

**RESEARCH ARTICLE****Capital Market and Economic Growth: Evidence from Nigeria**

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**ABSTRACT**

This research work investigated the EFFECT OF CAPITAL MARKET ON ECONOMIC GROWTH OF NIGERIA. It aimed at examining how the capital market has contributed to the economic growth of Nigeria. The study made use of yearly data gotten from 2019 CBN statistical bulletin spanning from 1985-2018. 2018 was chosen as the base year in order to make use of current data and to enhance the study and analysis of current trends in the economy. The study made use of ex-post facto research design which is quasi — experimental study that examines how independent variables affect a dependent variable. The data used in this study is an existing data. ARDL Model Estimation and Linear regression analysis method was adopted because both has the peculiarity of giving the signs of the coefficients. It's relevant in testing the entire hypothesis. More so, the analysis was carried with the help of E-view version 10 software package. The result gotten provided evidence on the three independent variables; market capitalization, all share index and volume of stock traded in explaining and predicting economic growth in Nigeria. The results showed that the three variables have played a significant role in influencing the capital market performance on Nigeria's economic growth. This further indicates that a one percent decrease in GDP total in Nigeria is due to 27% decrease in Market Capitalization. The results also show that there also exists a significant and negative relationship between all shares index and gross domestic product. Thus, indicating that a one percent decrease in GDP total in Nigeria economic growth is due to 20% decrease in All Share Index. Lastly, results also shows that there exists a significant positive relationship between volume of stocks traded on the exchange and the gross domestic product. It concludes 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

**Keywords:** Capital Market; Market Capitalization; All Share Index

**Introduction**

The Nigerian capital market consists of a large network of financial institutions, infrastructure, and mechanisms that help interact in the mobilization and allocation of long-term funds in the economy. The market offers corporate entities governments, and the opportunity to issue securities stock and bonds to acquire long-term funds from the savings of other economic agents (Iyola, 2018). The capital market not only serves as a source of finance for the corporate entities, government, and its other participants but also provides a wide range of socio-economic benefits to the economy. By mobilizing funds and channeling into productive investments, the capital market serves as a network in the financial system that connects those who have surplus funds and those who need funds at competitive prices and conditions acceptable to both parties, thereby ensuring efficient resource allocation to the most productive use while promoting economic growth (Okereke, 2015).

Emenuga (2019) also stated that the capital market serves as one of the major means through which foreign investments are injected into most economies and the tendency towards a global economy is more visible in the capital market than any other market in an economy. Therefore, it is quite valid to state that the growth of the capital market has become one of the major metrics for measuring the overall

economic growth of an economy. Economic growth, which is referred to as the increase in per capita domestic product (GDP) or the percentage change in GDP in a modern economy, hinges on an efficient financial system that

**Citation:** Iyke-Ofoedu, M. I., Ihegboro, I. M., Uzochukwu, A. C. & Obiora-okafo, C. A. (2022). Capital Market and Economic Growth: Evidence from Nigeria. *European Journal of Finance and Management Science* 6(4), 52-59. DOI: <https://doi.org/10.5281/zenodo.7340089>

**Accepted:** August, 2022; **Published:** November 20, 2022

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mobilizes domestic savings and foreign capital for productive investments. Although identifying the formal link that exists between the financial system (sector) and economic growth is fundamental, the basic intuition behind this relation is in no doubt that capital market plays a major role in the acquisition of human capital investments which is a fundamental aspect of economic growth and development. From this point of view, one should expect that as the capital market develops and deepens, the efficient allocation of the financial resources for investment purposes is enhanced and thus contributes to the overall strength and growth of an economy (Sanni, 2016).

Most recent researches and findings have shown that for the capital market to operate efficiently and effectively in a manner that will promote rapid economic growth, there has to be a well-functioning financial system because a well-functioning financial system reduces a country's reliance on foreign inflows. The benefits of having a well-functioning financial system are as numerous as the benefits derived from a well-functioning capital market. Therefore, as a result of the various benefits, a number of African countries including Nigeria which is the subject of this study, have endeavored to put in place various measures aimed at developing the financial sector, most importantly its capital market. These financial sector reforms have therefore been widely used as policy measures to encourage the development of domestic financial systems as well as eliminating the barriers of foreign capital inflows (Gideon, 2016).

The performance of the Nigerian capital market over time has been determined by a number of factors which include how securities (financial assets) are priced, such as the size of the stock market, market capitalization, number of listed equities, transactions in buying, and selling of securities (liquidity) which in this case refers to the volume of transactions and new issues of securities. This study, therefore, poses to examine how these aforementioned capital market variables have impacted economic growth in Nigeria.

## Literature Review

### Theoretical Framework/Considerations:

This study is underpinned by the Efficient Market Hypothesis that asserts that share prices reflect all information. The EMH hypothesizes that stocks trade at their fair market value on exchanges. Proponents of EMH posit that investors benefit from investing in a low-cost, passive portfolio. The theory believes that for a market to become efficient, investors must perceive that the market is inefficient and the possibility to subdue it. Ironically, investment strategies intended to take advantage of inefficiencies are actually the fuel that keeps a market efficient. A market has to be large and liquid.

### Empirical Review

The empirical review of this study simply covers the various researches done by other researchers concerning the impact of the capital market on the economic growth of Nigeria and other related studies.

Nwokoma (2012) attempts to establish a long-run relationship between the stock market and some of the macroeconomic indicators. His result shows that only industrial production and level of interest rates, as represented by the 3-month commercial bank deposit rate, have a long-run relationship with the stock market. He also found that the Nigerian market responds more to its past prices than changes in the macroeconomic variables in the short run.

Elumilade & Asaolue (2016) examine the relationships between stock market capitalization rate and interest rate. Time series data obtained for the period 1981-2010 from the Central Bank of Nigeria (CBN) and Nigeria Stock Exchange (NSE) were analyzed using regression. The data obtained were fitted to the equation by the ordinary least-square (OLS) regression method. Results showed that the prevailing interest rate exerts a positive influence on the stock market capitalization rate. Government development stock rate exerts a negative influence on stock market capitalization rate and prevailing interest rate exerts a negative influence on government development stock rate. The study further revealed information as very important to capital market development. It was therefore recommended that the operators of the Nigeria capital market should raise the level of awareness so that investors will be abreast with the happenings in the market.

(Capasso, 2014) uses a sample of 24 advanced OECD and some emerging economies to investigate the link between stock market development and economic growth covering the period 1988-2012. In Morocco. The findings show a strong and positive correlation between stock market development and economic growth and the latter concludes

that stock markets tend to emerge and develop only when economies reach a reasonable size and with a high level of capital accumulation.

Adam & Tweneboah (2013) examined the impact of macroeconomic variables on stock prices in Ghana using quarterly data from 1991 to 2010. They examined both the long-run and short run dynamic relationships between the stock market index and the economic variables-inward foreign direct investment, treasury bill rate, consumer price index, average oil prices, and exchange rates using a co- integration test, Vector Error Correction Theory (VECM). They found that there is co-integration between macroeconomic variables and stock prices in Ghana indicating a long-run relationship. The VECM analysis shows that the lagged values of interest rate and inflation have a significant influence on the stock market. Also, the inward foreign direct investments, oil prices, and the exchange rate demonstrate a weak influence on price changes.

Serkan (2012) investigates the role of macroeconomic factors in explaining Turkish stock returns. He employed macroeconomic factor theory from the period of July 1997 to June 2010. The macroeconomic variables considered are growth rate of industrial production index, change in the consumer price index, the growth rate of narrowly defined money supply, changes in the exchange rate, interest rate, the growth rate of international crude oil prices and return on the MSCI World Equity Index. He found that the exchange rate, interest rate, and world market return seem to affect all of the portfolio returns, while the inflation rate is significant for only three of the twelve portfolios. Also, industrial production, money supply, and oil prices do not appear to have a significant effect on stock returns in Turkey.

Endian & Olufisayo (2014), through autoregressive distributed lag (ARDL), evaluate the long- run relationship between stock market development and economic growth in seven of the Sub-Saharan African countries. The results indicate that the stock market has a positive and significant impact on growth. Causality results indicate unidirectional causality from stock market development to economic growth for both South Africa and Egypt. While Cote d'Ivoire, Kenya, Morocco, and Zimbabwe indicate bidirectional causality, Nigeria on the other hand shows weak evidence that growth causes finance.

Arzarmi (2013) examined the empirical association between stock market development and economic growth in India. The authors found no evidence of an association between the Indian stock market development and economic growth in the entire period they studied. Whereas the authors found support for the relevance of stock market development in economic development during pre-liberalization, they discovered a negative relationship between stock market development and economic development for the post-liberalization period.

## Methodology

The study adopted an ex-post facto design since it dealt with data that had already been compiled. Also, since the study is focused on the cause-effect relationship among variables and investigates variables that cannot be observed experimentally, such as those studies in this work.

The Secondary data was collected on each of the above stated variables, covering the period of 1985 to 2018. The choice of this period is to make room for a broad coverage of the capital market indicators, as well as the investigation of both the short run and long run relationship between capital market development and economic growth in Nigeria. These annual data series were collected majorly from CBN Statistical Bulletin of 2018, CBN Annual Report and Statement of Accounts (various issues), NSE books, and SEC Market Bulletins.

The notion of Nigeria economic growth involved a series of equations which showed the relationship between market capitalization, all share index and value of stock traded. Therefore, economic growth (measured by real gross domestic product) is estimated as a function of market capitalization, all share index and value of stock traded. These were measured respectably.

$$\text{“RGDP} = f(\text{MCAP, ASI, VODS}) \dots\dots\dots (1)$$

Where: RGDP = Real Gross Domestic Product at constant factor cost

MCAP = Stock Market Capitalization

ASI = All Share Index

VODS = Value of stock traded

e = Error Term

$\beta_0$  = Constant,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  = Coefficient of the independent variables.

The model in an estimable form appears as follows:

$$\text{LOGGDP}_t = \beta_0 + \sum_{k=j}^{n=l} \beta_1 \text{LOGGDP}_{t-1} + \sum_{k=j}^{n=l} \beta_2 \text{LOGASI}_{t-1} + \sum_{k=j}^{n=l} \beta_2 \text{LOGMCAP}_{t-1}$$

The model for the test of the respective hypotheses with interest rate as control variable are shown thus:

**Hypothesis One**

$$\text{LOGGDP}_t = \beta_0 + \sum_{k=j}^{n=l} \beta_1 \text{LOGGDP}_{t-1} + \sum_{k=j}^{n=l} \beta_2 \text{LOGMCAP}_{t-1} + \sum_{k=j}^{n=l} \beta_2 \text{LOGINTR}_{t-1} + \varepsilon_t$$

$$\text{LOGGDP}_t = \beta_0 + \sum_{k=j}^{n=l} \beta_1 \text{LOGGDP}_{t-1} + \sum_{k=j}^{n=l} \beta_2 \text{LOGASI}_{t-1} + \sum_{k=j}^{n=l} \beta_2 \text{LOGINTR}_{t-1} + \varepsilon_t$$

**Hypothesis Three**

$$\text{LOGGDP}_t = \beta_0 + \sum_{k=j}^{n=l} \beta_1 \text{LOGGDP}_{t-1} + \sum_{k=j}^{n=l} \beta_2 \text{LOGVST}_{t-1} + \sum_{k=j}^{n=l} \beta_2 \text{LOGINTR}_{t-1} + \varepsilon_t$$

In order to ensure variables used in this study are not spurious, the stationary of variables was initially tested using the Augmented Dickey Fuller (ADF) test. For the analysis, the researcher used basic descriptive statistics and correlation test to test data characteristics. ARDL regression model was employed as the major estimate method. Basically, estimates from ARDL Regression analysis were employed to test the hypotheses. The estimation was done with the aid of the E views 10.0.

**Result and Discussion**

**Data Presentation**

This chapter presents the data used to execute this work, the results of the analysis and the findings are also presented.

**Table 1: Raw Data Presentation**

YEAR	VODS	MCAPO	ASI	GDPA
1985	316.60	6.60	117.283333	34.24
1986	497.90	6.80	149.816667	35.70
1987	382.40	8.20	176.916667	50.29
1988	850.30	10.00	210.808333	73.76
1989	610.30	12.80	273.868758	88.26
1990	225.40	16.30	423.658333	106.63
1991	242.10	23.10	671.616667	123.24
1992	491.70	31.20	931.016667	184.12
1993	804.40	47.50	1229.025	295.32
1994	985.90	66.30	1913.225	445.27
1995	1,838.80	180.40	3815.11667	790.14
1996	6,979.60	285.80	5955.14167	1,070.51
1997	10,330.50	281.90	7638.59167	1,211.46
1998	13,571.10	262.60	5961.875	1,341.04
1999	14,072.00	300.00	5264.19167	1,426.97
2000	28,153.10	472.30	6701.175	1,508.41
2001	57,683.80	662.50	10185.075	2,015.42
2002	59,406.70	764.90	11631.8667	4,251.52
2003	120,402.60	1,359.30	15559.895	4,585.93
2004	225,820.00	2,112.50	24738.6508	4,935.26
2005	262,935.80	2,900.06	22876.7167	6,032.33
2006	470,253.40	5,120.90	28101.5833	7,513.30
2007	1,076,020.40	13,181.69	48773.3083	8,551.98
2008	1,679,143.70	9,562.97	50424.7017	10,100.33
2009	685,717.29	7,030.84	2309.15458	11,625.44
2010	799,910.95	9,918.21	24775.5117	13,048.89
2011	638,925.70	10,275.34	23393.6475	14,037.83
2012	808,994.18	14,800.94	23432.6208	15,816.00
2013	2,350,875.70	19,077.42	36207.0775	16,816.55
2014	1,338,600.65	16,875.10	39409.8233	18,018.61
2015	978,047.07	17,003.39	30867.195	19,636.97
2016	620,018.05	16,185.73	26624.0767	21,523.51
2017	1,078,491.84	21,128.90	32161.1125	23,952.55
2018	1,284,976.28	21,904.04	37186.1117	27,371.30

*Source: Author's compilation from CBN Statistical Bulletin from various years*

### Analysis of Data

#### Data Description

The descriptive statistics was performed to describe the variables of study using some descriptive measures such as mean, standard deviation, Skewness and kurtosis. The results of the descriptive analysis were presented in table 2.

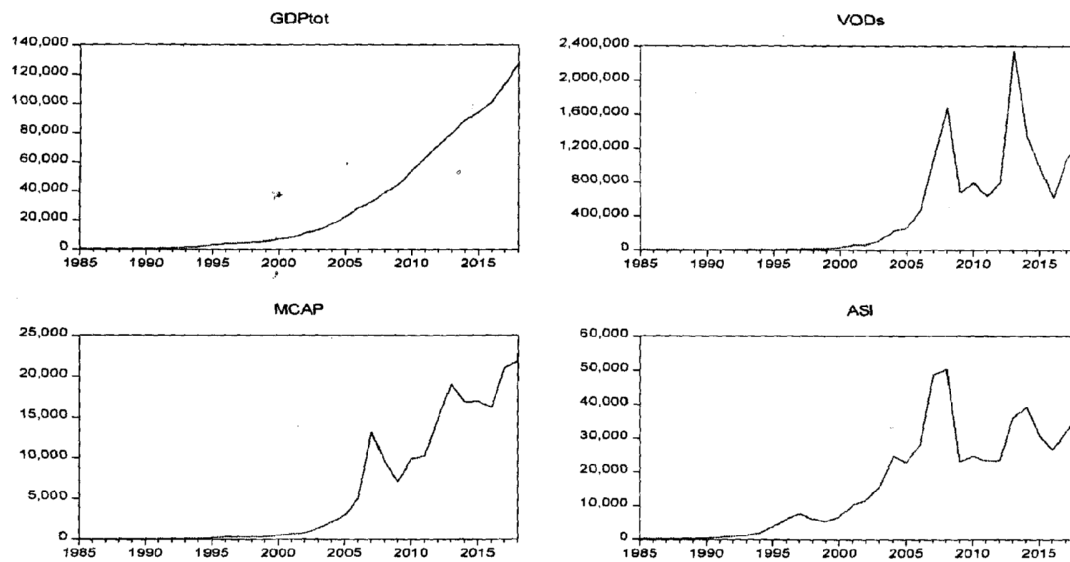
**Table 2: Descriptive Result**

VARIABLES	MEDIA	MEDIAN	MAXIMUM	STD. DEV	SKEWNESS	KURTOSIS	PROB	OB
GDPTOT	30794.20	9738.2	127762.5	38661.73	1.125664	2.936	0.02	34
VODS	429899.3	58545.25	2340876	595543.7	1.439544	4.549375	0.00	34
MCAPO	5643428	713.7000	21904.04	7433.341	0.062485	2.380882	0.05	34
ASI	162021	10908.47	50424.70	15385.90	0.606603	2.214760	0.22	34

*Source: Author's compilation from E-views 10.0*

The descriptive statistics in Table 2 presents the measures of central tendency as well as spread of the variables under study. The Skewness which measures symmetry or departure from symmetry and Kurtosis which is a measure of peakedness or flatness of the distribution or series are also shown. The series which is reported play kurtosis because in normally distributed. In Jarque-Bera which is a test for normality is also reported.

### Graphical Presentation



### Correlation Matrix

To further show the properties of the series under study, the degree of linear association is shown by table 3 below:

**Table 3: Summary of Descriptive Statistics**

VARIABLE	GDPTOT	VODS	MCAP	ASI
GDPTOT	-	-	-	-
VODS	0.788547 7.253459 0.0000	-	-	-
MCAP	0.972890 23.79683 0.0000	0.876231 10.28593 0.0000	-	-
ASI	0.759708 6.608945 0.0000	0.877606 10.35601 0.0000	0.828089 8.375376 0.0000	-

Source: Author's compilation from E-views 10.0

From the result in table 3, all the series share bivariate positive and significant correlation one with another. More so, some of all share positive and significant relationship with variables closed with.

### Unit Root Analysis

**Table 4: Break Point unit Root Test Results**

VARIABLE	ADF	AT 5% LEVEL	PROBABILITY	DIFFERENCES
GDPTOT	-2.83	-2.96	1.0000	1(0)
VODS	-3.83	-3.55	0.03	1(0)
MCAP	-5.81	-2.96	0.0000	1(1)
ASI	-5.93	-2.96	0.0000	1(1)

\* Stationary at 1% significance level \*\* Stationary at 5% significance level

Source: Author's Compilation on from E-view 10.0 See Appendix 3 extracted from E-views 10.0

A variable is stationary when ADF value is greater than the critical value. In table 4.3above, the test statistics for the log levels of real gross domestic product, market capitalization, value of stock traded, and all share index indicate that these variables are statistically insignificant while some are significant. Hence, this study further applied the unit root tests at the levels for the GDPTOT and VODS while first differences for the MCAP and ASI. A stationary series was obtained for all the variables at 1(0) and 1(1). At this level the ADF test rejects the unit root null hypothesis

for all the variables at the 5 percent level. Thus, from all of the tests, the unit roots tests indicate that all the variables were integrated of order 1(0) and 1(1). Based on this, there is sign of ARDL test since there is combination of 1(1) and 1(0).

### **Conclusion and Recommendation**

Based on the findings of the research, the study concludes as follows:

Firstly, the study has provided evidence on the three independent variables; market capitalization, all share index and volume of stock traded in explaining and predicting economic growth in Nigeria. The study concluded that the three variables have played a significant role in influencing the capital market performance on Nigeria's economic growth. This further indicates that a one percent decrease in GDP total in Nigeria is due to 27% decrease in Market Capitalization

Secondly, the study also establishes significant and negative relationship between all shares index and gross domestic product. Thus, indicating that a one percent decrease in GDP total in Nigeria economic growth is due to 20% decrease in All Share Index.

Thirdly, the study documents a significant positive relationship between volume of stocks traded on the exchange and the gross domestic product. It concludes 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.

Finally, the study concludes that there is a complete absence of serial correction between market capitalization, all share index and volume of stock traded as proxies of capital market. The correlation matrix reveals that, market capitalization has the highest relationship with gross domestic product (GDP) which signifies more contribution of capital market performance to Nigeria 's economic growth.

### **Recommendations**

Based on the findings and conclusions of the study, the following recommendations are hereby presented

- I. There is need for improvement in the declining market capitalization by encouraging more foreign investors to participate in the market, maintain state of the art technology that will ensure a free flow of information in the market to attract more investors as well as increase new issues which will automatically increase the quantum of market capitalization. There is also the need to restore confidence in the market by the Securities and Exchange Commission and the Nigerian Stock Exchange through ensuring transparent and fair-trading transactions and dealings in the stock exchange. Government should remove impediments to market growth in form of legal and regulatory barriers because they are sometimes disincentives to investment.
- II. Secondly, as observed the total listed equities in the NSE are 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.
- III. Furthermore, the government should invest more and develop the nation's infrastructure in order to create an enabling environment for businesses to grow and for productivity and efficiently to thrive which will bust economic activities.
- IV. Fourthly, total new issues are very important to the growth of any capital market. Therefore, government should employ appropriate trade policies such as establishing National Association of Securities Dealers (NASD) that promote the inflow of international capital and foreign investment, so as to enhance the production capacity of the nation. The Government should restore the confidence of shareholders (investors) due to the declining fortune of the stock market.
- V. Finally, the volume of transaction needs to be boosted by NSE through introducing more derivatives, convertibles, futures and options in the markets in order to meet up with other markets of the world.

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