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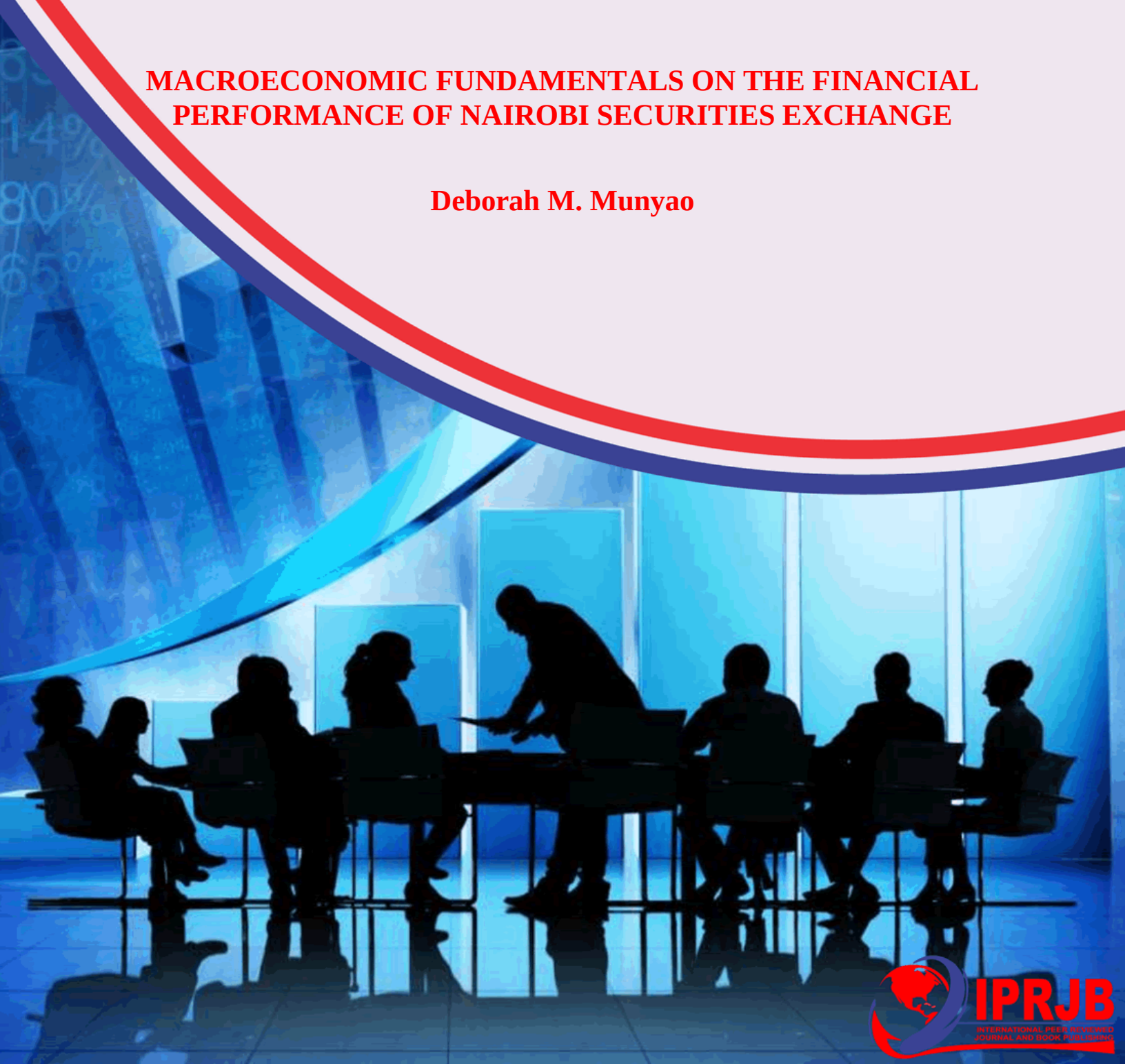

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MACROECONOMIC FUNDAMENTALS ON THE FINANCIAL PERFORMANCE OF NAIROBI SECURITIES EXCHANGE

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Abstract

Purpose: The purpose of this study was to evaluate macroeconomic fundamentals on the financial performance of Nairobi securities exchange.

Methodology: Descriptive research design was used to obtain information for this study.The study population consisted of 56 companies listed in the NSE as at July 2012.The study used self-developed structured and unstructured questionnaires which were administered to finance managers in the companies listed under NSE.The study used primary data on the NSE 20-share index, 91-day Treasury bill rate, inflation and exchange rateComputer application packages such as Statistical Package for Social Sciences (SPSS) was used to assist in the analysis and communication of data.

Results: The long-run model results indicated that only inflation rate was negatively and significantly related to NSE index. This implied that an increase in inflation rate led to decrease in NSE index. It was concluded that short-run interest rate, inflation rate and GDP were found to be negatively related to short run NSE index. Therefore, an increase in short run interest rate, inflation rate and GDP led to a decrease in short run NSE index. It was concluded that the error correction term LAGRESID has the expected sign and is significantly negative. This result implies that there is a negative gradual adjustment (convergence) to the long run equilibrium. The coefficient indicates that the disequilibria in short run NSE index achieved in one period are corrected in the subsequent period.

Policy recommendation: Based on the findings of the study, the study presents recommendations pertinent to the policy makers, investors, financial market regulators and future researchers. The study recommends the government through its policy makers should come up with policies that will help stabilize Foreign exchange rate, Interest rate and Inflation rate fluctuation thus creating investor confidence in the securities market. This will have a significant impact on the performance of the Nairobi Securities Exchange thus foster economic growth.

Keywords: *91 day Treasury bill rate, exchange rates*

1.0 INTRODUCTION

1.1 Background of the Problem

Stock markets in the world individually and collectively play a critical role in most national economies. The markets perform a wide range of economic functions in offering trading, investment, speculation and hedging as well as arbitrage opportunities. In addition, they serve as a mechanism for price discovery and information dissemination while providing vehicles for raising finances for companies. Thus, stock markets are used to implement privatization programs and they play an important role in the development of merging markets (Lee, 1998).The question of whether or not stock prices can be predicted by macroeconomic fundamentals in an economy is of serious concern both to the academics as well as the practitioners all over the world.

Macroeconomic fundamentals include changes in employment, national income, rate of growth, gross domestic product, inflation, price levels, exchange rates and interest rates. This study will therefore focus on the leading macroeconomic fundamentals which include interest rates (Treasury bill rates), inflation rate and exchange rates. Macroeconomic fundamentals are key indicators of economic performance and are closely monitored by governments, businesses and consumers. The focus of macroeconomic approach is to examine how sensitive are stock prices to changes in macroeconomic variables. This approach maintains that the performance of stock is influenced by changes in money supply, interest rates, inflation rate, exchange rate, international crude oil prices, external debt, external reserves etc. The approach, believing on the economic logic that everything does depend on everything else, stresses the interrelations between sectors as central to the understanding of the persistence and co-movement of macroeconomic time series.

Study on macroeconomic factors has been conducted by most researchers in the developed economies. For instance, Karam and Ruhee (2011), in their study of the impact of macroeconomic indicators on Indian capital markets found out that there was co-integration between macroeconomic variables and the Indian stock indices. The paper, conclusively established that the capital markets indices are dependent on macroeconomic variables even though the same may not be statistically significant. In addition, Wickremasinghe,(2011) examined the causal relationships between stock prices and macroeconomic variables in Sri Lanka. The results indicated that there were both short and long-run causal relationships between stock prices and macroeconomic fundamentals.

In their study on the Chinese stock market (Ming-Hua&Keshab, 2008) used indices and a set of macro-economic fundamentals that is; money supply, industrial production, inflation, exchange rate and interest rate. Their Results showed that the co integrating relationship does exist between stock prices and the macro-economic variables in the highly speculative Chinese stock market.Detailed analysis showed stock market performance was positively related to that of macro-economy in the long term. The results of previous studies thus imply that in the long run, investors benefited in terms of better returns and portfolio diversification as the economies were expected to continue to perform strongly.

As a capital market institution, the Stock Exchange plays an important role in the process of economic development. It helps mobilize domestic savings thereby bringing about the

reallocation of financial resources from dormant to active agents. Long-term investments are made liquid, as the transfer of securities between shareholders is facilitated. The Exchange has also enabled companies to engage local participation in their equity, thereby giving Kenyans a chance to own shares (www.nse.co.ke). Trading at the NSE is automated through the ATS. The products traded are shares and bonds, with over 50 different types of shares and over 60 bonds. Bonds are in two groups namely treasury bonds issued by the government and corporate bonds issued by companies.

1.2 Statement of the Problem

There are longstanding academic studies that offer evidence that macroeconomic fundamentals affect stock prices. To date, however, there was limited research on how these Indicators affect emerging stock markets. Moreover, most of the studies were conducted in developed markets and this brought about the need to carry out research on effect of macroeconomic fundamentals on emerging markets such as Nairobi Securities exchange. This study was thus useful to investors, the listed companies on NSE as well as the government in ascertaining factors which had an impact on stock prices and their degree of influence on the prices and therefore, would assist investors in making wise investment decisions in all the cases. This study covered the period 2008 to 2012 which enabled the researcher to focus on the current state of affairs on the performance of stocks in the economy. Therefore, this study was believed to be useful as it would fill the knowledge gap concerning the relationship between macroeconomic fundamentals and the performance of NSE hence, assisting investors to make informed decisions as opposed to the "casino approach" to investment (Miller, 1991).On the other hand; this study would be useful to scholars of financial economics. This is because prediction of stock prices still forms the bulk of research in financial economics. Thus, this study contributed to the knowledge about factors that determined stock prices.

1.3 Research objectives.

1. To assess the effect of inflation on the financial performance of NSE.
2. To assess the effect of interest rates (91 day Treasury bill rate) on the financial performance of NSE.
3. To assess the effect of exchange rates on the financial performance of NSE.

2.0 LITERATURE REVIEW

2.1 Empirical Review

The NSE is organized into three market segments namely; the Main Investments Market Segment (MIMS), the Alternative Investment Markets Segment (AIMS) and the Fixed Income Securities Market Segment (FISMS). The MIMS is the main quotation market, the AIMS provide an alternative method of raising capital to small, medium seized and young companies that find it difficult to meet the more stringent listing requirements of the MIMS while the FISMS provides an independent market for fixed income securities such as treasury bonds, corporate bonds, preference shares and debenture stocks, as well as short term financial instruments such as treasury bills and commercial papers (www.nse.co.ke) .

2.1.1 Effect of the 91- day Treasury bill Interest rates and the performance of NSE

According to the CBK (2000), the Treasury Bills are government domestic debt instruments that are issued as part of the open market operations of the bank. Open market operations are used in management of the monetary policy. Treasury Bills rates determine the rate at which commercial banks lend to the borrowers, which include business enterprises. This rate has a direct effect on profitability of the enterprises. Profitability determines the rate of return to investors. Treasury Bills also informs on investors' asset preferences. If the Treasury Bill rates are higher than the market rate of return, investors will be inclined to invest in the less risky, higher paying Treasury Bill. From the foregoing, Treasury bill interest rate has a negative correlation with the NSE index (Abonyo, 2003).

2.1.2 Effect of Inflation on the performance of Nairobi securities exchange

Inflation is defined as an increase in the general level of prices in an economy that is sustained over a time (Pass, Lowes, and Robinson, 1995).From an investment theory point of view, an investment is the current commitment of funds for a period of time in order to derive future payments that will compensate the investor for the time the funds are committed, the expected rate of inflation and the uncertainties of future payments (Reilly and Brown, 2003). The inflation rate in Kenya was recorded at 5.4 percent in September of 2012. Historically, from 2005 until 2012, Kenya Inflation Rate averaged 12.54 Percent reaching an all time high of 31.50 Percent in May of 2008 and a record low of 3.18 Percent in October of 2010 (Kenya National Bureau of Statistics 2012). It would therefore be expected that increased inflation to be negatively correlated to stock prices

2.1.3 Effect of Exchange rate on the performance of Nairobi securities exchange

Exchange rate can be defined as the price at which a country's currency can be exchanged for another country's currency. Exchange rate volatility has implications on a country's financial sector, the stock market to be precise. (Benita and Lauterbach, 2004) found that exchange rate volatility have real economic costs that affect price stability, firm profitability and a country's stability. Establishing the relationship between stock prices and exchange rates is important for a few reasons. First, it may affect decisions about monetary and fiscal policy.

2.2 Theoretical review

2.2.1 Quantity theory of money

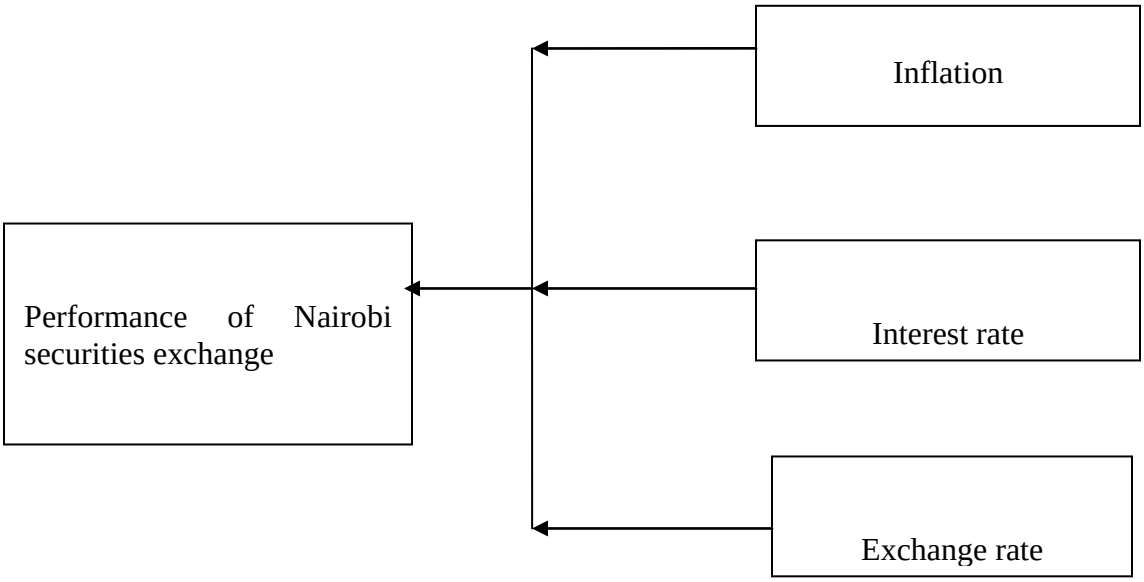
This theory asserts that changes in general price levels are determined by changes in the quantity of money in circulation e.g. if the currency in circulation increased, there would be a proportionate increase in the price of goods.

2.2.2 Demand pull theory

Keynes asserted that an increase in the aggregate demand was a source of demand pull theory. This demand comprises of consumption, investment as well as government expenditure. If the value of aggregate demand exceeds the value of aggregate supply at full employment level, the inflationary gap arises. The larger the gap between aggregate demand and supply, the more rapid the inflation.

(Interest rate, exchange rate and inflation rate) on dependent variable (performance of Nairobi Stock exchange).

Figure 1: Conceptual framework



3.0 METHODOLOGY

Descriptive research design was used to obtain information for this study. The study population consisted of 56 companies listed in the NSE as at July 2012. The study used self-developed structured and unstructured questionnaires which were administered to finance managers in the companies listed under NSE. The study used primary data on the NSE 20-share index, 91-day Treasury bill rate, inflation and exchange rate Computer application packages such as Statistical Package for Social Sciences (SPSS) was¬¬¬¬¬¬¬¬ used to assist in the analysis and communication of data

4.0 RESULTS FINDINGS

4.1 Trend Analysis

This section provides graphical representation of the movement and changes of the variables under study over the years 2009 to 2013.

4.1.1 Trend Analysis of NSE Index

Results in Figure 1 show the trend analysis of NSE index over the years 2009 to 2013. The graph shows that NSE index mean was higher in year 2010 and 2013 compared to other years as shown by the trend analysis.

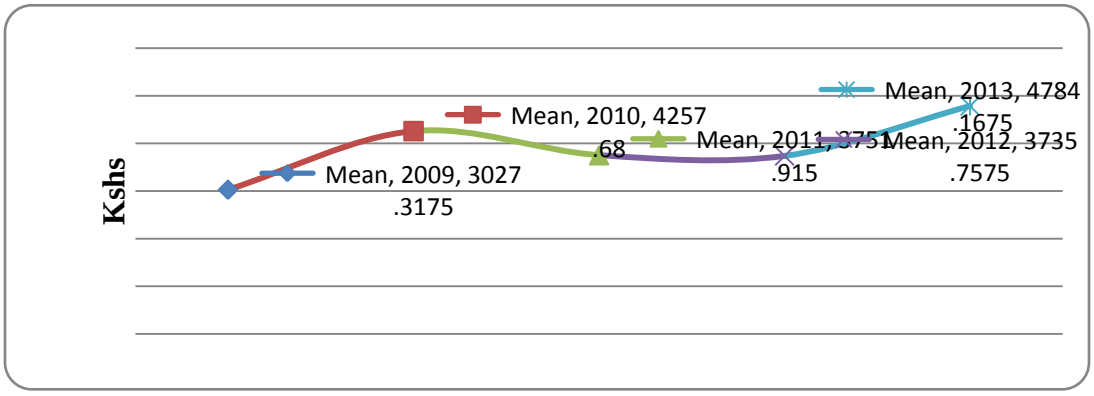


Figure 1: Trend Analysis of NSE Index

4.1.2 Gross Domestic Product

Figure 4.2 illustrates that the average mean of GDP increased consistently from 348596 million in 2009 to 420547 in 2013. The findings imply that the Kenyan gross domestic product increased across the years, most probably due to high activities in the stock market returns.

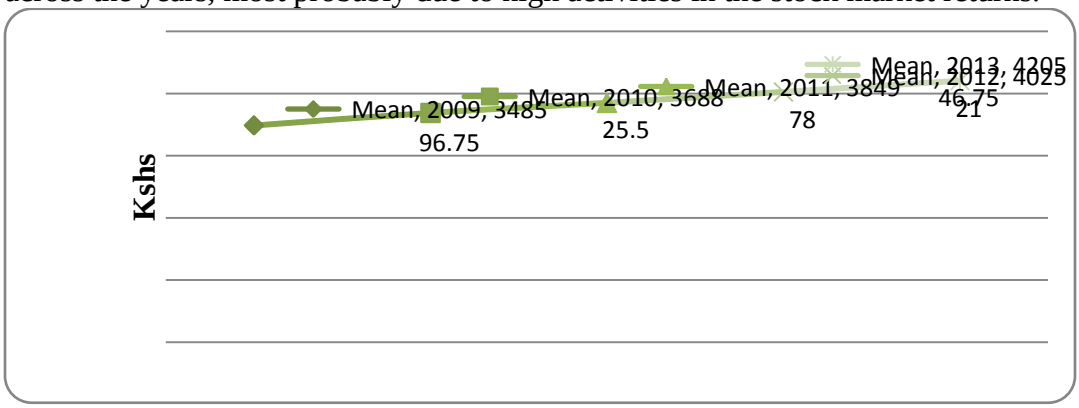


Figure 2: Trend Analysis of Gross Domestic Product

4.1.3 Interest Rate (91 Day T Bill Rate)

The study sought to determine the effect of interest rate on financial performance of NSE. Results in Figure 4.3 revealed that 91 day T bill rate had a mean of 7.36 percent in 2009 and a gradual decline to 3.59 in 2010 and a steady increase to 12.68 in the year 2012. The mean finally had a slight decline to 9.28 percent in 2013. The findings implied that the interest rates had consistently increased over the 5 year period but with a few mishaps.

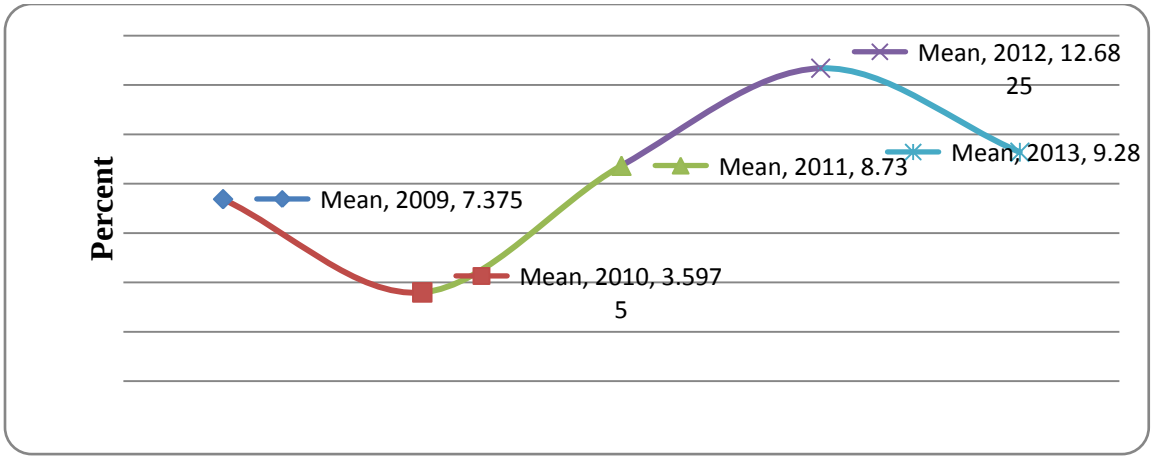


Figure 3: Trend Analysis of Interest Rate

4.1.4 Exchange Rate

Results in Figure 4 indicated the exchange rates for dollar. In the year 2009, the dollar had a mean of 77.35, in the following years the mean increased slightly to 79.23 in 2010 and in 2011 the mean increased to 88.81 and decreased further to 84.52 in 2012 and a slight rise to 86.12 in 2013. The findings implied that the Kenyan shilling had consistently depreciated against the US dollar over the 5 year period and this could have led to low financial performance of NSE.

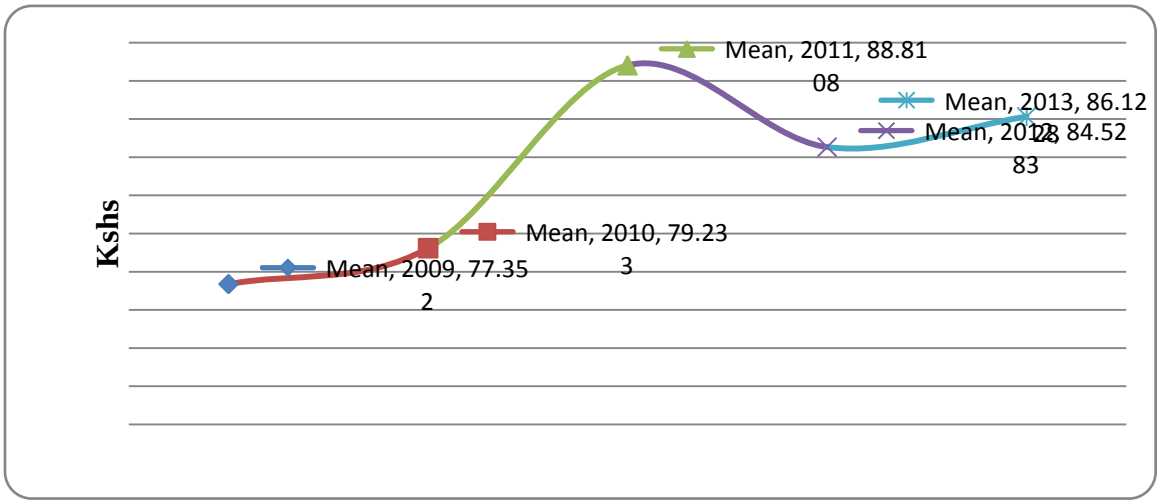


Figure 4: Trend Analysis of Exchange Rate

4.1.5 Inflation Rate

The study sought to determine the effect of inflation rate on financial performance on NSE. Results in Figure 5 revealed that inflation rate had a mean of 10.61 percent in 2009 and a gradual decline to 4.01 in the year 2010. The mean increased gradually from 4.01 in 2010 to 13.97 percent in 2011 and a slight decrease to 9.63 percent in 2012 and a gradual decrease to 5.71 percent in 2013.

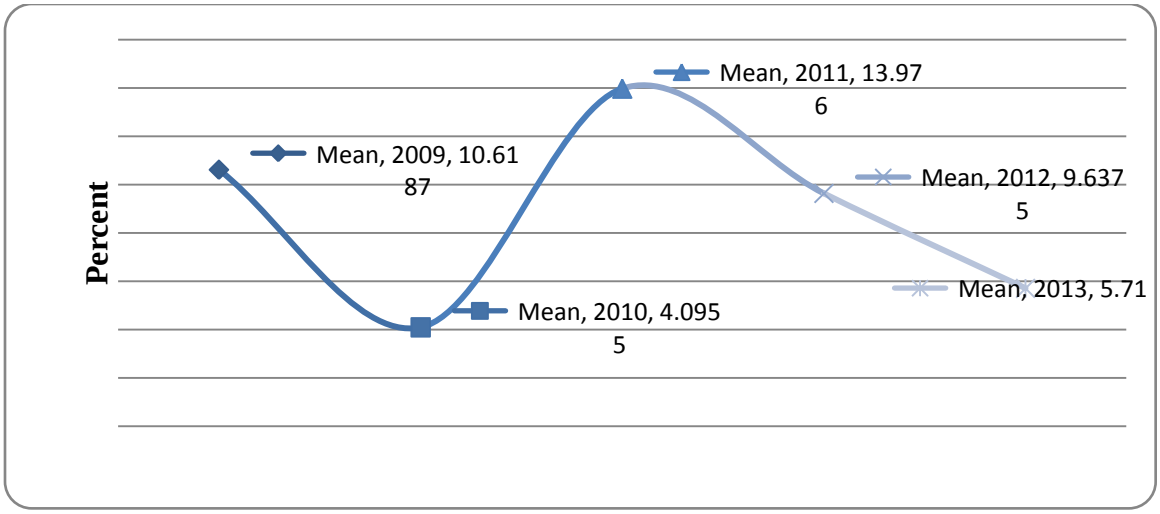


Figure 5: Trend Analysis of Inflation Rate

4.2 Pre-Estimation Tests

4.2.1 Test for Normality

Table 1 below presents the test for normality of the variables used in the study. The skewness coefficient indicates the variables are not skewed since they lie within the accepted rule of thumb of -1 and +1. Similarly, the kurtosis coefficients of the variables indicate that the variables are normally distributed since the coefficients are within the accepted range of -3 and +3. The JarqueBera test for normality is thus used to determine whether the variables are normally distributed or not. The null hypothesis in this case is that the variables are not significantly different from a normal distribution. The JarqueBera probability value of all the variables in this case is greater that the critical 5 percent and thus they are insignificant implying that the variables are normally distributed.

Table 1: Normality Tests

	NSE Index	Interest Rate	Inflation Rate	GDP	Exchange Rate	Residual
Skewness	-0.2236	-0.8104	0.0721	0.1314	0.2324	0.0669
Kurtosis	1.8111	3.1528	1.7194	2.0435	2.5594	2.1234
Jarque-Bera	1.3445	2.2088	1.3840	0.8199	0.3418	0.6553
Probability	0.5106	0.3314	0.5006	0.6637	0.8429	0.7206
Observations	20	20	20	20	20	20

4.2.2 Test for Heteroskedasticity

Heteroscedasticity test was run in order to test whether the error terms are correlated across observation in the time series data. The null hypothesis is that the data does not suffer from Heteroskedasticity. The null hypothesis is not rejected given that the reported p-value 0.3278 in Table 4.2 below was greater than the critical value and thus concluded that the observations have constant variance or do not suffer from Heteroskedasticity.

Table 2: White Heteroskedasticity Test

F-statistic	1.128427	Prob. F(4,15)	0.3802
Obs*R-squared	4.626191	Prob. Chi-Square(4)	0.3278

4.2.3 Test for Serial/Autocorrelation

Serial correlation tests were run in order to check for correlation of error terms across time periods. Serial/auto correlation is tested using the Breusch-Godfrey serial correlation LM test. The null hypothesis is that no first order serial /auto correlation exists. The p value of 0.1440 indicates that we do not reject the null hypothesis and conclude that serial correlation does not exist. These results are presented in Table 3 below;

Table 3: Test for Serial/Autocorrelation

F-statistic	1.432592	Prob. F(4,11)	0.2873
Obs*R-squared	6.850259	Prob. Chi-Square(4)	0.1440

4.3Unit Root Test

Prior to testing for a causal relationship and co integration between the time series, the first step is to check the stationarity of the variables used in the model. The aim is to verify whether the series have a stationary trend, and, if non-stationary, to establish orders of integration. The study used both Augmented Dickey-Fuller (ADF) and the Phillips-Perron (PP) tests to test for stationarity. The test results of the unit roots (intercept only) are presented next; Results in Table 4.4 indicated that all variables are non-stationary (i.e. presence of unit roots) at 1%, 5% and 10% levels of significance except for inflation. This calls for first differencing of the non-stationary variables.

Table 4: Unit Root Tests-Level

Variable	ADF	1% Level	5% Level	10% Level	Decision
LNNSEINDEX	-2.053143	-3.857386	-3.040391	-2.660551	Non-stationary
lninterestrate	-2.331660	-3.857386	-3.040391	-2.660551	Non-stationary
lnInflation	-4.080982	-3.886751	-3.052169	-2.666593	Stationary
Lngdp	-1.235459	-3.920350	-3.065585	-2.673459	Non-stationary
lnexchangerate	-1.364694	-3.831511	-3.029970	-2.655194	Non-stationary

Results in Table 5 indicated that all variables are non-stationary (i.e. presence of unit roots) at 1%, 5% and 10% levels of significance except for exchange rate. This calls for first differencing of the non-stationary variables

Table 5: Unit root tests-First Differencing

Variable	ADF	1% Level	5% Level	10% Level	Decision

LNNSEINDEX	-2.062383	-3.857386	-3.040391	-2.660551	Non-stationary
Ininterestrate	-2.311337	-3.857386	-3.040391	-2.660551	Non-stationary
Lngdp	-2.614308	-4.004425	-3.098896	-2.690439	Non-stationary
lnexchangerate	-3.386170	-3.857386	-3.040391	-2.660551	stationary

Table 6 shows the Unit root results after second difference. This implies that NSE index, interest rate and GDP variables become stationary on second difference.

Table 6: Unit root tests-Second Differencing

Variable	ADF	1% Level	5% Level	10% Level	Decision
LNNSEINDEX	-4.154441	-3.886751	-3.052169	-2.666593	stationary
lninterestrate	-4.538008	-3.886751	-3.052169	-2.666593	stationary
Lngdp	-27.75585	-3.959148	-3.081002	-2.681330	stationary

4.4Cointegation Tests

Then stationarity of the lagged residual was tested using ADF. The two step Engle Granger test of Cointegration results indicate that the lagged residual is stationary (i.e. has no unit roots) at 1%, 5% and 10% levels. This implies that all the variables in the model estimating LNGDP do converge to an equilibrium in the long run (i.e. are cointergrated).

Table 7: Engle-Granger Co-Integration test

Variable	ADF	1% Level	5% Level	10% Level	Decision
Lagresid	-3.527859	-3.920350	-3.065585	-2.673459	stationary

4.5 Discussion of the Long Run Model Results

Table 8 below presented the long run results. The R squared of the model 0.783257 indicated that the overall goodness of fit was satisfactory. This implies that 78% of the variances in LNNSE Index are explained by the variances in independent variables. The F statistic of 13.55160 (p value 0.0001) indicated that the independent variables have good joint explanatory power. Long run LNINTERESTRATE was negatively but insignificantly related to Long run LNNSEINDEX (beta coefficient= -0.064375; p-value=0.1925). Long run LNINFLATIONRATE was negatively and significantly related to Long run LNNSEINDEX (beta coefficient= -0.179838; p-value=0.0069). Long run LNGDP was positively but insignificantly related to Long run LNNSEINDEX (beta coefficient= 0.713735; p-value=0.1285). Long run LNEXCHANGERATE was positively but insignificantly related to Long run LNNSEINDEX (beta coefficient= 0.898440; p-value=0.1527).

Table 8: Long Run Model

Dependent Variable: LNNSEINDEX
Method: Least Squares

Sample: 2009Q1 2013Q4
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNINTERESTRATE	-0.064375	0.047174	-1.364645	0.1925
LNINFLATIONRATE	-0.179838	0.057466	-3.129436	0.0069
LNGDP	0.713735	0.443636	1.608831	0.1285
LNEXCHANGERATE	0.898440	0.596400	1.506438	0.1527
C	-4.399929	4.078948	-1.078692	0.2978

R-squared	0.783257	Mean dependent var	8.257647
Adjusted R-squared	0.725459	S.D. dependent var	0.172979
S.E. of regression	0.090635	Akaike info criterion	-1.751633
Sum squared resid	0.123221	Schwarz criterion	-1.502700
Log likelihood	22.51633	Hannan-Quinn criter.	-1.703039
F-statistic	13.55160	Durbin-Watson stat	1.323605
Prob(F-statistic)	0.000072		

LNNSEINDEX= -4.399929- 0.064375 LNINTERESTRATE -0.179838LNINFLATIONRATE + 0.713735 LNGDP + 0.898440 LNEXCHANGERATE

4.6 Discussion of the Error Correction Model Results

Since the variables in the model linking LNNSEINDEX to the determinants are cointergrated, then an error-correction model can be specified to link the short-run and the long-run relationships. Residuals from the co integrating regression are used to generate an error correction term (lagged residuals) which is then inserted into the short-run model. The specific lagged residuals are lagresid.

The estimates of the error-correction model are given in Table 4.9 below; the short run results in Table 4.9 indicated that the goodness of fit (R squared) for the short run model was 0.626 meaning thatLNINTERESTRATE, LNINFLATIONRATE, LNGDP and LNEXCHANGERATE explain 62.6% of the variation in LNNSEINDEX. The F-statistic of 3.691597 indicates that the overall model was statistically significant. The relationship between the short run LNNSEINDEX and short run LNINTERESTRATE, short run LNINFLATIONRATE and short run LNGDP are therefore negative and significant. This implies that an increase in the short runLNINTERESTRATE by 1% decreases the LNNSEINDEX by 12.2%. Increase in the short runLNINFLATIONRATE by 1% decreases the LNNSEINDEX by 0.31%. Increase in the short runLNGDP by1% decreases the LNNSEINDEX by 46%.

The error correction term measures the speed of adjustment to the long run equilibrium in the dynamic model. The error correction term LAGRESID has the expected sign and is significantly negative (-0.709796, p value =0.0023). This result implies that there is a negative gradual adjustment (convergence) to the long run equilibrium. The coefficient of (-0.709796) indicates

that -0.709796% of the disequilibria in short run NSEINDEX achieved in one period are corrected in the subsequent period.

Table 9: Error Correction Model

Dependent Variable: D(LNNSEINDEX)
Method: Least Squares
Sample (adjusted): 2009Q4 2013Q4
Included observations: 17 after adjustments
White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNINTERESTRATE)	-0.122390	0.055472	-2.206360	0.0495
LNINFLATIONRATE	-0.031109	0.018504	-1.981235	0.0309
D(LNGDP)	-0.460768	0.384907	-2.197089	0.0264
D(LNEXCHANGERATE)	0.018338	0.443244	0.041372	0.9677
LAGRESID	-0.709796	0.279885	-4.392291	0.0023
C	0.095491	0.037234	2.564622	0.0263

R-squared	0.626587	Mean dependent var	0.027467
Adjusted R-squared	0.456854	S.D. dependent var	0.078495
S.E. of regression	0.057849	Akaike info criterion	-2.591382
Sum squared resid	0.036812	Schwarz criterion	-2.297307
Log likelihood	28.02675	Hannan-Quinn criter.	-2.562151
F-statistic	3.691597	Durbin-Watson stat	2.076365
Prob(F-statistic)	0.033118		

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The study variables were found to be normally distributed as indicated by the JarqueBera probability values (p>0.05). Similarly, the variables were found to be non-stationary at level and became stationary at first difference and second difference. This therefore implied that a short-run model linking a long-run model was also to be run. The variables were also tested for the presence of Heteroskedasticity and the results indicated that the variables were Homoskedastic (p>0.05). Results for the test for serial correlation also indicated that the error terms across observations were uncorrelated (p=0.144). Engle-granger test was also performed and the results indicated Cointegration existed between the variables.

5.1.1 Long-Run Results

The long-run model results indicated that inflation rate was negatively and significantly related to NSE index (beta coefficient= -0.179838; p-value=0.0069). The results further indicated that the other variables (GDP and interest rate) were found to be negative but insignificantly related

to NSE index. Exchange rate was found to be positive but not significantly related to NSE Index.

5.1.2 Short-Run Results

Given that the Engle-Granger test for Cointergation indicated that the variables were cointergrated an Error correction model was conducted which short the short run relationship between NSE index and the independent variables of the study.

From the Error Correction Model the relationship between the short run NSE index and interest rate, inflation rate and GDP was negative and significant. This implies that an increase in the short runinterest rate by 1% decreases NSE index by 12.2%. Increase in the short runinflation rate by 1% decreases NSE index by 0.31%. Increase in the short runGDP by1% decreases NSE index by 46%.

The error correction term measures the speed of adjustment to the long run equilibrium in the dynamic model. The error correction term LAGRESID has the expected sign and is significantly negative (-0.709796, p value =0.0023). This result implies that there is a negative gradual adjustment (convergence) to the long run equilibrium. The coefficient of (-0.709796) indicates that -0.709796% of the disequilibria in short run NSE index achieved in one period are corrected in the subsequent period.

5.2 Conclusion

It was concluded that there was Cointegration among the long run variables.The long-run model results indicated that only inflation rate was negatively and significantly related to NSE index. This implied that an increase in inflation rate led to decrease in NSE index. It was concluded that short-run interest rate, inflation rate and GDP were found to be negatively related to short run NSE index. Therefore, an increase in short run interest rate, inflation rate and GDP led to a decrease in short run NSE index. It was concluded that the error correction term LAGRESID has the expected sign and is significantly negative. This result implies that there is a negative gradual adjustment (convergence) to the long run equilibrium. The coefficient indicates that the disequilibria in short run NSE index achieved in one period are corrected in the subsequent period.

5.3 Recommendations

Based on the findings of the study, the study presents recommendations pertinent to the policy makers, investors, financial market regulators and future researchers. The study recommends the government through its policy makers should come up with policies that will help stabilize Foreign exchange rate, Interest rate and Inflation rate fluctuation thus creating investor confidence in the securities market. This will have a significant impact on the performance of the Nairobi Securities Exchange thus foster economic growth.

The regulator should ensure that all the market players comply with the policies and regulations in a bid to ensure efficiency and effectiveness of the bourse. The monetary authority should do all within its ability to ensure that they come up with sound fiscal and monetary policies to help curb any spiralling inflation and uphold the highest degree of confidence within the investing community, as the stock market not only facilitates the trade of financial assets but is also a major determinant in the growth of the national economy.

The study therefore recommends that the macroeconomic environment is very important and should be closely monitored to ensure stability. Regions with stable macroeconomic environment enjoy increased activity at the stock market and hence an increased performance. Stock market performance is an indicator to the foreign investors on the stability of the stock market. It is therefore recommended that good measures should be put in place to promote the stock market activities which in turn increases the stock market performance.

5.4 Suggested Areas for Future study

A possible extension of this study should be carried out to consider the impact of other macroeconomic variables such as Money supply which was not included. In fact, inclusion of this variable would be a significant addition to account for the impact of real activity and the effect of the public sector, given that the Kenyan government plays a major role and has a stake in ownership of the trading firms in the NSE. On the basis of the conclusion and evidences above it is recommended if such a study could be done using data from the other East African countries so as to understand what forces really correlate with the stock indices of the different countries in the context of economic integration.

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