EFFECT OF SELECTED MACROECONOMIC VARIABLES ON STOCK PERFORMANCE IN NIGERIA

[1]Mungadi, Dauda Danladi, [2]Nwala, Maureen Nneka,
[3]Abubakar, Idris Ayokanmi and
[4]Onibiyo, Ezekiel Rotimi
[1,2,3 & 4]Department of Banking and Finance
Nasarawa State University, Keffi

Abstract

The effect of macroeconomic variables on stock performance has attracted considerable research interests. This is because macroeconomic variables interplay serves as barometer for the economy measured by stock performance. This study examines the effect of selected macroeconomic variables on stock performance in Nigeria for the periods of 1983 to 2018 using Autoregressive Distributed Lag technique to analyse the data. The study proxy stock performance with total market capitalisation while selected macroeconomic determinants used are foreign workers remittance, foreign portfolio, broad money supply and Gross Domestic Product growth rate. The study tests for stationarily of the time series secondary data with Augmented Dickey Fuller Test and the result of the results of the test suggest that all the data are stationary at first difference, except Gross Domestic Product growth rate that was stationary at level. The study found out that foreign workers remittances, foreign portfolio and broad money supply have significant positive effect on stock performance while Gross Domestic Product growth rate has an insignificant effect on stock performances. Based on these findings, the study concludes that the selected macro determinants should attract government attention in Nigeria. In the light of the outcome of the study, the study recommends that the Central Bank of Nigeria should continue to design frameworks and policy that would promote and retain portfolio investment in the country and also ensure further reduction in the cost of remittance into the country. That Securities and Exchange Commission and Nigerian Stock Exchange should strive to improve on market capitalization of stock market by attracting listing and increased trading activities with a platform that put attractive financial assets in the global market.

Keywords: Foreign Portfolio, Foreign Workers Remittances, Gross Domestic Product Growth Rate, Stock Performance.

Introduction

The stock market is an economic barometer that reflects all macroeconomic activities that play out in a given country (Ilaboya & Ibrahim, 2004). The interface between stock market and macroeconomic factors has been a fascinating study

interest with regards to both developed and emerging economies. Macroeconomic variables are the aggregate indicators of an economy and they include unemployment rates, Gross Domestic Product (GDP), and the relationship among the various sectors of the economy which better reveals how the entire economy operates. It is also a point of note that economies with strong macroeconomic fundamentals tend to grow faster than those without them (Dewan & Hussein, 2001).

The significance of macroeconomic variables on stock performance and the need for harnessing those fundamentals cannot be ignored. For instance, data from International Monetary Fund recent Migration and Remittances report show that out of the total worldwide remittances of $689 billion over $529 billion went to emerging economies in 2018 with Nigeria leading in West Africa and closely trailing second in African behind Egypt (Global Financial Stability Report, 2018). In the same vein, the Central Bank of Nigeria (CBN) confirms that over 6% of her 2018 GDP can be explained by foreign workers remittances (CBN, 2018).

A growing volume of studies such as (Maku & Atanda, 2010; Mandaci, Atkan, Gumuş & Tvaronavičienė, 2013; Prempeh, 2016) have investigated the determinants of stock performance especially after the recent global financial crisis by focusing on several categories of macroeconomic variables that affect stock performance.

Measures of stock performance differ across empirical studies Most studies used stock market All Shares Index, GDP, total market capitalisation, GDP growth rate and growth rate in market capitalisation. Stock performance is measured by total market capitalization of the Nigerian stock market in this study. The set of macroeconomic variables used to explain stock performance varies across empirical studies, but generally includes broad measures of macroeconomic performance, such as GDP growth rate, unemployment rate, interest rates, money supply, inflation and exchange rates.

In the majority of studies that investigated the effect of macroeconomic determinants of stock performance, most of the empirical studies were mostly carried out in emerging markets. In Kenya, investigations on effect of macroeconomic variables on stock performance are Nyaga (2017); Achar (2015), Nyang'oro (2013); Olwenyi and Kimani (2011). Also, similar studies were carried out in Turkey such as the studies of Özge (2015); Kaya and Ondes (2014). In Malaysia, Nurul, Aziz and Azimi (2017) conducted an empirical investigation on effect of

macroeconomic variables on stock performance. In Jordan, Oshaibat and Majali (2016) conducted an empirical investigation on effect of macroeconomic variables on stock performance.

In the developed climes, Pichá (2017) study was on effect of selected macroeconomic variables on stock market in United State of America. Some of the existing studies in Nigeria such as (Maku & Atanda, 2010; Osuagu, 2011; Aliyu, 2011; Nwaolisa, Kasie & Egbunike, 2013; Omoruyi & Osariemen, 2015), majorly examined broad money supply, foreign portfolio and GDP while neglecting workers remittance. The combination of these selected macroeconomic determinants such as worker's remittance from abroad, FPI, broad money supply and GDP growth rate on stock market performance in Nigeria is unique and stands out with no existing knowledge of it being done before in the Nigeria environment, especially with respect to these selected four macroeconomic variables.

The main objective of this study is to examine the effect of selected macroeconomic variables on stock performance in Nigeria. Other specific objectives are to assess the effect of foreign worker's remittances, FPI, broad money supply and GDP growth rate on stock performance in Nigeria.

Literature Review

Stock Performance

Stock market performance plays the function of a national economy barometer, as such it is globally seen as the economic health indicator of the present. That also mirrors the possible potentials of an economy as well as a gauge of confidence of both domestic and global investors. Hence, the dynamic connection between stock prices and macroeconomic variables can be used to make a nation's macroeconomic policies (Oshaibat & Majali, 2016). This study proxies stock performance with market capitalisation. Market capitalization refers to the total market value of a company's outstanding shares of stock. Commonly referred to as "market cap," it is calculated by multiplying the total number of a company's outstanding shares by the current market price of one share.

Workers' Remittance

Remittances are transfers sent by migrant workers back to relatives in their country of origin. Workers' remittances are current private transfers from migrant workers who are considered resident of the host country to recipients in their country of origin. If the migrants live in the host country for a year or longer, they are considered residents, regardless of their immigration status. If the migrants have lived in the host country for less than a year, their entire income in the host country should be classified as compensation of employees. Migrants' transfers include financial items that arise from the migration (change of residence) of individuals from one economy to another.

Foreign Portfolio Investment

Foreign Portfolio Investment (FPI) consists of the acquisition of assets by a foreign national or company in a domestic stock market. It refers to the holding of transferable securities, equity shares; debentures, bonds, promissory notes and money market instruments issued in a domestic market by the nationals of some other countries.

Makola (2003) defines FPI as the foreign direct investor's purchase of shares of an enterprise in a country other than its own. According to Graham and Spaulding (2005), FPI can simply be referred to as indirect investment which in contrast to direct investment. It is the investment of a company from one country making a physical investment into building a factory in another country. In various press releases by the United Nations Conference on Trade and Development (UNCTAD), foreign portfolio investment was defined as an investment involving long-term relationship reflecting an investor's lasting interest in a foreign entity.

FPI is part of international capital flows consisting of transfer of financial assets, such as cash, stock or bonds across international borders in want of profit. It arises when investors purchase non-controlling interests in foreign companies or buy foreign corporate or government bonds, short-term securities or notes (Schneider, 2003). FPI consists of financial assets held by foreign investors, FPI does not give the investor the right with direct ownership of financial assets, or direct management of the corporate entity.

Broad Money Supply

Broad money is a category for measuring the amount of money circulating in an economy. It is defined as the most inclusive method of calculating a given country's money supply, the totality of assets that households and businesses can use to make payments or to hold as short-term investments, such as currency, funds in bank accounts, and anything of value resembling money.

Gross Domestic Product Growth Rate

Gross Domestic Product (GDP) measures the monetary value of final goods and services, that is, those that are bought by the final user in an economic territory in a given period of time (say a quarter of a year). It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. GDP can be measured using the expenditure approach as the sum of expenditure on final consumption plus gross capital formation plus exports less imports, the production approach as the value of output less intermediate consumption plus any taxes less subsidies on products not already included in the value of output, or the income approach as compensation of employees plus gross operating surplus plus gross mixed incomes plus taxes less subsidies on both production and imports. GDP growth rate is the percentage change in the GDP between two consecutive years.

Empirical Review

Workers' Remittances and Stock Performance

Waheed and Aleem (2008) investigated the connection between workers' remittances and economic growth of Pakistan over the period of 1981 to 2006. Results showed a significant direct impact of workers' remittances on economic growth in the short run while an indirect and significant connection is found in the long run.

Mandaci, et al., (2013) analysed the determinants of stock market development in thirty advanced and emerging countries within the period of 1960 to 2007 covering pre-financial global meltdown of 2007 with explanatory variable as workers' remittances. The application of SUR estimation disclosed that workers remittance has significant direct effects on stock market development measured by market capitalisation. Likewise, the work of Oshaibat and Majali (2016) clarified the impact

of workers' remittances on stock returns in the Amman stock exchange, during the period 1980 to 2014 of which the study showed that there is an indirect, impact of workers' remittances on stock returns.

Foreign Portfolio Investment and Stock Performance

Malik (2013) examined the role of foreign private investment in the stock market development of three major South Asian Countries: Pakistan, India and Bangladesh with data from 1988 to 2011. The dependent variable is stock market development proxy by market capitalisation. The correlation result showed an indirect correlation between stock market development and FPI in Bangladesh.

Aigheyisi and Ovuefeyen (2013) examined the effect of the inflows of foreign financial resources into Nigeria's and Ghana's economies on the development of the countries' stock exchanges for the periods of 1988 to 2011 for Nigeria, and 1991 to 2011 for Ghana. Market capitalisation to GDP ratio was used to proxy stock market development. The study though cross country work, established that FPI is directly related to market capitalisation in both countries.

Nyang`oro (2013) investigated the effect of foreign portfolio flows on stock performance of Nairobi Securities Exchange 1996 to 2011, using a multifactor pricing model. The results showed that FPI has an effect on domestic stock market returns. The limited period of review of the study call for concern. Omoruyi and Osariemen (2015) assessed the impact of FPI on stock market performance in Nigeria using annual time series data for the period 1986 to 2013. The findings of the study provided strong evidence that FPI is an important factor in determining stock market performance in Nigeria. The study of Özge (2015) investigated the connection between foreign investor transactions and stock returns in Turkey for the period of 2003 to 2014. The results indicated the directing role of foreign investor transactions in emerging stock market returns.

Broad Money Supply and Stock Performance

Wong, Khan and Du (2005) examined the long-term as well as short term equilibrium connections between the major stock indices and money supply of Singapore and the United States. The cointegration result based on data covering the period 1982 to 2002 revealed that Singapore's stock prices generally display a long run connection with money supply but a similar connection does not hold for the United State.

Osuagwu (2011) investigated the impact of monetary policy variables on the performance of the stock market in Nigeria using quarterly data for twenty four years from 1984 to 2007. The study observed that stock market performance is strongly influenced by broad money supply. The study was limited to only monetary policy variables. Similarly, Aliyu (2011) assessed the reactions of Nigeria's stock market to monetary policy innovations during the period of global financial crisis on the basis of monthly data over the period 2007 to 2011. Results from the empirical analysis revealed that the unanticipated component of policy innovations on money supply and monetary policy rate exerts destabilising effect on NSE market's returns whereas the anticipated component does not.

GDP Growth Rate and Stock Performance

Maku and Atanda (2010) examined the long-run macroeconomic determinants of stock market performance in Nigeria between 1984 and 2007. The study hypothesises with macroeconomic indicator of real output growth the augmented engle-granger cointegration test result showed that the NSE share index is more responsive to changes in real output. Wu (2012) investigated the linkage between stock market returns and GDP growth rate in the United States using data that spanned from 1968 to 2011 with stock performance proxied on Standard and Poor 500. It was established that there is no significant connection between stock market returns and GDP growth rates in the U.S. stock market.

Nwaolisa, Kasie and Egbunike (2013) examined the impact of capital market on the growth of the Nigerian economy with time series data covering 1999 to 2011. The result based on the restrictive and limited year covered shows that total market capitalization and stock market all share index exert direct influence on the GDP growth rate**.** The study of Achar (2015) examined the impact of GDP growth rate on Nairobi securities exchange performance. Study covers the period from 2003 to 2014. The finding revealed that a direct correlation existed between GDP growth rate and Nairobi securities exchange share performance, a country that differs politically and culturally, hence, the result cannot be adapted to Nigeria. Prempeh (2016) studied the impact of some macroeconomic variables on stock price volatility in the Ghana Stock Exchange for the period between 1990 and 2014. The Granger causality test revealed that GDP growth rate granger causes stock price but stock price did not granger cause GDP growth rate.

Theoretical Review

Arbitrage Pricing Theory

The Arbitrage Pricing Theory (APT) underpins this study and was developed based on the work of Ross (1976) and was used by Prempeh (2016) in his study. The theory assumes that investors take advantage of arbitrage opportunities in the broader market; thus, an asset rate of return is a function of the return on alternative investments and other risk factors. Also, the nexus between macroeconomic explanatories and the stock market is naturally an interesting one given the importance of macroeconomic explanatories in determining company cash flows and overall systematic.

Capital Asset Pricing Model

Capital Asset Pricing Model was developed by William Sharpe in 1964. The theory says that the risk of a diversified stock or asset portfolio is less than the risk of owning one individual stock. The real problem is then determining the proportion of each stock or asset class in the portfolio so as to minimise risk and maximise return. A portfolio that contains this balanced mix will perform well regardless of stock market conditions. Despite the criticisms that trailed Harry Markowitz theory on the ground of some of its assumptions. Amongst these assumptions that are returns follow a Gaussian distribution, that the correlation between assets is constant not varying with time and that the market is an efficient environment and that the Efficient Market Hypothesis is true. The Markowitz theory is still widely used in finance and the concepts behind it still largely influence the industry. The single factor assumption of the CAPM is often cited to be its fundamental weak point.

Methodology

This study adopt ex-post facto research design. It relied on secondary data which are obtained from the Central Bank of Nigeria Statistical Bulletin from 1983 to 2018. Autoregressive Distributed Lag regression technique was used to analyze this study because ARDL approach has the provisional merit that it does not require all variables to be 1(1) as the Johansen framework and it is still applicable if there are 1(0) and 1(1) variables in the data set. The bounds test method of cointegration has certain econometric advantages in comparison to other methods of cointegration which are that all variables of the model are assumed to be endogenous, the

bounds test method for cointegration is being applied irrespective of the order of integration of the variable. The variables may be integrated at level or first difference that is, 1(1) or 1(0), the short-run and long-run coefficients of the model are estimated simultaneously. An ARDL representation of equation (1) is formulated as follows:

$$\Delta TCAP_{t-j} = \alpha_o + \sum_{i=1}^{m} \alpha \Delta TCAP_{t-j} + \sum_{j=1}^{n} \alpha \Delta FWRS_{t-K} + \sum_{k=1}^{o} \alpha \Delta NFPI_{t-l} + \sum_{l=1}^{p} \alpha \Delta BMMS_{t-m} + \sum_{m=1}^{q} \alpha \Delta GDPG_{t-n} + ECT_{t-1} + \varepsilon_t$$

Δ denotes the first difference operator,
α_0 is the drift component,
μ is the usual white noise residuals.
TCAP= Total Market Capitalisation FWRS= Foreign Workers Remittances
NFPI= net FPI BMMS= Broad Money Supply
GDPG= GDP Growth Rate
Once a cointegration connection is established between the variables, the study proceeds to examine the long run effect and the short-run dynamics using error correction term (ECT) equation given as follows.

$$\Delta TCAP_{t-j} = \alpha_O + s\sum_{i=1}^{m} \alpha \Delta TCAP_{t-j} + s\sum_{j=1}^{n} \alpha \Delta FWRS_{t-K} + s\sum_{k=1}^{o} \alpha \Delta NFPI_{t-l} + s\sum_{l=1}^{p} \alpha \Delta BMMS_{t-m} + s\sum_{m=1}^{q} \alpha \Delta GDPG_{t-n} + ECT_{t-1} + \varepsilon_t$$

Results and Findings

Table 1: Descriptive Statistics

	TCAP	FWRS	NFPI	BMMS	GDPG
Mean	5100.371	8110.712	-13779.13	5438.845	4.005000
Median	567.4000	1345.000	-616.2000	1073.890	4.030000
Maximum	22917.90	24311.03	92518.90	25079.72	33.74000
Minimum	5.500000	2.424527	-141805.9	17.68793	-10.75000
Std. Dev.	6988.288	9557.613	44505.57	7645.385	7.030108
Observations	36	36	36	36	36

Source: Authors' Computation, 2019.

Table 1 above shows, the descriptive statistics which provides information about sample statistics such as mean, median, maximum value, minimum value and standard deviation. The table above reports some descriptive statistics on effects of the selected macroeconomic determinant on stock performance in Nigeria for a

period of thirty five years covering 1983-2018 totaling 36 observations. The table above presents the descriptive statistics of all the variables used in an attempt to examine the effect of macroeconomic determinants on stock performance in Nigeria.

Table 3: **Unit Root Test**

H_0: Variable is not stationary; **H_1**: Variable is stationary

Variable	ADF T-Statistics	Test Critical Value @ 5% level	Maximum Lag	P-Value	Stationarity
TCAP	-6.605398	-3.548490	1	0.0000	I(1)
FWRS	-4.683222	-3.548490	1	0.0034	I(1)
NFPI	-6.549240	-3.548490	1	0.0000	I(1)
BMMS	-4.857193	-3.548490	1	0.0022	I(1)
GDPG	-4.766005	-3.544284	1	0.0027	I(0)

Source: Authors' Computation, 2019.

In table 3 above, it could be observed that four of the variables such as TCAP, FWRS, NFPI and BMMS were found stationary at first difference, that is the variables, are integrated at order one I(1). However, only one of the variables; GDPG was found stationary at levels;, that is, order (0). All at 5% level of significance. Since all the variables were found to be stationary at different orders, of 1(1) and 1(0), it was safe for the study to employ bound test approach to validate or test for the presence of Co-integration.

Table 4: ARDL-Cointegration Test Results

ARDL Long Run Equilibrium Condition

Test Statistics	Value	Significance	I (0)	I (1)
F-statistic	22.31649	10%	2.45	3.52
		5%	2.86	4.01
		2.5%	3.25	4.49
		1%	3.74	5.06

Source: Authors' Computation, 2019.

Table 4 above presents the result of the ARDL bound test approach to Co-integration and of bound critical values by Pesaran, Shin and Smith (2001). The table shows the lower and upper bound values at 10%, 5%, 2.5% and 1% level of significance respectively. The f-statistics value of 22.31649 is more than the lower

and upper bound values at 5% level of significance. Hence, there is a sufficient proof of the presence of a long-run equilibrium connection between the selected macroeconomic variables and stock performance of Nigeria between 1983 and 2018.

Lag Selection Criteria

Table 5: VAR Lag Order Selection Criteria
Endogenous variables: TMC FWR NFPI BMS GDPG
Exogenous variables: C
Date: 01/12/20 Time: 16:25
Sample: 1983 2018
Included observations: 33

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1464.688	NA	3.32e+32	89.07201	89.29875	89.14830
					82.98412	82.08142
1	-1316.790	242.0144	1.97e+29	81.62366	*	*
2	-1297.006	26.37945	3.03e+29	81.93975	84.43393	82.77896
		43.52279	1.45e+29	80.89474		
3	-1254.763	*	*	*	84.52263	82.11541

* 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

Table 5 above shows that AIC has the lowest value of 80.89474 at Lag 3. This empirical finding is in line with the built-in property of this criterion, which is designed in such a way that larger Lag length is less preferable, in the spirit of parsimony (that is the simpler the better).

Table 6: Parsimonious ARDL ECM Results

ECM Regression
Case 3: Unrestricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-389.5453	142.3362	-2.736796	0.0180
D(TCAP(-1))	-0.351344	0.076123	-4.615483	0.0006
D(TCAP(-2))	-0.392056	0.066197	-5.922554	0.0001
D(TCAP(-3))	0.179564	0.076515	2.346782	0.0369
D(FWRS)	0.288206	0.060374	4.773670	0.0005
D(FWRS(-1))	-0.995261	0.091117	-10.92288	0.0000
D(FWRS(-2))	-0.202487	0.072786	-2.781967	0.0166
D(FWRS(-3))	0.665828	0.109222	6.096091	0.0001
D(NFPI)	0.001132	0.005105	0.221738	0.8282
D(NFPI(-1))	-0.046078	0.004238	-10.87373	0.0000
D(NFPI(-2))	-0.032067	0.004464	-7.184125	0.0000
D(BMMS)	-3.751346	0.469310	-7.993318	0.0000
D(BMMS(-1))	-3.137668	0.531252	-5.906178	0.0001
D(BMMS(-2))	-5.486569	0.519952	-10.55207	0.0000
D(BMMS(-3))	-4.561340	0.393993	-11.57722	0.0000
D(GDPG)	-0.392056	0.066197	-5.922554	0.0001
D(GDPG(-1))	-0.032067	0.004464	-7.184125	0.0000
D(GDPG(-2))	0.665828	0.109222	6.096091	0.0001
D(GDPG(-3))	-0.046078	0.004238	-10.87373	0.0000
ECT(-1)*	-1.182563	0.096952	-12.19740	0.0000

R-squared	0.985832	Mean dependent var	366.0656
Adjusted R-squared	0.972550	S.D. dependent var	3176.732
S.E. of regression	526.3197	Akaike info criterion	15.67655
Sum squared resid	4432199.	Schwarz criterion	16.40942
Log likelihood	-234.8248	Hannan-Quinn criter.	15.91947
F-statistic	74.22247	Durbin-Watson stat	1.723179
Prob(F-statistic)	0.000000		

Source: Econometric Views Output, 2019.

Table 4 above highlights the error correction term as indirect and statistically significant at 0.000%. The coefficient revealed that once there is disequilibrium in the system, it takes an average speed of 118% to adjust itself back towards long-run

equilibrium level. The R^2 indicates that the model is reasonably fit in prediction. It showed that 98% changes in stock performance collectively due to TCAP, FWRS, BMMS and GDPG while 2 percent unaccounted variations was captured by the white noise error term. It showed that TCAP, FWRS, BMMA and GDPG had strong significant impact on the stock performance within the period under review. The F-statistics which is used to examine the overall significance of regression model equally showed that the result is significant, as indicated by the value of the *F*-statistic, 74.22 and it is significant at the 0.000 per cent level.

Post Estimation Diagnostics Tests

The study conducted various post estimation diagnostic tests to ascertain the appropriateness and stability of the model as well as the robustness of the results. Thus, for reliability of estimates, the study obtained series of residual and stability tests such as the Breusch-Godfrey serial correlation LM test, the heteroscedasticity test, Normality test and Cusum Stability test. The decision rule for accepting the null hypothesis for any of these diagnostics tests is that the probability-value (p-value) of each has to be greater than 0.05 level of significance.

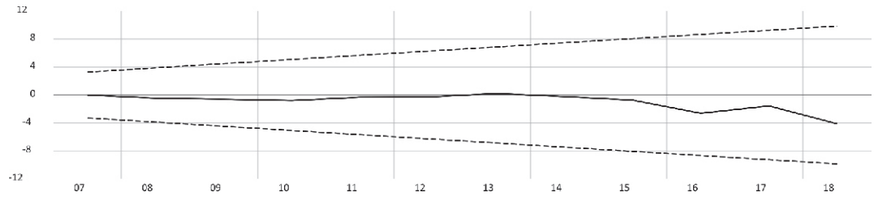
Table 7: Post Estimation Diagnostics Tests

Test	P-Values
Heteroscedasticity Test	16.74
Breusch-Godfrey Serial Correlation LM Test	2.07
JB Normality Test	4.29

Source: Authors' Computation, 2019.

The result as presented above revealed that there were no evidences of serial correlation, heteroscedasticity and the data are normally distributed in the estimated ARDL-ECM model have the p-values of (2.07, 4.29, and 16.74) were found to be greater than 0.05 or 5%.

Table 8: Cusum Stability Test



The CUSUM stability tests in Figure 1 revealed that the model is stable and the regression equation is correctly specified as the plots of the charts lie within the critical bounds at 5% significant level.

Statistical Test of Hypotheses

The hypotheses formulated in this study were tested using Wald test (f-statistic) and *p*-value. The level of significance for the study is 5%, for a two tailed test. The Wald test computes a test statistic based on the unrestricted regression and tests for the joint significance of the coefficients. The Wald statistic measures how close the unrestricted estimates come to satisfying the restrictions under the null hypothesis. If the restrictions are in fact true, then, the unrestricted estimates should come close to satisfying the restrictions.

Wald Test Statistics

Table 9: Wald Test Results

Wald Test Statistics	Null Hypothesis	F-Statistics	P-Value
FWRS	C(5)=C(6)=C(7)=C(8)=0	17.22571	0.0000
NFPI	C(9)=C(10)=C(11)=0	5.673332	0.0084
BMMS	C(12)=C(13)=C(14)=C(15)=0	37.50953	0.0000
GDPG	C(16)=C(17)=C(18)=C(19)=0	0.087946	0.9314

Source: Authors' Computation, 2019.

H_{01}: Foreign worker's remittance has no significant effect on stock performance in Nigeria.

From the Wald-test in the table 8 above, the calculated f-value for FRWS is 17.22571 and its probability value is 0.0000. Hence, this study accepts the alternative hypothesis. The result thus shows that foreign worker's remittance has significant

effect on stock performance in Nigeria.

H_{02}: FPI has no significant effect on stock performance in Nigeria.
From the Wald-test in table 9, the calculated f-value for FRWS is 5.673332 and its probability value is 0.0084. Since the probability value is less than 0.05 at 5% level of significance, this study accepts the alternative hypothesis. The result thus shows that FPI has significant effect on stock performance in Nigeria.

H_{03}: Broad money supply has no significant effect on stock performance in Nigeria.
From the Wald-test in table 10, the calculated f-value for BMMS is 37.50953 and its probability value is 0.0000. Since the probability value is less than 0.05 at 5% level of significance, this study accepts the alternative hypothesis. The result thus shows that broad money supply has significant effect on stock performance in Nigeria.

H_{04}: GDP Growth rate has no significant effect on stock performance in Nigeria.
From the Wald-test in table 11, the calculated f-value for GDPG is 0.087946 and its probability value is 0.9314. Since the probability value is more than 0.05 at 5% level of significance, this study rejects the alternative hypothesis and accepts the null hypothesis. The result thus shows that GDP growth rate has no significant effect on stock performance in Nigeria.

Discussion of Findings

The empirical evidence derived from the ARDL-ECM model indicates that the selected macroeconomic determinants of FWRS, NFPI and BMMS have a significant direct effect on stock performance in Nigeria. This position aligns with earlier work done by Aigheyisi and Ovuefeyen (2013), Nyang'oro (2013) and Osuagwu (2011) as it contradict works done by Aigheyisi and Ovuefeyen (2013), Wong, Khan and Du (2005) and Malik (2013).

The insignificant connection between GDP growth rate and stock performance is consistent with prior findings of Wu (2012) and Siegel (1998) but contradicts Achar, (2015); Prempeh, (2016); Nwaolisa, Kasie and Egbunike, (2013) and Maku and Atanda (2010) that found that GDPs growth rate has direct and significant effect on stock performance both in Kenya, Ghana and Nigeria respectively. The insignificant connection explains the lack of observable correlation between GDP growth rate and stock returns because expected economic growth is already impounded into stock returns, thus lowering future returns. Secondly, a significant part of stock performance comes from new enterprises and not the high growth of existing ones;

this leads to a dilution of GDP growth before it reaches shareholders.

Conclusion and Policy Recommendations

Based on the outcome of analysis, the study concludes that foreign workers remittances are highly linked to stock performance and reduction of its attendance cost will further improve its consistency into the economy. What should be guided not to encourage voluntary unemployment but into capacity building for the nation. Also, that FPI plays a pivotal role on stock performance, hence, close attention should be given to this variable when formulating financial stability policy. Money supply plays a pivotal role on stock performance so close attention should be paid to this variable when articulating financial stability policy. That GDP growth rate can be improved upon by emergence of new enterprises and value added chain industries.

In light of the above, the study recommends that the Central Bank of Nigeria and Securities and Exchange Commission should encourage the diaspora population to invest more in the Nigeria financial assets. Likewise, NSE and SEC should strive to improve on market capitalization of stock market by attracting listing increased trading activities and retention of existing portfolio from flight. Also, broad money supply should constantly be on the watch list of the government in their decision making process. Lastly, the Central Bank of Nigeria and Small and Medium Development Agency (SMEDAN) should focus more on new enterprises as that is where the major GDP growth comes from.

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