

Performance of the Equities and Bond Markets in Nigeria: A Comparative Investigation

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ABSTRACT

This work comparatively examined the performance of the Nigerian equities and bond markets vis-à-vis the output of the Nigerian economy from 1987 – 2019. Number of listed securities, number of deals, value of deals and market capitalization were the market performance indicators considered, while real GDP was used to measure output of the Nigerian economy. Data for the study were sourced from Central Bank of Nigeria (CBN) and Securities and Exchange Commission (SEC) Statistical bulletins. The data generated for the study were subjected to stationarity test using ADF criterion, co-integration test using bounds approach, and diagnostic tests which covered testing for the presence of serial correlation, heteroscedasticity and distribution of the error term. Stationarity test result revealed that all the variables were integrated of order zero or one. Co-integration test result showed that a long-run relationship exists between the variables. Diagnostic test results indicated that both models were not serially correlated while the variances of the random variables were not heteroscedastic. However, the errors of the models were not normally distributed. Nevertheless, the ARDL model for parameter estimation process revealed that lagged real GDP, number and value of deals in the equities market have positive relationships with current period real GDP; while number of listed securities and market capitalization has negative relationships with real GDP. Additionally, only number of listed securities and number of deals in the equities market were statistically significant. In the bond market, all the variables except number of listed securities have positive relationships with real GDP, but none of the considered market performance indicators was statistically significant in the market. Nonetheless, the equities market has about 67.58% influence on real GDP in Nigeria; while bond market has about 45.22% influence on the country's real GDP within the period covered. On this premise, it was concluded that the equities market has over time outperformed the bond market in terms of contribution to real GDP in Nigeria. As such, considering the role of financial investment to growth and development, both markets should be encouraged to grow further by way of increasing number of listed securities, making the market more liquid, enhancing the institutional framework of both markets, and checkmating the fraudulent attitude of market operators.

KEYWORDS: *Equities Market, Bond Market, Number of Listed Securities, Number of Deals, Value of Deals, Market Capitalization, GDP.*

INTRODUCTION

Growth and development of economies have remained major macroeconomic objectives over time. The attainment of both goals requires well calculated processes. This accounts for the varying degrees of growth and development in different countries of the world today. To achieve growth, there is need for substantive savings, which metamorphoses into investment, growth and development. As such, to achieve the objectives of growth and development of economies, a policy and platform that encourages savings is essential. This platform is an effective and efficient financial system. A financial system is a complex network of financial interaction and intermediation between savers and users of funds in an economy (Nwezeaku, 2010). This interaction and intermediation is made possible through some facilitating institutions as well as regulatory bodies deliberately stationed by the relevant authorities to define, determine and regulate the operations and activities in the system. According to Udo, Nwezeaku and Kanu (2021), banks and non-bank financial institutions make up these facilitating institutions in every economy. Nevertheless, the non-bank financial institutions, amongst others consist of financial markets. A Financial markets consist of a complex arrangement of institutions, mechanisms and structures through which financial resources are transferred from ultimate lenders to ultimate borrowers, who may be individuals, corporate bodies or government for investment purposes. Thus, financial markets bring together savers and investors and by the interaction of these two groups in an economy, the accumulated aggregate savings are channeled into viable and most desirable investment for the growth and development of an economy. In financial markets, financial assets are exchanged.

Hence, a financial market encapsulates the equities and bonds markets. The segment of the financial market where variable income securities like shares are bought and sold is referred to as the equities market, while fixed income securities are traded in the bond market. A unique benefit of the equities market to corporate entities is the provision of long-term, non-debt financial capital. Through the issuance of equity securities, companies acquire perpetual capital for development. In addition, through the provision of equity capital, the financial market also enables companies to avoid overreliance on debt financing, thus improving corporate debt-to-equity ratio. However, the bond market also provides a platform for corporate entities and the government to raise long-term capital for financing new projects, and expanding and modernizing industrial/commercial concerns. In short, the bond market is an arrangement whereby monies can be borrowed by corporate entities without diluting the ownership structure of their organizations. Effective and efficient use of bond enhances the financial well-being of shareholders. Accordingly, Pandey (2010) submitted that managers will issue debt when they are positive about their firms' future prospects and will issue equity when they are unsure. A commitment to pay a fixed amount of interest and principal to debt-holders implies that the company expects steady cash flows. In essence, both markets are vehicles of financial intermediation. They move funds from the surplus units and make them available to those in the deficit units of an economy for production purposes that expectedly, should lead to growth and development.

Theoretically and empirically, investment has been shown to be a propellant of economic growth. Financial markets, both the equities and bond markets are vehicles of financial investments by channeling idle funds into productive use. On the empirical front, there are a

thousand and one studies on the operations of the equities market and economic performance (Ohiomu and Enabulu, 2011; Udo, Nwezeaku and Kanu, 2021; and Popoola, Ejemeyovwi, Alege, Adu and Onabote, 2017). Similarly, studies on operations of the bond market and economic performance of countries are not lacking in the literature (Fink, Haiss and Hristoforova, 2013; Pradhan, Zaki, Maradana, Dash, Jayakumar and Chatterjee, 2017). However, a careful look at the above studies shows that a comparative study on the performance of these markets in the context of listed securities, number of deals, value of deals and market capitalization vis-à-vis the performance of the Nigerian economy is lacking. As such, the question that calls to mind is: which amongst the equities and bond markets have fared better in Nigeria?

REVIEW OF RELATED LITERATURE

Equities Market

According to Chen and Scott (2020), an equity market is a market in which shares of companies are traded, either through exchanges or over-the-counter markets. Also known as the stock market or variable income market, the equities market is one of the most vital areas of a market economy, that gives companies access to capital to grow their business, and investors a piece of ownership in a company with the potential to realize gains in their investment based on the company's future performance. Hence, this market is the aggregation of buyers and sellers of shares. More technically, equities market entails an arrangement or mechanism that allows sellers and buyers to deal in equity or shares in the same platform. One important feature of the equities market is that subscription must be fully paid before allotments are given to individual investors. Another feature is part ownership by subscribers immediately after allotment of shares. Thus, holders of the instrument (equity) are entitled to attend AGMs (Annual General Meetings) and can vote to elect management of their companies. Unlike debt instruments, repayment of principal occurs only if the instrument (shares) is traded through the secondary market. The equities market in Nigeria has grown in terms of listed securities, transactions, and market capitalization in the NSE. Accordingly, securities listed on the Nigerian stock exchange have grown from 3 in 1961 to 163 in 2020. Number of deals (transactions) in the equities market also grew from 20,189 in 1987 to 1,155,019 in 2020. Similarly, the value of these deals (transactions) in the market within the same period grew from #0.62 billion in 1988 to #1,028.17 billion in 2020. Market capitalization of the equities market also rose from #1.9 billion in 1981 to #21,063 billion in 2020 (CBN, 2020). However, return on equities is by way of price appreciation and dividend.

Bond Market

Bonds are interest bearing securities which may carry fixed or floating interest rate or no interest payment at all as in the case of zero-coupon bonds, which are issue with deep discounts. According to Hayes (2021), the bond market, which is also known as debt market, fixed-income market or credit market, is the collective name given to all trades and issues of debt securities. Government at all levels issue bonds in order to raise capital to execute capital projects or pay debts owed. Equally, publicly owned companies issue bonds (also known as debenture) when they need to finance business expansion projects or maintain ongoing operations. Thus, the bond market basically describes a market place where investors buy debt securities that are brought to the market by either governmental entities or corporate entities. Bonds like shares are either issued in the primary market, which rolls out new debt, or in the secondary market, in which

investors may purchase existing debt via brokers or other third parties. Bonds tend to be less volatile and more conservative than equity investments, but also have lower expected returns. The primary market is frequently referred to as the new issues market in which transactions strictly occur directly the bond issuers and the bond buyers. In essence, the primary market yields the creation of brand-new debt securities that have not previously been offered to the public. In the secondary market, securities that have already been sold in the primary market are then bought and sold at later dates. Investors can purchase these bonds from a broker, who acts as an intermediary between the buyer and selling parties. The secondary market issues may be packaged in the form of pension funds, mutual funds or life insurance policies (Hayes, 2021). In Nigeria, the bond market has grown in terms of some major indicators. Specifically, number of listed securities grew from 5 in 1961 to 129 in 2019; number of deals rose from 7138 in 1980 to 1094 in 2018; value of deals increased from #388.7 million in 1980 to #1093 million in 2019; while market capitalization rose from #2.8 billion in 1980 to #11982.9 billion in 2019 (SEC, 2019).

Economic Performance

The performance of an economy is usually assessed in terms of the achievement of economic objectives. These objectives can be long term, such as sustainable growth and development, or short term, such as the stabilization of the economy in response to sudden and unpredictable events, called economic shocks. To know how well an economy is performing against these objectives, economists have come up with a wide range of economic indicators. These indicators measure macro-economic variables that directly or indirectly enable economists to judge whether economic performance has improved or deteriorated. National income, output, and spending are three key variables that indicate whether an economy is growing, or in recession. According to Ashan (2012), growth in national output translates to economic growth, which is defined as a sustained increase in per capital national output or net national product over a long period of time. It means as such that the rate of increase in total output must be greater than the rate of population growth (Dwivedi, 2008). Put differently, Economic growth is defined as the process by which the supply of goods and services is increasing while improving the quality of life (Dang and Pheng, 2015). Economic growth is measured by increase in GNP (Gross National Product) and GDP (Gross Domestic Product). However, real GDP, which is GDP not affected by inflation is a better way to measure economic growth (Hamza and Khan, 2014). In other words, real GDP gives the real output of a country over a given time period. It is usually computed using a base year price. Real GDP in Nigeria rose from #19,211.49 billion in 1981 to #70,800.54 billion in 2019 (CBN, 2020).

THEORETICAL REVIEW

Harro-Domar Growth Theory

The proponents of this theory are Roy Harrod and Evsey Domar. Their model is an extension of Keynesian short-term analysis of full employment and income theory, which provides a more comprehensive long period theory of output. The theory however considers capital accumulation as a key factor in the process of economic growth. They emphasized that capital accumulation (net investment) has a double role to play in economic growth. On one hand, it generates income while it increases production capacity of an economy on the other (Dwivedi, 2008). For instance, the establishment of new factories will generate income for those who supply labour, bricks, steel, cement, machinery and equipment; and at the same time, it increases the total stock of

capital and thereby the production capacity of the economy. The newly generated income creates demand for goods and services. According to the theory, a necessary condition of economic growth is that the new demand (or spending) must be adequate enough to absorb the output generated by the new investment, i.e., the increase in capital stocks. Otherwise, there will be excess or idle production capacity.

Neo-Classical Growth Theory

The Neo-classical growth theory is based on the assumptions that: there is perfect competition in commodity and factor markets, factor payments equal their marginal revenue productivity, a variable capital/output ratio and full employment (Acha, 2012). According to the neo-classical model, rate of economic growth depends on the growth rate capital stock, labour supply, and technological progress over time. The relationship between national output and these variables is expressed in the form of a production function as thus: $Y = F(K, L, T)$; where: Y = National Output (at constant price), K = Stock of Capital, L = Labour Supply, T = Scale of Technological Progress, and F = Functional Notation.

Empirical Review

Udo, Nwezeaku and Kanu (2021) examined the effect of capital market development on the economic growth of Nigeria using data on Real Gross Domestic Product as a proxy for economic growth while capital market variables constituted the independent variables. This includes market capitalization, all share index, number of listed securities and the number of listed companies. The study adopted an ex-post-facto research design which utilized secondary data for the period 1983-2016. While an Augmented Dickey-Fuller unit root test was used for preliminary analysis; an Autoregressive Distributed Lag (ARDL) was used for the model estimation. A combination of ARDL bounds test for co-integration, ARDL short and long run error correction models were used for estimation. Findings indicated that the number of listed securities and all share index maintained a significant relationship with economic growth in Nigeria both in the short and long runs.

On their part, Pradhan, Zaki, Maradana, Dash, Jayakumar and Chatterjee (2017) examined the long-run relationship between bond market development and economic growth in G-20 countries for the period 1990-2011. They used four sets of bond market indicators for studying this relationship. These indicators are: domestic private debt securities, domestic public debt securities, international private debt securities and international public debt securities. The study used vector autoregressive (VAR) model and granger causalities techniques for data analysis; and the study found a presence of both unidirectional and bidirectional causality between bond market development and economic growth. The policy implication of this study was that the economic policies of these countries should recognize the differences in the development of bond market and economic growth in order to maintain sustainable development in the G-20 countries.

Popoola, Ejemeyovwi, Alege, Adu and Onabote (2017) investigated the short run effect, long run effect and causal relationship between stock market and economic growth in Nigeria. The Augmented Dickey Fuller unit root test, Ordinary Least Squares, Johansen Co-integration test and Pairwise granger causality methods were applied to the variables. The OLS result showed that all share index has a significant but negative relationship with economic growth; the Johansen co-integration test showed that a long run relationship exists between stock market performance and economic growth in Nigeria in the long run while the Granger causality test

results showed that stock market performance does not granger cause economic growth but economic growth granger causes stock market performance at 5 percent significance level.

Ogunleye and Adeyemi (2015) assessed the impact of stock market development on economic growth between 1970 and 2008. Co-integration analysis and Error Correlation Mechanism were adopted as the estimating techniques to verify the existence of long-run relationship between stock market development and economic growth. Questionnaires were administered to assess investor's confidence in the Nigerian stock exchange and to authenticate the impact of stock market development on economic growth in the period under review. The empirical results revealed that there is existence of long-run relationship between stock market development and economic growth in Nigeria. The findings also showed that there is positive relationship between market capitalization and money supply with economic growth while total value traded, turnover ratio and gross capital formation have inverse relationship with the growth. In addition, market capitalization is highly significant and appears to be the major stock market indicator.

Owolabi and Ajayi (2013) explored the relationship between stock market and economic growth between 1971 and 2010 utilizing Ordinary Least Square method and the outcomes showed that there is a positive relationship between economic growth and all the measures of stock market and economic growth. Few studies in Nigeria in recent time employed econometric tools in analyzing the relationship between stock market development and economic growth.

Fink, Haiss and Hristoforova (2013) examined the relationship between the development of the aggregate bond markets and real GDP in thirteen highly developed economies. Study covered a period of fifty-one years, which is from 1950 – 2000. Granger causality test and co-integration approach were employed for a robust data analysis. Results revealed that there is a bi-directional causality or interdependence between the bond sector growth and real growth, in the cases of Japan, Finland and Italy. Secondly, there is support for supply-leading causality from bond market capitalization change to real growth in USA, Great Britain, Germany, Austria, Switzerland, and to a weaker extent in the Netherlands and Spain. Finally, the study found no support for the reverse case, i.e. demand-leading causality from real economic activity to the bond market.

Alajekwu and Achugbu (2012) investigated the role of stock market on economic growth from 1994 to 2008. The indices of stock market development are stock market capitalization ratio, value traded ratio and turnover ratio. The study made use of Ordinary Least Square (OLS) technique and the results showed that market capitalization ratio and value traded ratio are negatively correlated with economic growth while turnover ratio is positively correlated with economic growth.

Kolapo and Adaramola (2012) examined the impact of the capital market on economic growth between 1990 and 2012 using Johansen co-integration test and granger causality test. The results revealed that indices of capital market and economic growth are co-integrated and the activities in the capital market tend to impact positively on the economy. Ohiomu and Enabulu (2011) investigated on the effect of stock market operations on economic growth in Nigeria. Ordinary least squares regression (OLS) was employed using data from 1989 to 2008. The results indicated that there is a positive relationship between economic growth and all the stock market

development variables used (growth rate of per capita income, market capitalization, new issues market, value traded ratio, gross capital formation, public expenditure, debt overload and trade openness). With 99 percent R-squared and 98 percent adjusted R-squared, the result showed that economic growth in Nigeria is adequately explained by the model for the period between 1989 and 2008. By implications, 98 percent of the variation in the growth of economic activities is explained by the independent variables. The study affirmed positive links between the stock market and economic growth. Olowe, Mathew and Fasina (2011) employed OLS method to analyze the efficiency of capital market on the economy between 1979 and 2008. Their findings revealed negative relationship between gross domestic product and market capitalization as well as turnover ratio while all share index is positively related to gross domestic product.

METHODOLOGY

This study adopted quasi-experimental research design. This is because the nature of the topic will not allow for true experiments. In addition, there is need to establish a cause-effect relationship between our independent and dependent variables. Data for this study were generated from secondary sources like Central Bank of Nigeria (CBN) and Securities and Exchange Commission (SEC) statistical bulletins. The ARDL (Autoregressive Distributed Lag) model was chosen for this work. This is because of its numerous benefits over other techniques, which are: efficiency in small samples analysis, a combination of linear variables with diverse orders of integration of I(0) and I(1), and the fact that it is less prone to autocorrelation (Pesaran, Shin and Smith, 2001). The analysis also covered: ADF stationarity and bounds co-integration tests. Accordingly, the study employed an ARDL model with the disaggregation of equity and bond markets indicators into number of listed securities (LIS), number of deals (NOD), value of deals (VOD) and market capitalization (MCAP) as explanatory variables. On the other hand, real gross domestic product (RGDP) served as the response variable. The models for both markets are respectively expressed in a functional form as thus:

$$\begin{aligned} \text{RGDP} &= F(\text{LIS}_e, \text{NOD}_e, \text{VOD}_e, \text{MCAP}_e) \dots\dots\dots 1 \\ \text{RGDP} &= F(\text{LIS}_b, \text{NOD}_b, \text{VOD}_b, \text{MCAP}_b) \dots\dots\dots 2 \end{aligned}$$

RESULTS AND DISCUSSION

Stationarity Test

Table 1: ADF Stationarity Test Result For Equity

Variables	ADF Statistics	Prob. Value	Order of Integration
RGDP	-3.869603	-2.971853	I(0)
LIS	-4.194856	-2.957110	I(0)
NOD	-5.150215	-2.960411	I(1)
VOD	-11.30739	-2.960411	I(1)
MCAP	-4.532177	-2.960411	I(1)

Source: Researcher's Computations from E-Views 9 Result

Table 2: ADF Stationarity Test Result For Debt

Variables	ADF Statistics	Prob. Value	Order of Integration
RGDP	-3.869603	-2.971853	I(0)
LIS	-4.086919	-2.960411	I(1)
NOD	-7.182464	-2.960411	I(1)
VOD	-6.741015	-2.971853	I(1)

MCAP	-4.532177	-2.960411	I(1)
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Source: Researcher's Computations from E-Views 9 Result

The stationary test result summarized in tables 1 and 2 revealed that the variables used for the study were either stationary at level or at first difference. None of the variables was integrated of order two [I(2)], thus indicating that they satisfy the requirement to be included in the ARDL model as suggested by Pesaran and Shin (1999).

Short-Run Analysis 1

Dependent Variable: RGDP

Method: ARDL

Date: 10/04/21 Time: 02:30

Sample (adjusted): 1988 2019

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
RGDP(-1)	0.218484	0.174167	1.254451	0.2228
LIS	-2.477206	1.076490	-2.301188	0.0312
NOD	0.700163	0.307371	2.277909	0.0328
VOD	0.104686	0.233167	0.448975	0.6578
MCAP	-0.253559	0.269709	-0.940120	0.3574
C	10.25852	5.548824	1.848773	0.0780
R-squared	0.675810	Mean dependent var		7.233792
Adjusted R-squared	0.602131	S.D. dependent var		1.099189
S.E. of regression	0.693334	Akaike info criterion		2.292799
Sum squared resid	10.57566	Schwarz criterion		2.578271
Log likelihood	-26.09919	Hannan-Quinn criter.		2.380071
F-statistic	9.172306	Durbin-Watson stat		2.301342
Prob(F-statistic)	0.000079			

*Note: p-values and any subsequent tests do not account for model selection.

Source: E-Views 9 Result

Short-Run Analysis 2

Dependent Variable: RGDP

Method: ARDL

Date: 10/04/21 Time: 02:51

Sample (adjusted): 1988 2019

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
RGDP(-1)	0.324910	0.198983	1.632848	0.1174
LIS	-0.174071	0.879836	-0.197844	0.8451
NOD	0.008903	0.136688	0.065134	0.9487
VOD	0.070341	0.100571	0.699416	0.4920
MCAP	0.108970	0.125357	0.869273	0.3945
C	4.580820	4.449737	1.029459	0.3150
R-squared	0.452230	Mean dependent var		7.206449
Adjusted R-squared	0.321809	S.D. dependent var		1.110382
S.E. of regression	0.914426	Akaike info criterion		2.852089

Sum squared resid	17.55966	Schwarz criterion	3.140052
Log likelihood	-32.50320	Hannan-Quinn criter.	2.937715
F-statistic	3.467454	Durbin-Watson stat	1.547597
Prob(F-statistic)	0.019317		

*Note: p-values and any subsequent tests do not account for model selection.

Source: E-Views 9 Result

For the equity market, lagged real GDP, number and value of deals in the market have positive relationships with current period GDP; while number of listed securities and market capitalization has negative relationships with real GDP. However, only number of listed securities and number of deals are statistically significant at 5% level of significance. R-square result shows that these variables jointly have about 67.58% influence on real GDP in Nigeria. For the bond market, all the aforementioned variables except number of listed securities have positive relationships with real GDP. However, none of the variables was statistically significant. R-square result shows that these variables have a collectively influence of about 45.22% on real GDP in Nigeria.

Co-integration Test

ARDL Bounds Test 1

Date: 10/04/21 Time: 02:38

Sample: 1988 2019

Included observations: 28

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	7.364473	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: E-Views 9 Result

ARDL Bounds Test 2

Test Statistic	Value	k
F-statistic	5.862513	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: E-Views 9 Result

Since the value of F-statistic in both cases exceeded the upper bound (4.01), there is a long run relationship between real GDP and the indicators of the equities and bond markets.

ARDL Co-integrating and Long Run Result 1

ARDL Cointegrating And Long Run Form

Dependent Variable: RGDP

Selected Model: ARDL(1, 0, 0, 0, 0)

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LIS)	-2.477206	1.076490	-2.301188	0.0312
D(NOD)	0.700163	0.307371	2.277909	0.0328
D(VOD)	0.104686	0.233167	0.448975	0.6578
D(MCAP)	-0.253559	0.269709	-0.940120	0.3574
CointEq(-1)	-0.781516	0.174167	-4.487155	0.0002
Cointeq = RGDP - (-3.1697*LIS + 0.8959*NOD + 0.1340*VOD -0.3244				
*MCAP + 13.1264)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LIS	-3.169746	1.618609	-1.958315	0.0630
NOD	0.895904	0.315756	2.837327	0.0096
VOD	0.133953	0.313356	0.427479	0.6732
MCAP	-0.324445	0.374783	-0.865690	0.3960
C	13.126437	8.251332	1.590826	0.1259

Source: E-Views 9 Result

ARDL Co-integrating and Long Run Result 2

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LIS)	-0.174071	0.879836	-0.197844	0.8451
D(NOD)	0.008903	0.136688	0.065134	0.9487
D(VOD)	0.070341	0.100571	0.699416	0.4920
D(MCAP)	0.108970	0.125357	0.869273	0.3945
CointEq(-1)	-0.675090	0.198983	-3.392698	0.0027
Cointeq = RGDP - (-0.2578*LIS + 0.0132*NOD + 0.1042*VOD + 0.1614				
*MCAP + 6.7855)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LIS	-0.257848	1.285554	-0.200573	0.8430
NOD	0.013188	0.202807	0.065028	0.9488
VOD	0.104195	0.140026	0.744108	0.4651
MCAP	0.161415	0.173989	0.927730	0.3641
C	6.785491	6.009510	1.129126	0.2716

Source: E-Views 9 Result

Given that there is a long run relationship between the variables, the tables showed that whenever there is distortion in the system, the equities and bond markets have a correctional ability of about 78.15% and 67.50% per annum respectively. The co-integrating equations equally have the required negative and significant signs.

Diagnosics Tests

Criterion		P-value (Equity)	P-value (Debt)
Breusch-Godfrey Serial Correlation LM Test		0.2529	0.0584
Breusch-Pagan-Godfrey Heteroskedasticity Test		0.2224	0.2615
Jarque-Bera Normality Test		0.001508	0.002115

Source: Researcher's Computation from E-Views 9 Result

The above table showed that the models are not serially correlated at 5 percent level of significance because their probability values (0.2529 and 0.0584) of the Breusch-Godfrey Lagrange Multiplier (LM) test are greater than 0.05. It also indicated that the variance of the random variables was homoscedastic at 5 percent level of significance. This is because the probability values (0.2224 and 0.2615) of their associated F-statistic exceeded 0.05. Finally, the probability value (0.001508 and 0.002115) of the Jarque-Bera Statistic indicated that the errors of the models were not normally distributed. This is because the said probability values were less than 5% (0.05).

CONCLUSION AND RECOMMENDATIONS

Sequel to the results of F-test, t-test and mainly the goodness of fit test carried out in this study, it was deduced that the equities market has over time out performed the bond market in terms of contribution to real GDP in Nigeria. Based on the foregoing and considering the role of financial investment to growth and development, the study advised that both markets (equities and bond) should be encouraged to grow further by way of increasing their respective number of listed securities, making the markets more liquid, enhancing the institutional framework of both markets, and checkmating the fraudulent attitude of market operators.

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