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Macroeconomic Parameters and Stock Performance: A Study of Nigerian Stock Exchange

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Abstract. Literatures have not been able to provide a consensus of the impact of macroeconomic variables on the stock market performance which is largely considered as a vital component of any nation's financial system in attracting and allocating capital to the productive sectors of the economy. This study used the Augmented Dickey-Fuller test and Phillips-Perron test to test for unit root and stationarity in the model. The study also made use of Jargue-Bera to test for normality distribution. The study adopted the All Share Index of the Nigerian Stock Exchange as a proxy for the stock market as the dependent variables. The independent variables examined are Gross Domestic Product. Inflation Rate, Foreign Exchange Rate and Interest Rate. The observed that with the exception of Foreign Exchange rate all the independence variable are significantly correlated to the stock market performance (ASI). It is therefore evident from the various regression statistics observed by this study that a very strong relationship actually exists between the macroeconomic variables and the performance of the Nigerian stock market. The policy makers should ensure that policies that determine the behavior of the macroeconomic variables such as interest rates, foreign exchange rate and inflation rates are made favourable for the components of the financial system so that the required capital for long-term economic growth and development can be attracted from both the local and foreign investors.

Key words: Economic Growth, All Share Index, Macroeconomic Variables, Stock Market, Coefficient of Correlation

1. Introduction

The vibrancy of the stock market as an avenue for raising long term capital would assist in determining to some extent the confidence of both the stock issuers and investors both at the primary and secondary markets. The stock market is an integral part of the financial system which provides liquidity for economic growth and development (Oprea and Stoica, 2018; Tachiwou, 2010; Nazir, Nawaz and Gilani, 2010). The stock market is overwhelmingly important to the emerging and developing economies which are often characterized with shortage of funding for industrialization and infrastructural developments to access long-term funding (Isenmila and Akinola, 2012). The stock market also provides opportunity for corporate and institutional investors as well as for long-term investors and market speculators. It provides windows of opportunity for the economy to attract foreign investors while creating job opportunities for several market operators and regulators (Adekunle, Alalade, Okulenu, 2016; Imobighe, 2015; Akingunola, Adekule and Ojodu, 2012; Ezeoha, Ogamba and Okereke-Onyiuke, 2009). The stock market through the secondary market provides the platform for foreign investors who are not willing to take a long-term interest to invest in the economy through a class of investment that is widely known as foreign

portfolio investment (FPI) without the having to engage in a more cumbersome requirements of foreign direct investment (FDI). The FPI instruments in the capital markets are mainly stocks and debts. The trust of the various stakeholders in the market is a function of several factors including the freeness of investors to enter and exit the market, transparency and accountability of the market leadership and regulators, sound financial systems and regards to the rule of law (Khetsi and Mongale, 2015; Pocius, Stunguriene and Paskevicius, 2013)

Though many studies regards the Nigerian stock market as a weak-form efficiency market, the ability of the stocks traded in the market to immediately absolve and reflect all available market information in the prices of its listed stocks decapitating the ability of any player with privileged information to take undue advantage of the market would be a confidence booster for the stakeholders in the market. The performance of the stock market is measured by index. The performance of the Nigerian stock market is reflected in the All Share Index (ASI) which was introduced in January, 2004 with 100 basis points. According to Popoola (2019) and Olowe (2009) the Nigerian stock market which is regulated principally by the Nigerian Stock Exchange and Stock Exchange Commission witnessed a boom between 2003 and 2007 before the global recession of 2008. The boom was characterized with the period commercial banks and others flooded the market with initial public offers and new issues. The market returns were several times better than any other sectors. The market became a money spinner and not few investors including foreign, institutional and emergency individual investors took advantage of it. How the stock market was able to record such unprecedented returns which was ranked as among the best in stock exchanges across the world should be of interest for academic studies. The Nigerian market is yet to recover from the collapse it suffered which some studies attributed to the global market recession of 2008 (Nelson, Onduka and Yebimodei, 2018; Onuoha and Nwaiwu, 2016; Adamu, 2010; and equally significant of note is the disappearance of the emergencies investors that flooded the markets which some studies also attributed to loss of confidence in the market (Usman, Onayemi and Alimi, 2018; Olokoyo, and Ogunnaike, 2011).

The stock market is vital to the development of any economy especially emerging and developing economies. It's ability to change the narratives and create an industrial and economic transformation is massive (Qaisi, Tahtamouni and Al-Qudah, 2016; Asekome and Agbonkhese, 2015, Masoud, 2013; Rahimzadeh, 2012). Its performance depends to some extent on the market microstructure (Omoruyi and Osad, 2018; Osayi and Agabi, 2019; Ahmed, Parvez, 2013) and macrostructure (externalities). While the microstructure are endogenous and within the influence of the market through the regulators, the market macrostructure factors exogenous and are beyond the market influence. In essence the macrostructure factors are systematic factors that the market cannot influence, rather they influence the market. The extent of the influence of these factors on the stock market performance differs from one economy or market to the other (Osamwonyi and Evbayiro-Osagie, 2012).

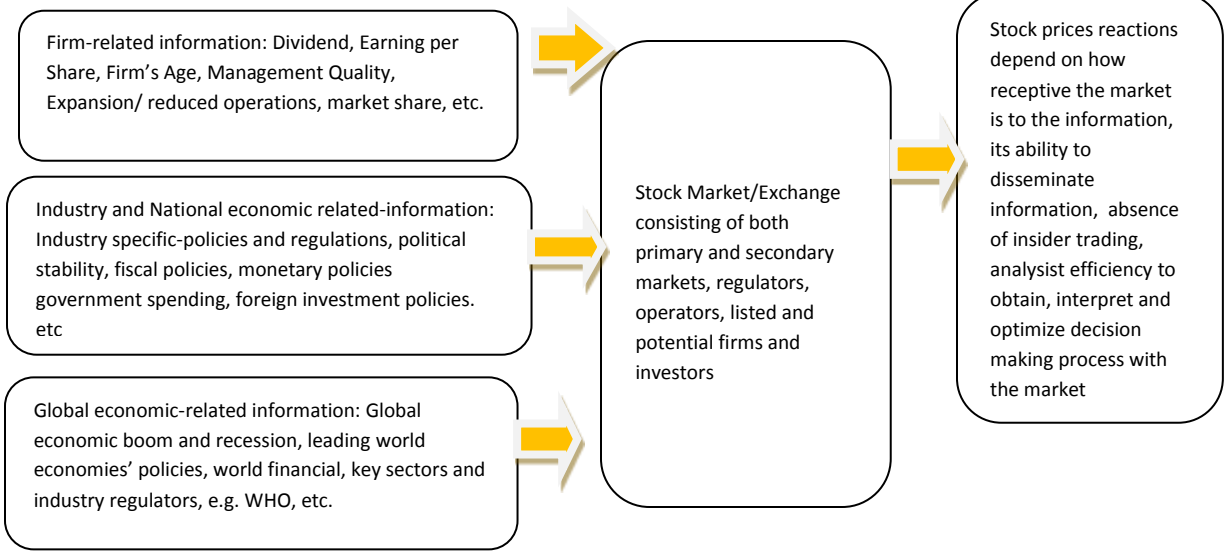
The aim of this study is to examine the influence of the macroeconomic variables in the Nigerian economy exert of the performance of the Nigeria stock market's All Share Index.

2. Conceptual Framework

The efficiency of the capital market is measured by its ability to reflect all the available and relevant information in the stock prices. A perfect market eliminates every form of asymmetry information and insider trading. The issuers of new capital, investors in the primary market and players in the secondary market have equal amount of information at the same time with none having undue advantage of the market. The ability of the stock prices to reflect the market information efficiently depends on the market microstructure, market regulations, independence and transparency of the regulators and other market operators as well as the level of technology imbibed by the market.

As depicted in Table I below, sources of market information can be categorized into three, namely firm-related information, industry-related information, national economic information and global economic information. Each of these categories of information is able to affect the behavior of the stock market and the prices of the individual, specific and entire listed stocks on the stock exchange.

Table 1: Stock prices response to Market Information on the Stock Exchange in Perfect Market



The stock prices are expected to respond promptly to the market information regardless of the sources as much as it is relevant to the specific firm or the stock market. The market and stock prices behavior would be determined by a number of factors which include the relevance of the information, the research competence of the market analysts, the market technology. The market response would either be price gain or loss of the affected stocks. Instances where the market is of no impact, the market behavior and stock prices remain static.

3. Theoretical Framework

The theoretical framework of this study is the theory of capital market and theory of equity pricing. A number of scholars see the theory of capital market as a combination of several other market theories such as the relationship between investment returns and risk, market efficiency theory, asset pricing theory and stock market performance (Hodnett, 2012; Nwarocki, 1997, Ongkrutaraksa, 1996), while some others think it is distinct, even though it is an offspring of some other market theories (Govori, 2014; Nwaolisa and Kasie, 2012). Capital market theory provides the model and environment for detailed analysis of market securities under conditions of uncertainty. In essence, capital market theory is not a distinct theory but a combination of many other related theories such as efficient market and portfolio theories. The Markowitz (1952) portfolio theory provides undisputable platform for the emergence of other capital market theories and models, prominent of which are the CAPM, Arbitrage Pricing Theory (APT), modern portfolio theory (MPT), efficient capital market hypothesis, and noise and chaos theories. Interestingly, noise theory which signifies information asymmetry in a way has become a subject of curiosity among capital market analysts and researchers (Tuylis, Bloembergen, Hennes, and McBurney, 2015; Sevil, Ozer and Kulah, 2012; Doowoo Nam, 2004). Noise occurs in information dissemination distorting the delivery of the "true" information and thereby making the receiver of the information (buyer) to be at a disadvantage vis-a-vis the already informed seller.

The price of a commodity, according to elementary economics, is determined by the forces of demand and supply in a free economy. But what are the factors that influence demand and supply behaviour? Price? Yes. In the securities market, whether the primary or the secondary market, the price of equity is significantly influenced by a number of factors which include book value of the firm, dividend per share, earnings per share, price earnings ratio and dividend cover (Gompers, Ishii and Metrick, 2003). The most basic factors that influence price of equity share are demand and supply factors. If most people start buying, then prices move up and if people start selling, prices go down. Government policies, firm‟s and industry‟s performance and potentials have effects on demand behaviour of investors, both in the primary and secondary markets. The factors affecting the price of an equity share can be viewed from the macroeconomic and microeconomic perspectives. Macroeconomic factors include level of political stability, general economic conditions - i.e. how the economy is performing and government regulations.

There may also be other factors like demand and supply conditions which can be influenced by the performance of the company and, of course, the performance of the company vis-a-vis the industry and the other players in the industry. Al-Tamimi (2006) identifies performance of the company, changes in the board of directors, appointment of new management, creation of new assets, dividend and earnings, government rules and regulations, inflation, other economic conditions, interest behaviour, market conditions, money supply, competition and market-participant behaviour as fundamentals to equity pricing. Similarly, Somoye (2004) argues that low inflation, stable prices and stable currency combine to lengthen the economic horizon which in turn creates conducive environment.

4. Literature Review

The efficiency of the stock market which is a measure of the market vibrancy can be viewed according to Ongkrutaraksa (1996) from three perspectives, namely allocative efficiency, transactional efficiency and informational efficiency. According to him, allocative efficiency refers to the welfare effects of equilibrium-market resource allocations whereby resources are allocated to the most productive and impactful sectors of the economy. Transactional efficiency in the capital market refers to the minimization of costs and risks associated with stock trading to ensure the continued maximization of the stock returns. Lastly, the informational efficiency depicts a stock market where stock prices reflect all available information. The Nigeria stock market is weak-form efficiency (Falaye, Awonusi and Eseyin (2018), Afego (2012), Ogege and Udoka 2012; Olowe, 2009). Deploying the Vector Error Correction (VEC) ganger causality test, Arodoye and Edo (2015) a bi-directional causality exist between capital market development and economic growth in Nigeria and that the ability of the market to adjust to the unexpected changes in the economy is weak.

In agreement with the findings of Arodoye and Edo (2015) was the study of Obubu, et. al. (2016) which examined the contribution of the Nigerian stock market to the nation's economic growth and development. The study using the Augmented Dickey-Fuller statistics tested for unit root and Breusch-Pagan statistics for heteroscedasticity in the model regression model observed a positive and significant influence of the Nigerian stock market on the nation's GDP.

The influence of the Nigerian stock market was found to be negative by Osinubi and Amaghionyeodiwe (2003) in their study of the stock market development and long-run growth in Nigeria for the period of 1980 t0 2000. The study observed that from empirical evidence, the Nigerian stock market developments have no significant effect on the nation's economic growth during the period of observations. The study requires that policies to eliminate hindrances to the effectiveness of the market to affecting the GDP positively and significantly and to make the market attractive to new equity issuers and investors should be put in place along with other physical and virtual infrastructures and processing systems.

A contrary view to Arodoye and Edo (2015) that there is a bi-directional causal relationship between the Nigerian stock market and the nation's economic growth and development was expressed by Popoola, et. (2017) in their study of the stock market and economic growth in Nigeria. The study which deployed the Augmented Dickey-Fuller unit root test, Johansen Co-integration test and Pairwise granger causality methods observed that though a long run relationship exist between the Nigerian stock market and the nation's economic growth and development but the stock market performance does not influence the economic growth rather the opposite is the case. The non-diversity of the independent variables (gross capital formation, market capitalization, All Share Index and Value of transactions) where the real GDP was the dependent variable could adopted by the study possibly accounted for the unidentified impact of the stock market performance on the economic growth and development as the likelihood of high presence of multicollinearity between the independent variable may not be ruled out.

Similar to the findings of Popoola, et. al. (20170, that the Nigerian stock market did not exert any significant impact on the nation's economic and development, Akpunonu, Nkechukwu and Okonkwo (2017) examined the extent to which the stock market contributes to improving the standard living of the citizenry. The study observed that in spite of the growth potentials of the Nigerian stock market, it has not been able to affect the citizenry the standard living of the people through provisions of required liquidity and returns. The study is of the view that market liberalization to encourage effective resource allocation to more productive sectors that would result in more financial deepening of the market to be able to impact positively on the economic growth, development and standard of living is required.

The observations of Jibril, et. al (2015) in the assessment of the Nigerian stock exchange market development to economic growth revealed that the stock market exert insignificant influence on the nation's economic growth and development. The study tested the market size and market liquidity using market capitalization as proxy for market size and both value traded and turnover ratio as proxies for liquidity. The study revealed that both market capitalization and value traded showed a negative effect on the nation's GDP while turnover ratio was found to be positive.

Lastly, Okonkwo, Ogwuru and Ajudua (2014) opined in the examination of the role and contributions of the Nigerian stock market to the national income between 1981 and 2012 that although stock market is an importance economic function any economy, there is no causal relationship between the market and the nation's economic growth. The study used the Augmented Dickey-Fuller statistics for unit root test in the ordinary least square model, Johansen cointegratuon test for long-term equilibrium relationship among the variables and Granger causality test for causal relationship between the stock market and the economic growth development. The study further argued that though the market has potential to drive economic growth and development but that may not be realized until enabling business environment is created to attract new capitals to the market.

Empirical evidence of the effect of macroeconomic parameters on stock markets

According to Ogunbiyi and Abina (2018) and Hunjra, et. al (2014), macroeconomic variables are important change agents of any economy. In their study of the impact of macroeconomic variables on stock prices in Pakistan, they observed that any abrupt change in the macroeconomic variables has the tendency to impact the economy in several ways. The study which used the Granger Causality and cointegration tests analysis revealed that there was no relationship between the stock prices and the macroeconomic variables in the short-run but a very significant relationship was observed in the long-run.

In their study of the impact of exchange rates, inflation rates, interest rates, money supply, industrial production and international oil prices on stock market index in Nigeria, Aigbove and Izekor (2015) observed that all the examined macroeconomic variables exert both short and long-run influence on the stock prices. However, the study using the Augmented Dickey-Fuller unit root test, Johansen Co-integration test and Error Correction Model observed that both oil price and money supply have a bidirectional causality with the stock market index while industrial production and interest rates exhibited unidirectional relationship with the stock market prices.

The study of the impact of macroeconomic variables on stock market returns on the Karachi Stock Exchange by Ilahi, Ali and Jamil (2015) revealed a very weak connection between the macroeconomic variables and the stock market performance. The study examined the influence of exchange rate, inflation rate and interest rate as independence variables on the returns of 100 indexes on the stock exchange and found that both exchange rate and inflation relate have absolute no influence on the stock market performance, interest rate was found to exert a very insignificant influence.

A similar study to Ilahi, Ali and Jamil (2015) was also conducted by Ouma and Muriu (2014) to investigate the effect of money supply, exchange rate, inflation rate and interest rate on stock market performance in Kenya. The study tested the stationarity or non-stationarity of the regression model using the Augmented Dickey-Fuller test, adopted the Breusch-Godfrey Serial Correlation LM Test for the presence of serial correlation in the model and Jargue-Bera statistics for the residual normality test. The study found that with the exception of interest rate, all the independence variable have a significant influence on the stock performance in Kenya stock market.

Gay (2016) using the Box-Jenkins ARIMA model examined the time-series relationship between the stock market prices and macroeconomic variables (exchange rate and oil prices) for the economies of Brazil, Russia, Indian and China (BRIC). The study argued that the non-existent of any relationship between the independent variables and the stock markets of BRIC could be attributed to the likely impacts other unidentified domestic and international macroeconomic factors exert on the stock markets of BRIC economies.

Demir (2019) investigated the impacts of what he classified as prominent macroeconomic factors on the Turkish stock markets. The purpose of the study was to measure the extent to which the factors contribute to the fluctuations of stock performance and the instability in the Turkish stock market. The study used the Autoregressive Distributed Lag (ARDL) model as developed by Pesaran and Shin (1999) and Pesaran, Shin and Smith (2001) to evaluate both the

short-run and long-run parameters. The research model was tested for the presence of unit root using the Augmented Dickey-Fuller, Phillips-Perron and Kwiastkowski-Philips-Schmidt-Shin statistics. The study discovered that with the exception of interest rate and crude oil prices that impact stock market negatively, all other factors (economic growth, relative value of the domestic currency, foreign direct investment and portfolio investments) raise the stock market index significantly.

Adekunle, Alalade and Okulenu (2016) conducted a study of the impact of macroeconomic variables on capital market growth the particular emphasis on the effects of variables that have strong ability to influence stock pricing. The study tested for unit root and cointegration in the model using the Augmented Dickey-Fuller test and Johansen Co-integration test respectively. It was discovered that an adverse but significant relationship exists between interest rates and capital market growth. On the other hand inflation and foreign exchange rates were observed to exact insignificant impact on the stock market performance.

In a nutshell, considerable attention has been devoted by literatures to examine the relationship between the stock market and various macroeconomic variables and their impacts on the economic growth and development across several economies. Without mincing words and from evidence above, there are divergent views on the influence and relationship between the stock markets, macroeconomic variables and economic growth and development. The aimed of this study is to take an empirically justifiable side among the divergent views while also contributing to literatures that would broaden the knowledge of the policymakers and other stakeholders in the Nigerian stock markets.

5. Research Methodology

Data Collection

The data for this study were secondary data. The all the macroeconomic variable data were sourced mainly from 2018 Central Bank of Nigeria's Annual Statistical Bulletin with the exception of inflation rates that were sourced from the National Bureau of Statistics website. The period covered by the study is 1985 to 2018.

Model Specification

The study adapted the analytical model of Demir (2019) that he deployed in his study of the macroeconomic determinants of stock market fluctuations in the Turkish stock market.

The model is as follows:

$$BIST_t = \beta_0 + \beta_1 INT_t + \beta_2 PORP_t + \beta_3 REER_t + \beta_4 BRENT_t + \beta_5 FDI_t + \beta_6 Y_t + \varepsilon_t \quad \text{- eqn (1)}$$

Where BIST represents the Istanbul Stock Market Index, INT is the commercial loan interest rate, PORT is net portfolio investment inflows (liabilities in the balance of payments), REER is real effective exchange rate, BRENT is Brent Crude Oil Price, FDI is net foreign direct investment inflows (liabilities in the balance of payments) and Y is real gross domestic product. Also, β_0 is the constant and the ε_t is the error term of the estimated function while β_1, β_2, β_3, β_4, β_5 *and* β_6 represent the coefficients of determination of each of the independence variable in the model.

Eqn. (1) is adapted for this study and is hereby restated as follows:

$$LogASI_t = \beta_0 + \beta_1 LogGDP_t + \beta_2 LogINF_t + \beta_3 LogFXR_t + \beta_4 LogINT_t + \varepsilon_t \quad \text{- eqn (2)}$$

Adjusting eqn. (2) for time series

$$Log\Delta ASI_{t-1} = \beta_0 + \beta_1 Log\Delta GDP_{t-1} + \beta_2 \Delta INF_{t-1} + \beta_3 \Delta FXR_{t-1} + \beta_4 \Delta INT_{t-1} + \varepsilon_{t-1} \quad \text{- eqn (3)}$$

The sum of eqn. (3) is as follows:

$$Log\Delta ASI_t = \beta_0 + \sum_1^n \beta_1 Log\Delta GDP_{t-n} + \beta_2 \Delta INF_{t-n} + \beta_3 \Delta FXR_{t-n} + \beta_4 \Delta INT_{t-n} + \varepsilon_{t-n} \quad \text{- eqn (4)}$$

Where:

LogΔ*ASI - represents the changes in All Share Index on the Nigerian Stock Exchange as a proxy for the stock market*

LogΔ*GDP - represents the changes in Gross Domestic Product as proxy for economic growth and development*

Δ*INF - represent the changes in inflation rate as a proxy for changes in commodity purchasing power*

Δ*FXR - represents the changes in foreign exchange as a proxy for the strength for the nation's local currency*

Δ*INT - represents the commercial lending rate as a proxy for access toto funding*

β_0 *is the Intercept (constant) while* β_1, β_2, β_3 *and* β_4 *are the coefficient of determination for Log*Δ*GDP,* Δ*INF,* Δ*FXR* and Δ*INT respectively while* ε *is the error term in the model.*

A Priori Expectation

The level of significance for the statistical analysis is 5%. All the independent macroeconomic variables examined by the study are expected to demonstrate significant relationship with the stock market (ASI). However, while a positive relationship is expected between GDP and the stock market (ASI), all other independence variables (INF, FXR and INT) are expected to be negatively correlated to the stock market.

6. Data Analysis and Findings

Results of Multicollinearity Tests

In view of the time series nature of the data collected for the study, there is the likelihood that some of the independence variables might have multicollinearity relationships among themselves that could invalidate the outcome of the study. Therefore, the independence variables were subjected to multicollinearity test using the Pearson coefficient of correlation which regards any correlation between two variables > (+ or -) 0.75 significant as the basis to determine the level of correlation. The result of the test is presented in Table I below.

Table I: Results of the Multicollinearity Tests

CORREL	LogΔGDP	ΔINFL	ΔFXR	ΔINTR
LogΔGDP	1.000			
ΔINFL	0.050	1.000		
ΔFXR	-0.232	-0.325	1.000	
ΔINTR	-0.427	0.248	0.309	1.000

From the Table I above, it is evident that none of the independent variables exhibits any correlation that is + or – 0.75 in line with Pearson coefficient of correlation benchmark.

Testing for Unit Root in the Model

The research model was subjected to stationarity test using the Augmented Dickey-Fuller (ADF) test. The null hypothesis is that the model has components of unit root and it is non-stationary if the observed *p-value* > 0.05 level of significance. The test results of the stationarity test is shown in Table II below

Table II: Results of Unit Root Test

	Augmented Dickey-Fuller (ADF) Test			
	t-Test Statistics	**Critical Values 5%**	**Prob**	**Order of Integrations**
LogΔASI	0.130	-3.507	0.21873	I(0)
LogΔGDP	-2.337	-3.507	0.03852	I(0)
ΔINFL	-2.651	-3.507	0.02464	I(0)
ΔFXR	2.038	-3.507	0.03265	I(0)
ΔINT	1.733	-3.507	0.01006	I(0)

The ADF Table II above revealed that all the variables examined by the model have their observed *p*-value < 0.05 level of significance. This implies that the model is stationary. The study cannot fail to reject the null hypothesis that the model has unit root test.

Normality Test

The study used the Jargue-Bera statistics to test for normality in the distribution pattern of the model. For decision criteria, the null hypothesis is that the model followed a normal distribution. The null hypothesis is accepted in the observed *p-value* > 0.05, otherwise the alternate hypothesis would be accepted. The findings revealed a *p-value* above 0.05 level of significance for the variables which that that the data for the study followed a normal distribution. Therefore the alternate hypothesis is rejected.

Descriptive Statistics

The descriptive statistics of the dependent and independent variables were examined for mean, minimum. Maximum, median, standard deviation and skewedness as detailed in Table III below.

Table III: Results of the Descriptive Statistics

Statistics	**ΔASI**	**ΔGDP**	**ΔINFL**	**ΔFXR**	**ΔINTR**
Mean	149.7895	80.4804	-0.4311	0.6462	3.1000
Minimum	1676.7166	477.3492	0.0147	-9.7429	-1.9775
Maximum	1446.7916	3198.1110	-0.0599	9.1656	8.8525
Median	1436.9833	1590.1209	0.1194	9.71315	-5.64
1st Quartile	697.6833	718.3716	-0.0338	7.9749	5.8525
3rd Quartile	3483.9	1236.6593	0.1194	9.7131	-0.2125
Std. Dev.	259.4	313.7586	0.3158	7.3889	10.4
Skewedness	6.842	5.037423	-0.0014	-0.165	-15.09
Kurtosis	1.9018916	1.1323885	0.1581	6-26889	-0.21

The mean for inflation rate from 1985 to 2018 was 43.11% against 64.62% and 310% change in foreign exchange rate and interest rate respectively. This implies a very high volatility in the macroeconomic policies which are more of monetary related than fiscal policies.
The change in inflation rate (INFL) over the period of the study was at a minimum of and maximum of 1.47% and 5.99% p.a. respectively. Similarly, foreign exchange rate and interest rate are both monetary policies that influence significantly the behavior of demand and demand in the economy were observed to have a minimum change of -9.74% and -1.98% and a maximum change of 9.16% and 8.85% respectively.

From the skewedness statistics, the All Share Index and the Gross Domestic Product were positively skewed but the others (inflation rate, foreign exchange rate and interest) were negatively skewed. The Kurtosis statistics which measured the tails of distribution was positive and leptokurtic for all the variables except for interest rate which is both negative and platykurtic in nature.

Regression Analysis.

The summary of the results of the regression model is presented in Table IV below.

The Adjusted R. Square which explains the extent to which the independent variables could be held accountable for the changes and behavior of the dependent variable, All Share Index (ΔASI) is 0.995. In essence, it can be deduced that 99.5% of the changes in the All Share Index is due to the combination of the independence variables (GDP, Inflation, Foreign Exchange Rate and Interest Rate. The observed F. Statistics ($1630.5_{cal} > 2.526_{tab}$) which explains the level of the independence variables to the dependent variables was found to be significant at 0.05 level of significance. This implies that the macroeconomic variables that represent the independence variables in the model collectively and significantly impact on the stock market performance (ASI). This finding confirms the findings of Obubu, et. al 2016 that a positive and significant relationship exist between the stock market and economic development and growth.

Contrary to *a priori expectation,* GDP was negatively correlated at coefficient of -0.2048 to the stock market. This findings confirms some previous studies that established negative relationship between the stock market and nation's economic growth and development. However, the study found GDP to have significant influence on the stock market at t-statistics of -0.3153 and observed *p-value* of 0.0469 which is lower than 0.05 level of significance. The negative relationship between the stock market and the economic development and growth confirms the findings of Osinubi and Amaghionyeodiwe (2003) while it contradicts the findings of Ouma and Muriu (2014). In another vein, this study discovery that a significant relationship exist between the stock market and the economy is contrary to the findings of Ogunbiyi and Abina (2018), Popoola, et. al (2017), Akpunonu, Nkechukwu and Okonkwo (2017), Okonkwo, Ogwuru and Ajudua (2014) and Gay (2016).

Expectedly in line with the *a priori expectation,* INFL was found to exert negative correlation to the stock market at correlation coefficient of -2.0456 and t-statistics of -0.5983. However, *p-value* of 0. 0413 was found to be lower than 0.05 level of significance. This finding confirms the observations of Adekunle, Alalade and Okulenu (2016) and Ilahi, Ali and Jamil (2015) but contradict the opinion of Ouma and Muriu (2014) that inflation exert significance pressure on the stock market performance.

Foreign exchange rate (FXR) was found to be positively and significantly correlated to the stock market at coefficient of correlation of 0.229, t-statistics of 2.7258 and observed *p-value* of 0.011 which lower than 0.05 level of significance. This finding confirms the *a priori expectation* that foreign exchange would be found significant in influencing the performance of the stock market. However, the finding is found to be in agreement with the observations of Ouma and Muriu (2014) and, Ilahi, Ali and Jamil (2015)

Lastly, Interest Rate (INTR) was found in line with the expectation to be positively and significantly related to the stock market (ASI) at coefficient of correlation of 0.01897 and t-statistics of 0.175 while *p-value* of 0.0358 lower than 0.05 level of significance. The finding is found to be in conformity with the findings of Demir (2019) while contradicting the observations of Adekunle, Alalade and Okulenu (2016. and Ouma and Muriu (2014).

7. Conclusion

Though there are divergent views from various literatures of the exact impact macroeconomic variables exert on the stock market performance. While some argue that the variables make no impact, some others argued they made insignificant impact while another school of thought claimed the variables

make significant impact. It is evident from the various regression statistics observed by this study that a positive and significant relationship actually exists between the macroeconomic variables and the performance of the Nigerian stock market. The stock market is a vital part of the financial system of any nation and it provides the avenue for capital allocation to the productive sectors of the economy that can assist in revenue generation, job creation, innovation and improvement of the standard living of the people.

Whether an economy would be able to maximize the potentials of the stock market for its benefits depends on several factors and chief among them is the willingness of the policy makers to create conducive business environments for the market to thrive. Importantly, the policy makers should ensure that policies that determine the behavior of the macroeconomic variables such as interest rates, foreign exchange rate and inflation rates are made favourable for the components of the financial system so that the required capital for long-term economic growth and development can be attracted from both the local and foreign investors.

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