

# Macroeconomic Variables and the Returns on Stock Prices: Empirical Evidence from Nigeria

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DOI: 10.56201/ijbfr.v8.no3.2022.pg104.115

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## ABSTRACT

*In spite of the vital roles performed by the stock exchange market for the overall national development, it is still performing below expectations in Nigeria owing to several macroeconomic factors. Accordingly, the main objective of this study is to investigate the effects of selected macroeconomic variables on returns of stock prices in Nigeria. The study employed time series data obtained from the Central Bank of Nigeria statistical bulletin and World Development Indicators. Returns of stock price was measured using all-share index while the identified macroeconomic variables include GDP growth, broad money supply, exchange rate, interest rate and inflation rate. Autoregressive Distributive Lag (ARDL) estimation technique was used to establish the long run relationship among the variables and it was revealed that long run relationship exists among the variables in the estimated model. The result of the Error Correction Mechanism (ECM) within the framework of the ARDL shows that macroeconomic variables such as gross domestic product, broad money supply, exchange rate and interest rate have positive effect on returns of stock prices in Nigeria. On the other hand, the results showed that inflation rate has negative effect on stock prices in Nigeria. Predicated on the result, the study recommended that policies to increase gross domestic product, exchange rate, interest rate and money supply should be implemented because they can lead to improvement in the returns of stock prices, while inflation rate should be maintained at single digit to prevent its negative effect on the performance of the stock market in Nigeria.*

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**Keywords:** *Macroeconomic variables, stock price returns, autoregressive distributive lag, error correction mechanism.*

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## INTRODUCTION

In both developed and developing nations, the stock market has been recognized as an efficient channel for financial intermediation which exists between the deficit spending units (DSUs) and surplus spending units (SSUs). The pooling of domestic savings and mobilization of foreign capital for productive investment in developing economy through the capital market will help to promote an efficient and effective financial system (Odey, Effiong and Nwafor, 2017).

Mishra and Mishra (2010) opined that the capital raising effort of some domestic enterprises are hindered by illiquidity and high cost of transactions and may push them to foreign markets. Empirical studies have identified three fundamental channels through which capital markets and economic growth can be linked. First, the proportion of savings that is channelled to investment is propelled by capital market development. Second, the development in capital market may lead to change in savings rate and hence influence investment drive. Third, the efficiency of capital allocation can be increased by capital market development.

The stock exchange market in Nigeria has exhibited tremendous improvement in stock indices as obvious transformation has been witnessed in the Nigerian stock market (Riman *et al*, 2008). This is evidenced by the number of public and private participants on the floor of the market. For example, the overall market capitalisation had risen consistently from ₦6.6 billion in 1985 to ₦285.8 billion in 1996 but fell marginally to N281.9 billion in 1997 and rose again to N472.3 billion in 2000. Market capitalization however rose from N662.5 billion in 2001 to N9, 918.2 billion in 2010 but thereafter rose increasingly from N10, 275.3 billion in 2011 to N19, 077.4 billion in 2015 but fell sharply to N16, 185.7 billion in 2016 following the recessionary crisis in Nigeria. The recovery from the crisis led to an increase in market capitalization from N16, 185.7 billion in 2016 to N21, 904.0 billion in 2018 and N38,589.58 in 2020 (CBN, 2021). In the same vein, statistics have shown that there were improvements in all shares index in the stock market. In absolute terms, all shares index rose from 127.3 basis points in 1985 to 8, 11.0 in 2000 and 24,770.5 in 2010. It further rose to 41,329.2 in 2013 but plummeted to 31,430.5 in 2018 and 27,485.27 basis points in 2020 (CBN, 2021). In the same vein, statistics have shown that there have been improvements in the all-share index in the stock market. The all-share index rose consistently from 127.30 basis points in 1985 to 513.80 basis points in 1990. The all-share index thereafter increased rapidly from 513.80 basis points in 1990 to 1,107.60 basis points in 1992 and further increased to 5,092.20 basis points in 1995. All share index however fluctuated between 5,266.40 basis points and 8,111.00 basis points from 1996 to 2000. The index rose again rapidly from 8,111.00 basis points in 2000 to 24,085.80 basis points in 2005 and then rose to 57,990.20 basis points in 2007 but fell sharply to 20,827.17 basis points in 2009. The index fluctuated between 20,730.63 basis points and 34,657.15 basis points from 2010 to 2014. It was 28,642.25, 26,741.62, 38,243.19, 31,430.50, 29,060.30 and 40,096.81 basis points in 2015, 2016, 2017, 2019 and 2021, respectively (CBN, 2021).

Certain macroeconomic factors in an economy influence the efficient performance of the stock market. The sensitivity of stock performance can be judged based on the movement of these factors. Predicated on these, foreign investors and government can make rational decision on the allocation and timing of acquiring stocks on the floor of the market.

Empirical data showed that Nigeria has witnessed high episode of inflation and dwindling GDP growth rate. The rate of inflation rose from 7.4 percent in 1985 to 72.8 percent in 1995. It dropped to 8.1 percent in 2014 but increased to 17.37 percent in 2020. The high inflation rate with its attendant volatility has serious and dampening effects on the economy as it interferes with individual's investment pattern and firms' investment decisions in the stock exchange market.

Moreover, poor socio-economic indices in the country suggest that macroeconomic policies in general do not have any significant effect on returns in stock prices in Nigeria. The Nigerian economy is still faced with sustained underdevelopment evidenced by poor economic indices such as high rate of unemployment, inequality in income distribution, decaying

infrastructures, high levels of poverty, endemic corruption, poor standard of living as a result of decreasing gross domestic product, low per capita income and high rate of inflation which have adversely affected the economy. The main objective of this study is to investigate the effect macroeconomic variables on the returns of stock prices in Nigeria. The study covers from 1985 to 2021 using data on annual basis.

## **LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

### **Theoretical Underpinnings**

This study is rooted on the efficient market hypothesis. This theory was developed by Fama (1965) which holds that in an efficient market stock prices adjust instantaneously to reflect new information such that it becomes difficult for an individual to trade on such information and earn abnormal returns. According to this theory, financial market is efficient predicated on all known information and the unbiased nature of investors in propelling the future prospects of firms. This hypothesis states that stock prices reflect all available information, and this means that data mining cannot predict future price level. The efficient market hypothesis exists in three main versions, namely, the strong market hypothesis, semi-strong market hypothesis as well as the weak form of efficient market hypothesis. The weak form of efficient market hypothesis opined that only past historical evidence of prices is incorporated by the current information. According to this hypothesis, security prices are the most available information to investors. The semi-strong market hypothesis asserts that publicly available information is reflected by stock prices. The information includes the financial situation of the firm, past prices as well as a firm's financial statement, accounting practice, earnings and dividend policy and the level of competition. Semi-strong form of efficient market hypothesis stipulates that not only the historical information that is absorbed by stock prices but also the information that is publicly available. The strong form of efficient market hypothesis revealed that traded asset price reflects past and present publicly available information as well as privately held information. The strong form of efficiency is largely theoretical, due to the fact that privately held information can be used for insider trading, thus, allowing the holder of such private information to earn abnormal profits. In practice however, under strong form of efficient market hypothesis, insider trading is discouraged by criminalizing the act (Uzonwanne, 2012).

### **Empirical Evidence**

Amadi, Oneyema and Odubo (2000) applied the multiple regression models in estimating the relationships between stock prices and other macroeconomic variables such as money supply, inflation, interest rates, and interest rate. The results revealed theoretical consistency between stock prices and the macroeconomic variables used.

Kyreeborah, Anthony and Agyire (2008) studied Ghana stock market using macroeconomic indicators from 1991 to 2005. They found that commercial bank lending rates and inflation have adverse effect on stock market performance and serve as major constraints to business growth in Ghana.

Naceur, Ghazouani and Omran (2007) examined how macroeconomic factors determine stock market development in 12 middle-east and north-African (MENA) countries, applying regression analysis. It was revealed from the findings that savings, private sector loans and advances, liquidity in stock market as well as inflation were significant in determining the performance of stock market, while income level and investment stock are insignificant factors influencing stock market development in the regions.

Ezeoha et al (2009) examined the nexus between private investment, foreign investment and stock market development in Nigeria, and discovered that domestic private investment flows are promoted by stock market capacity and can be enhanced through national income growth.

Maku and Atanda (2010) empirically examined the macroeconomic determinants of stock market performance in Nigeria from 1984 to 2007. It was revealed from the empirical study that all shares index is more responsive to changes in macroeconomic fundamentals.

Mansor (2011) examined the long run relationship between stock market development and real economic variables for Thailand using co-integration and vector auto-regressive (VAR) approaches. The results revealed dual-directional causality between stock market capitalization and real GDP, and were positively related.

Kemboi and Tarus (2012) utilized quarterly data from 2000 to 2009, in examining the macroeconomic determinants of stock market development in Kenya. The study employed both the co-integration test and error correction model (ECM) in testing the dynamic relationship between the variables. The autoregressive distributed lag (ARDL) approach was equally used to analyse the stock market development. The results of the co-integration test showed that there was a long run equilibrium relationship among the variables in the model.

El-Nader and Alraimony (2013) studied the major macro-indicators affecting stock market development. The error correction model shows that macroeconomic indicators such as gross capital formation growth rate, money supply growth rate, consumer price index, stock market liquidity growth rate and credit to private sector growth rate have positive relationship with stock market development while the growth rate of net remittance has negative effect on stock market performance.

Osisanwo and Atanda (2012) examined the factors that influence stock market returns in Nigeria from 1984 to 2010. Hence, the study suggests the need for Nigeria stock market to adopt a mixed policy approach between capital and monetary market instruments so as to promote efficient stock returns.

Shafana (2013) investigated how macroeconomic variables such as all shares index and Mitarka price index in Sri Lanka influence stock market performance between 2008 and 2012 using annual data. The result of the analysis indicated that Treasury bill rate, exchange rate and inflation rate jointly explained about 85.5 percent variation in share price index and 75.2 percent in Mitarka price index.

Onyinyechi and Mlanga (2019) investigated the role of macroeconomic variables in determining the stock market performance in Nigeria using annual time series data covering a period from 2009 to 2018. The results from the regression analysis indicate that exchange rate and interest rate do not have significant impact on share price index while inflation rate exerts a significant negative influence on share price index. On the contrary and in line with the concept of GDP and stock market performance, GDP significantly and positively impacts on share price index. The study among others suggests that the growth of the economy should be maintained to keep stock market flourishing while macroeconomic variables such as inflation, interest rate and exchange rate should be appropriately regulated by the relevant authorities to curtail all negative influences on stock market performance.

Obah (2020) investigated the effectiveness of economic forces in assets pricing on the Nigerian emerging stock market for the period of February 2010 to January 2019 based on monthly time series data sourced from the Nigerian Stock Exchange (NSE). Applying the Autoregressive Distributed Lag Model (ARDL) bound test for co-integration and the dynamic

ordinary least square were employed for the analysis of data. The result of the ARDL bound test demonstrates no long-run relationship among variables. The dynamic least square outcome revealed an insignificant impact of macroeconomic variables in influencing Nigerian stock prices in Nigeria.

## METHODOLOGY

The design adopted in this study was an *ex post facto* (after the fact) design. This is because the events had already taken place before the investigation is carried out. The choice of this design is made because the researcher has no control of the independent variables and inferences about the relationship among the variables are made without the current interaction among the regressand and regressors. The design is predicated on various econometric techniques such as Augmented Dickey-Fuller (ADF) unit root test, error correction mechanism and autoregressive distributive lag model also known as bound testing co-integration test.

The dependent variable for this study is the all-shares index while the independent variables are interest rate spread (i.e., lending minus savings deposit rate), exchange rate, inflation rate, gross domestic product growth rate and the growth rate of broad money supply. The model for this study in its functional form is expressed as:

$$ASI = f(ASI, GDPGR, M2GR, EXCHR, RINTR, INFLA) \quad 1$$

Where:

ASI = All shares index, measuring returns on stock prices in Nigeria (in basis point).

RINTR = Real interest rate, represented by lending minus savings deposit rate

INFLA = Inflation rate in Nigeria (in percent)

GDPGR = Gross domestic product in Nigeria (growth rate)

M2GR = Broad money supply in Nigeria (growth rate)

EXCHR= Exchange rate (units of naira per US dollar)

The equation in 1 is then written in a linear form as follows.

$$ASI_{t-i} = a_0 + a_1ASI_{t-i} + a_2GDPGR_{t-i} + a_3M2GR_{t-i} + a_4EXCHR_{t-i} + a_5RINTR_{t-i} + a_6INFLA_{t-i} + U_t \quad 2$$

Where:  $a_0, a_1, a_2, a_3, a_4, a_5, a_6$  are the parameters to be estimated;  $U_t$  is the random error term; and  $t-i$  is the lagged values of the variables captured in the equation, for which  $i = 0, 1, 2, \dots, n$ . The significance of the lagged values is meant to measure the effect of past values of both the dependent and the independent variables on the current value of the dependent variable. The reason for this is that policy variables may not exert instantaneous effect on the dependent variable but may take some time lags before the effect could be felt in the economy. All shares index represents returns in stock prices, reflecting the composite value of the market characteristics. It is therefore a representative of the performance of the entire stock market. Interest rate used in this study is real interest rate. This is defined as the rate of interest that banks lend to customers minus the ones banks pay to customers for depositing money with them. Thus, the higher the real rate, the higher will be the propensity to save and the higher will be the level of savings which then can be channeled into investment in the stock market. A positive relationship is expected between real interest rate and all shares index. Exchange rate is the rate at which the domestic currency exchanged with the United States dollar. Exchange rate should have a negative relationship with stock price returns. This is so because the depreciation of the currency leads to a decrease in reserves and money supply, which leads to an increase in interest rate. Gross domestic product growth rate is the percentage change in the market value of all productive items in the economy by all the residents, irrespective of their nationalities. Gross



domestic product is used in this study as income. The coefficient of income is expected to be positively related with all shares index. Broad money supply growth is the wider definition of money supply. The higher the growth rate of money supply, the higher would be the level of financial deepening and hence stock exchange investment. The coefficient of money supply is expected to be positive with all shares index. Inflation rate is the persistent rise in the overall level of prices for goods and services. This variable is captured in this study as a measure of macroeconomic instability. Its coefficient is expected to be negative with all shares index.

The sources of data were basically secondary. The secondary data were extracted from the publication of Nigeria Stock Exchange, Central Bank of Nigeria and World Development indicators. The data were annual aggregate from 1985 to 2021.

## ANALYSIS AND DISCUSSION OF FINDINGS

### Unit root test

The main objective of this study is to investigate the effect of macroeconomic variables returns of stock prices in Nigeria. To achieve this, we employed the bound testing approach and established the long run relationship among the variables. However, the validity of the results depends on the stationarity of the time series data. Therefore, the first task is check for unit root. As indicated in table 1, GDPGR and M2GR were stationary at levels. In other words, the variables are integrated of order zero (i.e., I (0)). However, EXCHR, RINTR and INFLA became stationary after first differencing. The aforementioned variables are therefore integrated of order one i.e., they are I (1).

Where some of the variables are I (0) while others are I (1) one suggests the problem of unit root in the equations. It becomes imperative to perform co-integration tests to determine the presence of equilibrium relationship amongst the variables. The study adopts the ARDL bound testing technique for co-integration, as the variables are integrated of diverse orders (i.e., order zero and order one). The choice of the ARDL is justified by its ability to isolate the issue of order of integration, suitability for small sample investigation and the provision of unbiased estimates of the long run model with applicable t-statistics. ARDL can be used when there is mixed order of integration (i.e., combination of I (0) and I (1) or both. It equally involved just a single-equation set up, making it simple to implement and interpret; and different variables can be assigned different lag lengths as they enter the model.

**Table 1: ADF unit root test results**

Variables	ADF		Order of integration	1% Critical value	5% Critical value	10% Critical value
	Level	1 <sup>st</sup> Difference				
ASI	-1.568062	-5.814525	I(1)	-3.737853	-2.991878	-2.635542
GDPGR	-4.485293	-	I(0)	-3.737853	-2.991878	-2.635542
M2GR	-3.780974	-	I(0)	-3.737853	-2.991878	-2.635542
EXCHR	-0.722698	-4.920822	I(1)	-3.737853	-2.991878	-2.635542

<i>RINTR</i>	-0.959563	-5.811701	<i>I(1)</i>	-3.737853	-2.991878	-2.635542
<i>INFLA</i>	-2.128255	-3.300588	<i>I(1)</i>	-3.737853	-2.991878	-2.635542

Source: Researcher's computation (2022), using Eviews 9.

### Lag length selection criterion

The efficiency and validity of an error correction model depends on the lag structure. The study used VAR lag order selection criteria to determine the lag lengths. The study employed the Akaike Information Criterion (AIC) and the result shows three optimal lag lengths as shown in table 2. In order to reduce the possibility of underestimation whilst maximizing the likelihood of recovering the true lag, the study used three as the maximum lag lengths. Since our sample size is relatively small, the choice of using AIC approach is appropriate for this study. Thus, our proposed ARDL estimate is based on lag 3 as shown in table 2.

**Table 2: Lag order selection**

**Endogenous variables: ASI GDPGR M2GR EXCHR SINTR INFLA**

<i>Lag</i>	<i>LogL</i>	<i>LR</i>	<i>FPE</i>	<i>AIC</i>	<i>SC</i>	<i>HQ</i>
0	-940.9687	NA	1.38e+19	61.09476	61.37230	61.18523
1	-843.5325	150.8690	2.74e+17	57.13113	59.07395*	57.76444
2	-807.2984	42.07829	3.58e+17	57.11603	60.72412	58.29218
3	-735.4182	55.64922*	8.50e+16*	54.80117*	60.07455	56.52016*

\* Indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

### Co-integration test results

From the bound testing result reported in Table 3, long run relationship exists amongst the variables in the estimated equation, given that the value of the F-statistic (3.896) is greater than the critical value at five per cent level in both the upper (3.79) and the lower (2.62) bounds. Therefore, the null hypothesis of absence of co-integration is rejected, while the study proceeds to estimate the long run coefficient of the equation.

**Table 3: Co-integration test results**

Equation	5% critical value			Outcome
	K	F-Stat.	I (0) I (1)	

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$$ASI = f(GDPGR, M2GR, EXCHR, RINTR, INFLA) \quad 5 \quad 3.896 \quad 2.62 \quad 3.79 \quad Co-integration$$

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Note: K =number of parameters

Source: Researcher's computation, using Eviews 9.

### Discussion of Results

The long run results of the model are reported in table 4.a. From the results and in consonance with theoretical expectation, a positive relationship exists between gross domestic product growth (GDPGR) and all-share index. The value of the coefficient of 829.44 implies that an increase in gross domestic product growth (GDPGR) by 1 percent will result to a decrease in all-share index by 829.44 percent in the long run. The p-value indicates that GDPGR is statistically insignificant. This simply means that when the economic grow overtime, it will enhance the performance of the stock exchange market. Furthermore, a positive relationship exists between broad money growth (M2GR) and all-share index in Nigeria. The value of the coefficient of 3810.28 implies that an increase in broad money supply (M2GR) by 1 percent will result to an increase in all-share index by 3810.28 percent in the long run. The p-value indicates that GDPGR is statistically significant at the 5 percent alpha level with a coefficient of 0.0016, signifying that the deepening of the financial market will enhance performance of the Nigerian stock market. However, exchange rate, real interest rate and inflation rate have negative relationship with all-share index in Nigeria. The values of the coefficients of 78.51, 4652.51 and 2267.85 implies that an increase in these variables by 1 percent will instigate a decrease in all-share index by the respective values in the long run. The p-values indicate that the variables were statistically significant, implying that they have significant influence on stock returns, ceteris paribus. signifying that the deepening of the financial market will enhance performance of the Nigerian stock market.

From table 4b, the error correction mechanism (ECM) within the framework of the Autoregressive Distributive Lag (ARDL) model has the correct sign and size. The error correction coefficient in the estimated model met the three criteria for its acceptability given that it is negative, fractional and statistically significant. Consequently, the estimated result confirms the presence of long run relationship among the variables in the model. It also shows that the speed of adjustments is high in the estimated model. The value of the adjusted R-squared (0.80) implies that the model has good fit and high explanatory powers, as it explained about 80 percent of the total variation in the dependent variable leaving only about 20 percent for those variables not captured in the model. The Durbin-Watson Statistic of 2.90 connotes absence of autocorrelation in the estimated model. The study, therefore, accepts the null hypothesis of no serial correlation in the model. This further implies that the error terms of different periods are



not serially correlated. The F-statistic value (6.81) shows that the model is generally reliable and statistically significant at 5 percent level of significance.

Based on the results, it showed that the previous one period value of all shares index has positive and significant impact on its current value in Nigeria. This outcome is in consonance with a priori expectation, implying that one percent increase in one period lag value of all shares index will instigate a rise in the current value of all shares index by 0.43 percent, *ceteris paribus*. The one period lag of all shares index was statistically significant implying that all shares index is an essential variable that influence stock market returns in Nigeria. From the result, the change in GDP directly affects all shares index, and statistically significant at current period. This is an indication of the positive impact of economic growth on stock market returns in Nigeria. However, the relationship between gross domestic product growth rate and all shares index became negative after first and second period lags. The statistical significance of gross domestic product growth rate after second period lag further reaffirmed the relevance of the variable in influencing returns on stock prices in Nigeria. Hence, a one percent increase in gross domestic product growth rate will instigate about 22.76 percent increase in all shares index at the current period, but decrease all shares index value by 141.94 and 1211.59 percent, respectively, after first and second period lags. The broad money supply indirectly affects all shares index but not statistically significant at current and one period lags with the coefficients of 190.84 and 188.96 percent, respectively. The variable was directly related to all shares index after second period lag. The non-significance of broad money supply could be justified on the ground that the Nigeria's financial system needs to perform better in the area of aggregate money stock for the exchange market to improve. Hence, a 1 percent rise in broad money supply instigates a rise in all shares index by 225.995 basis points.

However, exchange rate and all shares index in Nigeria were inversely related at current and second period lag. This is consistent with theoretical expectations. This is so because, the devaluation of the currency is expected to be accompanied by decrease in reserves, money supply and a rise in interest rate, which in turn encourage investment in financial instruments such as stocks. In absolute terms, a one percent increase in the exchange rate led to a decrease in the all-shares index by 3.02 and 82.95 percent in the current and second period lag, all things being equal. However, exchange rate and all shares index were positively related after first period lag. This variable was found to be statistically insignificant in influencing all shares index in Nigeria.

Interest rate was positive at current and second period lag in line with economic theories. Note that a rise in interest rate will lead to an increase in financial sector saving mobilization which in turn can be invested in the stock exchange market and hence lead to an increase in the volume of stocks traded. In absolute terms, a one percent increase in current and one period lag of interest rate led to an increase in all shares index by 1248.77 and 855.87 basis points, respectively in Nigeria. The relationship between interest rate and all shares index is indirect after one period lag, with a coefficient of 219.55. Statistically, the variable was insignificant in influencing all shares index in Nigeria.

Further analysis of the results showed that the rate of price changes (inflation) has indirect effect on all shares index in the economy. This result is in line with economic theories. Practically, the results showed that a one percent rise in the general price level will instigate a decrease in all shares index by 17.83 and 238.54 percent at current and first period lag

respectively, ceteris paribus. Inflation rate was found to be statistically significant in influencing all shares index in Nigeria after first period lag.

**Table 4a**

**Error Correction Results: Long Run Results**  
**Dependent Variable: ASI**

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
<i>GDPGR</i>	829.44222	568.02919	1.460211	0.1945
<i>M2GR</i>	3810.2825	699.96775	5.443511	0.0016
<i>EXCHR</i>	-78.511701	38.608300	-2.033545	0.0882
<i>RINTR</i>	-4652.5170	787.46968	-5.908186	0.0010
<i>INFLA</i>	-2267.8585	399.74736	-5.673230	0.0013
<i>C</i>	14632.2356	8665.7407	1.688515	0.1423

**Table 4b**

**Error Correction Results: Short Run Results**  
**Dependent variable: D (ASI)**

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
<i>D(ASI(-1))</i>	0.432116	0.170015	2.541633	0.0316
<i>D(GDPGR)</i>	22.76297	138.4148	0.164455	0.8730
<i>D(GDPGR(-1))</i>	-141.9453	150.9593	-0.940289	0.3716
<i>D(GDPGR(-2))</i>	-1211.593	223.9986	-5.408931	0.0004
<i>D(M2GR)</i>	-190.8449	129.7809	-1.470513	0.1755
<i>D(M2GR(-1))</i>	-188.9675	115.9606	-1.629579	0.1376
<i>D(M2GR(-2))</i>	225.9587	84.36762	2.678255	0.0253
<i>D(EXCHR)</i>	-3.026164	39.18978	-0.077218	0.9401
<i>D(EXCHR(-1))</i>	82.95977	53.31741	1.555956	0.1541
<i>D(EXCHR(-2))</i>	-66.88262	75.98601	-0.880200	0.4016
<i>D(RINTR)</i>	1248.770	701.5981	1.779894	0.1088
<i>D (RINTR (-1))</i>	-219.5505	643.0707	-0.341410	0.7406
<i>D(RINTR (-2))</i>	855.8734	484.2776	1.767320	0.1110
<i>D(INFLA)</i>	-17.83858	83.28135	-0.214196	0.8352
<i>D(INFLA(-1))</i>	-238.5426	114.0648	-2.091291	0.0660
<i>ECM(-1)</i>	-0.861305	0.191856	-4.489326	0.0015
<i>R-squared</i>	0.940806			
<i>Adjusted R-squared</i>	0.802688			
<i>F-statistic</i>	6.811584	<i>Durbin-Watson stat</i>	2.907842	
<i>Prob(F-statistic)</i>	0.002749			

Researchers' computation (2022), using Eviews 9.

## CONCLUSION

The study was carried out to examine the effect of macroeconomic variables such as gross domestic product, broad money supply, exchange rate, real interest rate and inflation rate on return of stock prices in Nigeria. It is generally acknowledged that the efficient functioning of the stock market is vital to the growth and development of the Nigerian economy. Therefore, the study concludes that gross domestic product, broad money supply, exchange rate, and interest rate have positive effect on returns in stock prices in Nigeria, while inflation rate has negative effect on the performance of stock market. It further means that these variables are policy variables that must be considered if the stock market returns must improve.

Based on the findings, it is recommended that policies aimed at increasing the aggregate output in the economy should be implemented. This can be achieved by providing basic infrastructures such as steady electricity supply, functional transport and communication facilities and stable political environment in the country. Money supply should be increased to ensure efficient financial deepening of the Nigerian economy. However, caution must be exercised not to embark on excessive supply of money as this can trigger inflation and hurt the performance of the stock market. Hence, Money should be channel through the productive sectors of the economy like infrastructural development and manufacturing. A proper management of the current exchange rate system in Nigeria is relevance. In essence, the devaluation process should be managed properly to avoid further decline in the performance of the stock market. Caution must be taken in implementing policies that affect interest rate (such as savings deposit rate and treasury bills rate). This is because any attempt to increase or decrease it will either attract or scare investment in the financial sector in general and stock market in particular. Therefore, adequate consultation between stakeholders is required before considering a change in interest rate.

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