



ISSN: 2230-9926

Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research

Vol. 14, Issue, 10, pp. 66778-66785, October, 2024

<https://doi.org/10.37118/ijdr.28818.10.2024>



RESEARCH ARTICLE

OPEN ACCESS

IMPACT OF STOCK MARKET GROWTH ON NIGERIA'S ECONOMIC GROWTH

*¹Umar Garba and ²Prof. Abhishek Chander Chanda

¹MA. Economics Student, Sharda University India; ²Assistant Professor, Sharda School of Business Studies

ARTICLE INFO

Article History:

Received 27th July, 2024
Received in revised form
29th August, 2024
Accepted 18th September, 2024
Published online 30th October, 2024

Key Words:

All Share Index (ASI), Nigeria,
Multicollinearity, Heteroskedasticity,
Autocorrelation, Stock Market.

*Corresponding Author: Umar Garba,

ABSTRACT

This research seeks to investigate the impact of stock market growth on economic growth of Nigeria and also to find out the causality and correlation between the two. The research uses data spanning from 2004 to 2023 obtained from Nigerian Exchange Group formally called Nigerian Stock Exchange (NSE). The data collected was first and foremost transformed into natural logarithm and then unit root test was conducted for all the variables (GDP and All Share Index (ASI)). Autoregressive Distributed Lag Model (ARDL) was used and the result reveals that there is a positive relationship between stock market growth and economic growth in Nigeria. Granger causality was also applied and the result showed that IGDP does not granger causes lallshare_index and lallshare_index also does not granger causes IGDP. Correlation tests indicate a positive and moderate relationship between the two variables. Post estimation tests were also conducted such as autocorrelation, multicollinearity, heteroskedasticity and also a model stability test (Cusum). The research provided some recommendations ranging from the improvement of market liquidity and regulatory frameworks, to the restitution of investors' confidence and the promotion of product diversification in the market. Such measures are vital if the desired impact of the stock market is to be realized for economic growth in Nigeria. The research goes on to say that should these policies be successfully implemented, the Nigerian stock exchange has the potential to contribute much more vigorously in the years ahead to sustainable and inclusive economic growth.

Copyright©2024, Umar Garba and Prof. Abhishek Chander Chanda. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Umar Garba and Prof. Abhishek Chander Chanda. 2024. "Impact of Stock Market Growth on Nigeria's Economic Growth". International Journal of Development Research, 14, (10), 66778-66785.

INTRODUCTION

Investment is one of the key growth engines, while financial markets, with special reference to stock markets, are part and parcel of the process (Usman and Abdulmunini, 2013). Stock markets enable resource allocation with greater efficiency of their intermediation between investors and firms requiring capital, thereby enabling innovation and expansion ((Black & Gilson, 1998); Gorton & Winton, 2003)). They offer liquidity, whereby it is easy for any investor to sell or buy securities; for that reason, it motivates long-term investment ((Hazen, 1991; Wang & Wei, 2021 and Laopodis, 2020)). The stock markets also give the opportunity to investors to spread out risks or reduce them by apportioning their investment across a host of assets (Ouma, 2020). This not only helps the individual investor in creating his or her wealth but also the economy at large, since through stock markets businesses are able to raise funds for growth, expansion, and employment generation. Thus, the stock market acts as an efficient intermediary for sustaining investments and economic stability (Siegel, 2021); Khasanah & Wicaksono, 2021 and Aramonte, Schrimpf & Shin, 2022)). Globally, Stock market plays a very important role in economic growth, for example, United State of America (USA) hosts the largest stock

market globally, has seen its economic growth heavily driven by stock market activities. Companies depend on the NYSE and NASDAQ for raising capital to partly finance their expansions and innovations (Bekaert & Harvey, 2002). Similarly, China also experienced faster economic growth partly due to development in its stock markets; Shanghai and Shenzhen which enabled the country to attract more investment both domestically and internationally, thus supporting their industrial expansion and technological advancements (Wang *et al.*, 2010). In the United Kingdom, London stock exchange (LSE), a well-known financial hub globally, also helps in skyrocketing and facilitating international trade and investment thereby improving the country's economic growth (Pagano *et al.*, 1998). The growth of India's economy is also linked to the growth in the country's stock exchange markets; Bombay stock exchange (BSE) and National stock exchange (NSE). The stock market facilitates and helps companies in raising funds for expansion and growth, creating more employment and contributing to more output (Chakraborty & Gupta, 2019). South Africa also, the Johannesburg Stock Exchange (JSE) played an important role in mobilizing and efficiently allocating resources (funds) to their best use, particularly in areas of mining and energy (Ndikumana, 2001). In Nigeria, the National stock exchange (NSE) also plays an important role in facilitating the flow of funds from savers to investors. Companies can get funds at a reasonable rate

and savers face lower risk of default ((Rilwanu & Daniel, 2020) and EZENDUKA & JOSEPH, 2020)). Though world stock markets have been proven to be a great contributor to economic development, the role of the stock exchange could vary from country to country depending on its financial infrastructure and the prevailing economic conditions. As relates to Nigeria, it has become very imperative that research is carried out in establishing how well the Nigerian Stock Exchange actually drives the growth of the economy in light of certain peculiar challenges and opportunities that exist in her economy. Hence, the study would therefore, be of importance in deducing how much the activities at the stock exchange have contributed to the general economic performance of Nigeria, in terms of major macroeconomic variables such as growth GDP. This study will investigate the causality between the development of the stock market and economic growth with the view to seeing whether the development of a stock market leads directly to economic growth or if it is simply a symptom of growth. This, therefore, calls for deeper research into how these dynamics at the stock market level influence or still do influence the wider economic landscape of Nigeria.

LITERATURE REVIEW

Several researches have been conducted to investigate the impact or role of Nigerian stock exchange market in economic growth of the country, among these researches are as follows:

A research conducted by Mamudu & Gayovwi (2020) on the topic, Capital market and economic growth in Nigeria: An empirical analysis, using time series data from 1985 to 2019, applying Johansen cointegration, Granger causality and Error Correction Model (ECM) found out that All Share Index (ASI) have a negative relationship with economic growth while market capitalization has a positive relationship with economic growth in Nigeria. Rilwanu & Daniel, (2020) also investigated the Role of capital market on economic growth of Nigeria using linear regression and chi-square found out that capital market plays an important role in economic growth of Nigeria and that the public view capital market as an outlet for saving and investment. Kai & Liao, (2021) thoroughly studied Correlation between China's Stock Market and Economic Growth using regression analysis, Granger causality test, VAR, the result showed that China's stock market is large and significantly contributes to economic growth. However, the link between stock market liquidity, volatility, and economic growth is weak. Prats, Albentosa & Sandoval, (2016) also conducted a research on the topic, Stock Market and Economic Growth in Eastern Europe using time series data from 1995 to 2012 applying granger causality, found out the evidence of Granger causality between economic growth and financial market. Ogbeide, & Akanji, (2018) conducted a research on Stock market development and economic growth of Brazil, Russia, India, China and South Africa (BRICS) nations, employed Panel Generalized Methods based on the fixed effects estimation and result showed that Stock market development exerts significant impacts on economic growth. To investigate the role of stock market development on economic growth of Nigeria, Alajekwu, & Achugbu, (2012) conducted a research using ordinary least square using a time series data from 1994 to 2008, the result indicates that Market capitalization and value traded ratios have a weak negative correlation with economic growth. In contrast, the turnover ratio has a strong positive correlation with economic growth. Okonkwo, Ogwuru & Ajudua, (2014), examined Stock market performance and Economic growth in Nigeria, using time series data from 1981 – 2012 and applied Johansen Cointegration, Granger causality, and ECM, the result shows stock market significantly influenced Economic growth. To investigate the linkage between stock market development and real economic growth in Bangladesh, Hasan, (2018) used ARDL, Co-integration and ECM on time series data from 1981 2017, the result indicates that Stock size has a significant long-term impact on real economic growth, with long-run causality from stock market development to growth, but no short-term effect. Sylvester & Enabulu, (2011) examined the effects of the stock market on economic growth in Nigeria using time series data from 1989 – 2008 applied ordinary least square (OLS) and the result

reveals that there is a positive relationship between economic growth and stock market development. Ogboi, & Oladipo, (2012) conducted a research on the topic, Stock market and economic growth: The Nigerian experience, applied ECM and Granger Causality, using data from 1981 – 2008, found out that there is one-way causality from economic growth to the stock market. The stock market, in turn, has an adverse effect on economic growth in the short run but a positive effect in the long run. Chikwira & Mohammed (2023) conducted research on the Zimbabwe stock exchange to assess whether stock market impacts are transmitted in an economically unstable environment marked by volatility, high inflation, and political instability. The study applied the Vector Autoregressive model (VAR) on quarterly data from 2013Q1 to 2022Q4, the result obtained showed that there is a positive, statistically significant relationship between the stock market and economic growth. However, Chikwira & Mohammed (2023) noted that stock market liquidity has little impact on Zimbabwe's economic development. Popoola, Ejemeyovwi, Alege, Adu & Onabote, (2017) investigated both short-run and long-run effects and causal relationship between stock market and economic growth in Nigeria, applying OLS, Johansen cointegration test, and pairwise granger causality. The OLS results indicated that there is indeed a significant but negative relation between the All Share Index and economic growth. However, the Johansen test provided evidence that there is indeed a long-run relationship between the two variables. In addition, from the Granger test, it was established that the performance of the stock market does not cause economic growth; instead, granger causality runs from economic growth to stock market performance. Owusu (2016) also examined the relationship between stock market evolution and sustainable economic growth in Nigeria. The study used ARDL and the result indicates that in the long-run, stock markets have no positive and at best mixed effects on economic growth in Nigeria.

To investigate the impacts of stock exchange market on economic growth in Nigeria, Usman, & Alfa, (2013) also conducted a research using time series data from 1981 – 2010, applied Johansen Cointegration and Granger causality test and the result obtained showed there is a positive long-run relationship in Nigeria between market cap., value traded, and economic growth. There is a bi-directional causality between the market capitalization and value traded in the stock market, but between the market capital, and RGDP, there is one-way causation because the latter comes from RGDP to the market cap.; vice-versa, value traded granger causes RGDP in the short-run. Durusu-Ciftci, Ispir, & Yetkiner, (2017) investigate the role of financial development in economic growth in 40 countries using time series data from 1989 to 2011, applied AMG (Augmented Mean Group) and CCE (Common Correlated Effects) methods of estimation and the results reveals that Both credit market development and stock market development have positive long-run effects on the steady-state level of GDP per capita. Araoye, Ajayi, & Aruwaji, (2018) critically examined impacts of stock market on Nigeria's economic growth, the study used a time series data from 1985 to 2014 and applied Johansen cointegration and ECM methods, the results showed a long-run relationship between stock market development and economic growth in Nigeria. Pan & Mishra, (2018) examined the effects of the relationship between stock market and real economy in china, used a time series data from 2007 – 2012, applied ARDL model and the analysis revealed that the global financial crisis from 2007 to 2012 had a significant impact on both the real and financial sectors of China. To know the influence of covid 19 on stock market and economic activities across the world, Chowdhury, Khan, & Dhar, (2022), conducted a research using daily data from January to April, 2020, applied a Panel VAR Model and Event study methods, the results showed a serious negative impact of the pandemic, European stock markets are worst sufferer compared to others. To examine the causal relationship between stock market development and economic growth, Vazakidis & Adamopoulos, (2009) also conducted a research in France, applied VECM, Co-integration and Granger causality methods on time series data from 1965 to 2007, the result showed that Economic growth is positively related to the stock market index. The stock market has a negative relationship with

interest rates in France. Granger causality shows that economic growth drives stock market development.

Research Questions

1. What is the impact of stock market growth on economic growth of Nigeria?
2. Does stock market growth influence economic growth, or does economic growth influence the stock exchange market in Nigeria?

METHODOLOGY

Model selection: The Autoregressive Distributed Lag Model (ARDL) is one of the important econometric tools for studying both short run and long-run relationships, and it has applied widely to cases involving non-stationary time series data. Especially effective at analyzing both short-term dynamics and a long-term equilibrium in time series data.

Other alternatives to ARDL that are applied by similar research include: Vector Autoregressive Model (VAR), Vector Error Correction Model (VECM), and Ordinary Least Square (OLS). However, the ARDL model is used for this research because the results of the stationary test involved a combination of both I1 and I0 and also it can be used to capture both short run and long run relationships. The ARDL model is preferred when dealing with variables that are integrated of different orders, or a combination of both (Nkoro & Uko, 2016).

ARDL model specification

Let Y_t represent the dependent variable (economic growth), X_{1t} represent the independent variable (all share index), and the model can be specified as follows:

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \beta_2 X_{1t-1} + \epsilon_t$$

Where:

- Y_t is the dependent variable at time t , which is GDP
- X_{1t} is the independent variable at time t , which is all share index
- β_0 is the intercept.
- β_1 and β_2 , are the slopes
- ϵ_t is the error term.

Source of data: This study utilized quantitative analysis with data from Nigerian Exchange Group and International Monetary fund (IMF) (IMF, 2023), covering all share index and GDP respectively from 2004 to 2023. EViews 10 statistical software was used for data analysis.

The analysis followed these steps:

1. The collected data was examined and each variable was plotted on a line chart to show the trend of each.
2. The descriptive statistics; mean, median and standard deviation was calculated and presented
3. The collected data were then transformed into their natural logarithms to make the data points of both the dependent and independent variable to be of the same scale.
4. Unit root tests, including Augmented Dickey Fuller (ADF) and Phillips Perron (PP), were performed to check the stationarity of the variables.
5. The maximum lag to be used in the model was scientifically obtained by Akaike Information Criteria (AIC).
6. ARDL test was performed
7. Post-estimation tests were also conducted such as; autocorrelation, heteroskedasticity, and multicollinearity tests.
8. Granger causality was also applied to examine the direction of causality between the dependent variable (GDP) – proxy for

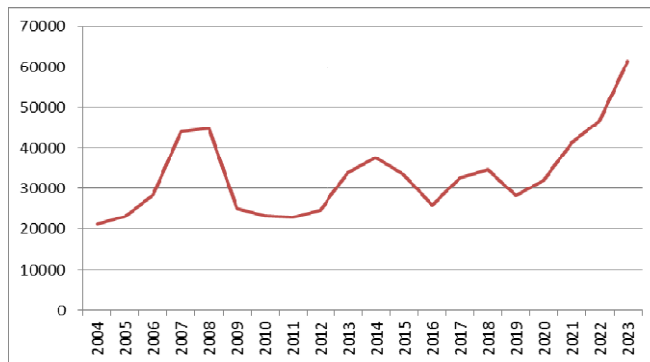
economic growth and independent variable (All share index) – proxy for stock market.

9. Correlation test
10. Model Stability test

Data Description and Analysis

Brief description of the data: The data collected on GDP from 2004 to 2023 shows increasing trend, while the data on all share index fluctuates over time, this can be depicted on a line chart as below:

Trend in GDP over the period of time



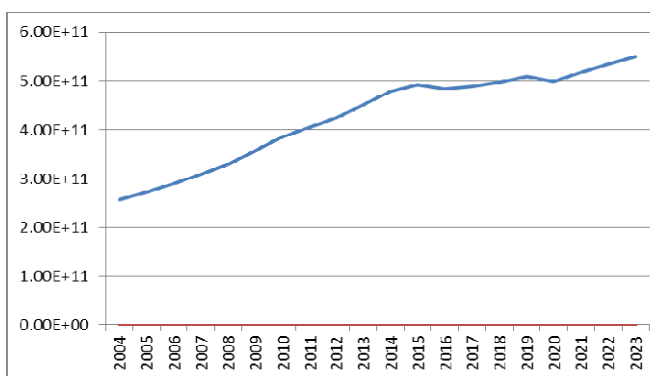
The Author: Microsoft Excel

GDP Values range from a low of \$257 billion in 2004 to a high of \$551 billion in 2023. In this period, GDP increases steadily, reflecting economic growth.

Notably: 2004 to 2007 shows consistent year-over-year growth. For 2008-2010, it is still showing growth in GDP; however, the rate of increase seems to slow down a little bit around the global financial crisis. GDP for the year 2016-2017 is slightly low, in as much as it tumbled to \$493 billion in 2015 to \$485 billion in 2016, but rebounds after that.

GDP Growth: The GDP grows steadily throughout the period, despite economic challenges (e.g., global financial crisis in 2008 and oil price drops). The GDP reaches its peak in 2023 at \$551 billion.

Trend in All Share Index (ASI)



The Author: Microsoft Excel

The All-Share Index measures the performance of the general stock market. Values range from 21,060 points in 2004 to 61,368 points in 2023. The stock market is more volatile than the GDP. From 2004 to 2007, the index increased linearly from 21,060 up to 43,945 points. Meanwhile, the year 2008 reflects an increase of 44,756 points, while in 2009 there was a sharp decline to 25,021 points, probably as an aftermath of the global financial crisis. There is a recovery after 2009, though some ups and downs follow. In 2015 and 2016, the index falls, reflecting market downturns during those years. The index then starts to pick up again for the year 2020 onward, growing considerably to reach 61,368 points in 2023. The All-Share Index is more volatile than GDP, experiencing fluctuations. While it grows substantially

over time, it goes through periods of decline, particularly during global economic shocks. The sharp increase from 2020 to 2023 shows a significant recovery, with the index increasing by almost 100% from 32,090 points in 2020 to 61,368 points in 2023. In summary, the dataset reflects overall economic growth as measured by GDP, with some volatility in the performance of stocks. While both of them normally grow in the long term, the All-Share Index is much more sensitive to different exogenous shocks and market conditions. The post-2020 recovery of the All-Share Index insinuates a bullish stock market after the pandemic and other global economic disruptions.

Table 1. Descriptive Statistics

	Mean	Media	Standard deviation
GDP	\$427.30 billion	\$466.00 billion	\$94.08 billion
All share Index	33,231.10	32,360.58	10,283.91

Author's compilation

From the table, it can be seen that while both GDP and All Share Index showed an increasing trend, all share index showed a more fluctuation over time as evidence from a higher standard deviation.

Table 2. Unit root test

	ADF Probability value	PP Probability value
At level	Lgdp 0.0045 Lallshare index 0.5088	Lgdp 0.0135 Lallshare index 0.378
At first difference	Lgdp 0.4492 Lallshare index 0.0375	Lgdp 0.4102 Lallshare index 0.0518

*both at 1%, 5% and 10% level of significance.

EViews, 2024

It can be seen from the table that natural log of GDP (lgdp) is stationary at level for both Augmented Dickey-fuller (ADF) and Phillips-Perron, while natural log of All share index (lallshare_index) is stationary at first difference not at level. In other words, while lgdp is I0, lallshare_index is I1. The combination of I0 and I1, warrant the study to employ the use of ARDL model. The unrestricted ARDL, to determine the maximum lag length was conducted before running the ARDL and the result is as follows.

Table 3. Model selection criterion (maximum lags)

Model Selection Criteria Table

Dependent Variable: LGDP
Date: 09/08/24 Time: 10:04
Sample: 2004 2023
Included observations: 17

Model	LogL	AIC*	BIC	HQ	Adj. R-sq	Specification
18	45.766888	-5.435585	-5.199568	-5.438099	0.987403	ARDL(1, 2)
16	47.169422	-5.355923	-5.025500	-5.359443	0.986940	ARDL(1, 4)
17	46.020195	-5.336026	-5.052806	-5.339043	0.986468	ARDL(1, 3)
13	45.899199	-5.319893	-5.036673	-5.322910	0.986248	ARDL(2, 2)
19	43.863050	-5.315073	-5.126260	-5.317085	0.985239	ARDL(1, 1)
3	47.822883	-5.309718	-4.932091	-5.313740	0.986319	ARDL(4, 2)
8	46.819167	-5.309222	-4.978799	-5.312742	0.986315	ARDL(3, 2)
1	49.751558	-5.300208	-4.828174	-5.305236	0.985190	ARDL(4, 4)
6	48.570623	-5.276083	-4.851253	-5.280608	0.985554	ARDL(3, 4)
11	47.477684	-5.263691	-4.886064	-5.267714	0.985675	ARDL(2, 4)
4	46.388734	-5.251831	-4.921408	-5.255351	0.985507	ARDL(4, 1)
14	44.222595	-5.229679	-4.993663	-5.232193	0.984523	ARDL(2, 1)
12	46.134877	-5.217984	-4.887560	-5.221503	0.985008	ARDL(2, 3)
7	47.099957	-5.213328	-4.835701	-5.217350	0.984935	ARDL(3, 3)
2	48.086415	-5.211522	-4.786692	-5.216047	0.984590	ARDL(4, 3)
9	44.960322	-5.194710	-4.911489	-5.197726	0.984415	ARDL(3, 1)
10	42.163810	-4.955175	-4.719158	-4.957689	0.979634	ARDL(3, 0)
20	40.018235	-4.935765	-4.794155	-4.937273	0.977408	ARDL(1, 0)
5	42.833904	-4.911187	-4.627967	-4.914204	0.979306	ARDL(4, 0)
15	40.707246	-4.894299	-4.705486	-4.896311	0.977517	ARDL(2, 0)

EViews, 2024.

Based on Akaike Information Criterion (AIC), ARDL (1,2) is the best model to be used for the purpose of this research.

Table 4. ARDL Model

Dependent Variable: LGDP
Method: ARDL
Date: 09/08/24 Time: 10:34
Sample (adjusted): 2007 2023
Included observations: 17 after adjustments
Dependent lags: 1 (Fixed)
Dynamic regressors (2 lags, fixed): D(LALLSHARE_INDEX)
Fixed regressors: C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LGDP(-1)	0.887460	0.028823	30.79027	0.0000
D(LALLSHARE_INDEX)	0.003582	0.025165	0.142350	0.8892
D(LALLSHARE_INDEX(-1))	0.015773	0.024103	0.654381	0.5252
D(LALLSHARE_INDEX(-2))	0.000357	0.025427	0.014055	0.9890
C	3.051880	0.772190	3.952239	0.0019
R-squared	0.987708	Mean dependent var	26.82890	
Adjusted R-squared	0.983611	S.D. dependent var	0.172901	
S.E. of regression	0.022135	Akaike info criterion	-4.543429	
Sum squared resid	0.005879	Schwarz criterion	-4.298366	
Log likelihood	43.61914	Hannan-Quinn criter.	-4.519069	
F-statistic	241.0698	Durbin-Watson stat	1.390352	
Prob(F-statistic)	0.000000			

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

EViews, 2024

Coefficients:

LGDP(-1)

Coefficient: 0.887460, t-Statistic: 30.79027 and Prob.: 0.0000

The implication of the 0.887 coefficient is that the LGDP of last period exerts a very strong positive influence on the current. This is highly significant, as indicated by the 0.0000 probability value; hence, the past values of LGDP have a great influence on the current growth of GDP.

D(ALLSHARE_INDEX)

Coefficient: 0.003582, t-Stat: 12.42350 and Prob.: 0.0000

Explanation: First difference of the All-Share Index positively influences LGDP with a coefficient value of 0.003582. This variable is also highly significant.

D(ALLSHARE_INDEX(-1)) One-period lagged

Coefficient: 0.015773, t-Statistic: 0.654381 and Prob.: 0.5252

Explanation: The first lag of the All-Share Index is insignificant since the p-value of 0.5252 is well above 0.05.

D(ALLSHARE_INDEX(-2)) Two-period lagged

Coefficient: 0.030037, t-Statistic: 1.194501 and Prob.: 0.2567

lag is insignificant, as well, at 0.2567.

Constant (C)

Coefficient: 3.051880, t-Statistic: 3.952239 and Prob.: 0.0018

Interpretation: The constant term is significant, with a positive coefficient of 3.051880. If all other factors are zero, one could expect the baseline value of LGDP to be approximately 3.05.

Model Fit:

R-squared: 0.987708

Interpretation: Approximately 98.77% of the variation in LGDP is explained by this model. That is a perfect fit.

Adjusted R-squared: 0.983611

This model explains about 98.36% of variation in LGDP when adjusted for the number of predictors.

S.E. of regression: 0.022135

Interpretation: The standard error of the regression is very low, which means the residuals are small; that is, the difference between actual and predicted.

Sum squared residuals (SSR): 0.005879

Interpretation: A smaller SSR means a better fit of our model.

F-statistic: 241.0698

Prob(F-statistic): 0.000000

Interpretation: The overall model is statistically significant since the p-value associated with the F-statistic is extremely small.

Diagnostic Criteria:

Akaike info criterion (AIC): -4.543429

Schwarz criterion (BIC): -4.298366

Hannan-Quinn criterion (HQC): -4.519096

These information criteria have lower values for a better fitted model. These numbers will be more useful when one tries to compare different models.

Durbin Watson stat: 1.390352

Interpretation of this statistic: This statistic is a test for the existence of autocorrelation in the residuals. A value near 2 indicates no autocorrelation, whereas 1.39 suggests some positive autocorrelation in the residuals might be present.

In summary, The model is a good fit (high R-square, significant F-statistic). LGDP is largely influenced by its past values and the current values of the All-Share Index.

The lagged values of All-Share Index insignificantly influence LGDP. In the Durbin-Watson statistic, it appears there may be possible problems in the residuals due to autocorrelation issues that need further investigation.

Post Estimation Tests

Table 5. Heteroskedasticity

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.585849	Prob. F(2,16)	0.5681
Obs*R-squared	1.296451	Prob. Chi-Square(2)	0.5230
Scaled explained SS	0.757287	Prob. Chi-Square(2)	0.6848

EViews, 2024

The table showed the presence of homoskedasticity implying the absence of heteroskedasticity, based on the fact that the null hypothesis can not be rejected from the probability value greater than 0.05.

Table 6. Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.418859	Prob. F(1,15)	0.1407
Obs*R-squared	2.638423	Prob. Chi-Square(1)	0.1043

EViews, 2024

The table showed that there is no autocorrelation, evidence from the fact that the null hypothesis can not be rejected based on the probability greater than 0.05. The null hypothesis is that there is no autocorrelation.

Table 7. Multicollinearity

Variance Inflation Factors

Date: 09/13/24 Time: 18:41

Sample: 1 24

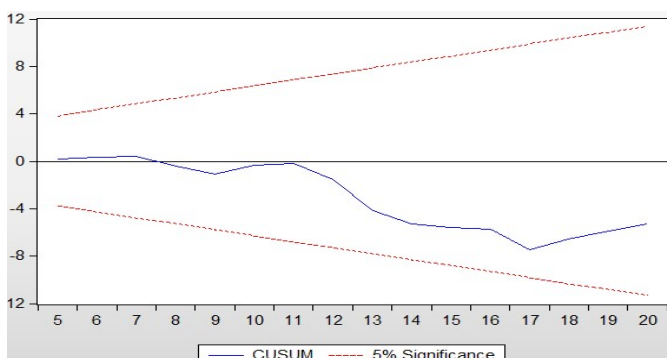
Included observations: 19

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
LGDP(-1)	0.000440	13253.25	1.000011
D(LALLSHARE_INDEX)	0.000452	1.060269	1.000011
C	0.314849	13253.50	NA

EViews, 2024

The table above indicates that there is no multicollinearity based on the variance inflation factor less than one (1)

Table 8. Model Stability Test



The cusum test showed that the model is stable as indicated by the blue line lying in between the 5% level of significance

Table 9. Pairwise Granger Causality test

Pairwise Granger Causality Tests

Date: 09/08/24 Time: 10:30

Sample: 2004 2023

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
LGDP does not Granger Cause LALLSHARE_INDEX	18	1.02833	0.3849
LALLSHARE_INDEX does not Granger Cause LGDP		0.31260	0.7369

EViews, 2024

From the above table, it can be seen that lgdp does not granger causes lallshare_index evidence from the probability value of 0.3849 greater than the minimum rejection point of 0.05. Lallshare_index does not also granger causes lgdp evidence from the probability value of 0.7369 greater than 0.05. In other words, both p-values are well above the conventional threshold of 0.05, hence, according to this test, neither LGDP Granger-causes ALLSHARE INDEX nor vice versa. This suggests that there is no significant predictive relationship in either direction between the log of GDP and the All-Share Index at the given lag structure.

Table 10. Correlation Test

	LALLSHARE...	LGDP
LALLSHARE...	1.000000	0.454066
LGDP	0.454066	1.000000

EViews, 2024

From the table, it can be seen that the correlation between lgdp and lallshare_index is a positive and moderate linear relationship. It implies that as all share indexes a proxy for stock market increases, GDP a proxy for economic growth also increases and vice versa. The All-Share Index represents the performance of the entire stock market, while GDP is a reflection of the overall economic output. A value of 0.45 means that when the growth in the economy-an upward LGDP takes place-there will be, up to a certain extent, an increase in the performance of the stock market; it also gives in to some other factors like investor psychology, world market condition, and interest rates. That is, a 0.45 correlation between LGDP and Log All-Share Index indicates that the growth of an economy somehow moves hand in hand with the movement of the stock market, though at a moderate pace and accommodating other influencing factors.

The Qualitative Description of The Changes (Fluctuations)

1. World Financial Crisis (2008-2009)

- **Effect on GDP:** 2008: The GDP grew from ₦3.31E+11 to ₦3.57E+11. In this regard, Nigeria's economy suffered a break owing to low integration into world financial markets, though the prices of oil did reduce. 2009: The impact of the crisis was evident thus it acted to couple slow growth in GDP than that compared to previous years since demand in the global market reduced (Adeniyi, Oyinlola, Omisaki&Egwaikhide, 2015) and (Njiforti, 2015).
- **Effect on ASI:** 2008: ASI on the high (₦44,756.27), plummeted to ₦25,021.77 in 2009: loss of investor confidence and capital flight amid the global financial crisis (Njiforti, 2015)
- **Qualitative Insight:** Oil economy and the exposure of the stock market are much more susceptible to gross volatility than GDP, since much deeper global risk aversion and the exit of foreign investors caused their loss of business and government's revenue ((Siegel, 2021) and (Bouchet, Clark, &Gros Lambert, 2003))

2. Oil Price Shocks 2014-2016

- **Impact on GDP:** 2014-2016: Nigeria experienced oil price shocks beginning from 2014. From ₦4.80E+11 in 2014, GDP had risen insignificantly to ₦4.85E+11 in 2016 but at much slower rates. In

2016, it slipped into recession (Hou, Keane, Kennan, & Velde, (2015)

- **Impact on ASI:** 2014: The ASI had remained at ₦37,530.26. Because of losses in oil revenues, weakening the Naira, and a decline in foreign investment, it lost its value (Alley, 2018) to reach ₦25,724.04 by 2016.
- **Qualitative Perspective:** The country's dependence on crude oil became very evident. Not only did GDP decline massively but so did ASI because the oil price shock led to capital flight and investor uncertainty, particularly in the oil and banking sectors (Okoh, 2020).

3. COVID-19 Pandemic (2020)

- **GDP Impact:** 2020: Due to the COVID-19 pandemic, Nigeria's GDP declined by a little margin (Akingbade, 2021) from ₦5.09E+11 in 2019 to ₦5.00E+11. Because of the pandemic, the country was in lockdown, and face-to-face contact was minimal, while international trade was hampered due to panic and fear of the virus, as was the demand for oil (Olumuyiwa, & Ibrahim, 2021).
- **Effect on ASI:** 2020: Contrary to expectations, the ASI increased by ₦32,090.63 in 2020 compared to ₦28,172.72 in 2019, triggered by fiscal stimulus and market interventions aimed at increased liquidity (Ozili, 2021)
- **Qualitative Perspective:** Despite the slump, higher interest rates having subdued the equity markets due to fear of a recession (Abdullahi, 2018).

4. Interest Rate Fluctuations (2004-2023)

- **Effect on GDP:** During 2004-2023, the fluctuation of interest rate in Nigeria majorly contributed towards determining the GDP (Nwakeze, Oshiole, Ochi, & Onwuliri, 2023). Higher rates have been employed to raise the general level of sluggish economic activities whilst lower rates have been used to spur growth, primarily during and after 2008 and post-COVID-19 (Nebechi, Okolo, & Okolo, 2022)
- **Qualitative Perspective:** The Central Bank of Nigeria's monetary policy shift resulted in some ups and downs in the ASI. Since interest rates are inversely related to the pattern of movement in the stock market, low-interest rates were bound to be followed by a surge into the stock market (Ononugbo, 2012).

5. Inflation and Exchange Rate Volatility (2016 Onward)

- **GDP Impact:** Continuous high inflation and depreciation of Naira significantly reduced consumer purchasing power and investment, which slowed down the growth of GDP between 2016-2019 (Adewunmi, 2023).
- **Impact on ASI:** Exchange rate volatility, more so from the 2016 recession, had led to inconsistent performance of ASI as foreign investors were cautious to invest due to heightened exchange rate risks (Umoru, Akpoviro, & Effiong, 2023).
- **Qualitative Insight:** All the qualitative insights gathered are shown below in the table and have been obtained by analyzing how different exchange rate policies will affect the performance of both stock market and GDP. Since the stock market relies on foreign capital its performance will largely be on the risks in the exchange rate (Oboni, 2019).

DISCUSSIONS

From the review of related literature and the presentation of findings in this study, it is observed that:

Stock Market Growth and Economic Growth in Nigeria: A review of literature on the relationship between stock market growth and economic growth shows mixed findings. Some works, such as Mamudu & Gayovwi 2020, established a negative relationship between

the All Share Index and economic growth, although market capitalization positively influences economic growth. Similarly, Popoola *et al.* (2017) established that even though there is a significant but negative relationship between ASI and GDP, the two variables have a long-run relationship. On the other hand, some studies such as Sylvester & Enabulu (2011) and Usman & Alfa (2013) confirmed a positive long-run relationship between stock market indicators and economic growth. Some of these found causality going either way. The study at hand confirms this, where the All-Share Index indeed has a significant short-run positive effect on the economic growth in Nigeria, although it did not find any causality in the long run.

Stock market and economic growth: The literature review also pinpoints the impact of the stock market on economic growth, where Rilwanu & Daniel, 2020, quoted that people consider the stock market as a potential avenue for boosting economic growth through savings and investment. Ogboi & Oladipo, 2012, observed that in the short run, the stock market depressed economic growth, although the long-run effect is positive. It corroborates the study's finding that while the All-Share Index contributes to the GDP growth in the short run, it does not have a statistical significance in the long run, which depicts volatility and susceptibility to external shock.

Comparative insights from other countries: The literature also brings insights from other nations such as Brazil, Russia, India, Zimbabwe, China, and South Africa, Ogbeide & Akanji 2018 where stock market development significantly impacted economic growth. This is in agreement with studies done in China by Kai & Liao (2021) and Eastern Europe by Prats *et al.* (2016-), supporting the fact that a well-developed stock market contributes to economic growth, though the strengths vary. By looking into the above evidence within the Nigerian context, this study found a moderate positive correlation between the performance of the stock market, ASI, and GDP, indicating that fluctuations within the stock market do, to some reasonable level, mirror the trajectory of growth in the economy.

Causality between stock market and economic growth: This research is in tune with previous studies such as Popoola *et al.* (2017) and Usman & Alfa (2013), which reported an inadequate causal relationship between stock market performance and GDP; applied a Granger causality test to observe that neither stock market growth nor economic growth Granger causes the other in Nigeria. This therefore suggests that, while the stock market and economic growth are two intertwined aspects, they can be moved by other forces different from the influence they can exert upon one another. The findings of this research are therefore consistent with various aspects of the literature on the development of the stock market and economic growth. While the stock market does have a positive impact on the growth of GDP in the short term, long-term effects remain very uncertain due to volatility and other influencing variables.

CONCLUSION

The Nigerian stock exchange market is supposed to play a focal role in economic growth. This research has highlighted the fundamental link that exists between a properly functioning stock exchange and economic growth, whereby an adequate mobilization and allocation of capital would really help the country to have sustainable growth. Over the years, the Nigerian Stock Exchange has become an important channel for financial mediation in availing companies of needed capital and investors an opportunity for wealth growth. The findings purport an increased stock market activities indicated by an increase in ASI are positively related to the country's GDP growth but this is subject to the conditions of stability in macroeconomic variables, proper financial regulations, and investor confidence. The stock market may not only reflect the strengths of the economy but also contribute to economic growth in the form of facilitating investments into such industries as banking, manufacturing, and agriculture. Despite such contributions, the Nigerian Stock market shows a number of setbacks in the nature of political instability,

corruption, inefficiency in regulatory functions, and economic volatility. All these conditions finally dent investor confidence and reduce market efficiency, hence debilitating the stock market from its full potential of driving economic growth. Besides, during economic decline brought about by global financial crises and fluctuations in oil prices, the market is always about declining in performance, an indication that the stock market would always be vulnerable to exogenous shocks. In earlier works on the role of Nigerian Stock Exchange to economic growth, studies have relied on less robust methodologies such as OLS and VAR that simply cannot capture both the long-run and short-run dynamics between the stock market and economic growth. This study will fill this gap by conducting analyses up to the period 2023-the landmark periods of the global financial crisis and COVID-19 pandemic having been missed by all earlier contributions. This research puts forward a more subtle relationship that exists in both the short and long terms between the All Share Index (ASI) and GDP using the methodology of ARDL. The research also provided qualitative explanations of some macroeconomic factors that are of paramount importance in influencing both stock market and economic growth. Further research could work on investigating the effects of shocks on the Nigerian Stock Exchange and provide ways to enhance the market's resilience to global economic fluctuations. Investigating the role of proper regulatory framework in ensuring fairness in the stock market and busting investor confidence thereby increasing the market efficiency. Additionally, future studies could work of finding out the impact of technology which is rapidly evolving in today's world and the impact of financial innovations such as fintech on Nigerian stock market and its economic growth.

REFERENCES

- Abdullahi, S. I. (2018). Nigerian economy: business, governance and investment in period of crisis. *Governance and Investment in Period of Crisis (October 23, 2018)*.
- Adeniyi, O., Oyinlola, A., Omisakin, O., & Egwaikhide, F. O. (2015). Financial development and economic growth in Nigeria: Evidence from threshold modelling. *Economic Analysis and Policy, 47*, 11-21.
- Adewunmi, A. (2023). Impact of Naira Depreciation and Inflation on the Nigerian Economy.
- Akingbade, W. A. (2021). COVID-19 pandemic challenges to micro, small and medium enterprises in Nigeria: Strategic options for survival. *ActaEconomica, 19(34)*, 153-167.
- Alajekwu, U. B., & Achugbu, A. A. (2012). The role of stock market development on economic growth in Nigeria: A time series analysis. *African Research Review, 6(1)*, 51-70.
- Alley, I. (2018). Oil price and USD-Naira exchange rate crash: Can economic diversification save the Naira?. *Energy Policy, 118*, 245-256.
- Aramonte, S., Schrimpf, A., & Shin, H. S. (2022). Non-bank financial intermediaries and financial stability. Available at SSRN 3952551.
- Araoye, F. E., Ajayi, E. O., & Aruwaji, A. M. (2018). The impact of stock market development on economic growth in Nigeria. *Journal of business and African Economy, 4(1)*, 1-15.
- Bekaert, G., & Harvey, C. R. (2002). Research in emerging markets finance: Looking to the future. *Emerging Markets Review, 3(4)*, 429-448.
- Black, B. S., & Gilson, R. J. (1998). Venture capital and the structure of capital markets: banks versus stock markets. *Journal of financial economics, 47(3)*, 243-277.
- Bouchet, M. H., Clark, E., & Gros Lambert, B. (2003). Country risk assessment: A guide to global investment strategy.
- Chakraborty, I., & Gupta, M. R. (2019). Financial development and economic growth in India: An analysis of credit and stock market. *Journal of Asian Economics, 64*, 101136.
- Chikwira, C., & Mohammed, J. I. (2023). The impact of the stock market on liquidity and economic growth: Evidence of volatile market. *Economics, 11(6)*, 155.
- Chowdhury, E. K., Khan, I. I., & Dhar, B. K. (2022). Catastrophic impact of Covid-19 on the global stock markets and economic activities. *Business and Society Review, 127(2)*, 437-460.
- Durusu-Ciftci, D., Ispir, M. S., & Yetkiner, H. (2017). Financial development and economic growth: Some theory and more evidence. *Journal of policy modeling, 39(2)*, 290-306.
- EZENDUKA, V. G., & JOSEPH, E. M. (2020). Stock market performance and economic growth in Nigeria (1985–2018). *International Journal of accounting research, 5(4)*, 143-168.
- Fedorova, E., Musienko, S., & Afanasyev, D. (2020). Impact of the Russian stock market on economic growth. *Finance: Theory and Practice, 24(3)*, 161-173.
- Hasan, M. A. (2018). Does stock market development promote economic growth? A bounds testing analysis for Bangladesh. *Jurnal Perspektif Pembiayaan dan Pembangunan Daerah, 6(1)*, 69-78.
- Hazen, T. L. (1991). Short-Term/Long-Term Dichotomy and Investment Theory: Implications for Securities Market Regulation and for Corporate Law, *The NCL Rev., 70*, 137.
- Hou, Z., Keane, J., Kennan, J., & Velde, D. W. (2015). *The oil price shock of 2014*. Technical report, Working Paper. Overseas Development Institute, London, UK.
- Kai, X., & Liao, J. (2021). A Study on the Correlation between China's Stock Market and Economic Growth. *International Journal of Emerging Trends in Social Sciences, 10(1)*, 47-53.
- Khasanah, U., & Wicaksono, A. T. S. (2021). Intermediary performance of Islamic banks in the disruption era: does it contribute to economic growth?. *Banks and Bank Systems, 16(1)*, 103-115.
- Laopodis, N. T. (2020). *Understanding investments: Theories and strategies*. Routledge.
- Mamudu, Z. U., & Gayovwi, G. O. (2020). Capital market and economic growth in Nigeria: An empirical analysis. *International Journal of Economics, Business and Finance, 7(3)*, 1-25.
- Mamudu, Z. U., & Gayovwi, G. O. (2020). Capital market and economic growth in Nigeria: An empirical analysis. *International Journal of Economics, Business and Finance, 7(3)*, 1-25.
- Ndikumana, L. (2001). Financial markets and economic development in Africa. *Economic Commission for Africa, Policy Research Working Paper No. 26*.
- Nebechi, O. F., Okolo, C. V., & Okolo, E. U. (2022). Improving Agriculture for Nigerian Economic Development at Post COVID-19 Pandemic Era. *ESUT JOURNAL OF SOCIAL SCIENCES, 7(2)*.
- Njiforti, P. (2015). Impact of the 2007/2008 global financial crisis on the stock market in Nigeria. *CBN Journal of Applied Statistics, 6(1)*, 49-68.
- Nwakeze, E. O., Oshiole, S., Ochi, E. N., & Onwuliri, O. (2023). How Fluctuations in Money Market Indicators (MMIs) affect Nigerian Exchange Limited (NGX)(2010–2023 Q2): Evidences from VAR and Granger Causality Wald Model. *Abdullahi, M., Twumasi, O., Addo, A., & Tetey, D. (2023). The Impact of Macroeconomic Variables on Stock Market Performance in Ghana. Journal of Production, Operations Management and Economics, 3(6)*, 1-14.
- Oboni, O. A. (2019). *Effects of Exchange Rate Volatility and Interest Rate Variability on Stock Returns of Commercial Banks in Nigeria* (Doctoral dissertation, Thesis Submitted to the School of Economics, Finance and Banking Universiti Utara Malaysia, In Partial Fulfilment of the Requirement for the Master of Economics).
- Ogbeide, S., & Akanji, B. (2018). Stock market development and economic growth of Brazil, Russia, India, China and South African (BRICS) Nations: An empirical research.
- Ogboi, C., & Oladipo, S. O. (2012). Stock market and economic growth: The Nigerian experience. *Research Journal of Finance and Accounting, 3(4)*, 103-110.
- Okoh, A. S. (2020). *Oil mortality in post-fossil fuel era Nigeria: Beyond the oil age*. Springer Nature.
- Okonkwo, O. N., Ogwuru, H. O., & Ajudua, E. I. (2014). Stock market performance and economic growth in Nigeria: An

- empirical appraisal. *European Journal of Business and Management*, 6(26), 33-42.
- Olumuyiwa, A. J., & Ibrahim, S. M. (2021). Effects of COVID-19 on the economy of an oil dependent Nigeria. *Journal of Energy Technologies and Policy*, 11(1), 11-21.
- Ononugbo, M. C. (2012). *Monetary policy in developing countries: The case of Nigeria*. University of Leeds.
- Ouma, S. (2020). *Farming as financial asset: Global finance and the making of institutional landscapes* (p. 220). Agenda Publishing Limited.
- Owusu, E. L. (2016). Stock market and sustainable economic growth in Nigeria. *Economies*, 4(4), 25.
- Ozili, P. K. (2021). Covid-19 pandemic and economic crisis: The Nigerian experience and structural causes. *Journal of Economic and Administrative Sciences*, 37(4), 401-418.
- Pagano, M., Panetta, F., & Zingales, L. (1998). Why do companies go public? An empirical analysis. *Journal of Finance*, 53(1), 27-64.
- Pan, L., & Mishra, V. (2018). Stock market development and economic growth: Empirical evidence from China. *Economic Modelling*, 68, 661-673.
- Popoola, O. R., Ejemeyovwi, O. J., Alege, O. P., Adu, O., & Onabote, A. A. (2017). Stock market and economic growth in Nigeria. *International Journal of English Literature and Social Sciences*, 2(6), 97-106.
- Prats Albentosa, M. A., & Sandoval, B. (2016). *Stock market and economic growth in Eastern Europe* (No. 2016-35). Economics Discussion Papers.
- Rilwanu, U. I., & Daniel, C. O. (2020). Role of capital market on economic development in Nigeria. *IOSR Journal of Business and Management*, 22(5), 01-06.
- Rilwanu, U. I., & Daniel, C. O. (2020). Role of capital market on economic development in Nigeria. *IOSR Journal of Business and Management*, 22(5), 01-06.
- Siegel, J. J. (2021). *Stocks for the long run: The definitive guide to financial market returns & long-term investment strategies*. McGraw-Hill Education.
- Siegel, J. J. (2021). *Stocks for the long run: The definitive guide to financial market returns & long-term investment strategies*. McGraw-Hill Education.
- Sylvester, O., & Enabulu, G. O. (2011). The effect of stock market on economic growth in Nigeria. *Journal of Research in National Development (JORIND)*, 9(1), 287-295.
- Umoru, D., Akpoviroro, O. N., & Effiong, S. E. (2023). Causes of exchange rate volatility. *Asian Journal of Economics, Business and Accounting*, 23(20), 26-60.
- Usman, U. A., & Alfa, A. B. (2013). Nigeria stock exchange market and economic growth: A Johansen co-integration and causality approach. *International Journal of Advanced Research in Management and Social Sciences*, 2(1), 74-83.
- Vazakidis, A., & Adamopoulos, A. (2009). Stock market development and economic growth. *American Journal of Applied Sciences*, 6(11), 1932.
- Wang, X., & Wei, S. (2021). Does the investment horizon of institutional investors matter for stock liquidity?. *International Review of Financial Analysis*, 74, 101648.
- Wang, Y., Yao, Y., & Morgan, P. (2010). Impact of China's stock market on economic growth: Some empirical evidence. *Asian Development Bank Institute Working Paper*, No. 225.
