Macroeconomic Variables and Stock Market Development in Africa: Evidence from Nigeria

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Abstract

This study examines the macroeconomic determinants of stock market development in the Nigerian economy. This was aimed at ascertaining how INF representing real interest rate, GDP representing gross domestic product per capita, and BMS representing broad money supply has stimulate the stock market development in Nigeria. Historical data was collated and estimated employing the ARDL form of Ordinary Least Squares (OLS) technique. The empirical results indicate that only inflation had a negative and significant impacts on stock market development while real output and money supply exerted positive but insignificant impacts. On the basis of the findings of this study, the following recommendations are made: The monetary authorities have to regularly review their monetary policy direction to bring inflation lower than it is; Regulatory authorities and policy makers should ensure that there is general stability in money supply and exchange rates, while trying to put the inflationary trends under control and at the same time maintain a stable interest rate regime in the economy in order to achieve improvements in stock market performance to bring about desired economic growth and national development.

INTRODUCTION

1.1 Background of the Study

The role of capital market development in an economy cannot be overemphasized. According to El-Wassal (2013), capital markets play a crucial role and serve as mechanisms for transforming savings into financing for the real sector. Countries with efficient capital markets have a better degree of savings and investment in projects yielding high returns. Aggarwal (1999) postulates that capital markets exist to help allocate funds to firms and liquidity to

investors. They also allow the transfer of risk between different parties because investments are inherently risky.

Claessens, (1995) argues that the stock market plays an important role inproviding firms with capital. Most companies and governments of developing countries haveturned to the stock market as an avenue for raising capital to finance various projects insteadof depending on financial institutions for funds. In contrast, underdeveloped capital markets have a negative impact on the economy through increasing investment risks, financial structure,and asymmetric information problems (Demirguc-Kut& Levine, 1996). Furthermore,Muhoza (2019), postulates that the financial sector development of which the capital market ispart, is very important in the growth of any economy, therefore in order to achieve economicgrowth, the financial sector ought to be one that is fully developed.

Even though a vast amount of research work has been done by Talla (2013), Cheopkoiwo (2011), Gunsekaraage*et al.* (2004) etc., on the capital market development in developed countries, a very few studies have been conducted for developing countries. The few studies conducted, focused on stock market development at the exclusion of the bond market development. Although the omission of the bond market is not defended in the literature, one could argue that it departs little from reality. In most emerging economies, bond markets are very small relative to the banking system or stock markets and in most cases, data is readily available for stock markets and the banking system than for bond markets.

Similarly, research work on capital market development in the context of Botswana's economy, including the work of Lekobane and Lekobane, (2014), only discusses the impact of macroeconomic variables on stock prices without taking into consideration the bond market. Little is known about what drives bond market development in other economies whose bond markets development historically took place well before stock markets came into being (Litan, Pomerlano and Sundararajan, 2003). However, the bond market plays a critical role in the efficient functioning of capital markets as it channels savings and makes funds available to long term borrowers (Thumrongvit*et al*. 2013). Additionally, bond markets worldwide are increasingly being recognized as an important component of financing development, and hence should be analyzed as an integral part of a well-functioning financial market.

In the last few years, the Nigerian macroeconomic performance has not been impressive. The situation is becoming worrisome by the recent reduction in global reduction in crude oil price. The key macroeconomic indicator particularly GDP experienced negative growth rate between 2016 and 2018, this however, brought about decline in the value of naira, high inflation level, balance of payment disequilibrium etc. all these have ability to hinder the growth and development of the stock markets in the country and as well hinder its potential capability in improving development of the country's economy (Azeez &Obalade, 2019). Comparatively, Khumalo (2013) examined inflation and stock prices interactions in South Africa from 1980 to 2010. The study showed that inflation exerts a significant and negative impact on stock prices in South Africa. Khanyisa*et al.* (2016) study of the interaction between the stock market and macroeconomic variable in South Africa from 1994 to 2012 showed that inflation affects stock market.

It is against this background, that the current study is undertaken to fill this gap. The objective of this study is to determine the impact of macroeconomic variables on capital market development in Nigeria's economy. The currentstudy investigates over and above the stock market, the role of macroeconomic variables plays in the overall stock market development. Specific objectives are to determine the effect of macroeconomicvariables on stock market development measured with market capitalization.

From the above, the study seeks to achieve the following objectives;

i. To examine the relationship between inflation and stock market developmentin Nigeria.
ii. To find out the nature of relationship between money supply and stock market developmentin Nigeria.
iii. To determine the relationship between real output and stock market developmentin Nigeria.

In line with the objectives the following hypotheses are started

$H0_1$: Inflation ratedoes not have significant impact on stock market development in Nigeria.
$H0_2$: Money supply doesnot have significant impact onstock market development in Nigeria.
$H0_3$: Real outputdoes not have significant impact on stock market developmentin Nigeria.

2.0 LITERATURE REVIEW

2.1. Conceptual framework

2.1.1 Concept of Stock Market and Stock Market Development

The standard market is viewed as an organization that offers a platform for efficient allocation of capital, (Gitobu,2020). They observed that borrower's access funds are used to finance long term projects while the savers utilize thestock markets to invest their surplus funds. John, (2019) was pragmatic in stating that economic performance, asmeasured by Gross Domestic Product, increases when sufficient capital is available in the market which can beborrowed by both private corporations and the government for investment hence advancing financial expansion and development.

A stock market can be a very sophisticated market place, where stocks and shares are the traded commodity. At the same time, it is central to the creation and development of a strong and competitive economy. It is a key to structural transformations in any economy; from traditional, rigid, insecure bank-based to a more flexible, more secure economy that is immune to shocks, fluctuations and lack of investors' confidence (Stapley, 1986). According to Arnold (2004), stock markets are where government and industry can raise long-term capital and investors can purchase and sell securities. Typically, markets, whether they be shares, bonds, cattle or fruit and vegetables, are simply mechanisms to allow the possibility of trade between individuals or organisations. Whilst some markets (e.g. for livestock) are physical where buyers and vendors meet to trade, others (e.g. for foreign currency) are a national network, based on communication using telephone lines and computer links, with no physical meeting place. Additionally, very few stock exchanges around the world still possess a physical location where buyers and sellers meet to trade.

Patrick and Wai (1973) argued that stock markets are those markets that deal with capital, both in the short and long-term, where companies sell stocks in order to generate long-term capital that can be channelled into their profitable options. This is because people would rather invest in winners than losers; buyers hold on to their stocks for future dividend payouts. The activities of buying and selling stocks and shares on the stock market are extremely significant for the allocation of capital within economies (Pratten, 1993). In addition, transaction prices and quotations provide investors with an indication of the market value of their wealth which may influence their decisions about consumption expenditure (Pratten, 1993).

The stock market also offers an attractive capital to borrowers as equity is chosen over loans that are repaid withhigher interests. Charkravarty, (2005) argues that ―the stock marketplace is better compared to commercial banks.Performance of the stock market is affected by numerous factors especially government activities, availability ofsimilar investment assets, political instability as well as economic performance which cause them to fluctuate fromtime to time (Gitobu, 2000).

The Nigerian Stock Exchange consists of the systematized stock market and the Counter Market (OTC). Trading onthe Nigerian standard stock exchange is not open to the general investing public; only accredited members areallowed to transact on any of the trading floors. The Stock Exchange could be in corporate places where businessesare done on the trading floors by open outcry or electronically through a system of processors (Badullahewage,2019). The planned standard stock exchanges are regarded as formally organized markets with physical locationswhere market activities on companies' bonds, shares and stocks take place by open outcry through auction sales atthe stock exchange floors located in 13 states of the federation.

Over the counter market on the other hand do not require corporate places for market activities to take place(Emekekwe, 2005). Thus, it is a non-physical arrangement where only accredited members are allowed to transactbusinesses by connecting them electronically through telephone, fax mail, and computers for trading on safeties notregistered on the organized exchange. In this market, a private placement is a rule since these securities are soldprivately to investors through the unorganized stock exchange.

2.1.2 Stock Market Development in Nigeria

The Nigeria Stock Exchange (NSE), which was established in 1961, offers a platform for trading of shares and other financial securities (Nurudeen,2009). Over the years, this important role of NSE has facilitated the process of mobilizing funds from the surplus to the deficit units of the economy. As a result of this, a good number of corporations have been able to improve productive capacity and increase investment, an enabling environment for economic growth.

According to Nurudeen (2009), the Nigerian Capital market consists of the primary market, the secondary market, and the second-tier security market. The Investment and Securities Act (ISA) accredited the exchange with the Security and Exchange Commission (SEC) expending resources to regulate the market activities. Among the regulatory responsibilities of SEC are detection, investigation and prosecution of manipulation cases, unfair trading practices and other activities that contravene the market rules (Aliyu, 2014). According to Alajekwu and Achugbu (2012), there are 180 listed companies on NSE, with the exchange maintaining sectoral indices based on market

capitalization methodology and also adopting the All-Share Index as a gauge for overall market performance.

Over the years, the Nigerian stock market grew considerably both in size and liquidity. Until 2008, the stock market performance remained similar to that of many developed stock markets across the globe with the market indicators hitting a record high. For instance, market capitalization in 2007 (N13, 295 billion) had a quantum leap from its 1990 figure of N16.36 billion (Alajekwu&Achugbu,2012). Similarly, market turnover grew to roughly N2, 100 billion in 2007 from its 1990 figure of N0.31 billion (Brown &Nyeche, 2016). The overall performance of the exchange, measured by the All-Share Index, was reported by Nurudeen (2009) to have climaxed the era of the stock marketboom. The index peaked all-time high 57,990.2 points in 2007 from its low 1990 figure of 513.8 points. However, the impressive era of the stock market growth came to an end as a result of various sharp practices by the market participants. At the moment, the AllShare Index stands at 25, 339.39 points while the market capitalization is roughly N10, 160 billion (Brown &Nyeche, 2016).

2.1.3 Macroeconomic Variables Relevant in Stock Market Development

Maghyereh (2002) argues that Macroeconomic environment is the overall aspects andworkings of a national economy, such as income, output, and the interrelationship amongdiverse economic sector. Conducive macroeconomic environment promotes theprofitability of business which propels them to a stage where they can access securitiesfor sustained growth.

Asaolu and Ogunmuyiwa (2010) posit that the barometers for ensuring the performance of the economy include among others real GDP growth rate, rate of inflation, theexchange rate, fiscal position and the debt position. The lending rate, inflation rate aswell as the Treasury bill rate can be singled out to affect stock market activity as they impinge directly on the state of corporate activity in the country.The evidence that key macroeconomic variables help predict the time series of stockreturns has been accumulated for nearly 30 years. The assault on the conclusions drawnfrom the EMH includes early studies by Fama and Schwert (1977) affirming that macroeconomic variables influence stock returns.

2.2 Theoretical Framework

2.2.1 The Arbitrage Pricing Theory (APT)

The Arbitrage Pricing Theory (APT) developed by Ross's (1976) has been the primary motive of earlier studies and may be considered as global asset pricing models. Among macroeconomic factors included in the models are either monetary ones such as inflation, interest rate, exchange rate, etc. or real economic ones such as production, oil prices, etc. This study is based on the theoretical reasoning of the Arbitrage Pricing Theory stating that asset return can be explained by multiple risk factors. It is also used in an aggregate stock market framework, where a change in a given macroeconomic variable could be seen as reflecting a change in an underlying systemic risk factor influencing future returns. A number of APT theories based empirical studies by the likes of Fama (1981), Fama and French (1996), collectively conceded that there exists a significant relationship betweenstock market prices and

macroeconomic variables such as inflation, production index, yieldcurve, interest rates and risk premium. This paper, therefore, intends to explore the long-runrelationship between key macroeconomic variables and stock market performance considering the case of Nigeria and South Africa.

APT is an alternate way to deal with determinant assetprocess. It is also derives its basis from the 'law of oneprice' demonstrating markets in two different countries, thegoods and services will be priced in different currency base,but the value of the product should be the same. If the twosame product sell at different prices, an arbitrageopportunity would exists. This two way different testingmethod for the APT are mostly alike and the explanatoryfactor also approaches indicates governing stock returnperforming relatively (Iqbal & Haider, 2005).

2.3 Empirical Review

Hsing (2011) examines the effects of selected macroeconomic variables on the stock market index inSouth Africa. The exponential generalised autoregressive conditional heteroskedasticity (GARCH)(Nelson, 1991) model is applied. It finds that South Africa's stock market index is positivelyinfluenced by the growth rate of real GDP, the ratio of the money supply to GDP and the U.S. stockmarket index. It is negatively affected by the ratio of the government deficit to GDP, the domesticreal interest rate, the nominal effective exchange rate, the domestic inflation rate, and the U.Sgovernment bond yield.

Odhiambo (2011) uses ARDL-Bounds testing procedure to identify the dynamic causal relationshipbetween the stock market development and economic growth in South Africa from 1971-2007.Through co integration and Granger causality, the overall finding finds the causal flow from stockmarket development to economic growth to predominate. This is consistent with the conventionalsupply leading response in which the financial sector is expected to precede and induce the realsector development.

Kapingura, Mingiri and Palesa (2016) examined the relationship between the stockmarket and macroeconomic policy variables in South Africa. They employed Johansencointegration test and the restricted VAR model to analyse the relationship between the stockmarket and macroeconomic policy variables. The study showed that there is long-runrelationship between the selected macroeconomic variables and the stock market in SouthAfrica. The results obtained from the study also showed that changes in inflation rate, moneysupply, government expenditure, exchange rate and interest rate are transmitted into the stockmarket.

Also, Prempeh (2016) investigated the effect of some macroeconomic variables on stock price volatility in the Ghana Stock Exchange (GSE), annual time series data was employed. Inflation rate, real gross domestic product growth rate and interest rate were the macroeconomic variables used in the study. He employed granger causality technique to determine the causal relationship between stock prices and macroeconomic variables in Ghana. Results obtained from various empirical estimations showed that real domestic product rate granger caused stock price but stock price did not granger cause real domestic product rate. This implies that there is unidirectional relationship and causality running from Real Gross Domestic Product growth rate to stock price. Also from the model, both inflation

rate and interest rate did not granger cause stock prices. It is therefore concluded that a shock in real domestic product growth rate influences stock price volatility in Ghana.

Gupta and Modise (2011) modeled macroeconomics with South African stock return predictability.They report that for in-sample forecasts, interest rates, the money supply and world oil productiongrowth, have some predictive power in the short run. For out-of-sample forecasts, the interest ratesand the money supply exhibit short-run predictability, and the inflation rate shows a strong out-ofsample predictive power. However, when accounting for data mining, both the in-sample and theout-sample test statics become insignificant at all time horizons.

Bonga-Bonga and Makakbule (2010) investigate the relationship between stock returns and macroeconomic variables taking into account asymmetric adjustment behaviour in the stock market.The study applies the Smooth Transition Regression (STR) model through cointegration to accountfor smooth asymmetric response of stock returns from economic variables. The study, from 1988 to2006, found the FTSE/JSE All Share Index dividend yield being significant and of relevance to thisstudy, the rand / dollar exchange rate being insignificant.

Alam and Uddin (2009) examine the empirical relationship between stock index and interest ratesfor fifteen countries, one of which being South Africa, by using time series and panel regressions. ForSouth Africa, it was found that there was a negative relationship for interest rates and share price aswell as for changes of interest rate with changes of share price. However, the causality between thetwo was not investigated.

3.0 METHODOLOGY

3.1 Research Design

This study adopted the ex-post factoresearch design which is mainly secondary data source gotten from World Bank and CBN statistical bulletin and reflect the study period of 1990 to 2020, a period of 30 years. The design is considered equally suitable for the study of this nature because it can be usedto test the relationships between and among the variables of the study.The study uses the Autoregressive Distributed Lag (ARDL) form of Ordinary Least Squares (OLS) model which contains the variables of interest in Nigeria. The base year of 1990 was chosen because the Nigerian fiscal space had some regime swing and it will be good to hypothesize on the basis of the different political phases in Nigeria, while 2021 is the end period of the study for reason of availability of data.

3.4 Analytical Framework and Model Derivation

This study intends to explore the long-run relationship between key macroeconomic variables and stock market performance considering the cases of Nigeria. So, the macroeconomic-stock performance function is therefore expressed empirically as:

$$SMD = f(GDP, INF, BMS) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where:

SMD = stock market development

INF = real interest rate

GDP = gross domestic product per capita

BMS = broad money supply

The explicit form of the model is thus,

$$SMD_t = \alpha_0 + \alpha_{1i} SMD_{t-i} + \alpha_{2i} INF_t + \alpha_{3i} GDP_t + \alpha_{4i} BMS_t + u_t \quad . \quad . \quad . \quad (2)$$

Where,

t = represent the time dimension

α_0 = Intercept;

$\alpha_{1t} - \alpha_{4t}$ = coefficient of determination.

u_t = model error terms

The dependent variable was used as independent so as to check for the effect of multicoliniarity.

3.5.1 Definition of Variables

Variables	**Short code**	**Definition**
Stock market performance	SMD	First and foremost, it worth-noting that the dependent variable of interest is capital market development. Capital market development is measured using market capitalisation as a proxyfor stock market development and Botswana Bond Index as a proxy for the bond marketdevelopment. The expected signs of explanatory variables are explained below.
Inflation rate	INF	Macroeconomic stability is necessary for capital market development. The most common measure of macroeconomic stability used in this study is the inflation rate measured by CPI. Literature suggests that inflation can be either

		positive or negative in influencing capital marketdevelopment. Proponents for a positive relationship between inflation and capital marketdevelopment include the FisherHypothesis (1930) who argue that stocksprovide a hedgeagainst inflation and that nominal equity returns should be positively related to inflation, whileMcCarthy *et al* (1990), however, suggest a contradictory view that there is a negativerelationship between stock returns and inflation. The study expectsthat the relationshipbetween inflation and capital market development can be either positive or negative.

Real Output	GDP	The demand driven hypothesis suggests that the expansion of an economy will create new demand for financial services (Yartey, 2008). Increased demand will in turn increase pressure to establish larger and more sophisticated financial institutions to satisfy the new demand fortheir services. This study therefore adopts the real GDP per capita to measure output in the economy. Thestudy expects a positive relationship between the real GDP and capital market development.
Broad Money supply	BMS	This study adopts broad money supply (M2) as a proxy money supply because it is the most acceptable definition of money supply. The coefficient of money supply is expected to be positively signed because the greater the money supply, the greater the level of economic activities and as such the greater the level of investment in the stock market.

3.6 Hypothesis Testing and Decision Rule Criteria

The decision rule was employed to test the hypothesis of the study and to make comparison between the probability value and the critical value. The study adopted 5% as its level of significance. The following decision rules were adopted for rejecting or accepting the null hypotheses: If,

i. Probability value (p-value) > 0.05 critical value; do not reject the null hypothesis (H_{0i}).
ii. Probability value (p-value) < 0.05 critical value; reject the null hypothesis (H_{0i}).

4.0 DATA PRESENTATION AND ANALYSIS

4.1 Descriptive Statistics

The study conducted the descriptive statistics of the relevant variables involved. Table 4.1 vividly shows these statistics. It shows total number of observations, mean, median, maximum, minimum, standard deviation and the sum of mean deviation. SMDhas a minimum of 4.49% and a maximum value of 29.36% of Nigeria's GDP. In the same measure, the maximum and minimum values for GDP are $270.22 and $3,098.98; for BMS are 27.38% and 9.06%; for INF are 5.38% and 72.83%, respectively.

Table 4.1: Descriptive Statistics

	SMD	BMS	GDP	INF
Mean	10.05902	17.92610	1436.332	17.97359
Median	9.426263	15.84434	1462.404	12.71577
Maximum	29.35837	27.37879	3098.986	72.83550
Minimum	4.495084	9.063329	270.2240	5.388008
Std. Dev.	4.932761	6.060736	923.0286	16.37827
Skewness	1.932432	0.081290	0.196059	2.180692
Kurtosis	8.348029	1.374553	1.531827	6.659144
Jarque-Bera	58.05147	3.558014	3.079049	43.21467
Probability	0.000000	0.168806	0.214483	0.000000
Sum	321.8888	573.6351	45962.64	575.1548
Sum Sq. Dev.	754.2961	1138.708	26411435	8315.678
Observations	32	32	32	32

Source: Researcher

For the degree of volatility, the standard deviation in table 4.1 showed that GDP in Nigeria was more volatile having a standard deviation value of 923.0286. This is clearly so because the standard deviation value is the highest among all the data included in the model.

4.2 Model Estimation

The model estimate using the ARDL was adopted from Benson,etal (2019).The estimated lagged ARDL model from the coefficients is stated below:

SMD = 6.51 + 0.36*SMD (-1) + 0.21*BMS + 0.003*GDP – 0.17*INF

From the model estimation above, INF effect on stock market development was negative, while GDP and BMS were positive on it. However, the contribution of BMS to stock market development was seen to be the highest with a coefficient value of 0.21.

4.3 Hypotheses Testing

To test the hypotheses, we will use probability criteria, if:

$p > 0.05$: Accept H_O.

$p < 0.05$: Reject H_O.

4.3.1 Testing of Hypothesis One (1)

Hypothesis one is restated below:

$H0_1$: Inflation ratedoes not have significant effecton stock market development in Nigeria.

Table 4.2: Extraction for Testing Hypotheses One

Variable	Coefficient	t-Statistic	Prob.*	Decision
INF	-0.1761	-3.5470	0.0140	Reject H01

Source: Researcher

The result above shows that there is a negative and significant relationship between INF and SMD (representative of the performance of the stock market) in Nigeria. The result means that a single unit increase in INF leads to a decrease of 0.1761 units in stock market development in Nigeria. Since the computed probability value of INF (0.0140) is less than the critical test level of 0.05 (i.e. $P < 0.05$), we reject the null hypothesis and conclude that inflation has a significant impact on stock market developmentin Nigeria.

4.3.2 Testing of Hypothesis two (2)

Hypothesis two is restated below:

$H0_2$: Money supply doesnot have significant effect on stock market development in Nigeria.

Table 4.3: Extraction for Testing Hypotheses Two

Variable	Coefficient	t-Statistic	Prob.*	Decision
BMS	0.2148	0.9756	0.3383	Accept H02

Source: Researcher

The result in table 4.3 as issued in regression revealed that there is a positive and insignificant relationship between BMS and SMD (representative of the performance of the stock market) in Nigeria. The result means that a single unit increase in BMS leads to an increase of 0.2148 units

in stock market development in Nigeria. Since the computed probability value of BMS (0.3383) is greater than the critical test level of 0.05 (i.e. P > 0.05), we accept the null hypothesis and conclude that money supply has no significant impact on stock market development in Nigeria.

4.3.3 Testing of Hypothesis three (3)

Hypothesis three is restated below:

$H0_3$: Real outputdoes not have significant impact on stock market development in Nigeria.

Table 4.4: Extraction for Testing Hypotheses Three

Variable	Coefficient	t-Statistic	Prob.*	Decision
GDP	0.0029	1.7030	0.1005	Accept H03

Source: Researcher

Thirdly, the result in table 4.4 as issued in regression revealed that there is a positive and insignificant relationship between GDP and SMD (representative of the performance of the stock market) in Nigeria. The result means that a single unit increase in GDP leads to an increase of 0.0029 units in stock market development in Nigeria. Since the computed probability value of GDP (0.1005) is greater than the critical test level of 0.05 (i.e. P > 0.05), we accept the null hypothesis and conclude that real output has no significant impact on stock market development in Nigeria.

4.5 Discussion of Results

This study employed regression analysis to examine the macroeconomic determinants of the stock market development in Nigeria. The rest of this section discusses the findings of the study.

4.5.1 Effect of inflation rate on stock market developmentin Nigeria

Inflation rate has negative but significant effect both in the short run and long run on all share index. The explanation for this negative relationship supports the proxy effect of Fama (1981) who opined that an increase in the production cost is caused by higher inflation which adversely affects the level of real economic activity and investment profitability; since the real economic activity has direct impact on stock return, an increase in inflation will adversely affect the stock price. The result is in agreement with Sharpe (2002), Maku and Atenda (2009), Khumalo (2013) and Worlu and Omodero (2017) that discovered negative influence of inflation on stock market. While Elly and Oriwo (2012) and Boldwin et al (2018) maintained in their empirical analysis that inflation has positive effects on stock market.

4.5.2 Effect of money supply on stock market developmentin Nigeria

Money supply has positive but insignificant effect on stock market performance in Nigeria at the short run and long run. This can be argued that an increase in the money supply acts as an economic stimulus, invariably increase cash flows (the corporate earnings effect) and

increase stock prices. This result is tandem with the works of Maysami and Koh (2000), Kwanchanok (2000), Brahmasrene and Jiranyakul (2007), Shaoping (2008) and Duy and Hau (2017) who have identified positive relationships between money supply and stock price. The findings indicate that a rise in money supply leads to the development of economy based on the fact that there is a rise in cash flow and the share price will get benefits from the expansionary policy. This study negates the findings of Ratanapakorn and Shama (2007); Ibrahim and Aziz (2003); Osamwonyi and Evbayiro-Osagie (2012); and Aigbovo and Izekor (2015) who discovered inverse relationship between money supply and stock price.

4.5.3 Effect of Real output on stock market developmentin Nigeria

The study reveals that gross domestic product has positive but insignificant effect on stock market performance in Nigeria both in the short run and long run. The positive relationship effect indicates that there is direct relationship GDP and stock market performance in Nigeria. This implies that an increase in GDP will result to an increase in national disposable income and therefore more retail investment in the stock market. The result is consistent with the study of Nishat and Shaheen (2004), Ratanapokorn and Sharma (2007), Emmanuel and Samuel (2009) and Hsing (2011) that observed positive relation between real GDP and stock market in their studies. Conversely, the finding did not agree with Gan, Lee, Yong and Zhang (2006) and Maku and Atanda (2010) who revealed that real GDP significantly affect movements in the stock market and that real output consistently determine stock market performance.

5.0 Conclusion

This study examines the macroeconomic determinants of stock market development in the Nigerian economy. This was aimed at ascertaining how INF representing real interest rate, GDP representing gross domestic product per capita, and BMS representing broad money supply has stimulate the stock market development in Nigeria. Historical data was collated and estimated employing the ARDL form of Ordinary Least Squares (OLS) technique. The empirical results indicate that only inflation had a negative and significant impacts on stock market development while real output and money supply exerted positive but insignificant impacts.

6.0 Recommendations

On the basis of the findings of this study, the following recommendations are made.

a) The monetary authorities have to regularly review their monetary policy direction to bring inflation lower than it is.
b) Regulatory authorities and policy makers should ensure that there is general stability in money supply and exchange rates, while trying to put the inflationary trends under control and at the same time maintain a stable interest rate regime in the economy in order toachieve improvements in stock market performance to bring about desired economic growth and national development.

c) GDP is the most crucial economic indicator which tells us about the health of our economy. Therefore, the stock markets can be flourished with economic growth and policy makers should strive to improve growth to grow the stock market.

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