings, dividends, growth potential, debt equity mix among others. The fundamental school argues that the stock, industry and economy
specific fundamental (intrinsic or real) variables could help in predicting future stock prices.

### 2.3. Empirical Studies

Studies by past researchers have provided evidence with regard to the salient fundamental variables that influence stock price. Many studies on stock markets including DeBondt and Thaler (1985), Lakonishok (1990), Laughran and Ritter (1995), established that markets appear to overreact. The common conclusion is that stock prices adjust slowly to information and that in some cases losers become winners. Other studies for example Ball and Brown (1968), and Jegadeesh and Titman (1993) suggest that stock prices tend to under react.

Recent work on whether stock market returns are predictable includes Fama and French (1988), Fuller and Kling (1990), Heaney (1990), Jegadeesh (1990), and Schwert (1990). The EMH has received some attention in studies of stock markets in developing countries (Gandhi, Saunders and Woodward. 1980; Cooper, 1982; Parkinson, 1984 and 1987; and Yong, 1987). These markets have been found to reflect information and incorporate such information almost immediately hence approaching an efficient market. The importance of this concept to investors cannot be overemphasized. In its weak form the EMH proposes that share price changes are unpredictable, following a random walk. This in turn implies that returns on shares are unpredictable.

### 2.4. The Underlying Causes of 2007-2009 Global Financial Crisis.

The international financial crisis has generated a lot of discussion and literature because of its negative effects on economic stability of key economies of the world. The effects have been passed on to all other economies either directly or indirectly.

Dimsdale (2009, p.1) observes that the crisis resulted from excessive risk-taking following a prolonged period of macroeconomic stability, combined with financial innovation. Problems arose initially with rising defaults in the US market for subprime mortgages, which induced a breakdown in the market for asset backed securities in mid2007. The financial innovation took the form of complex financial instruments, based on the securitization of loans. These included CDOs (Collateralized Debt Obligations) and a range of ABS (Asset Backed Securities). There was rapid growth of credit derivatives, in particular CDS (Credit Default Swaps), offering protection against risk to purchasers of risky assets.

Acharya,et al (2009, p. 89) observe that the financial crisis was triggered in the first quarter of 2006 when the housing market turned. A number of the mortgages designed for a subset of the market, namely subprime mortgages, were designed with a balloon interest payment, implying that the mortgage would be refinanced within a short period to avoid the jump in the mortgage rate. The mortgage refinancing presupposed that home prices
would continue to appreciate. Thus, the collapse in the housing market necessarily meant - wave of future defaults in the subprime area.

While subprime defaults were the root cause, the most identifiable event that led to systemic failure was most likely the collapse on June 20th, 2007 of two highly levered Bear Stearns-managed hedge funds that invested in subprime asset-backed securities (ABSs). In particular, as the prices of the collateralized debt obligations (CDOs) began to fall with the defaults of subprime mortgages, lenders to the fund demanded more collateral. In fact, one of the fund's creditors, Merrill Lynch, seized $\$ 800$ million of the fund's assets and tried to auction them off. When only $\$ 100$ million could be sold, the illiquid nature and declining value of the assets became quite evident.

Blanchard (2008, p.3) observes that the globalised nature of the world economy, with substantial interconnections between economies through trade and capital flows, caused the US subprime crisis to have global effects, dragging down the global economy. Because of a somewhat similar problem in the UK housing market, a UK financial crisis had similar effects on the UK economy, which then spread in a similar fashion to the global economy.

The crisis intensified sharply in September 2008, particularly following the failure of the US investment bank Lehman Brothers, which was the first time in the crisis that losses were incurred by creditors of a major financial institution. The Lehman collapse followed the effective nationalisation of the two US federal mortgage
agencies Fannie Mae and Freddie Mac - that together had more than $\$ 5$ trillion in mortgages under management or guarantee - a week earlier. These events were followed in quick succession by the nationalisation of the world's largest insurance company American International Group (AIG) along with a string of other announcements of the failure or near-failure of financial institutions in the United States and Europe. Uncertainty about the nature, scope and passage of the various proposed rescue packages through this period added to the general turmoil. These events sparked a severe loss of confidence, not just in the financial sector, but also across households and businesses. In the weeks that followed the Lehman Brothers' collapse, world equity markets experienced extreme volatility, with prices falling in net terms to eventually reach levels around 50 per cent below their earlier peaks. It was also during this period that governments around the world moved to guarantee deposits and in some cases wholesale borrowing by their banks, in conjunction with a series of other measures designed to support their financial systems. Malcom (2009, p.188)

### 2.5. An Overview of Developing Countries

Developing countries have been affected in varying degrees by the transmission of the global financial crisis depending on their level of integration in global financial markets and their specific external dependency, for example, on external financing by capital markets, on exports, on aid, on expatriate labor income, and so forth.

Weak global growth caused by the crisis resulted in shrinking export markets, and plunging of many commodity prices. Developing countries especially in Africa depend heavily on commodity exports, which make them vulnerable to the global downturn. Many African countries have used the past decade to put in place sound and sustainable economic policies that have delivered robust growth and low inflation. Together with debt relief, these policies have resulted in low levels of public debt, relatively sound financial systems, and-most importantly-rising living standards. These gains are now at risk. The high food and fuel prices that prevailed until recently have taken a heavy toll on the finances of many African economies. Now they face a second blow from the global recession.

A study by the ODI (2009, p.3) on 10 developing countries: Bangladesh, Benin, Bolivia, Cambodia, Ghana, Kenya, Indonesia, Nigeria, Uganda, and Zambia examined the ways in which different countries are being affected by the developed country created economic crisis. Even though there was some inevitable time lag between the impact in the north and in the south, and while it is always difficult to interpret high frequency data, the research found clear signs of stress. Of the African case studies, Ghana and Zambia were highly vulnerable to the effects of the global financial crisis, followed by Benin, Nigeria, Kenya, and Uganda.

Portfolio investment flows experienced a dramatic drop in 2008 in most countries, resulting in some large net outflows and a significant decline in equity markets in 2008 and into 2009. In Uganda and Zambia there was a considerable drop in foreign portfolio investment. Kenya too experienced net portfolio outflows of about USD 48 million in

June 2008 and USD 12 million in October 2008. There is also evidence of the increased tightening of credit conditions for bank lending in Ghana and Zambia. FDI has been less affected, but this varies across countries. The financial contagion is not, however, the severest of the shocks revealed by the study.

The real shock faced by the 10 countries reviewed was falling export values. In Kenya, remittances were down $27 \%$ in January 2009 compared to January 2008, after a year of volatility. Aid to Uganda fell in 2008, and might decline further due to the global financial crisis. Zambia lost 8,100 (25\%) of its 30,000 mining jobs in 2008.

Economic growth slowdown and sometimes the reversal in portfolio equity flows in Sub Saharan Africa countries were consistent with the sharp fall of their stock markets. South Africa, Nigeria, Kenya, Mauritius and Côte d'lvoire were among the most hit countries over 2008. The situation did not improve much at the beginning of 2009 . Indeed, in Kenya the Nairobi Stock Exchange (NSE) All-Share Index fell by $21.36 \%$ from 30 January to 27 February and stock market capitalisation dropped by $21.35 \%$ over the same period. In turn, the Nigeria Stock Exchange All Share Index fell by $30.64 \%$ in January and increased by just 7.2 percentage points in February. Macias and Massa (2009, p. 6)

### 2.6. Previous Global Financial Crises

### 2.6.1. The Wall Street Stock market crash of 1929

The 1920 's were a time of peace and great prosperity. After World War I, the "Roaring Twenties" was fueled by increased industrialization and new technologies, such as the radio and the automobile. Air flight was also becoming widespread, as well. The economy benefited greatly from the new life changing technologies. As the Dow Jones Industrial Average soared, many investors quickly snapped up shares. Stocks were seen as extremely safe by most economists, due to the powerful economic boom. Investors soon purchased stock on margin. Margin is the borrowing of stock for the purpose of getting more leverage. For every dollar invested, a margin user would borrow 9 dollars worth of stock. Because of this leverage, if a stock went up $1 \%$, the investor would make $10 \%$ ! This also works the other way around, exaggerating even minor losses. If a stock drops too much, a margin holder could lose all of their money and owe their broker money as well.

From 1921 to 1929, the Dow Jones rocketed from 60 to 400 . Millionaires were created instantly. Soon stock market trading became America's favorite pastime as investors jockeyed to make a quick killing. Investors mortgaged their homes, and foolishly invested their life savings in hot stock. To the average investor, stocks were a sure thing. Few people actually studied the fundamentals of the companies they invested in. Thousands of fraudulent companies were formed to hoodwink un savvy investors. Most
investors never even thought a crash was possible. To them, the stock market "always went up".

### 2.6.2 The Stock Market Crash of 1987

The stock market crash of 1987 was the largest one day stock market crash in history. The Dow lost $22.6 \%$ of its value or $\$ 500$ billion dollars on October 19th 1987.

1986 and 1987 were banner years for the stock market. These years were an extension of an extremely powerful bull market that started in the summer of 1982. This bull market had been fueled by hostile takeovers, leveraged buyouts and merger mania. Companies were scrambling to raise capital to buy each other out, in essence. The philosophy of the time was that companies would grow exponentially simply by constantly purchasing other companies. In leveraged buyouts, a company would raise massive amounts of capital by selling junk bonds to the public. Junk bonds are simply bonds that have a high risk of loss, so they pay a high interest rate. The money raised by selling junk bonds, would go towards the purchase of the desired company. IPOs were also becoming a commonplace driver of the markets. "Microcomputers" were also a top growth industry. People started to view the personal computer as a revolutionary tool that will change our way of life, and create wonderful profit opportunities. The investing public was caught up in a contagious euphoria, similar to that of any other bubble and market crash in history. This euphoria made people, once again, believe that the market would always go up.

### 2.6.3 1997 Asian Financial Crises

The Asian financial crisis was initiated by two rounds of currency depreciation that began in early summer 1997. The first round was a precipitous drop in the value of the Thai baht, Malaysian ringgit, Philippine peso, and Indonesian rupiah. As these currencies stabilized at lower values, the second round began with downward pressures hitting the Taiwan dollar, South Korean won, Brazilian real, Singaporean dollar, and Hong Kong dollar. In countering the downward pressures on currencies, governments sold dollars from their holdings of foreign exchange reserves, bought their own currencies, and thus raised interest rates to foil speculators and to attract foreign capital. The higher interest rates, in turn, slowed economic growth and interest-bearing securities more attractive than equities. As a result stock prices fell massively. In November 1997, this decline in stock values was transmitted to other stock markets in the world.

### 2.8. Conclusion - Kenyan Perspective

Kenya was not spared from the negative effects of the global economic meltdown. This was reflected by fluctuating and plunging stock market activity at the Nairobi Stock Exchange.

Kibaara (2008, p.35) asserts that the Kenyan stock market experienced adverse effects, with foreign sales exceeding foreign buys in many counters, as foreign investors
diversified away from the market. This saw foreign investors offload their shares as they retreated to their markets to buy safer investments in government bonds. The fall in share prices was also attributed to panic selling, triggered by loss of investor confidence following the collapse of stockbrokerage firms as poor management and outright theft took their toll on the firms.

Statistics indicate that the NSE 20-Share Index slumped by $35 \%$ in 2008, $25 \%$ since July 2008.By end-February 2009, the index had declined by $23.2 \%$ in the previous one month, by $26.8 \%$ in the previous three months and by $46 \%$ in the previous one year, offsetting the gains made in the previous three years (one of the largest offsets in sub-Saharan Africa). Data therefore show Kenya's bourse to be one of the worst hit in the region after Nigeria and Mauritius, countries that for long have liberalized their capital markets.In March 2009, the index fell further to about 2000 points, near its seven-year low of 1983 points. The index then reversed its trend, picking up an upward trajectory, raising hopes that the market could be finally getting out of the woods, as the economy showed some signs of recovery.( CBK, October 2009)

### 2.9. Differences between Current Study and Reviewed Studies

This study has focussed on the Kenyan scenario with emphasis on stock price behaviour at the Nairobi Stock Exchange. The external studies reviewed were centered on events in the global arena while the local studies examined the effects of the financial crisis on the

Kenyan economy as a whole. There was no study that had exclusively investigated the effects of the crisis on stock market activity at the NSE.

### 2.10. Research Gap

The Kenyan economy is less intergrated in the global financial system and its financial institutions are relatively inactive in the derivatives market, relying mainly on domestic market resource mobilisation rather than on foreign borrowings to finance operations. The concept of derivatives which is believed was the key cause of the crisis is a new concept in the Kenyan context. Therefore the effects of the financial crisis in Kenya were more indirect than direct.

The 2007 - 2009 financial crisis is a recent phenomenon. There has been no study that has specifically focussed on its effects on share price behaviour at the NSE. In addition non availability of accurate and complete data to measure the indirect negative effects of the finacial crisis at the NSE pose a research gap in this study

## CHAPTER 3. RESEARCH METHODOLOGY

### 3.1. Introduction

This section contains a summary of research design, techniques of sample selection and methods of data analysis used in this study.

### 3.2. Research Design

This study is exploratory in nature. The emphasis here was to examine the effects of 2007 - 2009 global financial crisis on share price behaviour at the NSE. Survey strategy was used in data analysis. Judgemental sampling was used in choosing to focus on the trends of share prices of all actively trading companies at NSE and the NSE share indices in the five year period under study.

### 3.3. Population

The study used secondary data obtained from the Nairobi Stock Exchange database.The population of the study was drawn from daily stock prices of all firms listed at the NSE during the period under study.

### 3.4. Sample of the study

The sample population of the study constituted monthly mean share prices of all companies listed at NSE during the period under study. Other related studies have done a similar thing. The sample period was the period between January 2005 to December 2009.

Companies that were not trading throughout the five year period were excluded to ensure consistency in the analysis. This included Equity Bank Ltd, Kengen Ltd, Cooperative Bank of Kenya Ltd, Sameer East Afica Ltd, Scangroup Ltd, Kenya Reinsurance Corporation Ltd, Eveready East Africa Ltd, Uchumi Supermarkets Ltd, Safaricom Ltd, Firestone East Africa and Unilever Tea Ltd. A total of 45 companies that were actively trading throughout the five year period were analysed.

### 3.5. Data Collection

The data on share prices was obtained from the NSE database. This was by exploring and datamining the database. Daily prices of all stocks listed at the NSE were collected. Monthly averages of stock prices of actively trading companies at NSE between January 2005 to December 2009 were then computed. In addition monthly NSE share indices were also analysed.

### 3.6. Data Analysis

Time series and trend series analysis was used to examine the impact of 2007-2009 global financial crisis on stock price behaviour at the NSE. Time series analysis concerns the analysis of data collected over time; wcekly values, monthly values, quarterly values, yearly values, etc. Usually the intent is to discern whether there is some pattern in the values collected to date, with the intention of short term forecasting.

Ordinary moving averages model was adopted in computing the monthly average share price values which were plotted on graphs. The model is as shown below;

Moving average through time $\mathrm{t}=$

## $y_{t}+y_{t-1}+y_{t-2}+\cdots+y_{t-k-1}$

## k

Where:y is the monthly average share prices

K is the number of stocks trading in the year

The study carried out a trend analysis of average monthly share prices of all actively trading companies and the NSE share indices over the five year period under study. The analysis was then be presented in graphical forms..

## CHAPTER FOUR. RESULTS AND DISCUSSION

### 4.1 Introduction

This chapter contains the analysis and interpretation of secondary data used to carry out the study. Trend analysis of stock performance over a period of five years was carried out. The findings were presented in graphs and conclusions drawn thereon.

### 4.2 Data Analysis and Presentation

The daily share prices of stocks listed at the NSE between January 2005 and December 2009 were obtained from the NSE database. The daily data was used to compute monthly averages for each stock.

To ensure exhaustive analysis and accurate interpretation of data, the monthly NSE 20 share indices were also analysed. A trend analysis of the same was carried out and findings presented using graphs. Microsoft excel package was used in the data analysis and presentation. The data was analysed on monthly basis and the findings presented on annual basis.

The graphical representations of the results of this study are highlited as follows;

Figure 1
2005-2006 Monthly Average Stock Price Behaviour


Months
Figure 2
2005-2006 Monthly NSE 20 Share Index Behaviour


From the above the stock market activity at the NSE in the years 2005 and 2006 showed an upward and positive trend. This may be attributed to favourable economic growth that
was witnessed after the 2002 general elections in Kenya. There was a lot of optimism by both local and foreign investors. The share prices rose steadily from approximately a low Kshs. 60 to a high of Kshs. 130 while the NSE 20 share index rose from approximately

3,000 points to 5,600 points at the close of 2006.It is believed that during the two years the global finacial crisis had just began in the developed world and its effects had not been felt in Kenya.

Figure 3

## 2007 Monthly Average Share Price Behaviour



Figure 4

## 2007 Monthly NSE 20 Share Index Behaviour



Months

From the above analysis the share prices fell to an average of less than Kshs. 100 at the start of 2007 and stabilised in the range of approximately Kshs. 90 throughout the year. The NSE share index depicts a volatile trend. This may be attributed to uncertainity brought about by political campaigns in the election year and the effects of global finacial crisis that were slowly creeping into the developing countries.

Figure5
2008-2009 Monthly Average Share Price Behaviour


Figure 6
2008-2009 NSE 20 Share Index Behaviour


Months

There was a slight dip in stock price behaviour between January and February 2008. This may be attributed to the effects of post election violence that rocked the country after the

December 2007 general elections which caused panic among the investors. The trend however reversed to a postive from the month of March.

The stock price and the NSE 20 share indices analysis depict a sharp decline from August 2008 to March 2009. This is attributable to the negative effects of the global financial crisis. It is believed that this is the period when the adverse effects were experienced in the developing economies. February and March 2009 were the worst hit months. The average share prices fell to approximately below kshs. 60 which was the lowest in the entire five period under study. The NSE 20 share index fell tremendously to hit a five year low of approximately 2,400 points in February 2009. This also was the lowest ever in the entire period under study.

There was a slow but weak recovery from June 2009 and into the rest of the year. This was an indication that the crisis was slowly easing. The IMF reported in October 2010 the world economy was recovering and the Kenyan economy is projected to grow by $5 \%$.

## CHAPTER FIVE. SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Introduction

From the analysis and data collected, the following summary, conclusions and recommendations were made. The responses were based on the objective of the study. The researcher had intended to examine the impact of 2007-2009 global financial crisis on share price behaviour at the NSE

### 5.2 Summary

The results obtained from the study established that 2007-2009 global financial crisis had a negative impact on share price behaviour at the NSE. A positive stock market activity was witnessed between January 2005 to November 2006.This is attributable to good economic activity and optimism brought about mainly by change in governance after the 2002 general elections in Kenya.

The stock market activity in 2007 slumped compared to the previous two years but was fairly good. This may partly be attributed to the political enviroment that prevailed in the country at that time since it was an election year. This is the period when the advanced economies were experiencing the economic meltdown. The negative effects were slowly being transmitted to the developing economies in which Kenya is categorised.

The stock market activity fell downwards at the start of 2008 then slowly rose upwards upto July 2008 which was mainly due to the negative effects of post election violence.

However from August 2008 there was a sharp decline in the stock market activity. The prices fell adversely to levels not experienced before in the period under study. The study established that the period January to March 2009 was the worst hit. This is the period when the stock market experienced the adverse effects of the global financial crisis.

### 5.3 Limitation of the Study

The 2007-2009 financial crisis is a recent phenomenon. There has been no study that has exclusively focussed on its effects on share price behaviour at the NSE. In addition non availability of accurate and complete data to measure the effects of the financial crisis on stock market activity at the NSE pose a limitation to this study.

### 5.4 Recommendation for further study

It is highly recommended that further studies be carried out on the effects of 2007-2009 financial crisis on other sectors of the Kenyan economy such as the banking sector.

### 5.5 Conclusion

The massive technological advances experienced in the last century has transformed the world into a global village. The world economies are interlinked in several ways and no economy is independent. Therefore, any crisis of an economic or financial nature can trigger psychological contagions which can easily and simultaneously spread worldwide.

The 2007-2009 crisis is believed to have originated from the US and the UK financial markets however its negative effects have been experienced all over the world though in varying degrees.

The economic policy makers in Kenya should ensure that proper regulatory frameworks are put in place to ensure that all sectors of the Kenyan economy are in a position to counter such crisis as witnessed in the 2007 to 2009 financial crisis. The Kenyan financial institutions withstood the effects of the crisis due to proper regulatory measures that were in place, however the stock market activity was adversely affected.

Sub-Saharan Africa fared relatively better than other regions during the economic crisis in part because its banking institutions are not as exposed to the global market. The IMF indicates that their govemments also imposed sound fiscal policies that helped to buffer the shock.

On a positive note, depressed stock market activity provides risk taking investors with an opportunity for investment in the stock market. Past experince has shown that a positive and upward trend usually follows a depressed activity. This is evidenced by the positive stock market activity currently (2010) being experinced at the NSE.

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## APPENDIX A

## $\mathbf{2 0 0 5}$ Monthly Average Share Prices

|  | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kakuzi | 40.25 | 47.88 | 44.69 | 43.70 | 46.50 | 52.69 | 64.20 | 53.60 | 47.25 | 48.00 | 48.25 | 49.31 |
| Rea Vipingo | 10.18 | 13.09 | 11.94 | 11.15 | 11.83 | 15.51 | 21.42 | 20.51 | 20.14 | 21.38 | 20.63 | 21.19 |
| Sasini | 26.56 | 31.44 | 29.44 | 31.70 | 35.13 | 32.00 | 38.45 | 36.30 | 32.88 | 31.38 | 32.31 | 30.06 |
| Car \& Gen | 15.00 | 13.25 | 15.05 | 15.76 | 18.00 | 30.19 | 28.50 | 31.60 | 29.00 | 28.81 | 27.75 | 24.06 |
| CMC | 54.38 | 49.75 | 49.38 | 47.25 | 48.06 | 52.31 | 51.15 | 49.85 | 47.81 | 48.50 | 49.94 | 50.00 |
| Hutchings Biemer | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 |
| Kenya Airways lid | 18.54 | 20.13 | 22.56 | 24.85 | 28.19 | 44.75 | 67.60 | 71.60 | 77.13 | 84.50 | 79.75 | 79.63 |
| Marshalls | 15.00 | 15.53 | 15.00 | 15.00 | 15.00 | 17.08 | 29.30 | 29.95 | 25.13 | 24.50 | 24.50 | 24.50 |
| Nation Media Group. | 190.25 | 193.50 | 221.25 | 232.00 | 218.00 | 200.50 | 196.60 | 189.80 | 180.25 | 182.50 | 186.75 | 189.50 |
| Tourism Promotion Services | 46.94 | 45.50 | 49.19 | 51.20 | 51.38 | 71.13 | 83.20 | 76.20 | 77.63 | 80.50 | 84.25 | 81.00 |
| Barclays Bank | 210.50 | 227.75 | 208.00 | 211.00 | 227.25 | 240.75 | 254.20 | 244.60 | 238.00 | 246.75 | 249.75 | 251.00 |
| CFC Bank | 56.63 | 54.88 | 56.50 | 55.60 | 57.38 | 62.38 | 62.10 | 68.10 | 69.75 | 71.38 | 73.38 | 75.75 |
| Diamond Trust | 30.63 | 30.06 | 34.56 | 34.40 | 34.81 | 27.81 | 28.45 | 27.50 | 27.19 | 27.31 | 27.44 | 31.25 |
| Housing Finance | 9.76 | 11.08 | 9.43 | 9.59 | 9.35 | 11.26 | 13.32 | 12.85 | 11.49 | 12.44 | 13.61 | 13.66 |
| ICDC | 60.50 | 61.63 | 60.75 | 61.60 | 64.25 | 63.75 | 68.40 | 69.30 | 70.00 | 70.50 | 71.00 | 71.25 |
| Jubilee | 60.13 | 62.13 | 65.00 | 62.80 | 65.63 | 66.38 | 68.20 | 68.80 | 70.75 | 72.13 | 75.88 | 84.25 |
| K.C.B Bank | 68.88 | 68.88 | 63.38 | 62.90 | 67.00 | 68.75 | 75.30 | 80.60 | 82.00 | 91.88 | 99.00 | 112.75 |
| National Bank | 18.09 | 19.93 | 19.05 | 17.19 | 17.75 | 20.13 | 24.10 | 24.45 | 27.31 | 28.75 | 28.56 | 28.94 |
| National Industrial Credit | 50.13 | 51.88 | 50.00 | 48.80 | 47.38 | 48.56 | 53.80 | 53.00 | 49.06 | 51.19 | 50.06 | 50.63 |
| Pan Africa Insurance Holdings Ltd | 21.38 | 24.13 | 25.25 | 27.10 | 27.88 | 28.63 | 36.90 | 39.10 | 38.50 | 39.69 | 41.00 | 40.81 |
| Standard Chartered Bank | 127.75 | 128.75 | 121.50 | 119.60 | 128.25 | 129.00 | 136.60 | 139.80 | 134.25 | 138.00 | 139.00 | 137.75 |
| Athi River Mining <br> Ltd | 15.86 | 17.94 | 17.04 | 16.51 | 16.85 | 20.98 | 30.00 | 29.20 | 30.50 | 36.38 | 38.13 | 39.25 |
| BOC (K) | 115.25 | 120.25 | 134.75 | 137.00 | 136.75 | 140.50 | 144.00 | 144.40 | 145.00 | 145.75 | 149.75 | 160.00 |
| Bamburi | 96.75 | 99.00 | 98.63 | 96.60 | 101.00 | 114.25 | 134.60 | 132.00 | 134.75 | 138.25 | 140.00 | 140.00 |
| British American | 212.75 | 235.50 | 232.75 | 206.60 | 218.25 | 215.50 | 221.20 | 210.60 | 210.00 | 211.00 | 213.00 | 205.50 |

## 2005 Monthly Average Share Prices

| Tobacco |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Carbacid | 105.50 | 104.00 | 106.50 | 129.00 | 125.75 | 128.00 | 124.00 | 127.80 | 131.50 | 137.00 | 136.50 | 137.00 |
| Crown Berger | 29.06 | 30.19 | 28.25 | 27.95 | 27.19 | 27.38 | 29.65 | 29.70 | 31.69 | 37.06 | 35.31 | 34.75 |
| Olympia Capital Holdings | 15.70 | 15.29 | 16.51 | 15.78 | 15.85 | 17.51 | 24.65 | 24.85 | 24,63 | 19.05 | 14.28 | 15.80 |
| E.A.Cables | 53.25 | 60.38 | 56.88 | 66.60 | 78.63 | 106.50 | 133.20 | 132.40 | 137.50 | 144.50 | 148.75 | 139.75 |
| E.A.Portland | 48.31 | 54.13 | 54.63 | 55.00 | 55.50 | 60.00 | 102.50 | 96.80 | 99.50 | 106.75 | 109.50 | 106.50 |
| E.A.Breweries | 105.75 | 107.00 | 107.00 | 111.80 | 127.75 | 146.25 | 154.20 | 154.20 | 148.00 | 138.75 | 138.25 | 136.25 |
| Kenol | 61.13 | 61.63 | 63.25 | 65.40 | 74.38 | 98.88 | 110.00 | 111.60 | 117.00 | 120.00 | 121.50 | 129.50 |
| Mumias | 10.96 | 12.01 | 11.95 | 11.94 | 13.75 | 20.06 | 30.15 | 29.75 | 31.31 | 31.88 | 31.81 | 32.75 |
| K.Pow.\& L. | 85.25 | 88.88 | 85.75 | 84.90 | 84.50 | 98.25 | 114.60 | 135.20 | 134.00 | 155.00 | 144.25 | 138.00 |
| Total | 44.56 | 41.56 | 39.88 | 38.55 | 38.75 | 40.31 | 42.55 | 38.80 | 39.94 | 43.06 | 40.56 | 40.88 |
| Unga | 11.00 | 12.80 | 12.31 | 12.36 | 12.54 | 15.65 | 17.95 | 17.53 | 18.13 | 17.49 | 17.31 | 19.31 |
| A.Baumann | 8.00 | 8.00 | 6.13 | 8.55 | 9.38 | 9.75 | 12.08 | 13.79 | 13.36 | 13.50 | 13.46 | 13.45 |
| City Trust | 48.81 | 40.94 | 31.13 | 44.35 | 51.13 | 56.25 | 56.60 | 55.40 | 54.38 | 54.38 | 56.75 | 58.38 |
| Eaagads | 17.00 | 17.00 | 12.75 | 17.00 | 17.00 | 17.00 | 17.00 | 17.00 | 17.00 | 17.00 | 17.00 | 17.00 |
| Express | 7.91 | 9.96 | 7.38 | 9.55 | 9.01 | 12.39 | 14.46 | 13.62 | 13.58 | 13.55 | 13.70 | 13.58 |
| Williamson Tea | 101.50 | 114.50 | 91.00 | 117.00 | 118.75 | 139.00 | 134.80 | 123.00 | 115.00 | 104.50 | 104.50 | 106.50 |
| Kapchorua | 100.00 | 100.00 | 75.00 | 103.60 | 124.50 | 168.00 | 185.00 | 180.00 | 156.00 | 156.00 | 156.00 | 154.00 |
| K.Orchads | 3.80 | 4.15 | 3.11 | 4.31 | 4.55 | 4.55 | 4.73 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Limuru Tea | 355.00 | 355.00 | 266.25 | 359.00 | 362.50 | 365.00 | 365.00 | 365.00 | 353.00 | 350.00 | 347.00 | 347.00 |
| Standard Group Ltd | 43.94 | 39.44 | 28.38 | 36.00 | 36.81 | 37.81 | 47.15 | 43.55 | 39.63 | 41.44 | 40.00 | 42.94 |
| Total | 2.848 .74 | $\underline{2.940 .89}$ | $\underline{\mathbf{2 , 7 7 9 3 3}}$ | 2,978.79 | 3,100.29 | 3.363.55 | 3,672.11 | 3,638.95 | 3.576.13 | 3,657.59 | 3,675,36 | 3,700,61 |
| Averagen | 63.31 | 65.35 | 61.76 | 66.20 | 68.90 | 74.75 | 81.60 | 80.87 | 79.47 | 81.28 | 81.67 | 82.24 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | Jan | Feb | Mar | Apr | May | Jun | July | Aus | Sep | Oct | Nov | Dec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kakuzi | 46.81 | 44.63 | 39.45 | 35.75 | 38.00 | 38.83 | 33.94 | 34.88 | 37.00 | 40.00 | 40.94 | 40.35 |
| Rea Vipingo | 20.75 | 20.50 | 19.10 | 18.88 | 23.06 | 20.93 | 20.18 | 20.44 | 24.25 | 24.19 | 26.81 | 25.10 |
| Sasini | 27.69 | 28.88 | 26.75 | 25.63 | 27.94 | 28.71 | 28.19 | 29.88 | 47.65 | 61.75 | 122.00 | 134.60 |
| Car \& Gen | 25.63 | 29.00 | 29.90 | 29.69 | 30.94 | 33.17 | 35.06 | 35.81 | 38.50 | 54.88 | 58.38 | 50.00 |
| CMC | 52.38 | 50.31 | 50.05 | 52.25 | 55.88 | 61.67 | 73.38 | 85.00 | 117.50 | 120.00 | 148.50 | 159.60 |
| Hutchings Biemer | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 |
| Kenya Airways ldd | 88.13 | 92.75 | 95.50 | 104.75 | 124.00 | 116.33 | 112.75 | 115.75 | 124.20 | 127.75 | 119.50 | 117.40 |
| Marshalls | 25.50 | 26.25 | 26.15 | 25.75 | 26.69 | 29.96 | 30.25 | 32.38 | 37.75 | 43.88 | 39.94 | 39.20 |
| Nation Media Group. | 195.25 | 197.75 | 195.80 | 196.00 | 200.25 | 200.33 | 202.25 | 201.75 | 215.60 | 234.50 | 331.00 | 311.20 |
| Tourism Promotion Services | 81.00 | 81.00 | 88.10 | 101.63 | 110.00 | 116.67 | 115.00 | 100.25 | 87.00 | 88.75 | 86.38 | 86.90 |
| Barclays Bank | 281.00 | 274.75 | 251.20 | 248.75 | 252.00 | 263.83 | 272.50 | 294.50 | 320.60 | 378.75 | 541.00 | 76.50 |
| CFC Bank | 76.50 | 72.50 | 66.00 | 65.13 | 79.38 | 73.67 | 73.63 | 83.38 | 85.10 | 83.75 | 86.25 | 85.90 |
| Diamond Trust | 38.63 | 41.94 | 41.70 | 43.13 | 46.81 | 47.96 | 52.75 | 70.00 | 75.80 | 73.00 | 76.38 | 70.70 |
| Housing Finance | 16.10 | 16.11 | 16.30 | 19.33 | 25.94 | 27.00 | 29.13 | 38.38 | 50.80 | 46.88 | 45.38 | 41.85 |
| ICDC | 73.38 | 75.38 | 76.00 | 75.88 | 79.50 | 86.67 | 131.50 | 143.00 | 248.40 | 408.50 | 389.25 | 344.00 |
| Jubilee | 88.75 | 98.25 | 96.00 | 95.13 | 109.75 | 118.17 | 139.50 | 161.75 | 172.80 | 187.00 | 277.50 | 312.60 |
| K.C.B Bank | 117.00 | 115.50 | 115.80 | 114.00 | 154.25 | 158.83 | 165.75 | 177.00 | 188.80 | 197.50 | 217.50 | 219.80 |
| National Bank | 32.56 | 31.19 | 32.05 | 30.94 | 42.38 | 44.08 | 43.38 | 51.50 | 61.15 | 60.63 | 59.25 | 56.30 |
| National Industrial Credit | 52.13 | 52.63 | 51.10 | 49.50 | 62.00 | 69.00 | 72.75 | 95.13 | 97.90 | 100.88 | 103.75 | 99.10 |
| Pan Africa Insurance Holdings Ltd | 39.75 | 37.19 | 39.60 | 40.00 | 41.50 | 41.92 | 45.44 | 66.00 | 87.90 | 84.38 | 86.50 | 89.30 |
| Standard Chartered Bank | 140.75 | 140.00 | 140.20 | 139.25 | 141.75 | 144.67 | 153.75 | 155.25 | 164.20 | 182.00 | 208.25 | 204.20 |
| Athi River Mining Lid | 44.13 | 45.69 | 44.35 | 45.56 | 61.88 | 64.75 | 69.25 | 82.13 | 91.20 | 85.00 | 86.75 | 80.90 |
| BOC (K) | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 |
| Bamburi | 141.25 | 140.00 | 140.00 | 139.75 | 144.50 | 146.83 | 148.75 | 158.25 | 187.80 | 185.75 | 217.00 | 209.20 |
| British American Tobacco | 204.75 | 202.25 | 197.80 | 200.25 | 199.50 | 181.00 | 193.00 | 192.50 | 188.80 | 193.50 | 194.50 | 195.00 |
| Carbacid | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 |

# APPENDIX B 

2006 Monthly Average Share Prices

| Crown Berger | 37.88 | 37.06 | 36.00 | 37.31 | 35.63 | 34.21 | 35.25 | 34.63 | 35.10 | 35.13 | 41.00 | 39.85 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Olympia Capital Holdings | 15.95 | 15.93 | 15.90 | 16.00 | 16.63 | 16.35 | 16.25 | 14.70 | 16.23 | 25.50 | 28.06 | 25.05 |
| E.A.Cables | 151.00 | 161.25 | 162.60 | 181.75 | 236.25 | 258.83 | 322.50 | 535.75 | 79.50 | 63.50 | 50.13 | 44.70 |
| E.A.Portland | 111.75 | 121.25 | 120.00 | 119.00 | 123.25 | 124.50 | 130.75 | 130.00 | 134.40 | 129.75 | 131.25 | 129.60 |
| E.A.Breweries | 134.75 | 130.50 | 130.60 | 131.00 | 138.50 | 139.33 | 136.00 | 137.75 | 143.00 | 150.75 | 144.00 | 139.00 |
| Kenol | 146.00 | 133.50 | 129.20 | 127.00 | 130.25 | 127.83 | 122.50 | 124.25 | 113.20 | 110.75 | 107.00 | 108.40 |
| K.Pow.\& L. | 137.75 | 130.00 | 127.40 | 130.50 | 156.50 | 162.33 | 156.00 | 168.00 | 238.40 | 255.50 | 279.25 | 263.80 |
| Mumias | 40.88 | 39.94 | 41.00 | 44.13 | 60.63 | 59.96 | 62.38 | 56.75 | 56.40 | 53.88 | 51.63 | 53.40 |
| Total | 42.69 | 42.25 | 41.05 | 39.81 | 43.75 | 40.46 | 37.44 | 37.44 | 36.80 | 36.00 | 34.06 | 33.65 |
| Unga | 20.71 | 21.00 | 19.21 | 18.26 | 21.63 | 19.44 | 17.19 | 16.61 | 17.79 | 16.53 | 19.49 | 17.81 |
| A.Baumann | 13.11 | 13.08 | 13.02 | 13.00 | 12.93 | 12.56 | 12.50 | 12.40 | 11.50 | 11.50 | 10.46 | 20.40 |
| City Trust | 56.50 | 56.88 | 56.30 | 55.63 | 55.63 | 56.25 | 58.63 | 63.30 | 70.13 | 70.13 | 328.13 | 151.80 |
| Eaagads | 17.00 | 17.00 | 17.00 | 17.00 | 17.45 | 17.60 | 17.60 | 17.36 | 17.49 | 17.49 | 27.80 | 43.75 |
| Express | 15.81 | 16.00 | 16.02 | 19.25 | 27.06 | 26.29 | 25.13 | 23.50 | 23.94 | 23.94 | 28.81 | 25.00 |
| Williamson Tea | 102.50 | 101.00 | 95.50 | 93.38 | 87.50 | 80.08 | 81.88 | 80.00 | 77.13 | 77.13 | 104.50 | 116.60 |
| Kapchorua | 153.00 | 151.50 | 150.00 | 148.00 | 148.00 | 122.92 | 87.00 | 84.20 | 80.00 | 80.00 | 82.50 | 96.20 |
| K.Orchads | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Limuru Tea | 346.00 | 346.00 | 348.20 | 350.00 | 347.50 | 345.00 | 350.00 | 350.00 | 350.00 | 350.00 | 350.00 | 350.00 |
| Standard Group Lid | 40.44 | 40.13 | 38.35 | 35.50 | 38.31 | 37.17 | 42.50 | 52.80 | 52.13 | 52.13 | 60.13 | 58.80 |
| Total | 3815.75 | 3810.93 | 3758.50 | 3795.65 | 4097.50 | 4118.34 | 4275.78 | 4686.56 | 4626.07 | 4945.01 | 5763.13 | 5089.76 |
| Avernges | 84.79 | 84.69 | 83.52 | 84.35 | 91.06 | 91.52 | 95.02 | 104.15 | 102.80 | 109.89 | 128.07 | 113.11 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## APPENDLX C

2007 Monthly Average Share Prices

|  | Jan | Feb | Mar | Apr | May | Jun | July | Aug | Sept | Oct | Nov | Dec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kakuzi | 43.63 | 41.75 | 38.30 | 39.00 | 35.30 | 36.81 | 38.06 | 37.44 | 36.00 | 33.50 | 32.25 | 35.25 |
| Rea Vipingo | 25.94 | 24.06 | 19.37 | 20.74 | 19.45 | 19.51 | 21.00 | 21.63 | 20.89 | 19.61 | 2030 | 2183 |
| Saceini | 143.25 | 76.69 | 17.13 | 19.88 | 18.19 | 19.04 | 18.15 | 19.15 | 18.35 | 16.14 | 16.86 | 17.92 |
| Car \& Gen | 58.50 | 53.75 | 37.35 | 38.38 | 41.65 | 51.63 | 57.75 | 59.25 | 57.00 | 49.50 | 51.60 | 58.33 |
| CMC | 207.50 | 167.00 | 14.36 | 14.49 | 13.63 | 14.51 | 14.58 | 15.33 | 16.75 | 15.51 | 16.37 | 17.25 |
| Hutchings Biemer | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 |
| Kenye Airways lid | 113.75 | 106.00 | 82.80 | 86.00 | 80.60 | 76.50 | 75.25 | 73.38 | 73.13 | 68.38 | 65.00 | 63.83 |
| Marshalls | 37.69 | 31.75 | 24.80 | 24.00 | 26.30 | 40.00 | 35.06 | 35.63 | 35.00 | 35.38 | 40.75 | 40.33 |
| Nation Media Group. | 333.00 | 300.00 | 234.80 | 240.75 | 247.20 | 249.50 | 256.00 | 255.50 | 281.50 | 287.50 | 294.20 | 31667 |
| Standard Group Led | 67.63 | 72.63 | 62.70 | 61.25 | 54.20 | 56.00 | 54.13 | 56.38 | 57.75 | 53.38 | 52.65 | 52.50 |
| Tourism Promotion Services | 91.50 | 89.88 | 79.30 | 84.63 | 85.00 | 77.00 | 79.13 | 85.13 | 81.50 | 74.25 | 76.00 | 79.00 |
| Barclays Bank | 82.38 | 77.25 | 62.90 | 67.50 | 67.70 | 69.88 | 73.38 | 75.13 | 78.88 | 73.13 | 75.60 | 76.67 |
| CFC Bank | 174.00 | 199.00 | 101.60 | 116.75 | 114.40 | 113.75 | 121.00 | 130.75 | 140.00 | 128.00 | 128.40 | 128.00 |
| Diamond Trust | 82.50 | 74.50 | 67.90 | 74.88 | 73.40 | 83.50 | 86.75 | 97.88 | 101.25 | 93.38 | 88.40 | 92.00 |
| Housing Finance | 41.31 | 35.06 | 25.35 | 26.75 | 25.35 | 33.25 | 37.31 | 32.19 | 31.25 | 28.00 | 32.95 | 41.00 |
| ICDC | 35.63 | 29.50 | 22.63 | 24.06 | 24.00 | 26.88 | 28.00 | 28.94 | 30.06 | 27.75 | 26.30 | 27.75 |
| Jubilee | 321.50 | 303.50 | 224.00 | 264.25 | 247.00 | 252.00 | 232.75 | 224.25 | 219.25 | 195.00 | 193.60 | 219.00 |
| K.C.B Bank | 260.50 | 239.25 | 204.60 | 24.75 | 24.55 | 23.69 | 25.19 | 26.75 | 27.25 | 25.75 | 2685 | 2683 |
| National Bank | 61.88 | 55.63 | 39.40 | 42.63 | 42.90 | 53.13 | 48.00 | 44.94 | 44.00 | 3869 | 39.55 | 4442 |
| National Industrial Credit | 116.75 | 114.75 | 85.30 | 95.13 | 95.30 | 104.50 | 121.25 | 156.75 | 185.75 | 161.50 | 173.00 | 65.33 |
| Pan Africa Insurance Holdings Ltd | 107.00 | 110.75 | 84.20 | 85.13 | 85.50 | 90.63 | 103.88 | 101.38 | 98.88 | 88.50 | 93.60 | 96.00 |
| Standard Chartered Bank | 230.75 | 215.25 | 177.20 | 179.75 | 181.60 | 184.00 | 188.25 | 185.25 | 191.50 | 186.75 | 197.40 | 20067 |
| Athi River Mining Led | 87.25 | 78.63 | 65.60 | 71.50 | 70.70 | 72.13 | 91.38 | 92.50 | 94.25 | 86.88 | 91.70 | 93.17 |
| BOC (K) | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 16000 | 160.00 |
| Bamburi | 226.50 | 220.25 | 196.00 | 200.00 | 195.00 | 195.75 | 190.50 | 191.00 | 200.00 | 194.50 | 191.80 | 196.33 |
| British American Tobacco | 229.00 | 224.25 | 187.00 | 181.00 | 184.60 | 181.00 | 183.25 | 168.00 | 150.50 | 141.75 | 13660 | 138.00 |

## APPENDIX C

2007 Monthly Average Share Prices

| Carbacid | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Crown Berger | 50.25 | 50.31 | 37.70 | 39.50 | 40.50 | 43.69 | 44.69 | 46.00 | 45.19 | 43.38 | 43.45 | 4833 |
| E.A.Cables | 49.88 | 46.25 | 35.45 | 41.81 | 43.15 | 4588 | 47.63 | 4613 | 47.50 | 41.19 | 41.55 | 44.42 |
| E.A. Portland | 134.50 | 137.00 | 116.60 | 133.50 | 110.20 | 110.00 | 112.50 | 126.25 | 132.75 | 129.25 | 133.00 | 134.67 |
| E.A.Brewerias | 145.75 | 149.25 | 136.20 | 143.00 | 143.00 | 147.75 | 151.00 | 154.50 | 175.75 | 149.25 | 155.00 | 170.33 |
| Kenol | 114.75 | 105.00 | 93.90 | 98.13 | 99.40 | 97.50 | 101.00 | 100.00 | 103.38 | 103.38 | 112.00 | 113.00 |
| K. Pow \& L | 304.75 | 280.75 | 189.00 | 206.50 | 211.80 | 208.00 | 219.50 | 224.75 | 253.25 | 218.00 | 215.20 | 218.33 |
| Mumias | 49.88 | 38.94 | 28.35 | 29.31 | 26.80 | 27.25 | 30.75 | 31.38 | 41.06 | 41.19 | 19.88 | 14.93 |
| Olympia Capital Holdings | 30.25 | 25.13 | 18.02 | 18.83 | 18.24 | 18.35 | 21.19 | 20.69 | 16.45 | 17.44 | 14.53 | 14.38 |
| Total | 35.25 | 31.94 | 30.10 | 32.38 | 32.30 | 30.13 | 30.13 | 30.63 | 30.50 | 28.44 | 29.50 | 30.42 |
| Unga | 18.83 | 17.29 | 15.66 | 15.43 | 14.51 | 14.49 | 14.88 | 15.01 | 14.44 | 12.94 | 12.62 | 14.82 |
| A.Baumann | 29.50 | 28.50 | 29.00 | 29.00 | 28.60 | 27.00 | 26.63 | 26.25 | 26.00 | 26.00 | 24.00 | 20.42 |
| City Trust | 81.88 | 80.38 | 8030 | 96.63 | 136.00 | 140.75 | 139.50 | 150.50 | 175.00 | 168.25 | 161.00 | 160.00 |
| Eaagads | 58.88 | 66.25 | 67.00 | 62.00 | 50.00 | 50.50 | 52.00 | 44.94 | 50.00 | 50.00 | 47.15 | 45.50 |
| Express | 28.00 | 26.31 | 23.10 | 23.00 | 22.50 | 23.00 | 23.75 | 23.75 | 24.31 | 23.06 | 23.65 | 23.17 |
| Williamson Tea | 130.25 | 143.50 | 127.80 | 133.50 | 137.40 | 129.75 | 118.25 | 118.50 | 108.75 | 107.00 | 125.80 | 105.33 |
| Kapchorua | 111.00 | 123.75 | 112.60 | 117.75 | 114.40 | 111.00 | 104.13 | 97.00 | 93.63 | 90.00 | 92.60 | 90.00 |
| K Orchads | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 4.73 | 3.00 |
| Limunu Tea | 350.00 | 350.00 | 390.00 | 400.00 | 400.00 | 400.00 | 38125 | 375.00 | 375.00 | 375.00 | 375.00 | 375.00 |
| Total | 5225.14 | 4963.85 | 4007.62 | 4025.66 | 4004.57 | 4071.84 | 4120.98 | 4167.99 | 4305,88 | 4068.70 | 4109.64 | 4091.38 |
| Averoges | 116.11 | 110.31 | 89.06 | 89.46 | 88.99 | 90.49 | 91.58 | 92.62 | 95.69 | 90.42 | 91.33 | 90.92 |

## APPENDIXD

2008 Monthly Average Share Prices

|  | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kakuzi | 32.31 | 23.35 | 30.38 | 34.69 | 35.85 | 39.00 | 37.13 | 43.88 | 28.69 | 25.85 | 22.00 | 22.63 |
| Rea Vipingo | 20.39 | 16.20 | 19.24 | 19.34 | 19.51 | 19.75 | 18.95 | 22.96 | 17.34 | 16.29 | 15.06 | 13.01 |
| Sasini | 15.68 | 11.93 | 14.84 | 15.08 | 15.19 | 14.70 | 13.66 | 15.26 | 9.31 | 7.78 | 7.61 | 5.80 |
| Car \& Gen | 54.25 | 41.60 | 52.88 | 49.88 | 50.95 | 52.25 | 52.00 | 62.63 | 47.75 | 44.40 | 42.13 | 42.00 |
| CMC | 18.09 | 11.81 | 14.56 | 14.76 | 18.49 | 21.45 | 20.34 | 24.53 | 18.88 | 16.33 | 16.25 | 14.89 |
| Hutchings Biemer | 20.25 | 16.20 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 25.31 | 20.25 | 20.25 | 20.25 | 20.25 |
| Kenya Airways lid | 56.88 | 39.85 | 55.00 | 54.38 | 49.05 | 50.88 | 48.50 | 57.50 | 46.44 | 34.70 | 28.56 | 26.25 |
| Marshalls | 39.00 | 31.20 | 39.00 | 42.75 | 39.75 | 36.94 | 30.00 | 37.88 | 30.00 | 30.00 | 29.25 | 27.00 |
| Nation Media Group. | 312.25 | 248.00 | 329.00 | 321.00 | 344.20 | 347.25 | 340.00 | 213.50 | 141.75 | 128.00 | 141.00 | 137.00 |
| Standard Group Ltd | 52.50 | 41.20 | 52.38 | 52.50 | 54.10 | 58.38 | 58.25 | 66.13 | 50.06 | 49.05 | 50.63 | 49.75 |
| Tourism Promotion Services | 67.13 | 50.60 | 70.38 | 71.13 | 72.50 | 73.00 | 69.50 | 80.00 | 62.00 | 55.10 | 60.63 | 51.75 |
| Barclays Bank | 74.13 | 56.60 | 69.13 | 70.75 | 72.30 | 72.25 | 68.25 | 79.63 | 60.25 | 49.55 | 51.50 | 49.19 |
| CFC Bank | 123.00 | 94.20 | 116.00 | 109.00 | 117.40 | 117.00 | 111.75 | 129.50 | 21.25 | 72.20 | 74.00 | 69.00 |
| Diamond Trust | 88.50 | 66.70 | 86.63 | 90.38 | 96.50 | 95.38 | 94.75 | 111.75 | 93.38 | 68.90 | 70.38 | 66.75 |
| Housing Finance | 40.81 | 32.80 | 39.56 | 40.88 | 35.25 | 33.13 | 29.88 | 32.56 | 224.75 | 18.28 | 17.45 | 15.64 |
| Centum Investments | 26.81 | 20.95 | 25.94 | 26.50 | 27.30 | 27.81 | 25.88 | 29.44 | 22.75 | 16.48 | 15.60 | 14.11 |
| Jubilee | 201.50 | 153.80 | 192.50 | 196.00 | 195.40 | 191.00 | 182.50 | 222.50 | 168.00 | 138.00 | 130.75 | 124.25 |
| K.C.B Bank | 27.50 | 21.10 | 26.81 | 29.00 | 31.35 | 31.56 | 30.38 | 35.81 | 26.81 | 21.91 | 22.88 | 21.94 |
| National Bank | 42.00 | 35.75 | 45.19 | 47.19 | 55.50 | 62.50 | 63.00 | 73.38 | 51.25 | 42.15 | 43.25 | 39.94 |
| National Industrial Credit | 56.50 | 43.70 | 56.25 | 58.00 | 61.80 | 61.25 | 57.75 | 69.63 | 49.88 | 43.40 | 44.94 | 42.13 |
| Pan Africa Insurance Holdings Ltd | 94.25 | 63.60 | 77.38 | 80.25 | 76.90 | 73.25 | 70.25 | 89.38 | 72.38 | 72.40 | 71.75 | 69.25 |
| Standard Chartered Bank | 198.00 | 166.20 | 204.00 | 200.75 | 210.00 | 216.25 | 204.25 | 239.75 | 180.00 | 170.00 | 169.50 | 157.50 |
| Athi River Mining Ltd | 93.25 | 74.60 | 91.63 | 95.50 | 97.70 | 109.25 | 110.00 | 136.25 | 108.50 | 95.20 | 94.25 | 88.75 |
| BOC (K) | 160.00 | 128.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 200.00 | 160.00 | 160.00 | 160.00 | 160.00 |
| Bamburi | 192.50 | 152.20 | 192.25 | 190.75 | 190.00 | 196.00 | 192.75 | 238.75 | 186.00 | 188.00 | 179.25 | 163.50 |
| British American Tobacco | 137.75 | 117.00 | 153.75 | 166.25 | 160.00 | 162.25 | 160.25 | 195.25 | 154.75 | 152.00 | 148.75 | 129.25 |

## APPENDIX D

2008 Monthly Average Share Prices

| Carbacid | 137.00 | 109.60 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 171.25 | 137.00 | 137.00 | 137.00 | 137.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Crown Berger | 48.63 | 34.25 | 41.56 | 44.75 | 43.00 | 43.63 | 38.94 | 41.31 | 32.50 | 28.55 | 26.25 | 24.63 |
| E.A.Cables | 42.19 | 32.35 | 39.44 | 40.13 | 42.80 | 42.13 | 38.81 | 45.44 | 33.56 | 28.10 | 27.31 | 25.06 |
| E.A.Portland | 138.00 | 100.40 | 123.00 | 117.50 | 112.00 | 114.75 | 113.25 | 138.00 | 98.50 | 94.00 | 87.50 | 78.75 |
| E.A.Breweries | 159.00 | 120.00 | 157.75 | 162.50 | 178.40 | 203.25 | 195.25 | 230.25 | 172.25 | 139.40 | 145.25 | 137.00 |
| Kenol | 101.00 | 74.50 | 93.63 | 93.13 | 91.80 | 89.75 | 91.00 | 111.88 | 83.50 | 76.30 | 78.13 | 67.50 |
| K.Pow. \& L. | 214.25 | 164.60 | 210.00 | 203.75 | 209.40 | 222.00 | 200.50 | 232.75 | 169.00 | 149.40 | 145.50 | 129.25 |
| Mumias | 13.54 | 10.27 | 12.03 | 12.40 | 12.46 | 12.98 | 11.71 | 12.93 | 8.91 | 7.65 | 6.88 | 6.26 |
| Olympia Capital Holdings | 14.19 | 10.95 | 13.24 | 14.00 | 13.73 | 15.31 | 15.03 | 17.51 | 13.60 | 11.66 | 10.83 | 9.66 |
| Total | 31.19 | 24.70 | 31.25 | 32.06 | 33.10 | 30.31 | 31.00 | 37.25 | 29.38 | 28.60 | 32.44 | 31.00 |
| Unga | 13.91 | 10.81 | 13.61 | 13.70 | 14.12 | 13.83 | 12.80 | 14.64 | 11.64 | 12.80 | 12.83 | 13.04 |
| A.Baumann | 18.59 | 10.39 | 12.50 | 12.50 | 11.56 | 11.10 | 11.10 | 13.88 | 11.10 | 11.10 | 11.10 | 11.10 |
| City Trust | 146.25 | 109.20 | 154.00 | 151.00 | 150.00 | 149.75 | 142.00 | 175.75 | 138.00 | 144.00 | 150.00 | 150.00 |
| Eaagads | 46.00 | 33.70 | 37.00 | 37.00 | 37.00 | 36.00 | 36.50 | 42.75 | 33.00 | 33.00 | 33.00 | 34.13 |
| Express | 22.56 | 17.35 | 21.25 | 21.06 | 21.00 | 20.14 | 19.56 | 21.86 | 16.80 | 14.21 | 13.06 | 12.35 |
| Williamson Tea | 107.50 | 66.70 | 80.00 | 85.13 | 84.90 | 80.00 | 75.25 | 93.13 | 66.50 | 62.80 | 62.25 | 58.75 |
| Kapchorua | 90.00 | 67.80 | 76.00 | 75.00 | 77.00 | 79.75 | 76.75 | 93.75 | 75.00 | 73.00 | 70.00 | 70.00 |
| K.Orchads | 3.00 | 2.40 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.75 | 3.00 | 3.00 | 3.00 | 3.00 |
| Limunu Tea | 375.00 | 292.60 | 338.00 | 338.00 | 338.00 | - 338 | 338 | 422.5 | 338 | 338 | 338 | 305 |
| Total | 3967.00 | 3051.71 | 3829.14 | 3850.53 | 3917.51 | 3985.38 | 3857.65 | 4453.69 | 3523,64 | 3128.79 | 3117.91 | 2924.99 |
| Averages | 88.16 | 67.82 | 85.09 | 85.57 | 87.06 | 88.56 | 85.73 | 98.97 | 78.30 | 69.53 | 69.29 | 65.00 |

## APPENDIX 1 E

2009 Monthly Average Share Prices

|  | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kabazi | 22.80 | 21.31 | 20.31 | 22.20 | 23.69 | 28.00 | 33.20 | 32.13 | 32.75 | 33.50 | 32.88 | 32.19 |
| Kakaz! | 13.36 | 10.00 | 11.76 | 13.17 | 13.73 | 13.58 | 12.59 | 11.60 | 11.56 | 11.64 | 11.44 | 11.88 |
| Rea Vipingo | 6.69 | 4.83 | 5.04 | 5.42 | 6.10 | 6.14 | 6.14 | 6.61 | 6.20 | 6.62 | 7.60 | 7.58 |
| Sasini | 6.69 | 4.83 |  |  | 31.69 | 37.50 | 43.50 | 43.38 | 44.00 | 42.00 | 38.81 | 36.56 |
| Car \& Gen | 43.10 | 40.00 | 36.06 | 30.55 | 31.69 |  |  |  |  |  |  | 10.59 |
| CMC | 15.47 | 11.91 | 11.65 | 12.60 | 11.71 | 12.65 | 12.18 | 11.31 | 11.05 | 10.23 | 10.44 | 10.59 |
| Hutchings Biemer | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 |
| Kenya Airways ltd | 28.10 | 21.95 | 17.40 | 22.40 | 22.63 | 22.38 | 24.75 | 23.81 | 22.94 | 22.75 | 28.94 | 34.94 |
| Marshalls | 27.00 | 25.13 | 24.38 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 22.88 | 21.75 |
| Nation Media Group. | 142.20 | 119.50 | 121.50 | 130.20 | 128.50 | 135.25 | 133.80 | 129.50 | 119.75 | 120.20 | 123.25 | 120.25 |
| Standard Group Lid | 49.25 | 45.63 | 41.25 | 44.50 | 44.75 | 44.94 | 46.00 | 44.50 | 39.56 | 37.45 | 36.44 | 38.63 |
| Tourism Promotion Services | 51.25 | 36.44 | 29.19 | 33.70 | 36.75 | 40.44 | 41.15 | 42.88 | 41.63 | 40.60 | 40.94 | 42.63 |
| Barclays Bank | 50.55 | 40.69 | 38.44 | 42.40 | 44.50 | 51.13 | 54.10 | 48.81 | 46.69 | 44.95 | 44.50 | 44.19 |
| Centum Investments | 16.22 | 11.56 | 9.26 | 9.57 | 11.50 | 14.76 | 16.09 | 14.06 | 12.79 | 10.97 | 11.64 | 11.58 |
| CFC Bank | 57.50 | 51.50 | 48.00 | 48.05 | 49.50 | 62.88 | 65.00 | 58.50 | 56.38 | 52.00 | 48.25 | 47.25 |
| Diamond Trust | 72.60 | 60.88 | 51.56 | 59.70 | 66.75 | 70.50 | 72.60 | 71.88 | 70.38 | 69.50 | 68.13 | 69.25 |
| Housing Finance | 17.01 | 14.14 | 13.93 | 14.65 | 15.86 | 16.78 | 16.61 | 16.23 | 15.68 | 14.34 | 14.79 | 17.13 |
| Jubilee | 123.80 | 106.75 | 89.50 | 100.60 | 111.50 | 122.75 | 126.00 | 117.50 | 112.50 | 105.40 | 112.50 | 117.00 |
| K.C.B Bank | 21.65 | 17.71 | 16.84 | 19.34 | 19.41 | 21.15 | 22.85 | 21.20 | 20.88 | 19.83 | 20.11 | 20.28 |
| National Bank | 41.40 | 31.56 | 29.44 | 31.45 | 35.75 | 38.19 | 40.00 | 39.44 | 36.38 | 33.05 | 34.13 | 37.88 |
| National Industrial Credit | 43.85 | 34.94 | 30.81 | 31.55 | 34.31 | 38.13 | 39.05 | 34.50 | 33.44 | 29.75 | 28.56 | 28.94 |
| Olympa Capital Holdings | 9.93 | 8.23 | 8.28 | 8.69 | 8.94 | 9.10 | 6.91 | 7.46 | 6.85 | 6.75 | 6.36 | 6.40 |
| Pan Africa Insurance Holdings Ltd | 57.80 | 48.50 | 45.75 | 44.40 | 45.00 | 47.25 | 48.75 | 49.63 | 50.50 | 47.30 | 46.75 | 46.50 |
| Standard Chartered Bank | 162.40 | 145.75 | 134.50 | 137.60 | 134.75 | 138.75 | 138.80 | 145.50 | 140.75 | 141.00 | 146.75 | 154.00 |
| Athi River Mining Ltd | 90.50 | 77.00 | 62.25 | 72.00 | 77.50 | 89.13 | 92.20 | 91.00 | 91.88 | 95.30 | 96.75 | 97.75 |
| BOC (K) | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 |  |  |  |  | 97.75 |
| Bamburi | 157.00 | 132.50 | 114.25 |  |  | 160.00 | 160.00 | 160.00 | 160.00 | 160.00 | 150.75 | 150.25 |
|  |  | 132.50 | 114.25 | 114.80 | 119.00 | 128.00 | 147.00 | 150.50 | 153.25 | 158.80 | 161.75 | 158.50 |

## APPENDIX E

2009 Monthly Average Share Prices

| British American Tobacco | 134.80 | 137.50 | 145.00 | 138.60 | 146.00 | 161.50 | 172.60 | 178.50 | 176.25 | 175.40 | 176.25 | 174.75 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Carbacid | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 137.00 | 217.25 | 100.25 |
| Crown Berger | 23.80 | 18.80 | 11.79 | 14.85 | 19.04 | 26.44 | 25.40 | 26.06 | 28.19 | 24.45 | 23.75 | 23.94 |
| E.A.Cables | 26.50 | 19.04 | 16.83 | 21.65 | 21.06 | 23.75 | 24.25 | 22.44 | 20.69 | 19.74 | 19.24 | 19.45 |
| E.A.Portiand | 83.40 | 85.00 | 78.50 | 75.00 | 75.00 | 73.25 | 69.70 | 70.00 | 70.00 | 80.00 | 79.00 | 80.00 |
| E.A.Breweries | 140.00 | 115.75 | 108.63 | 114.80 | 118.50 | 138.50 | 147.40 | 147.25 | 145.00 | 139.00 | 141.50 | 140.50 |
| Kenol | 60.70 | 50.75 | 43.75 | 46.70 | 59.63 | 58.88 | 58.70 | 52.50 | 51.38 | 49.25 | 48.31 | 49.06 |
| K.Pow.\& L. | 130.40 | 108.50 | 112.00 | 114.40 | 117.25 | 133.75 | 143.20 | 128.25 | 125.25 | 128.80 | 144.50 | 139.00 |
| Mumias | 6.11 | 3.95 | 3.88 | 4.23 | 4.36 | 5.25 | 6.41 | 6.79 | 6.90 | 6.82 | 6.43 | 6.76 |
| Total | 32.05 | 28.75 | 31.25 | 33.50 | 32.13 | 31.69 | 31.05 | 29.38 | 29.25 | 29.35 | 28.88 | 29.19 |
| Unga | 10.55 | 7.43 | 7.00 | 8.06 | 8.16 | 9.01 | 11.03 | 10.30 | 9.41 | 8.49 | 8.29 | 8.93 |
| A.Baumann | 11.10 | 11.10 | 11.10 | 11.10 | 11.10 | 11.10 | 11.10 | 11.10 | 11.10 | 11.10 | 11.10 | 11.10 |
| City Trust | 150.00 | 148.50 | 148.00 | 148.00 | 148.00 | 148.00 | 145.40 | 131.25 | 106.50 | 101.00 | 101.00 | 105.00 |
| Eaagads | 36.20 | 36.00 | 36.00 | 35.60 | 33.25 | 25.06 | 22.10 | 21.46 | 19.89 | 20.00 | 20.00 | 20.00 |
| Express | 12.50 | 11.00 | 9.94 | 9.00 | 9.38 | 8.88 | 9.66 | 9.71 | 9.36 | 9.08 | 8.78 | 8.15 |
| Williamson Tea | 52.70 | 50.75 | 48.13 | 47.35 | 48.00 | 48.25 | 69.30 | 83.38 | 80.25 | 91.80 | 89.38 | 156.75 |
| Kapchorua | 68.00 | 68.00 | 68.00 | 67.00 | 62.25 | 65.25 | 69.10 | 86.88 | 85.00 | 83.00 | 85.00 | 86.00 |
| K.Orchads | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Limuru Tea | 305.00 | 305.00 | 305.00 | 305.00 | 305.00 | 305.00 | 305.00 | 311.25 | 310.00 | 305.00 | 305.00 | 305.00 |
| Total | 2925.49 | 2644.45 | 2516.36 | 2588.63 | 2656.16 | 2807.14 | 2904.92 | 2882.65 | 2806.41 | 2780.46 | 2881.70 | 2850.93 |
| Averages | 65.01 | 58.77 | 55.92 | 57.53 | 59.03 | 62.38 | 64.55 | 64.06 | 62.36 | 61.79 | 64.04 | 63.35 |

## APPENDIX F

## 2005-2009 Monthly NSE 20 Share Indices

| Month/Year | NSE Share Index |  | Month / Year | NSE Share Index |
| :--- | ---: | :--- | :--- | ---: |
|  |  |  |  | 4712.71 |
| January 2005 | $3,094.30$ |  | January 2008 | 5072.41 |
| February 2005 | $3,212.81$ |  | February 2008 | 4843.17 |
| March 2005 | $3,208.66$ |  | March 2008 | 5336.03 |
| April 2005 | $3,227.59$ |  | April 2008 | 5175.83 |
| May 2005 | $3,505.39$ |  | May 2008 | 5185.56 |
| June 2005 | $3,972.15$ |  | June 2008 | 4868.27 |
| July 2005 | $3,982.00$ |  | July 2008 | 4648.78 |
| August 2005 | $3,938.70$ |  | August 2008 | 4180.4 |
| September 2005 | $3,832.69$ |  | September 2008 | 3386.65 |
| Oct0ber 2005 | $3,939.45$ |  | October 2008 | 3341 |
| November 2005 | $3,974.12$ |  | November 2008 | 3521.18 |
| December 2005 | $3,973.04$ |  | December 2008 |  |
|  |  |  |  | Month / Year |
| Month / Year | NSE Share Index |  | NSE Share Index |  |
| January 2006 | $4,171.80$ |  | January 2009 | 3198.9 |
| February 2006 | $4,056.63$ |  | February 2009 | 2474.75 |
| March 2006 | $4,101.64$ |  | March 2009 | 2805.03 |
| April 2006 | $4,025.21$ |  | April 2009 | 2800.1 |
| May 2006 | $4,349.75$ |  | May 2009 | 2852.57 |
| June 2006 | $4,260.49$ |  | June 2009 | 3294.56 |
| July 2006 | $4,258.54$ |  | July 2009 | 3273.1 |
| August 2006 | $4,486.07$ |  | August 2009 | 3102.68 |
| September 2006 | $4,879.86$ |  | September 2009 | 3005.41 |
| October 2006 | $5,314.36$ |  | October 2009 | 3083.63 |
| November 2006 | $5,615.20$ |  | November 2009 | 3189.55 |
| December 06 | $5,645.65$ |  | December 2009 | 3247.44 |
|  |  |  |  |  |
| Month /Year | NSE Share Index | $5,774.24$ |  |  |
| January 2007 | $5,387.28$ |  |  |  |
| February 2007 | $5,133.67$ |  |  |  |
| March 2007 | $5,199.44$ |  |  |  |
| April 2007 | $5,001.77$ |  |  |  |
| May 2007 | $5,146.73$ |  |  |  |
| June 2007 | $5,340.08$ |  |  |  |
| July 2007 | $5,371.72$ |  |  |  |
| August 2007 | $5,146.46$ |  |  |  |
| September 2007 | $4,971.04$ |  |  |  |
| October 2007 |  |  |  |  |
|  |  |  |  |  |

