



Chapter Five

THE EFFECT OF MACRO-ECONOMIC VARIABLES ON STOCK MARKET PERFORMANCE IN NIGERIA

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ABSTRACT

This study examined the effects of macro-economic variables of inflation rate, interest rate, exchange rate and balance of trade on stock market performance in Nigeria using the Gross Domestic Product as a measure of economic growth for the period 1994-2013. The need to empirically determine the effect of these macro-economic variables on stock market performance in Nigeria arose as a result of its centrality in the national economy. Secondary data for this study was collected from Central Bank of Nigeria, Securities and Exchange Commission, Nigerian Stock Exchange and the annual reports and accounts of the companies sampled for the relevant years. Multiple regression analysis (ordinary least square) method of data analysis was employed to determine the effect of each of the macro-economic variables on stock market performance. Findings of the study indicate that inflation rate and stock market performance are negatively related 5% level of significance. Interest rate also showed a negative relationship with stock market performance at the chosen 5% level of significance. There is a positive but insignificant relationship at 5% level of significance between exchange rate and All Share Index in Nigeria. The result on balance of trade showed a positive and insignificant relationship while the coefficient of the control variable gross domestic product indicated that economic growth has a positive effect on the performance of stock market in Nigeria. It was recommended that for the stock market to take full advantage of various opportunities and cope with challenges, interest rates must be properly put at check.

KEY WORDS: Macro-Economic, Variable, stock, Market Performance, Gross, Domestic, Product, Economic Growth.

1.0 INTRODUCTION

The stock market is a market where the shares in publicly owned companies are traded. It like many other financial intermediaries, facilitates transfer of funds from savers to users. Thus, the stock market mobilizes and channels idle resources in the economy to most productive use leading to efficient allocation of capital. It is a source of long-term capital to listed firms in free market economies.

The stock market is an important market playing a vital role in economic prosperity by fostering capital formation and sustaining economic growth. Stock markets in the world individually and collectively play a critical role in market-driven economies. The market performs a wide range of economic and political functions while offering trading, investment, speculation, hedging, and arbitrage opportunities (Lee, 1998). In addition, it serves as a mechanism for price discovery and information dissemination while providing vehicles for raising finances for companies. A stock market may be used to implement privatization programmes, which enhances the development of emerging economies. The stock market plays a major role in promoting rapid economic growth and development. It affords business firms and government the opportunity to sell stock and bonds to raise long-term funds from the savings of other economic agents. The sourcing of long-term finance through the stock market is essentially for self-sustained economic growth. No doubt, an active stock market aids the mobilisation of savings for economic growth and development, encourages the efficient

allocation of resources through changes in wealth ownership and composition, catalyses the creation of a healthy private sector and facilitates the promotion of rapid capital formation (Okpara, 2006).

As an economy develops, more funds are needed to meet the rapid expansion. The stock market serves as a veritable tool in the mobilization and allocation of savings among competing uses which are critical to the growth and efficiency of the economy (Alile, 1984). The determination of the overall growth of an economy depends on how efficiently the stock market performs its functions of capital allocation.

This study is built on the premise of the previous findings from developed, emerging and developing countries. These studies present powerful and interesting conclusions which become of interest to Nigeria. The potent findings by Maysami *et al* (2004) which have invited several interests and citations among researchers present a scenario for this study in Nigerian perspective. Among many other studies that have presented a relationship between macro-economic variables and stock market performance in the developing countries include Abraham, 2010; Olweny and Omondi, 2011; Adaramola, 2012; Tangjitprom 2012, Naik, 2013;. While all these studies are built around macro-economic variables, they have not been able to compare and contrast the performance of the stock market in the pre and post financial crisis. This study is to knowledge of the researcher, the first to do so which makes it unique. On this basis, this study draws upon theory and existing

empirical studies to choose a number of macro-economic variables that are expected to be strongly related to the stock market performance. The knowledge on the relationship between the macro-economic variables and stock market performance would enhance the ability of investors to make optimal decision in their business investments globally.

2.0 LITERATURE REVIEW

Tangjitprom (2012) mentions that macro-economic variables used in empirical research can be classified into four groups: variables concerning general economic conditions, variables involving the interest rate and monetary policy, variables reflecting price levels and variables related to international activities. There are a lot of variables which can be categorised within this classification, some of them are Gross Domestic Products, Inflation, Interest rate, Market capitalization, market risk, share index, money supply, exchange rate, Foreign direct investment, foreign exchange reserves, industrial production, term spread, price of key assets such as gold and crude oil. Among the variables, share index, interest rate, Inflation rate and market capitalization are used. As mentioned before in the introduction section, these four macro-economic variables have been investigated in prior studies and can be considered as important determinants of stock performance. Therefore, this study focuses on these four macro-economic variables and the next paragraphs will give a deeper understanding of these variables in relation with the stock performance.

According to Nnanna, Englema and Odeko (2004), many macro-economic indicators have been used to access the performance of stock market. The issue of causality between macro-economic variables and performance of stock market over the years has created controversies among researchers based on varying findings. Theoretically, macro-economic variables are expected to affect returns on equities. But over the years, the observed pattern of the influence of macro-economic variables (in signs and magnitude) on performance of stock market and share returns varies from one study to another in different stock markets. A brief overview of studies using macro-economic factor models is presented in this section. The findings suggest that there is a significant linkage between macro-economic indicators and performance of stock market in the countries reviewed.

Vast studies in the emerging markets show a relationship between macro-economic variables and stock market performance. These include Naik (2013) who investigated the relationships between the Indian stock market index and industrial production index, wholesale price index, money supply, treasury bills rates and exchange rates. Osamuonyi and Evbayiro-Osagie (2012) investigated the relationship between macro-economic variables and the Nigerian stock market index. Ochieng and Oriwo (2012) studied the relationship between macro-economic variables and stock market performance in Kenya.

Sharpe (2002) examined stock valuation and inflation for the time period of 1965-

2001. To check this he collected monthly historical annual operating income for S&P500 from I/B/E/S International. The negative relation between equity valuations and expected inflation was found to be the result of two effects: a rise in expected inflation coincides with both lower expected real earnings growth and higher required real returns. The earnings channel mostly reflects a negative relation between expected long-term earnings growth and expected inflation. The effect of expected inflation on required (long-run) real stock returns is also substantial. He concluded that there is strong negative relationship between stock returns and inflation.

Bordo (2008), while using latent Variable VAR to estimate the impact of inflation and other macro-economic variable on stock market conditions, found that inflation has large negative impact on stock market conditions, apart from their real effects on real asset prices. The study employed a hybrid model that allowed the data to partly identify market conditions guided by their initial classifications of periods of exceptionally rapid and prolonged increase in real stock prices as booms and periods of significant declines as busts. Reddy (2012) contended that a reduction in inflation rate resulted in increased stock prices. The author used a regression analysis which showed that the variable accounted for up to 95.6% of the variations in stock prices for the period of 1997-2009.

One of the pillars on which modern finance is built is the efficient market hypothesis. An efficient financial market is said to exist

when security prices incorporate all available public information about a company as observed by Maimako (2014), Okpara (2010). The market prices of securities in an efficient market adjust very quickly to the availability of new information. This hypothesis is based on the rationality of investors. The investment decision of these rational investors ensure that security prices retain their 'intrinsic' or 'fair values. In an efficient market, no investor or group of investors can take advantage of new information for long to earn higher than normal returns. The hypothesis states that an investor cannot use past information on security prices and public disclosure or even use privileged information to learn abnormal profit (Maimako, 2014).

3.0 METHODOLOGY

This study adopted the longitudinal design and a field experiment approach on the casual relationship between stock market performance and macro-economic variables in the Nigerian stock market. The longitudinal research is a method used to explore the relationships between variables. It involves taking multiple measures over an extended period of time. A longitudinal research is a panel analysis method which studies a particular subject, periodically observed over a defined time frame (Oladelele, 2013). According to Greene (2004) in Oladele (2013), researchers use panel data to examine issues that could not be studied either in cross sectional or time series setting alone. As pointed out by Gujarati (1995), causality is sensitive to model specification and the number of lags. It would reveal

different results if any variable (s) was relevant and was not included in the model. This research work adopts the longitudinal approach because data are gathered at more than two points at the same time. The data was collected from the financial statements of the sampled firms listed on the Nigerian stock exchange.

3.1 Model Specification and Estimation

3.1.1 Model Specification

The time series multiple regression models are stated as:

$$AS I_t = \beta_1 + \beta_2 INF_t + \beta_3 INT_t + \beta_4 EXC_t + \beta_5 BOT_t + \beta_6 GDP_t + \varepsilon_t \dots\dots\dots(12)$$

Where:

ASI_t=financial sector development in time *t*

INF_t= Inflation rate in time *t*

INT_t= interest rate in time *t*

EXC_t= Exchange rate in time *t*#

BOT_t= Balance of trade in time *t*

GDP_t= Gross Domestic Product in time *t* measuring economic growth a control variable

β₁ = Intercept of the model

β₂, β₃, β₄, β₅, β₆ > 0

ε_t = error term

3.1.2 Regression Analysis

Where there is the existence of a co-integrating relationship between the variables for the model, considerable steps will be taken by correcting the unit root problem in the data, this section shows the estimated result of the variables and the real impact of inflation, interest rate, exchange rate, Balance of Trade and Gross Domestic Product (economic growth) on All Share Index (ASI) in Nigeria.

$$Log(ASI)_t = \beta_1 + \beta_2 Log(INF)_t + \beta_3 Log(INT)_t + \beta_4 Log(EXC)_t + \beta_5 Log(BOT)_t + \beta_6 Log(GDP)_t + \varepsilon_t \dots\dots\dots (14)$$

4.0 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

Table 2 shows the Log transformation of inflation, interest rate, exchange rate, balance of trade, and stock market performance of All Share Index (ASI) and Gross Domestic Product (GDP) from 1994-2013. The log transformation was used in the model because of the large data involved in the study.

Table 2: Log Transformation of Macro -economic Indices and All-Share Index

CAP	ASI	INTEREST	EXR _t	BOT	GDP	INFL
1.8215135	4.3609473	1.3222193	1.3401684	4.6361909	5.9541765	1.7558749
2.2562365	4.6606891	1.3178545	1.3401684	5.2912216	6.2862794	1.8621314
2.4560622	4.8540733	1.3192623	1.3401684	5.8732722	6.4318009	1.4668676
2.4500951	4.9621945	1.3676354	1.3401684	5.5976361	6.4474639	0.9190781
2.4192947	4.8545641	1.3291435	1.3401684		6.4327178	1
2.4771213	4.8005129	1.4344092	1.9670488	5.5138221	6.5043369	0.8195439
2.6742179	4.9053322	1.3334473	2.0090479	5.9825882	6.6610671	0.8388491
2.8211859	5.0871455	1.3291435	2.0489981	5.7073773	6.6744081	1.2764618
2.8836047	5.1448307	1.4798631	2.0826784	5.364518	6.8396277	1.1105897
3.1333153	5.2711879	1.359456	2.1117883	6.0033102	6.9287558	1.146128
3.3247967	5.4725573	1.3184807	2.1254826	6.4175939	7.0573263	1.1760913
3.462407	5.4385749	1.2898118	2.1210573	6.6479381	7.1635263	1.075547
3.7093463	5.4830487	1.2718416	2.1094152	6.6249098	7.2686855	0.9294189
4.1199711	5.7673635	1.2639318	2.0997949	6.643236	7.3150739	0.8195439
3.9805928	5.7818246	1.2717819	2.0739635	6.6965038	7.3855407	1.1789769
3.8470072	5.4426343	1.3545406	2.1728997	6.5123977	7.3943508	1.0791812
3.9964333	5.4732053	1.3523535	2.1769532	6.5930181	7.5312841	1.071882
4.0117964	5.4482792	1.3505578	2.1871302	6.601373	7.5745365	1.0334238
4.1702894	5.4490021	1.3763488	2.1972789		7.6079277	1.1105897
4.2805196	5.6379747	1.3925211	2.1967597		7.9035922	0.8512583

Source: from Appendix A

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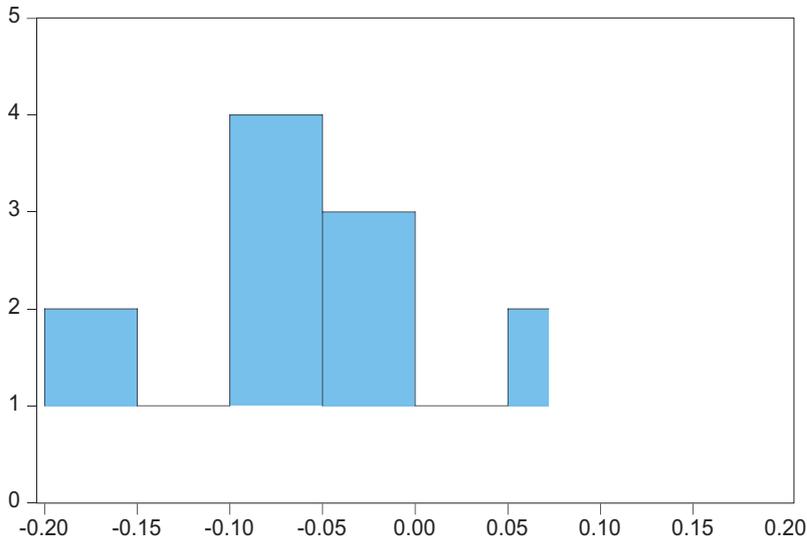


Figure 1: Normality Test of error variable distribution of Jarque Bera test of residuals

The study checked for times series Regression assumption of normality of the error variable distribution using Jarque Bera test of residuals. The result shows that the p-value of the Jarque-Bera test of 0.935094 is greater than .05 significant

levels, it is taken that the error variables are normally distributed and therefore very suitable for regression analysis (Stevens, 2002; Okamoto and Seo, 2008; Seo and Ariga, 2006).

Table 3: Multicollinearity Test for variance inflation factor (VIF)

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
INFL	3207633.	3.220488	1.551944
INTEREST	93901110	80.05676	1.247580
EXRT	818189.3	18.58532	3.516532
BOT	6.04E-06	4.126903	4.030609
GDP	1.04E-05	11.74743	6.415325
C	5.34E+10	91.50275	NA

Source: Researcher's computation using EViews 8

Variance Inflation Factor (VIF) was used to test for multicollinearity in this study. Multicollinearity test is used to test for the presence of collinearity among the independent variables. Sen and Srivastava (1990) suggested that a value of VIF close to one indicates no relationship, while larger values indicate presence of

multicollinearity. According to Chavent, Ding, Stolowy and Wang (2006), multicollinearity does not constitute a problem when the VIF does not exceed 10. The result in the table shows no presence of Multicollinearity as VIF for inflation rate is 1.551944.

Unit Root Test

Table 4: Summary of Group Unit Root Test for the Augmented Dickey Fuller

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	4.88212	1.0000	6	106
Null: Unit root (assumes individual unit root process)				
ADF - Fisher Chi-square	5.13835	0.9532	6	106
PP - Fisher Chi-square	4.92348	0.9605	6	110

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Source: Researcher's computation using EVIEWS 8

Before estimating the time series regression analysis, a unit root test was performed on the data. Economic theory requires that variables be stationary (that is, the variables should have long term, or equilibrium relationship between them) before the application of standard econometric technique (Gujarati 2004). This is to avoid misleading result.

In this section, unit root test is performed using the Levin, Lin & Chu and was backed up by ADF - Fisher Chi-square and PP - Fisher Chi-square Tests. The various tests show that their P-values of (0.9532 and 0.9805) are greater than the level of significance of 0.05. This implies that the data are non-stationary with unit root.

Table 4: Summary of Group Unit Root Test for error correction model (ECM)

Method	Statistic	Prob.**
Im, Pesaran and Shin W-stat	-7.60372	0.0000

** Probabilities are computed assuming asymptotic normality

Intermediate ADF test results

Series	t-Stat	Prob.	E(t)	E(Var) Lag	Max Lag	Obs
D(ASI)	-3.6019	0.0167	-1.519	0.8800	3	18
D(INFL)	-4.2379	0.0046	-1.519	0.8800	3	18
D(INTEREST)	-5.9544	0.0001	-1.519	0.8800	3	18
D(EXRT)	-4.1290	0.0058	-1.519	0.8800	3	18
D(BOT)	-4.6224	0.0053	-1.491	1.2061	1	11
D(GDP)	-4.5414	0.0025	-1.519	0.8800	3	18
Average	-4.5145		-1.514	0.934		

Source: Researcher's computation using EVIEWS 8

Table 4 shows that the data for inflation, interest rate, exchange rate, balance of trade, and stock market performance of All Share Index (ASI) and Gross Domestic Product are stationary when differenced once. Therefore, there is need for an Error Correction Model (ECM). The error correction term was used to investigate the dynamic behaviour of the model since they are co-integrating. The error correction specification restricts the long-run

behaviour of the endogenous variables to converge to their co-integrating relationships while allowing a wide range of short-run dynamics. The size of the error correction term indicates the speed of adjustment of any disequilibrium towards a long run equilibrium state since the deviation from long run equilibrium is corrected gradually through a series of partial short-run adjustments.

Table 5: Error Correction Model Result for the Effect of Macro -economic Variables on Stock Market Performance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INFL)	-0.106943	0.161881	-0.660625	0.5274
D(INTEREST)	-1.857011	1.182727	-1.570110	0.1550
D(EXRT)	-0.892083	1.304903	-0.683640	0.5135
D(BOT)	-0.220179	0.249721	-0.881698	0.4037
D(GDP)	1.297904	0.746614	1.738387	0.1203
ECM(-1)	-0.634777	0.315708	-2.010643	0.0792
C	-0.024688	0.076254	-0.323759	0.7544
R-squared	0.632086	Mean dependent var	0.083268	
Adjusted R-squared	0.356150	S.D. dependent var	0.155747	
S.E. of regression	0.124972	Akaike info criterion	-1.016733	
Sum squared resid	0.124944	Schwarz criterion	-0.686309	
Log likelihood	14.62550	Hannan-Quinn criter.	-1.020253	
F-statistic	2.290699	Durbin-Watson stat	1.988547	
Prob(F-statistic)	0.137853			

Source: Researcher’s computation using EVIEWS 8

The Error Correction Model (ECM) parameter is negative, less than unity and significant as expected. The ECM is an error correction term in the model to restore back equilibrium, and validates that there

exist a long run equilibrium relationship among the variables. The value of the ECM is 63%, meaning that the system corrects (or adjusts to) equilibrium in the following year at speed of 63%.

Table 6: Regression Result of Stock Market Performance and Macro-economic Variables

Variable	Coefficient	Std. Error	TStatistic	Prob.
Log (INFL)	-0.131173	0.182803	-0.717566	0.4880
Log (INTEREST)	-1.116293	1.222885	-0.912836	0.3809
Log(EXRT)	0.054021	0.217102	0.248829	0.8081
Log(BOT)	0.065522	0.212747	0.307981	0.7638
Log(GDP)	0.585526	0.361347	1.620398	0.1334
C	2.297418	2.310708	0.994249	0.3415

R-squared	0.903247	Mean dependent var	5.197318
Adjusted R-squared	0.859268	S.D. dependent var	0.395690
S.E. of regression	0.148440	Akaike info criterion	-0.706706
Sum squared resid	0.242379	Schwarz criterion	-0.412631
Log likelihood	12.00700	Hannan-Quinn criter.	-0.677475
F-statistic	20.53824	Durbin-Watson stat	1.211937
Prob(F-statistic)	0.000031	Wald F-statistic	26.27657
Prob(Wald F-statistic)	0.000009		

Source: Researcher's computation using EVIEWS 8

Based on the EVIEWS 8 output shown on table 6, the result of the regression analysis for model one is interpreted as follows:

a. The value of the intercept 2.297418 is the predicted value created if all the independent variables are equal to zero.

b. The Log (INFL) which is the log of inflation shows that the coefficient is ($\beta = -0.131173$, P-value = 0.4880). The value indicates a negative and insignificant relationship at 5%. If all the independent variables other than the inflation are held constant, every 1% change in inflation will decrease the All Share Index by 13.1%. This result does support the hypothesis which says that, there is no significant relationship between inflation and stock market performance in Nigeria. This is because the P-value for the coefficient of inflation is greater than the level of significance of 5%, i.e. (0.4880 > 0.05).

c. The log value of interest rate shows a coefficient of ($\beta = -1.116293$, P-value=0.3809). These values indicate there is a negative and insignificant relationship existing between interest rate and All Share Index (ASI). Keeping all the other

variables constant, a unit increase in the level of interest rate will decrease the level of All Share Index by 1.11 units. Here the null hypothesis is upheld as against the alternate, there is no significant relationship between interest rate and stock market performance in Nigeria. The reason is that the P-value for the coefficient of interest rate is greater than the level of significance of 5%, i.e. (0.3809 > 0.05).

d. The Log (EXRT) which is the log of the Exchange rate shows that the coefficient is ($\beta = 0.054021$, P-value = 0.8081). The value shows that a positive but insignificant relationship at 5% exists between the exchange rate and All Share Index in Nigeria. Keeping all the other independent variables constant, the result shows that exchange rate, when increased by 1%, will increase the All Share by 5.4%. The null hypothesis is upheld because there is no enough reason to reject, as the P-value is greater than the level of significant of 5%, (0.8081 > 0.05). Hence, there is no significant relationship between Exchange rate and stock market performance in Nigeria

e. The value of balance of trade Log (BOT) shows a coefficient value of ($\beta=0.065522$, P-value= 0.7638). The values indicate that there is a positive and insignificant relationship existing between BOT and ASI. Keeping all the other variables constant, a 1% increase in the volume of BOT will increase the All Share Index by 6.6%. Since the P-value for the coefficient of BOT is greater than the level of significance of 5%, i.e. ($0.7638 > 0.05$). The Null hypothesis is upheld as against the alternate concluding that there is no significant relationship between Balance of trade and stock market performance in Nigeria.

f. The coefficient of the control variable GDP indicated that economic growth has a positive effect on the performance of stock market in Nigeria. However, the effect does not show a significance as the P-value is greater than

the level of significance at 5%. This implies that for a stock market to perform at an optimal level there is need for performing economy to complement the stock market performance.

g. The coefficient of determination $r^2=0.90$ shows a 90% contribution of inflation, interest rate, exchange rate, Balance of Trade and Gross Domestic Product (GDP) on All Share Index (ASI). The F-(Wald test) (ANOVA) with a value of 20.53 and p-value of 0.0000 shows that there is a strong linear dependency existing among inflation, interest rate, exchange rate, Balance of Trade and Gross Domestic Product (GDP) and All Share Index (ASI). The result further revealed that the problems of auto-correlation and heteroscedasticity were controlled by the reason of Heteroscedasticity and Auto-correlation Consistency (HAC) (Gujarati, 2004).

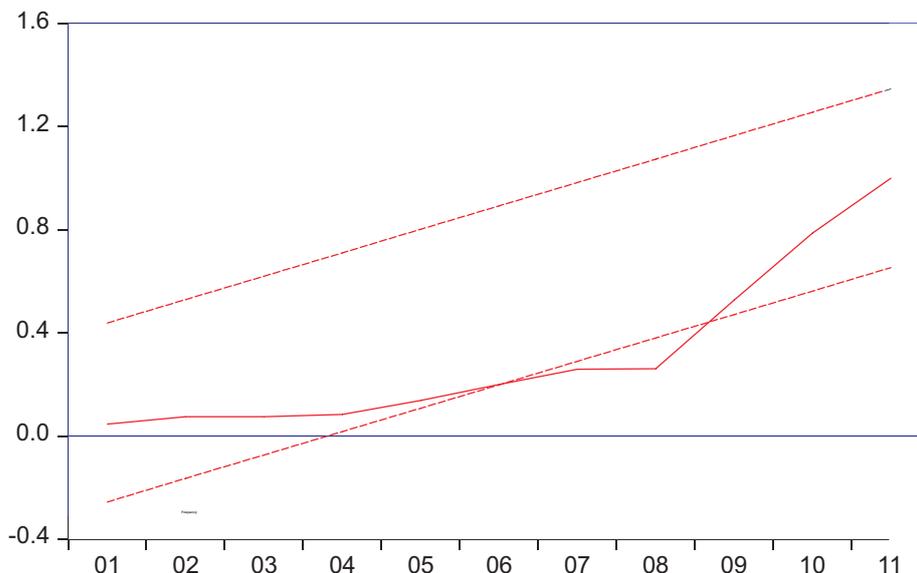


Figure 2: Stability test of macro-economic variables studied.
Source: Researcher's computation using EVIEWS 8

Figure 2 shows that the relationship among the variables; inflation, interest rate, exchange rate, balance of trade, and stock market performance of All Share Index (ASI) and Gross Domestic Product in the Nigeria shows a stable condition since the

middle line does not deviate from the side lines. The diagram shows that the instability started late 2006 and extended up middle of 2008 before it became stable. This is seen from the movement of the middle line.

Table 7: Chow test showing the pre-market period and the post-market crash

F-statistic	5.232508	Prob. F(6,5)	0.0449
Log likelihood ratio	33.74491	Prob. Chi-Square(6)	0.0000
Wald Statistic	31.39505	Prob. Chi-Square(6)	0.0000

Source: Researcher’s computation using EVIEWS 8

Chow (1960) developed a test for determining structural stability of regression model. The test requires running the overall regression model which is the regression covering all observations over the time. In case of this study, this regression encompasses all observations taken during the period under study.

The idea of the breakpoint Chow test is to fit the equation separately for each subsample and to see whether there are significant differences in the estimated equations. A significant difference indicates a structural change in the relationship. The value of the P-value of the F-test is less than the level of significant of 0.05, i.e. (0.0449 < 0.05). It is concluded that there is a significant difference between stock market performance between the pre-market crash period and the post-market crash period in Nigeria.

Discussion of Findings

The coefficient of the control variable GDP indicated that economic growth has a positive effect on the performance of stock market in Nigeria. However, the effect is not significant as the P-value is greater than the level of significance at 5%. This implies that for a stock market to perform at an optimal level there is need for performing economy to complement the stock market performance. The result is not consistent with the work of Okoye and Nwisiyenyi (2013) who examined the impact of the stock market on the Nigerian economy, using time series data for 10-year period; 2000 – 2010 found that GDP exerts significant impact on Nigerian stock market.

This result of the relationship between interest rate and stock market performance does support the hypothesis which says

that, there is no significant relationship between interest rate and stock market performance in Nigeria. The reason is that the P-value for the coefficient of interest rate is greater than the level of significance of 5%, i.e. ($0.3809 > 0.05$). Onasanya and Ayoola (2012) found that the stock macro-economic variables do not significantly influence the return at the stock market. Interest rates, specifically, was found to be negatively related and insignificant to stock market returns in Nigeria. Owusu-Nantwi and Kuwornu (2011) study of the impact of interest rates on stock market returns indicated that the variable is not significant for the stock market in Ghana.

This result of the relationship between inflation and All Share Index does support the hypothesis which says that, there is no significant relationship between inflation and stock market performance in Nigeria. This is because the P-value for the coefficient of inflation is greater than the level of significance of 5%, i.e. ($0.4880 > 0.05$). The finding is in contrast with Firth (1979) and Boudhouch and Richardson (1993), who provide support in favour of a positive relationship between inflation and stock market returns. On the other hand, Fama (1981) and Schwert (1981) support a negative correlation between inflation and stock market prices (returns). Reddy (2012) finds that a reduction in inflation rate resulted in increased stock market prices.

The results of this study support the hypothesis of a positive relationship between exchange rate and the Nigerian stock market performance. A depreciation of the Nigeria currency will lead to an

increase in demand for Nigeria's exports and thereby increasing cash flows to the country, assuming that the demand for exports is sufficiently elastic. Alternatively, if the Nigerian currency is expected to appreciate, the market will attract investments. This rise in demand in capital market products will push up the stock market level, suggesting that stock market returns will be positively correlated to the changes in the exchange rates (Mukherjee & Naka 1995). The impact of exchange rate changes on the stock market in Nigeria will depend, to a large extent, on the level of international trade and the trade balance. Hence the impact will be determined by the relative dominance of import and export sectors of the economy.

This is similar to the findings of Adarmola (2012) who studied the exchange rate volatility and stock market behaviour in Nigeria, applied Johansen's Co-integration Technique and Error correction mechanism using quarterly data for the period of 1985 to 2009 and found that Exchange rate exerts significant impact on Nigerian stock market both in the short and in the long run. The study showed that in the short run, exchange rate had a positive significant impact on stock market performance; however, the results also showed that in the long run, the relationship is significantly negative.

The value of balance of trade Log (BOT) shows a coefficient value of ($\beta = 0.065522$, P-value = 0.7638). The values indicate that there is a positive and insignificant relationship existing between BOT and ASI. Keeping all the other variables

constant, a 1% increase in the volume of BOT will increase the All Share Index by 6.6%. Since the P-value for the coefficient of BOT is greater than the level of significance of 5%, i.e. ($0.7638 > 0.05$). The Null hypothesis is upheld as against the alternate which suggests that there is no significant relationship between Balance of trade and stock market performance in Nigeria.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

This paper examined the effects of macro-economic variables of inflation rate, interest rate, exchange rate and balance of trade on stock market performance in Nigeria using the Gross Domestic Product (GDP) as a measure of economic growth for the period 1994-2013 and Multiple regression analysis (ordinary least square) method of data analysis was employed to determine the effect of each of the macro-economic variables on stock market performance. The study indicate that inflation rate and stock market performance are negatively related 5% level of significance. Interest rate also showed a negative relationship with stock

market performance at the chosen 5% level of significance. There is a positive but insignificant relationship at 5% level of significance between exchange rate and All Share Index in Nigeria. The result on balance of trade showed a positive and insignificant relationship while the coefficient of the control variable gross domestic product indicated that economic growth has a positive effect on the performance of stock market in Nigeria. It was therefore recommended that for the stock market to take full advantage of the various opportunities and cope with challenges, interest rates must be properly put at check. This must be done in relation to appropriate monetary policies to ensure macro-economic stability. This study recommended that policy makers should put in place measures such as attraction of credible foreign investment, reduction of statutory reserve ratio, improve effectiveness of indirect instrument which will ensure a stable macroeconomic environment since an unstable macro-economic environment can deter investors and make them lose confidence in the system.

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