

# Empirical Analysis of Selected Indicators of the Nigeria Capital Market: 1986 – 2016

<sup>1</sup>Akpokerere Othuke Emmanuel (Ph.D) and <sup>2</sup>Ekane Raphael Ogagaoghene

<sup>1</sup> Lecturer, Department of Banking and Finance, Delta State Polytechnic Ozoro,  
Phone: 08063753039  
[emmanuelakpokerere@yahoo.com](mailto:emmanuelakpokerere@yahoo.com)

<sup>2</sup> Lecturer, Department of Banking and Finance, Delta State Polytechnic Ozoro,  
Phone: 08037660295  
[ekaneogaga@gmail.com](mailto:ekaneogaga@gmail.com)

**Abstract:** The study examined selected indicators of the Nigeria capital market from 1986 – 2016. The study was anchored on the supply leading hypothesis. Secondary data were sourced from the Central Bank of Nigeria Statistical Bulletin and Nigerian Stock Exchange factbook of various. The study adopted the ex-post facto research design while Ordinary Least Square regression techniques was used to process the data gathered using E-view 9.0 software. The finding of the study showed that there is a positive and insignificant relationship between market capitalization and Nigerian economic growth for the period under study. The study concluded that capital market lacked the capacity to significant enhance economic growth in Nigeria. Based on the findings, the study recommends among other that there is need for serious policy issues to be put in place to promote economic growth. For example there is need for large corporations' shares to be listed in the Nigerian Capital Market as this will increase the all share index transaction in the market.

**Keywords:** Economic Growth; Market Capitalization; All Share Index.

## 1. INTRODUCTION

It is a well-established fact that a well-developed capital market facilitates economic growth and development (Ibenta, 2000). The capital market provides a platform where financial resources are pooled and made available for productive ventures. Absence of effective capital market could leave most productive projects which carry developmental agenda unexploited. The capital market connects the monetary sector with the real sector and therefore facilitates growth in the real sector, it enhances improvement in the quality of life of the citizens (Okoro, 2012; Ibenta, 2000). The fundamental channel through which the capital market is connected to the economic growth is that the capital market increases the proportion of long-term savings that is channeled to long-term investment. Besides, capital market also provides equity capital and infrastructural development capital that has strong socio-economic benefit. It also promotes public-private partnerships to encourage participation of private sector in productive investment (Okoro, 2012).

The capital market provides a platform where financial resources are pooled and made available to productive ventures (Oke, 2013). Briggs (2015) study shows that capital market remains one of the mainstays in every economy that has the power to influence economic growth, therefore the organized private sectors need to invest in capital market. Adigwe, Nwanna and Ananwude (2015) study support the argument that stock market development in developing countries contribute positively to economic growth. A financial market works as a conduit for demand and supply

of debt and equity capital. It channel's the money provided by savers and depository institutions to borrowers and investees through a variety of financial instruments called securities.

The Nigerian Capital Market has witnessed obvious transformation, growth and expansion evident by the increased level of participation of the private and public investors at the floor of the stock exchange and in various public offers of quoted companies (Riman, 2008).

The capital market in Nigeria has faced some challenges as it is being described as a shallow market, this is due mainly to the market float that is very small and is measured by the ratio of securities in the market to the total listed securities outstanding. The challenge that lies ahead is to be able to increase and retain as many of our domestic individual and institutional investors as possible and simultaneously attract foreign ones to the Nigerian Capital Market (Nathanael, 2014).

### Statement of the Problem

The Nigerian Capital Market like every other capital markets has faced challenges. These problems are both endogenous and exogenous. The exogenous problems are those outside the direct control of the market but are regulation induced. The endogenous problems are those that are internal to the market but are amenable to changes with improved operational procedures including the adoption of information technology. Some of these problems, particularly to Nigerian Capital Market, have been identified by a number of researchers to include small size of the market, problem of illiquidity of the market, slow growth of security market, delay of shares certificate, problem of microeconomic instability and fewness in number of tradable shares

(Echekoba, Ezu & Egbunike, 2013; Aiguh, 2013; Odetayo & Sajuyigbe, 2012; Ohiomu & Enabulu, 2011). These endogenous and exogenous issues identified are capable of hampering capital market development and economic growth in a developing country like Nigeria.

There has been a mixed and divergent positions on the capital market and economic growth nexus leading to confusion on appropriate policy stance to spur growth through capital market performance in Nigeria. Some of these studies have posted that market indicators such as All Shares Index, Market capitalization, Value of transactions and Volume of shares traded indicated positive and significant contributions to the economic growth (Odo, Anoke, Onyeisi & Chukwu, 2017; Obiakor, 2016; Briggs, 2015; Igbo-dika, 2014); while others observed that the market has not significantly mobilized and effectively channeled substantial capital to the real sector of the economy (Okonkwo, Ogwuru & Ajudua, 2014; Adewuyi & Olowookere, 2011). Even at this, contradictions also emanated wherein studies showed that capital market indices promoted economic growth (Jagadish, 2017; Kumar, 2016; Nordin & Nordin, 2016; Jalloh, 2015; Regmi, 2012; Duca, 2007), and others revealed that the capital market has not positively and significantly affected economic growths of studied economies (Karim & Chaudhary, 2017; Wang & Ajit, 2013; Jamil & Shazia, 2013; Abdul-Khalia, 2013). Given these divergences in the relationship between capital market performance and the economic growth, capital market policies that spur growth may not be focused.

Despite empirical studies abounds on capital market and growth nexus, the effects of volume of trading, new issues and all share index hardly studied.

### Objectives of the Study

The main objective of the study is to examine capital market performance and economic growth in Nigeria: 1986-2016. Specifically, the study examined the relationship between capital market performance and economic growth as stated below:

1. To ascertain the relationship between market capitalization ratio and economic growth in Nigeria.
2. To assess the relationship between all share index and economic growth in Nigeria.

### Research Questions

In order to achieve the objectives of this study, the following questions were developed:

1. How does market capitalization ratio relate to economic growth in Nigeria?
2. What is the extent to which all share index relate to economic growth in Nigeria?

### Research Hypotheses

This study will be guided by the following hypothetical statements which are stated in the null form;

**H<sub>01</sub>:** Market capitalization ratio does not predict economic growth in Nigeria.

**H<sub>02</sub>:** All share index does not significantly impact on economic growth in Nigeria.

## 2. REVIEW OF RELATED LITERATURE

### Concept of Capital Market

The capital market is a network of specialized financial institutions, series of mechanisms, processes and infrastructure that in various ways facilitate the bringing together of suppliers and users of medium to long term capital for investment in socio-economic developmental projects (Al-Faki, 2007). The capital market is a highly specialized and organized financial market and indeed essential agent of economic growth because of its ability to facilitate mobilized saving and investment. To a great extent, the positive relationship between capital accumulation and real economic growths has long affirmed in economic theories (Anyanwu, 1993).

### Theoretical Framework

This study is anchored on the supply leading hypothesis based on its emphasis on the importance of finance in the context of a developing country like Nigeria.

### The Supply Leading Hypothesis

This view contends that a well-functioning capital market channels limited resources from surplus units to deficit units and in so doing providing an efficient allocation of resources, thereby resulting in economic growth (Hugh, 1966; Shaw, 1973; Jung 1986; Levine & Zervos, 1996).

The supply leading phenomena refers to the creation of financial institutions and the supply of their financial assets, liabilities, and related financial services taking place, prior to their demand especially in the modern growth inducing sectors. 'Supply Leading' approach performs two important functions, viz., (i) transfer of resources from traditional (non-growth) sectors to modern sectors, and (ii) promotes and stimulates an entrepreneurial response in these sectors. According to Hugh, in actual practice, there is an interaction of supply leading and demand following phenomena. Prior to sustained modern growth supply leading could induce real growth through innovative investments by financial means. With real growth, the supply leading gradually becomes passive and the demand following financial response becomes predominant.

In the linkage between financial growth and economic development, one of the most important relationships is the stock of financial assets and liabilities to the real capital stock, apart from their optimal composition, rate of growth, their efficient allocation and utilization. Thus, the financial system influences the capital stock in three different ways.

### Empirical Studies on Market Capitalization Ratio and Economic Growth

Jagadish (2017) examined the empirical relationship between stock market development and economic growth in Nepal over the period of 22 years from 1993 to 2014. The long-run and short-run elasticity were estimated by the use of autoregressive distributed lag (ARDL) bounds testing

approach for co-integration analysis. The economic growth was measured by real gross domestic product per capita, and stock market development measured by market capitalization of Nepal stock exchange (NEPSE). Findings indicated that market capitalization has a significant positive impact on the economic growth in both long as well as in short run.

Muyambiri and Chabaeffe (2017) investigated the relationship between stock market development and economic growth in Botswana using quarterly time series data from 2005 to 2015. The study employed the Pesaran, Shin and Smith autoregressive distributed Lag (ARDL) bounds test. The stock market developments are measured using total market capitalization ratio, total value of stocks traded and turnover ratio. Economic growth is measured by changes in gross domestic product. Results of the study showed that there is no long-run relationship between market-based development and economic growth. However, the results of only the short-run estimated function show statistical significance of the effect of two indicators of stock market development on economic growth, i.e. stock turnover and the stock traded value.

Kumar (2016) investigated the relationship between market capitalization, saving and GDP growth over the last three decades. Applying different econometric tools such as unit root, granger causality test, Johansen co-integration and error correction model, the result indicated that growth of market capitalization has positive association with economic growth.

Nordin and Nordin (2016) analysed the influence of the stock market (market capitalization ratio) and the debt market on the Malaysian economy. The Johansen-Juselius co-integration test revealed the existence of co-integrating relationship between real growth domestic product per capita, stock market and debt market. The vector error correction model long-run results showed that both, the stock market and the debt market, have positive and significant influence on the Malaysian economy. The stock market is found to exert greater influence on the Malaysian economy compared to the debt market.

### **Empirical Studies on All Share Index and Economic Growth**

Ikpefan, Ikwetoghu, Okafor and Isibor (2016) investigated the impact of capital market on economic growth in Nigeria. The research adopted a time-series research design depending comprehensively on secondary data with coverage from 1983 to 2013. The study employed regression analysis. The findings from this study suggest that all share index exhibited an inverse significant relationship with economic growth.

Okonkwo, Ananwude and Echekeba (2016) studied the impact of stock market development and economic growth and applied the Johansen co-integration model to evaluate

the causal relationship of economic growth and stock market development using four measures of stock market development indices: market capitalization, number of deals, all share index and total value of market transaction. The study established the existence of co-integration for all the stock market development measures. Results obtained showed that all share index was positively and significantly related with economic growth.

Patrick, Anthony, Temitope and Adefemi (2015) examined whether the stock market promotes economic growth and development in Nigeria. Ordinary Least Squares regression (OLS) was employed using the data from 1984 to 2008. The results indicated that there is a positive relationship between economic growth and all share index.

### **3. METHODOLOGY**

The method of study adopted in this study is the *ex-post facto* research design as the events being examined have already taken place providing already established secondary data for the study. According to Esene (2009), “*Ex-post facto* study or after the fact research is a category of research design in which the investigation starts after the fact has occurred without interference from the research”. Thus, the data for the study were collected from source that the research has no ethical and statutory powers to manipulate. Hence, the data were collected and used in their original state.

#### **Description of Variables in the Models**

Economic growth is the dependent variable and was proxied by Real Gross Domestic Product Growth Rate (RGDPGR) which measures the changes in real output. The explanatory variables which are the indices of capital market performance include Market Capitalization Ratio (MKTCAPRAT) and All Share Index (ALSIND). The RGDPGR as stated above is real gross domestic product growth rate. This is the change in real gross domestic product. This adjustment transforms the money-value measure, nominal Gross Domestic Product into an index for quantity of total output measured in millions of Naira. Echekeba and Ananwude (2016) while following Chizea (2012), stated that RGDPGR captures the actual change in GDP from the previous year to the current and, thus, if the economy has grown it is positive and, if it has not, then it will be negative. Echekeba, Ezu and Egbunike (2013) and Echekeba and Ananwude (2016) used this indicator in their study.

MKTCAPRAT is Market Capitalization Ratio: It is the share price times the number of shares outstanding in the stock exchange market. It is also known as market value. It is expected that an increase in market capitalization will aid growth in Nigeria. Okonkwo, Ananwude and Echekeba (2015), Adigwe, Nwanna and Ananwude (2015) and Chizea (2012) have applied this variable to measure capital market performance.

ALSIND is All Share Index: This is a total market (broad-base) index, reflecting a total picture of the behaviour of the common shares quoted on the Nigerian Stock Exchange. It is calculated on a daily basis, showing how the prices have moved. It is expected that an increase in all share index in the Nigeria Stock Exchange Market will promote growth in Nigeria economy. Atoyebi, Ishola, Kadiri, Adekunjo and Ogundeji (2013) and Olwenhy and Kimani (2011) have utilized this index of capital market performance in their study.

### Model Specification

The model of analysis follows a linear combination of explanatory time series variables. This research work adopted and modified the model of Ogunleye and Adeyemi (2015) for a similar study in Nigeria. Ogunleye and Adeyemi (2015) expressed economic growth as a function of capital market performance. The Ogunleye and Adeyemi (2015)'s model is stated as:  $GDP = \alpha_1 SMC + \alpha_2 TVT + \alpha_3 TR + \alpha_4 GCF + \alpha_5 MS2 + \epsilon_t$  3.1

Where GDP = Gross Domestic Product, SMC = Stock Market Capitalization

TVT = Total Value Traded, TR = Turnover ratio

GCF = Gross capital formation, MS2 = Broad money supply.

$\epsilon_t$  = error term,  $\alpha_0$  = intercept  $\alpha_5$  = parameters or coefficient estimates

In this study, the above model is modified to capture the relationship between economic growth and:- market capitalization ratio, all share index, value of stock traded ratio, volume of stock traded, total market new issues and turnover ratio. The modified model is stated as follows:

$$RGDPGR_t = f(MKTCAPRAT_t, ALSIND_t) \quad 3.2$$

$$\text{This translates to: } RGDPGR_t = \beta_0 + \beta_1 MKTCAPRAT_t + \beta_2 ALSIND_t + \epsilon_t \quad 3.3$$

Where:

The variables are as explained under variables description above,

RGDPGR<sub>t</sub> = the gross domestic product real growth rate in year t

$\beta_1$  to  $\beta_2$  are beta coefficients of the explanatory variables

$\beta_0$  = the constant/intercept of the model.

$\epsilon_t$  = error term

To avoid the probable relationship of outlier which may cast a dent on the regression output, the variables with large absolute values were transformed to log form as follows:

$$RGDPGR_t = \beta_0 + \beta_1 MKTCAPRAT_t + \beta_2 \log ALSIND_t + \epsilon_t \quad \text{-----} 3.4$$

### Methods of Data Analysis

In the course of carrying out the data analysis in this study the following procedures and methods are employed:- Unit Root Test - to ascertain stationarity of the data to avoid the incidence of spurious regression. This was done using the Augmented Dickey-Fuller and Phillips Perron approaches at level (trend and intercept) and first differencing (also trend and intercept) respectively. After confirming stationarity of all the data and the order integration, a co-integration test was carried out for evidence any long run relationship among the variables utilizing the Johansen approach. Decision to adopt vector error correction model or vector auto-regressive model is based on the outcomes of the co-integration and unit root tests. The statistical package employed for the analysis is E-views 9.

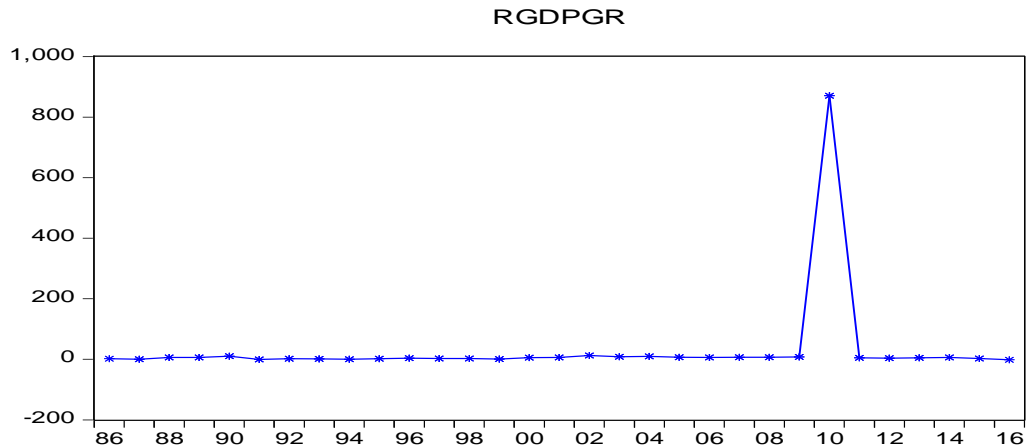
## 4. DATA PRESENTATION

The data were sourced from Central Bank of Nigeria statistical bulletins and Nigeria Stock Exchange factbook of various issues.

### Real Gross Domestic Product Growth Rate

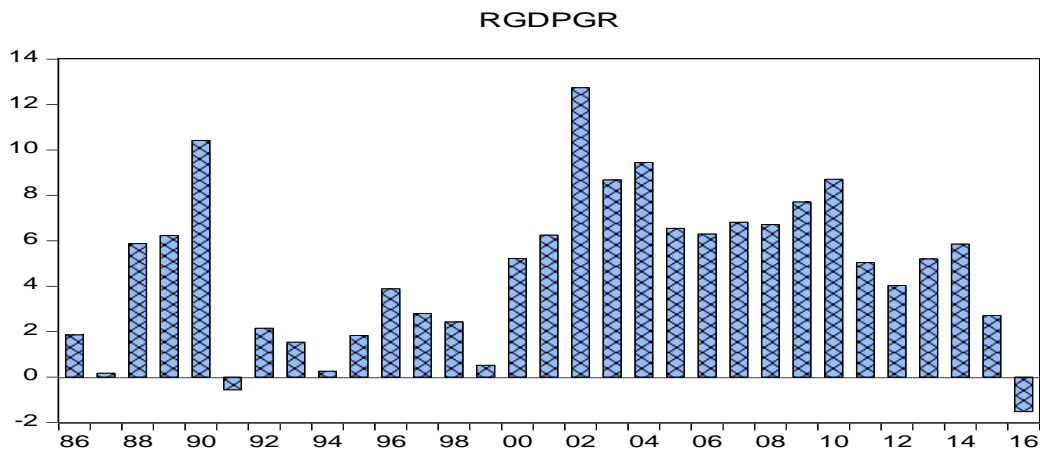
Real gross domestic product growth rate of Nigeria was 1.86 in 1986, but rose by 78.65% by the end of 2010 to settle at 8.71. From 2005 to 2008, there was a marginal rise in real gross domestic product growth rate from 6.55 in 2005 to 6.72 in 2008 before it declined to 5.04 in 2011. From 2012 to 2016, as shown in Fig. 1 and 2, real gross domestic product growth rate has been depreciating. In 2016, the economy witnessed a negative growth as the real gross domestic product growth rate was -1.52 due to recession that engulfed the economy at that period.

**Fig. 1:** Graphical Trend in Real Gross Domestic Product Growth Rate 1986 to 2016



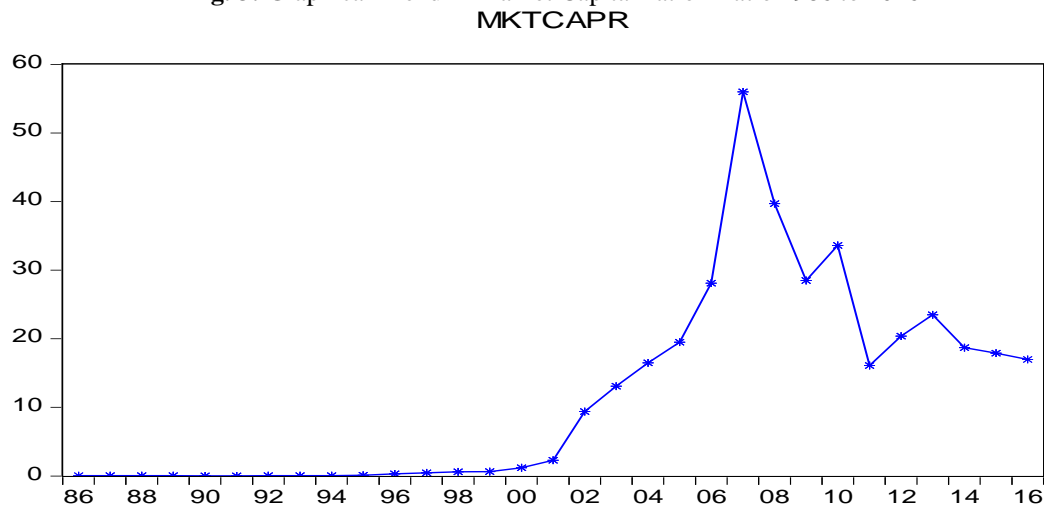
Source: Central Bank of Nigeria Annual Report, 1986 – 2016; and output data from e-views 9.0 version.

**Fig. 2:** Bar Chart Trend in Real Gross Domestic Product Growth Rate 1986 to 2016



Source: Central Bank of Nigeria Annual Report, 1986 – 2016; and output data from e-views 9.0 version.

**Fig. 3:** Graphical Trend in Market Capitalization Ratio 1986 to 2016





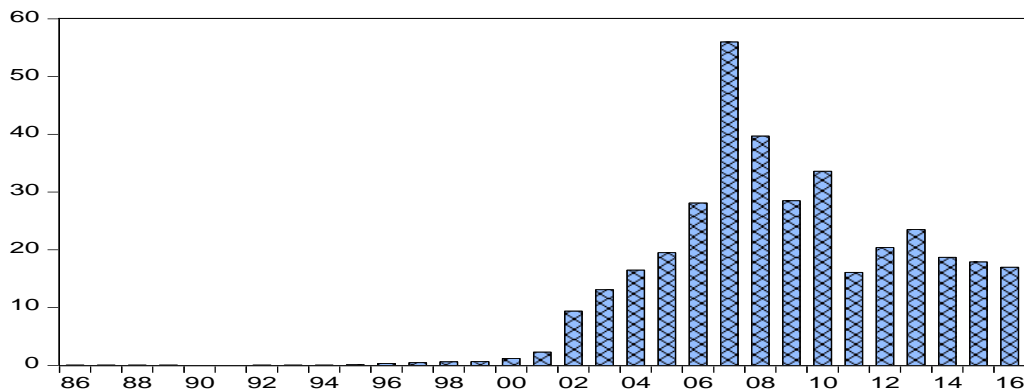
Source: Nigerian Stock Exchange factbook, 1986 – 2016; and output data from e-views 9.0 version.

### Market Capitalization Ratio

Market capitalization ratio in 2006 was 28.10, a rise of over 9,989.32% from 0.03% in 1986. In 2012, market capitalization ratio increased to 20.40%. As can be seen from Table 2, Fig. 3 and Fig. 4, between 2000 and 2007,

market capitalization ratio rose tremendously, however, it sharply declined to 39.70% in 2008 from 56.10% in 2007. In 2010, market capitalization ratio was 33.60% compared to 28.50% in 2009. It fluctuated from 23.50% in 2013 to 17.0% in 2016.

**Fig. 4:** Bar Chart Trend in Market Capitalization Ratio 1986 to 2016  
MKTCAPR



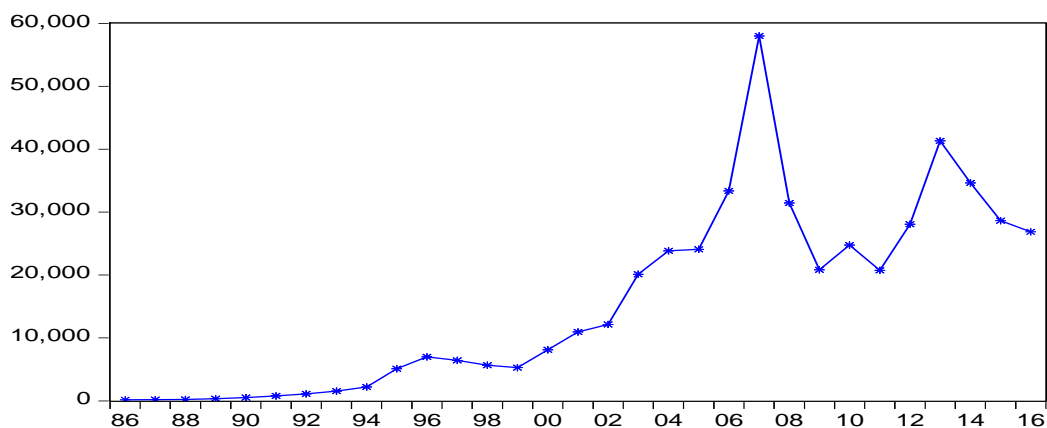
Source: Nigerian Stock Exchange factbook, 1986 – 2016; and output data from e-views 9.0 version.

### All Share Index

The all share index has increased tremendously over the years. From 163.80 points in 1986, it rose to reach 6,440.50 points at the end of 1997 then continue to

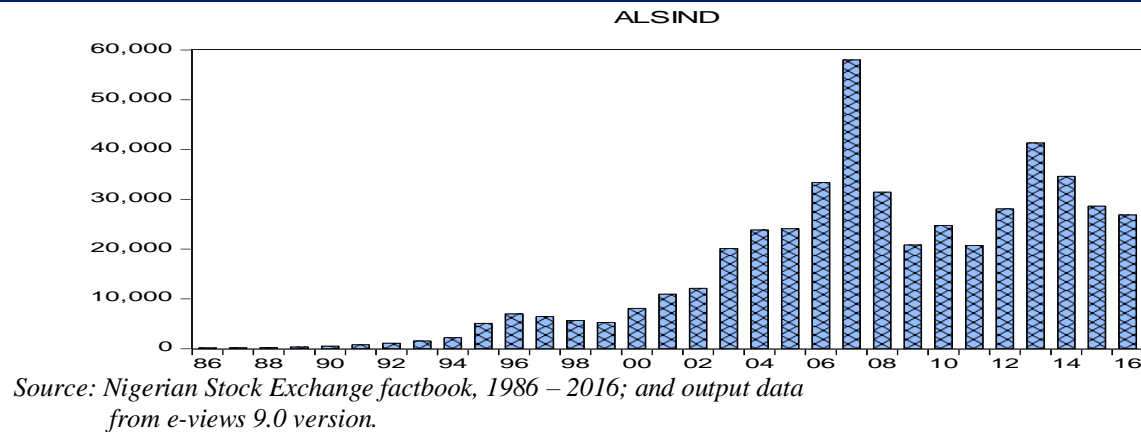
appreciate, closing at 8,111.00 points in 2000. Between 2000 and 2016 all share index rose from 8,111.00 points to 26,874.62 points. Fig. 4 and 5 illustrate the trend in all share index over the period reviewed by this study.

**Fig. 4:** Graphical Trend in All Share Index 1986 to 2016  
ALSIND



Source: Nigerian Stock Exchange factbook, 1986 – 2016; and output data from e-views 9.0 version.

**Fig. 5:** Bar Chart Trend in All Share Index 1986 to 2016

**Table 4.1 Descriptive Statistics of the Variables of the Study**

Date: 09/04/18

Time: 22:53

Sample: 1986 2016

	RGDPGR	MKTCAPRAT	ALSIND
Mean	4.802000	12.12800	8.871009
Median	5.215000	5.840000	9.353181
Maximum	12.74000	56.00000	10.96803
Minimum	-1.520000	0.010000	5.251750
Std. Dev.	3.453278	14.54739	1.682049
Skewness	0.139290	1.167402	-0.846315
Kurtosis	2.501841	3.942401	2.479277
Jarque-Bera	0.407211	7.924283	3.920186
Probability	0.815784	0.019022	0.140845
Sum	144.0600	363.8400	266.1303
Sum Sq. Dev.	345.8287	6137.173	82.04933
Observations	30	30	30

**Source:** E-views Output, 2018.**Variables Descriptive Properties**

Table 4.1 reveals the descriptive properties of the variables. The descriptive properties of the variables were highlighted based on the mean, median, maximum, minimum, standard deviation, skewness, kurtosis, Jarque-Bera, p-value and number of observation. From Table 3, the mean of variables are 4.802, 12.128, 8,871 for RGDPGR, MKTCAPRAT and ALSIND, while their respective median is observed to be 5.215, 5.840, 9.353. The maximum and minimum values are 12.740 & -1.520, 56.000 & 0.0100, 10.968 & 5.251, also for RGDPGR, MKTCAPRAT and ALSIND respectively. All the variables are positively skewed toward normality.

The kurtosis statistic suggests that all the variables are leptokurtic in nature except for RGDPGR, ALSIND, whose kurtosis values are less than the benchmark of 3.0.

**Diagnostic Tests****Stationarity Test Result**

The variables were subjected to stationarity test to ensure the data are not encumbered by the stationarity defect that affects most time series which lead to bias inferences of regression results. Unit root test was checked using Augmented Dickey-Fuller (ADF) and Phillips Perron (PP). The ADF and PP were tested in level and at first difference trend and intercept respectively. The tests show that all the variables are stationary at first differencing (trend and intercept) and are summarized in Tables.

**Table 4.2: ADF Test Result at Level: Trend and Intercept**

Variables	ADF Test Statistic	Test Critical	Test Critical	Remarks
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		Value at 1%	Value at 5%	
RGDPGR	-2.552321 (0.30)	-4.296729	-3.568379	Not Stationary
MKTCAPR	-1.992442 (0.58)	-4.296729	-3.568379	Not Stationary
ALSIND	-2.934454 (0.16)	-4.296729	-3.568379	Not Stationary

Source: Output Data via E-views 9.0

Note: The optimal lag for ADF test is selected based on the Akaike Info Criteria (AIC),  
p-values are in parentheses where (\*) and (\*\*) denotes significance at 1% and 5% respective

**Table 4.3: ADF Test Result at First Difference: Trend and Intercept**

Variables	ADF Test Statistic	Test Critical Value at 1%	Test Critical Value at 5%	Remarks
RGDPGR	-4.029045 (0.01)*	-4.339330	-3.587527	Stationary
MKTCAPR	-5.679460 (0.00)*	-4.309824	-3.574244	Stationary
ALSIND	-5.193517 (0.00)*	-4.323979	-3.580623	Stationary

Source: Output Data via E-views 9.0

Note: The optimal lag for ADF test is selected based on the Akaike Info Criteria (AIC),  
p-values are in parentheses where (\*) and (\*\*) denotes significance at 1% and 5% respectively.

**Table 4.4: Phillips-Perron Test Result at Level: Trend and Intercept**

Variables	PPTest Statistic	Test Critical Value at 1%	Test Critical Value at 5%	Remarks
RGDPGR	-2.552321 (0.30)	-4.296729	-3.568379	Not Stationary
MKTCAPR	-1.992442 (0.58)	-4.296729	-3.568379	Not Stationary
ALSIND	-2.934454 (0.16)	-4.296729	-3.568379	Not Stationary

Source: Output Data via E-views 9.0

Note: In determining the truncation lag for PP test, the spectral estimation method selected is Bartlett kernel and Newey-West method for Bandwidth, p-values are in parentheses where (\*) and (\*\*) denotes significance at 1% and 5% respectively.

**Table 4.5: The Phillips-Perrons Test Result at First Difference: Trend and Intercept**

Variables	PP Test Statistic	Test Critical Value at 1%	Test Critical Value at 5%	Remarks
RGDPGR	-4.029045 (0.01)*	-4.339330	-3.587527	Stationary
MKTCAPR	-5.679460 (0.00)*	-4.309824	-3.574244	Stationary
ALSIND	-5.193517 (0.00)*	-4.323979	-3.580623	Stationary

Source: Output Data via E-views 9.0

Note: In determining the truncation lag for PP test, the spectral estimation method selected is Bartlett kernel and Newey-West method for Bandwidth, p-values are in parentheses where (\*) and (\*\*) denotes significance at 1% and 5% respectively.

Correlation indicates the degree of association between variables. It assesses the extent and strength of the association between two variables. The result as presented in the table 4.2.7 showed that most of the variables employed are highly correlated with each other. However, because the directions of the correlations are both negative and positive, the threat of influence of multicollinearity is not considered significant as the effects tend to cancel out.

### Multicollinearity Test

**Table 4.6 Multicollinearity Test**

	RGDPGR	MKTCAPR	ALSIND	TMNI	TURNR	VSTR	VSTTR
RGDPGR	1.000000	0.287738	0.120189	0.475340	0.095974	0.135319	-0.076465
MKTCAPR	0.287738	1.000000	0.919484	0.803222	0.668909	0.765015	-0.085627



AT							
ALSIND	0.120189	0.919484	1.000000	0.683190	0.630904	0.806111	-0.064165

Source: E-views 9.0 Output, 2018

### Co-integration Test

The co-integration test is used in the determination of the long-run relationship that exists between variables. It is in line with the proposition of the Johansen in 1991.

**Decision rule:** If the trace statistics (Likelihood ratio) is greater than the 5% critical value at none\*\*, we reject the Null hypothesis ( $H_0$ ) which says that there is no long-run

relationship and accept the Alternate hypothesis ( $H_1$ ) which says that there is long-run relationship between the variables. The decision is usually confirmed by the Unrestricted Cointegration Rank Test (Maximum Eigenvalue).

**Table 4.7: Cointegration Test**

Date: 08/31/18 Time: 15:33				
Sample (adjusted): 1988 2016				
Included observations: 29 after adjustments				
Trend assumption: Linear deterministic trend				
Series: RGDPGR MKTCAPRAT ALSIND				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.890505	193.3921	125.6154	0.0000
At most 1 *	0.783290	129.2477	95.75366	0.0000
At most 2 *	0.694292	84.90100	69.81889	0.0020
Trace test indicates 4 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.890505	64.14441	46.23142	0.0003
At most 1 *	0.783290	44.34666	40.07757	0.0156
At most 2 *	0.694292	34.36858	33.87687	0.0437
Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

**Source:** E-views 9.0 output 2018

Table 4.7 shows that long-run relationship (co-integration) exists among the variables. This is based on the trace and maximum eigenvalues against the 5% critical value. Based on these values, it is confirmed that there are three (3) cointegrating equations in the model. In view of the presence of long-run relationship (co-integration) among the

variables, it became necessary for Vector Error Correction Model to be adopted for the analysis of the data of the Study in order to capture the short run disequilibrium that might have occurred in estimating the long run cointegrating equations. The outcomes of the vector error correction analysis are displayed on Table 4.8(i) below.

**Table 4.8(i): Vector Error Correction Model Results**

Vector Error Correction Estimates			
Date: 09/04/18 Time: 00:36			
Sample (adjusted): 1988 2015			
Included observations: 28 after adjustments			
Standard errors in ( ) & t-statistics in [ ]			
<b>CointEq1(ECM)</b>	<b>-1.241767</b>	<b>-0.653428</b>	<b>-0.044727</b>
Cointegrating Eq:	CointEq1		
RGDPGR(-1)	1.000000		
MKTCAPRAT(-1)	0.015948 (0.02909) [ 0.54814]		
ALSIND(-1)	0.665952 (0.26649) [ 2.49894]		
Error Correction:	D(RGDPGR)	D(MKTCAPR AT)	D(ALSIND)
R-squared	0.823093	0.100844	0.505060
Adj. R-squared	0.748605	-0.277747	0.296665
Sum sq. resids	52.09309	1532.731	1.376941
S.E. equation	1.655820	8.981651	0.269204
F-statistic	11.05011	0.266367	2.423564
Log likelihood	-48.42187	-95.76671	2.442479
Akaike AIC	4.101562	7.483336	0.468394
Schwarz SC	4.529771	7.911545	0.896603
Mean dependent	-0.263929	0.605357	0.169476
S.D. dependent	3.302443	7.945727	0.320996
Determinant resid covariance (dof adj.)		50.81942	
Determinant resid covariance		3.366656	
Log likelihood		-295.1068	
Akaike information criterion		26.07906	
Schwarz criterion		29.40957	

Source: E-view 9

From the results of the error correction model on the Table 8(i) above, shows that the short run disequilibrium recovers at the rate of 24.17 percent towards a long run equilibrium with ECM of -1.2417. This means that the economy at the rate of 24.17 percent from short run disequilibrium. The

negative sign of the ECM is appropriate as it implies that the process is converging in the long run and thus, the model specification is good. The Adjusted R-squared indicates that 74.86 percent variation in Nigeria's economic growth is explained by the explanatory variables. Also from the Table the connecting equation is estimated as

$$D(RGDPGR) = -4.316 + 0.0160 * MKTCAPRAT(-1) + 0.665 * ALSIND(-1)$$

This is also confirmed by Gauss-Newton / Marquardt steps in Table 4.8(ii) below.

**Table 4.8(ii): Vector Error Correction Model Results-Gauss-Newton / Marquardt steps**

Dependent Variable: D(RGDPGR)				
Method: Least Squares (Gauss-Newton / Marquardt steps)				
Date: 09/04/18 Time: 00:20				
Sample (adjusted): 1988 2015				
Included observations: 28 after adjustments				
$D(RGDPGR) = C(1) * (RGDPGR(-1) + 0.0159480228207 * MKTCAPRAT(-1) + 0.665951750053 * ALSIND(-1) \\ * D(RGDPGR(-1)) + C(3) * D(MKTCAPRAT(-1)) + C(4) * D(ALSIND(-1))$				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-1.241767	0.175038	-7.094288	0.0000
C(2)	-0.073760	0.115162	-0.640492	0.5295
C(3)	-0.131496	0.060378	-2.177873	0.0422
R-squared	0.823093	Mean dependent var		-0.263929
Adjusted R-squared	0.748605	S.D. dependent var		3.302443
S.E. of regression	1.655820	Akaike info criterion		4.101562
Sum squared resid	52.09309	Schwarz criterion		4.529771
Log likelihood	-48.42187	Hannan-Quinn criter.		4.232470
F-statistic	11.05011	Durbin-Watson stat		2.034279
Prob(F-statistic)	0.000011			

### Presentation and Analysis of Results

From Tables 4.8(i) and 4.8(ii) above MKTCAPRAT- market capitalization ratio has positive relationship with the economy with a coefficient of 0.0160, standard error of 0.02909 and t-value of 0.548. However, with t-value less than 2, its relationship is considered insignificant. All Share Index- ALSIND also has a positive relationship with the economy with t-value of 2.498 suggesting a significant positive relationship with the economy.

### Test of Hypothesis

#### Hypothesis One

#### Restatement of Research Hypothesis

**Table 4.9 Coefficient, Standard Error and t-values of Market Capitalization Ratio**

MKTCAPRAT(-1)	0.015948 (0.02909) [ 0.54814]
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H<sub>0</sub>: Market capitalization ratio does not predict economic growth in Nigeria.

From Tables 4.8 above and 4.9 below, it could be confirmed that the standard error for Market capitalization is 0.02909 and that its coefficient is 0.015948. In view of the decision rule specified under section 3.7 above and since under vector error correction model, E-views does not generate the p-value for t-statistic decision is anchored on value of the coefficient to vis-a-vis value of the standard error. In view of this, market capitalization whose coefficient is positive but less than its standard error, is considered to indicate a positive and insignificant relationship with economic growth in Nigeria. Thus the null hypothesis is accepted.

### Hypothesis Two

#### Restatement of Research Hypothesis

H<sub>0</sub>: All share index does not significantly impact on economic growth in Nigeria.

From the size of the values of the coefficient (0.665952) and standard error of all share index- ALSIND has positive and significant relationship with economic growth in Nigeria. Thus the null hypothesis is rejected

**Table 4.10 Coefficient, Standard Error and t-values of All Share Index**

ALSIND(-1)	0.665952 (0.26649) [ 2.49894]
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### Discussion of Findings

All Shares Index have significant relationship with economic growth while Market Capitalization Ratio have insignificant relationship with economic growth. The insignificant relationship between market capitalization ratio and economic growth is indication that more investors are needed in order to spur economic growth. This is in agreement with previous studies of Adigwe, Nwanna and Ananwude (2015), Amu, Nwezeaku and Akujuobi (2015), Igbodika (2014), Onwumere, Ibe, Okafor and Ugwuanyi (2012) while the studies of Jagadish (2017), Muyambiri and Chabaefe (2017), Lazarov, Miteva-Kacarski and Nikoloski (2016), Nordin and Nordin (2016), Jalloh (2015), Balago (2014) and Abiola and Okodua (2008) disagrees with the finding of the study.

## 5. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

### Summary of Findings

This research work ascertained the relationship of capital market performance on economic growth in Nigeria by specifically ascertaining the relationship of market capitalization ratio and all share index on economic market from 1986 to 2016. The findings of the study revealed the following:

1. There is positive and insignificant relationship between market capitalization and Nigeria economic growth for the period under review.
2. All share index has positive and significant relationship with Nigeria economic growth for the period under study.

## 6. CONCLUSION

Capital market lacked the capacity to significant enhance economic growth in Nigeria. Thus capital market indices in Nigeria are not significant variables in explaining economic growth at least in the short run in Nigeria. As such the Nigeria Capital Market has not contributed significantly to economic growth in Nigeria under the period studied. This is not surprising given that the growth in a sub-system hardly overtakes the entire system growths potential. The various sectors of the economy has performed below expectation.

## 7. RECOMMENDATIONS OF THE STUDY

In lieu of the results of the analysis, this study puts forward the following recommendations for attention and consideration of decision makers to improve the contribution of the capital market to economic growth in Nigeria:

1. The federal government through the Central Bank should implement policies such as maintenance of

relative stability of domestic prices, maintenance of healthy balance of payment, reduction in inflationary trend in the economy as this will provide more needed funds for investors for further investments in the capital market which will result in increased level and size of market capitalization which in turn will lead to economic growth.

2. The study recommended that there is need for serious policy issues to be put in place to promote economic growth. For example there is need for large corporations' shares to be listed in the Nigerian Capital Market as this will increase the all share index transaction in the market.

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