Impact of Capital Market Components on Economic Growth in Nigeria: An ARDL Approach

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Abstract

The study investigated the impact of capital market components on economic growth in Nigeria between 1981 and 2020. The data used for this study were sourced from CBN statistical bulletin, and World Bank development indicators. In order to avoid spurious regression effects, pre-estimation tests were performed on each of the variables using the Augmented Dickey Fuller (ADF) unit root test; while the empirical analysis was carried using the Autoregressive distributed lag (ARDL) error correction model method. The findings from the study showed that government securities have a significant impact on economic growth in Nigeria. The implication of this finding is that huge government bonds floated has contributed positively and significantly to the volume of goods and services traded within the economy and as such enhanced economic growth. The study also showed that corporate bond has a significant impact on economic growth in Nigeria. The findings from the study showed that equities have a significant impact on economic growth in Nigeria. The implication of this is that as new issues are raised and floated in the market, this in turn increases the number of shares traded and economic growth equally expands as well as impacting on the GDP. Based on these findings, the study recommends that there is the need for government to increase the amount of securities they issue in the market as its increase has positively and significantly improve the overall economic growth of the country. The volume of corporate bond transaction needs to be boosted by NSE through the introduction of more derivatives, convertibles, futures and options in the markets in order to be internationally competitive. To increase the number of listed companies there is need to ensure stable macroeconomic environment, to encourage foreign multinational companies or their subsidiaries to be listed on the Nigerian stock exchange and also to improve the trading system in order to increase the ease with which investors can purchase and sell shares.

Keywords: Corporate bonds, Equities, Government Securities and Economic growth

INTRODUCTION

Economic growth and development could only be experienced through a robust financial system that mobilizes short and long-term capital for industrial development. Financial capital, no doubt, plays a crucial role in production, distribution and exchange of goods and services in any economy. In fact, availability or shortage of it is a prime factor in determining whether an economy will develop or not. It is crystal clear that the dearth of long-term capital especially in the developing countries like Nigeria makes the capital market indispensable (Okpara, 2018). A capital market is an integral part of the financial system that provides an efficient delivery mechanism for mobilization and allocation, management and distribution of long-term funds. It is a network of financial institutions and infrastructure that interact to mobilise and allocate long-term funds for the economy. According to Gbosi (2019), the capital market is that part of the financial market which specialises in the mobilization of long-term funds for commerce and industry. Iyoha (2004) contends that the capital market plays a major role in promoting rapid economic growth and development. It affords business firms and government the opportunity to sell stock and bonds to raise long-term funds from the savings of other economic agents. The sourcing of long-term finance through the capital market is essentially for self-sustained economic growth. No doubt, an active capital market aids the mobilisation of savings for economic growth and development, encourages the efficient allocation of resources through changes in wealth ownership and composition, catalyses the creation of a healthy private sector and facilitates the promotion of rapid capital formation.

The capital market is a necessity for maintaining the competitiveness of today's economy given the increasing international competition spurred by rapid technological progress and an increased role of innovation. Importantly, the establishment of industries and their subsequent growth hinges on long-term capital which is usually source from the capital market. It is the transmission mechanism for oiling the wheels of industry. In fact, empirical evidence strongly suggests that a functioning capital market promotes long-term economic growth. The capital market is an important part of an efficient financial system, playing a key role in the development of nations (Anayafo, 2018).

Nigeria has a growing capital market, which has since its inception served as a veritable source of long-term funds to finance investment. In 1986, Nigeria embraced the International Monetary Fund (IMF)-World Bank Structural Adjustment Programme (SAP) which influenced the economic policies of the government and led to reforms in the late 1980s and early 1990s.The programme was proposed as an economic package to rapidly and effectively transform the Nigerian economy within two years (Yesufu,2016). However, until SAP was abandoned in 1994, the objectives were not achieved due to the inability of a government to judiciously implement some of its policy measures (Oyefusi&Mogbolu, 2020). The notable reforms include monetary and fiscal policies, sectorial reforms such as removal of oil subsidy in 1988 to the tune of 80 percent, interest deregulation from August 1987, financial market reform and public sector reforms which entail the full or partial privatization and commercialization of about 111 public owned enterprises. The Nigerian Stock Exchange played a key role during the offer for sale of the shares of the affected enterprises. The introduction of Structural Adjustment Program (SAP) in Nigeria resulted in significantgrowth of the financial sector and the privatization exercise which exposed investors andcompanies to the significance of the stock market. The liberalization of capital market ledtremendous changes with respect to volume, number of deals and value of securities traded aswell as the number of securities listed in the market, yet there are concerns on its impact at themacro-economic level.

The linkage between capital market performance and economic growth has often generatedstrong controversy among analysts based on their study of developed and emerging markets (Kolapo&Adaramola, 2012). The determination of the growth of an economy depends onhow efficiently the capital market performs its allocative function of capital. As the stock marketmobilizes savings, concurrently it allocates a larger proportion of it to the firms with relativelyhigh prospects as indicated by its rate of returns and level of risks (Alile, 2017). Despite this remarkable contribution of capital market in an economy, data from World Bank (2021) however showed that Nigeria recorded low RGDP growth rates. The real GDP growth of 2019 is 2.21 percent. Within the-same period, Ghana recorded an RGDP growth rate of 6.26 percent in 2018 and 6.48 percent in 2019; while a country like India recorded a RGDP growth of 6.12 percent in 2018 and 5.02 percent in 2019. The Nigeria economy contracted by -3.62 per cent in Q3 2020, compared with -6.10 and 2.28 per cent in the previous quarter and corresponding period of 2019, respectively, thereby pushing the economy into recession (CBN, 2020). From the foregoing and in order to address the objectives of the study, the following hypotheses were raised and subsequently tested:

H_{01}: Government securitieshas no significant impact on economic growth in Nigeria
H_{02}: Corporate bonds has no significant impact on economic growth in Nigeria
H_{03}: Equities has no significant impact on economic growth in Nigeria

LITERATURE REVIEW

Conceptual Framework

Capital Market

Capital market is defined as an institution for buying and selling of long term debt or equity backed securities (Abdulahi,2015).The capital market is a market that mobilizes long term resources, the provides liquidity, risk diversification, privatization, securitization, or risk transfers and determination of the cost of capital for project evaluation (Chiwuba& Amos, 2018).Osannwonyi, (2019) sees capital market as an exchange system set up to deal on long term credit instrument of high quality. The dealing in this high-quality instrument facilitates the execution of some desirable and profitable project bearing direct relationship with economic development. Ariyo and Adelegan (2020) contend that, the liberalization of capital market contributes to the growth of the Nigeria capital market, yet its impact at the macro-economy is quite negligible. Okereke-Onyuike (2010) posits that the cheap source of funds from the capital remain a critical element in sustainable development of the economy. She enumerated the advantages of capital market financing to include no short repayment period as funds are held for medium- and long-term period or in perpetuity, funds to state and local government construct pressures and ample time to repay loans. The capital market has been identified as an institution that contributes to the socio-economic growth and development of emerging and developed countries economies. This is made possible through it vital role in intermediation process in economies. Osaze (2020) sees the capital market as the driver essential for the long-term growth capital formation. The Nigeria capital market provides the necessary lubricant that keeps turning this wheel of the economy. It is not only providing the funds to projects of best returns to fund owners. This allocation function is critical in determining the overall growth of the economy. Ekundayo (2019) argues that a nation requires a lot of local and foreign investments to attain sustainable economic growth and development. The capital market provides a

means through which this is made possible. Pedro and Erwan (2020) asserts that financial market development raises output by increasing the capital used in production and by ensuring that capital is put into best uses.

Economic Growth

Economic growth has long been seen as a significant economic policy priority, with a wide body of research dedicated to understanding how to achieve this goal (Fadare, 2018). Academics have paid a great deal of attention to economic growth. Khorravi and Karimi (2017) estimate in their classical studies that economic growth is mainly related to labour and capital as development factors. The emergence of an endogenous theory of growth has prompted specialists to question the role of other factors in explaining the economic growth phenomenon (Bogdanov, 2018). The expansion of the future GDP or output of the country is economic growth. For instance, if the social rate of return on investment exceeds the private rate of return, then the rate of growth and the level of utility will be improved by tax policies that encourage investment. For growth models incorporating public services, the optimal tax strategy depends on the characteristics of services (Olopade&Olopade, 2019). Economic growth has provided insight into why economies are growing at various rates over time, and this has an impact on the government's choice of tax rates and expenditure levels that will influence growth rates.

Economic growth can also be defined as a rise in a nation's total production (goods or services). There is an increase in the economy's capacity to produce goods and services from one period of time to another (Abbas, 2015). Economic growth implies an increase over a long period of time in goods and services produced by an economy, typically a nation. It is measured as a percentage increase in the economy or nation produced in the actual gross domestic product (GDP). In the view of Boris (2012), economic growth is defined as a positive improvement over a period of time in a country's national income or the amount of production of goods and services. As a measure of gross domestic product, Joshua (2015) has conceptualised economic growth. This means that the gross domestic product summarizes the economy 's output. Economic growth has been defined by Fair and Oster (2019) as a rapid increase in production and productivity, agricultural growth and manufactured exports, supported by higher domestic savings rates and physical and human capital expansion. It is also known as an annual increase in the total output of goods and services by the country, which can be achieved through macroeconomic stability, foreign capital, growth in exports and market penetration.

Empirical Reviews

Adamu and Sanni (2015), examined the roles of the stock market on Nigeria’s economic growth, using Granger-causality test and regression analysis. They discovered a one-way causalitybetween GDP growth and market turnover. They also observed a positive and significantrelationship between GPD growth and market turnover ratios. The authors advised that government should encourage the development of capital market since it has a positive effecton economic growth. Ofurum, Ogunyemi, Madumere and Okolo (2019)examined the existence of long-run association between capital market components and economicgrowth in Nigeria between 1981 and 2017. Data were sourced from Central Bank of Nigeria Statistical Bulletin. GDP wasused as proxy for economic growth while government securities (GS), corporate bond/preference shares (CBPS), and equities(EQT) were proxies for capital market components. The study also established the direction of causal relation between thevariables. A Cointegrating regression approach was adopted for analysis. Other econometric tests such as stationarity test,Johansen test of cointegration and Granger causality test were also conducted. In the cointegration model, we placed GDP asthe endogenous variable while capital market components served as the exogenous variables. The stationarity test shows thatGDP, GS and CBPS were stationary at second order while EQT was stationary at first order, hence its removal from thecointegration test. Johansen test indicates three cointegrating equations using unrestrictedcointegration rank test (Trace). Thefindings from canonical cointegrating regression technique further confirm the existence of a long-run relationship betweenGDP, GS and CBPS. More so, on the direction of causal relation, we found no homogeneity among the variables. GDP has aunilateral causal relationship with GS and EQT which flows GDP; while CBPS and GDB has abilateral causal relationship.

Adoms,Yua,Okaro,andOgbonna (2020) study is undertaken with the objective of examining the relationship betweencapital market and economic development in emerging African economies.The study adopted an ex-post facto research design for Nigeria, SouthAfrica and Kenya and the variables used were Human Development Index(HDI) as the dependent variable, Stock Market Capitalization (SMC); Valueof Stock Traded (VST); Stock Market Turnover Ratio (TR) as independentvariable. Moreover, the period under study was from 1990 to 2018 and thedata collected within the period were analysed using descriptive statistics,ARDL regression, granger causality and Ordinary Least Square (OLS) for thecomparative single country regression analysis. The study empirically

provesthat capital market has a significant relationship with economic developmentin the selected emerging Africa economies in Nigeria and South Africa exceptfor Kenya which conforms with the Finance Led Growth Hypothesis Theory. AkpanandOkon (2019) examined the causal relationship between stock market performance and economic growth in Nigeria for the period 1987 -2014, using annual secondary data. Economic growth is proxied by gross domestic product (GDP) while capital market performance is measured by market capitalization, total new issues, volume of transaction and listed equities. The objective is to empirically analyze, using link between capital market performance and economic growth (i.e. whether stock market performance causes economic growth or itself is a consequence of increased economic activity). The investigation of the causal relationship was conducted using Granger causality test based on the Vector Autoregressive (VAR) model. The statistical techniques used include the unit root Augmented Dickey Fuller test in order to test for stationarity for all the time series in their levels and first differences. The Johansen co-integration test was used to investigate whether the variables are cointegrated of the same order taking into account the trace statistics and the maximum eigen-value tests. The variables were found to be cointegrated with at least one co-integrating vector. The findings imply that the causality between economic growth and capital market runs unilaterally from the capital market performance indicators to the GDP. From the results, it was inferred that the movement of stock prices in the Nigeria Stock Exchange reflect the macroeconomic conditions of the country and can therefore be used to predict the future path of economic growth. The study shows that the capital market performance has positively and significantly impacted on the Nigerian economy within the period of the study (1987- 2014).

Agu (2018) appraised the responsiveness of economicgrowth to capital market development in Nigeria.Specifically, the study sought to, (i) determine the impact ofmarket capitalization on Real Gross Domestic Product(RGDP) (ii) ascertain the effects of value of shares traded inthe capital market on Real GDP and (iii) find out whetherthe total number of issues in the capital market impact onRGDP in Nigeria. The researchers adopted time series datafrom 1995---2016 which were drawn from Central Bank ofNigeria Statistical bulletin and stock exchange reviewreports. The analysis of data was done using descriptivestatistics and ordinary least square (OLS) regressionTechnique. The result of the study shows that marketcapitalization was found to have negative relationship withReal Gross Domestic Product (GDP) in Nigeria. The studyalso reveals that there is limited contribution of the capitalmarket to the development of industrial sector. Ubesie, Nwanekpe and Ejilibe (2020) examined the impact of capital market on economic growth in Nigeria, with the aim to access the impact and determinant of capital market on the economic growth in Nigeria between 1980 and 2018. It further employed the ordinary least square method (OLS) in analysing the time series variables obtained for the study. The result of the findings show that all the variables of interest were significant in explaining the behaviour of capital market on the growth of Nigeria Economy except Labour force. more so, the result show that the model employed for the analysis is adequate and best in fitting the variables obtained.

Theoretical Review

Efficient Market Hypothesis (EMH)

The efficient market hypothesis suggests that a market is efficient when it is able to adjust quickly to take account of all available information, such that no single participant in the market gets more information than the information that is already reflected in the market prices. Consequently, the efficient market hypothesis discusses three main dimensions involved in capital market efficiency depending on the set of information available: weak- form market efficiency, Semi-strong market efficiency and Strong market efficiency (Omuchesie, 2014). Weak-form market efficiency exists when current prices fully reflect all historical price information, such that prices automatically adjust to information changes without lags. With semi-strong form efficiency, market prices reflect available public information including company reports, annual earnings, stock splits and company public profits forecasts. The strong form of efficiency, however, exist when prices reflect both public and private information about earnings, book values, investment opportunities.

Endogenous Growth Theory

Due to the fact that Solow's theory could not give details on all models of economic growth, new theories were developed. One of these is the new theory of growth, also known as endogenous growth theory, developed by Paul Romer. Romer's (1990) key line of reasoning is that technological alteration is not "a manna from heaven" and its trends and degree can be directed. If this is the case, technology can then be made endogenous to growth, rather than being an exogenous factor as in Solow's model. In addition to this, human capital and investments in innovations can then be perceived to be vital in the process. The new growth theory views knowledge as a public good (Romer,

2012). In general, the new growth theory exists in complete difference to the law of diminishing returns, due to the fact that the law of diminishing returns implies that output reduces if we increase the inputs. However, over the last 100 years, output in developed countries has increased and the new growth theory attributes this to an overflow of knowledge and innovations.

METHODOLOGY

Expost-facto research design was employed for this study. Anexpost-factoresearch design is very appropriate for this study because it describes the statistical association between two or more variables. The use of this design will allow for the testing of expected relationships between capital market components and economic growth; and the making of predictions regarding these relationships. Determining cause–effect relationships among the selected variables are the major aim of this study; hence, the data are of secondary nature which was collated from National Bureau of Statistics and the Central Bank of Nigeria (CBN) statistical bulletins for 34 years, covering the period 1986-2020. It is the aim of the researcher to derive the impact ofcapital market components on economic growthin Nigeria. To achieve this, the researcher estimates the linear regression equation as:

$$GDP = \alpha_0 + \alpha_1 GS + \alpha_2 CB + \alpha_3 EQU + e_t \text{ ----------(1)}$$

Where;

α_0	=	the autonomous parameter estimate (Intercept or constant)
GS	=	Government securities
CB	=	Corporate Bonds
EQU	=	Equities
GDP	=	Gross Domestic Product
α_1 to α_3	=	Parameter coefficients
e_t	=	Error term

Equation (1) is the baseline long run model for determining the impact ofcapital market components on economic growth in Nigeria. It has been vastly emphasized in recent literature of financial econometrics that upon the establishment of a long-run relationship, there is need to integrate a model which fits in with short-run dynamic adjustment process, which is the speed of adjustment (ECT) from short-run disequilibrium to long-run equilibrium. Based on this, the researcher develops ECM by modifying equation (1) as follows:

$$GDP = \alpha_0 + \sum_{j=0}^{n} \alpha_{1i} \Delta GDP_{t-j} + \sum_{j=0}^{n} \alpha_{2i} \Delta GS_{t-j} + \sum_{k=0}^{o} \alpha_{3i} \Delta CB_{t-k} + \sum_{k=0}^{o} \alpha_{4i} \Delta EQU_{t-k} + ect_{t-1} + \varepsilon_t \text{ ---(2)}$$

The paper conducted unit root tests (pre-estimation diagnostics tests) to ascertain the stationarity of the data before carrying out the cointegration test. Dickey and Fuller (1979), have also stressed the importance of investigating time series data whether they exhibit random walks that needed to be white-noised before using them for estimation purposes. Failure to do this, according to them could result to spurious regression analysis that would not permit us to obtain a robust estimate of the parameters. After conducting the stationarity test on the times series, it is imperative to ascertain if they have long-run relationship among themselves.The annualized time series data was thus analyzed using the Autoregressive Distributed Lag (ARDL) and Error Correction Model (ECM). In other words, the underlying assumption is that all variables are integrated of order one or mixed. The speed of adjustment was ascertained based on the ECM and was able to tell the rate at which the previous period disequilibrium is adjusted toward equilibrium path on an annual basis.

RESULTS AND DISCUSSION

Test of Stationarity

Unit root test are performed majorly to avoid spurious results, because of possible stationarity properties of variables. Unit root test (or Stationarity) test was conducted on each of the variables using the Augmented Dickey fuller (ADF) test.The result of unit root test is presented in Table 1

Table 1.1: Unit Root Test Results

Variable	ADF Test Statistics				
	Levels	Critical Value	***First Difference***	Critical Value	Order of Integration
GDP	-2.124120	-3.552973	-4.965279*	-4.296729	I(1)
GS	-2.092293	-3.552973	-4.562280*	-4.273277	I(1)
CB	-2.855011	-3.552973	-5.446107*	-4.273277	I(1)
EQU	-3.390392	-3.209642***	-5.289009	-3.568379	I(0)

Note: The tests include intercept with trend; ** and ***implies significant at 1% and 10%*
Source: Authors Computation, 2021 (Eviews-10)

From Table 1, it could be observed that only EQU wasfound to be stationary at levels, that is, it was found to be integrated at order zero {I(0)} and at 10% levels of significance. However, GDP, GS and CB were all found to be stationary at first difference; that is integrated at order one and at 1% level of significance. At this order of integration, their ADF test statistics, -4.586079, -4.562280, and -5.446107 were greater than the critical test statistics of -4.965279, -4.273277, and -4.273277at 1% significant level respectively. Since all the variables were found to be stationary at different orders, it was safe for the study to employ ARDL bound test approach to validate or test for the presence of Co-integration.

Co-integration Test

Having established the order of integration, the next task is to establish long run relationship among the variables. Two variables are said to be co-integrated if they have a long-term, or long run equilibrium, relationship between them. If two variables, dependent (independent) are individually non-stationary but their residual (combination) is stationary, those variables are co-integrated on the long run. The result of the co-integration test is presented.

Table 1.2: Result of ARDL Bounds Test for Co-integration

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	4.96522	10%	2.63	3.35
K	3	5%	3.1	3.87
		1%	4.13	4.96

Source: Author's computations (2021), using Eviews-10

The co-integration test result shows that the F-statistic value of 4.96522 is greater than the lower (I(0)) and upper bound (I(1)) critical value at the 5% significance level. Thus, the null hypothesis of no long-run relationship is rejected at the 5% significance level. It can therefore be inferred that the variables are co-integrated. Thus, there is a long-run co-integrating relationship between capital market components and economic growth in Nigeria.

Table 1.3: ARDL Error Correction Regression Result

ECM Regression Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP)	0.032451	0.010058	3.226376	0.0321
D(GDP(-1))	-0.085780	0.011053	-7.760516	0.0015
D(GDP(-2))	-0.025836	0.007530	-3.430864	0.0265
D(GS)	-0.150805	0.067157	-2.245557	0.0356
D(GS(-1))	0.255513	0.055007	4.645133	0.0001

D(CB)	0.145663	0.060314	2.415058	0.0249
D(CB(-1))	-0.040253	0.065441	-0.615102	0.5451
D(EQU)	-0.169550	0.139602	-1.214526	0.2380
D(EQU(-2))	-0.188852	0.118375	-1.595372	0.1256
ect(-1)*	-0.285145	0.057086	-4.698002	0.0001
R-squared	0.741152	Mean dependent var		-0.357720
Adjusted R-squared	0.583093	S.D. dependent var		1.495202
S.E. of regression	0.965427	Akaike info criterion		2.963187
Sum squared resid	22.36919	Schwarz criterion		3.286991
Log likelihood	-38.92940	Hannan-Quinn criter.		3.068739
Durbin-Watson stat	1.745501			

Source: Authors Computation, 2021 (Eviews-10)

As expected, the lagged error correction term (ECT) is negative, less than unity and statistically significant at 5%. The ECT coefficient value of -0.2851 revealed that once there is disequilibrium in the system, it takes an average (annual) speed of 28.51percent to restore a long-run relationship between the capital market components and economic growth in Nigeria. The implication of this is that, once there is disequilibrium in the system, it takes an average speed of 28.51% to adjust itself back towards long-run equilibrium level as captured in Table 3. The coefficient of determination (R-square), which was used to measure the goodness of fit of the estimated model, indicates that the model is reasonably fit in prediction. It showed that 74.11 percent changes in GDPwere collectively due to GS, CB and EQU while 25.89 percent unaccounted variations were captured by the error term. Durbin Watson (DW) statistic was used to test for the presence of serial correlation or autocorrelation among the error terms. The acceptable Durbin – Watson range is between 1.5 and 2.40. The model also indicates that there is no autocorrelation among the variables as indicated by Durbin Watson (DW) statistic of 1.7455. This shows that the estimates are unbiased and can be relied upon for managerial decisions.

Statistical Test of Hypotheses

The three hypotheses formulated in this paper were approached with the aid of t-value; while the level of significance for the study is 5% for the two-tailed test. The decision rule for accepting or rejecting the null hypothesis is that the hypothesis must be based on the Probability Value (PV). If the PV is less than 5% or 0.05 (that is, PV < 0.05), it implies that the variable in question is statistically significant at 5% level; otherwise, it is not significant at that level.

Test of Hypotheses One

H_{01}: Government securities has no significant impact on economic growth in Nigeria

Table 4: Results of Wald Test on Government securities and economic growth

Test Statistic	F-Value	df	Probability
F-statistic	4.524101	(2, 4)	0.0033
Chi-square	6.524122	3	0.0001

Source: Authors Computation, 2021 (Eviews-10)

The Wald-test in Table 4 indicated that the calculated F-value for government securities is 4.524101 and its probability value is 0.0033. Since the probability value is less than 0.05 at 5percent level of significance, it thus falls in the rejection region and hence, the first null hypothesis **(H_{01})** was rejected. The result thus shows that Government securities hasa significant impact on economic growth in Nigeria.

Test of Hypotheses Two

H_{02}: Corporate bond has no significant impact on exchange ratesin Nigeria

Table 5: Results of Wald Test on Corporate bond and economic growth

Test Statistic	F-Value	df	Probability
F-statistic	6.825189	(2, 4)	0.0258
Chi-square	7.650377	3	0.0012

Source: Authors Computation, 2021 (Eviews-10)

The Wald-test in Table 5 indicated that the calculated F-value for corporate bondwas found to be 6.825189 and its probability value is 0.0258. Since the probability value is less than 0.05 or 5percent level of significance, and fell in the rejection region, the study rejects the second null hypothesis **(H_{02})** and conclude that corporate bond has a significant impact on exchange rates in Nigeria

4.3.3 Test of Hypotheses Three

H_{03}: Equities has no significant impact on economic growth in Nigeria

Table 6: Results of Wald Test on Equities and Economic growth

Test Statistic	Value	df	Probability
F-statistic	6.732348	(3, 4)	0.0281
Chi-square	7.197045	3	0.0519

Source: Researchers Computation, 2021 (E-views 10)

The Wald-test in Table 6, the indicated that the F-value for the relationship between equities and economic growth in Nigeriawas found to be 6.732348with an associated probability value of 0.0281. Since the probability value is less than 0.05 or 5percent level of significance, the third null hypothesis **(H_{03})** was rejected. The study thus concludes that Equities has a significant impact on economic growth in Nigeria.

Robustness Test Results

The paper conducted various series of post-estimation diagnostic tests to ascertain the robustness of the results. Tests such as the serial correlation Lagragian Multiplier test (for higher order autocorrelation), the heteroscedasticity test, and normality 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 or 5% level of significance.

Table 7 thus presents the Residual Test Results;

Table 7: Robustness (Test) Results

Tests		Outcomes	
		Coefficient	Probability
Breusch-Godfrey-Serial-Correlation Test	F-stat.	1.432407	0.4306
Heteroscedasticity-ARCH Test	F-stat.	0.671100	0.7724
Normality Test	Jarque-Bera	1.499555	0.4724

Source: Authors Computation, 2021 (Eviews-10)

The ARDL model result as presented in Table 7 revealed that there were no evidences of serial correlation and heteroskedasticity in the estimated first differenced ARDL model as the p-values of both (0.4306 and 0.7724) were found to be greater than 0.05 or 5percent. Furthermore, Jarque-bera test for normal distribution revealed that the result attained a normal distribution with a bell-shaped symmetrical distribution at 5percent significance level. This was captured by the Jarque-bera probability value of 0.4724 and found to be greater than 0.05.

Discussion of Findings

Findings from the study showed that government securities have a significant impact on economic growth in Nigeria. The implication of this findings is that huge government bonds floated has contributed positively and significantly to the volume of goods and services traded within the economy and as such enhanced economic growth. The is in agreement with the findings of Akpan and Okon (2019) whose study revealed that the movement of stock prices in the Nigeria Stock Exchange reflect the macroeconomic conditions of the country and can therefore be used to predict the future path of economic growth. Their study showed that the capital market performance has positively and significantly impacted on the Nigerian economy within the period of the study. In addition, the study

showed that corporate bond has a significant impact on economic growth in Nigeria. This indicates that the volume of transaction is an important factor in determining the magnitude of trading of shares in the capital market and it goes a long way in improving the performance of the market and as well increases the efficiency of the market which invariably improves the economic growth of Nigeria. This is in agreement with Adoms,Yua,Okaro,andOgbonna (2020) whose study empirically proved that capital market has a significant relationship with economic development in the selected emerging Africa economies in Nigeria. Above all, findings from the study showed that equities have a significant impact on economic growth in Nigeria. The implication of this is that as new issues are raised and floated in the market, this in turn increases the number of shares traded and economic growth equally expands as well as impacting on the GDP.

CONCLUSION AND RECOMMENDATIONS

This study discussed the existence of long-run association between capital market components and economic growth. The study tested the relationshipbetween capital market components (such as governmentsecurities, corporate bonds and equities) and gross domestic product.Based on the findings in this research, capital market (if properly managed) will promote and boast the quest for inclusive economic growth in Nigeria; as evidenced by the significant impact of government securities, corporate bonds and equities on economic growth in Nigeria. Based on these outcomes, the following recommendations are put forward:

i. Government should increase the amount of securities they issue in the market as its increase has positivelyand significantly improve the overall economic growth of the country. The government and stakeholders are encouraged to leverage on the capital market through the sale of government securities for sustainable economic growth.
ii. The volume of corporate bond transaction needs to be boosted by NSE through the introduction of more derivatives, convertibles, futures and options in the markets in order to be internationally competitive. The Nigerian financial and monetary authorities should ensure free flow of information in the market. This is necessary in order to attract more investors and increase new issues which will in turn increase the quantum of market capitalization that will result in improving the performance of the Nigerian capital market
iii. The total listed equity in the NSE is still very low compared to other stock markets like those of South Africa and Egypt. Therefore, to increase the number of listed companies there is need to ensure stable macroeconomic environment, to encourage foreign multinational companies or their subsidiaries to be listed on the Nigerian stock exchange and also to improve the trading system in order to increase the ease with which investors can purchase and sell shares.

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