EFFECT OF CAPITAL MARKET DEVELOPMENT ON ECONOMIC GROWTH IN NIGERIA

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Abstract

This study examined the effect of capital market development on economic growth in Nigeria from 2008-2018. The stock market development was proxy by market capitalization rate; interest rate and inflation rate while economic growth variable considered was GDP. The study utilizes the multiple regression analysis test in establishing if a positive and significant relationship does exist between stock market development and economic growth in Nigeria. The empirical result suggests that stock market is positively related to economic growth in Nigeria but has insignificant effect on economic growth. It is recommended that Capital market regulators like the Security and Exchange Commission (SEC) should be more open to innovations and be flexible without jeopardizing the interest and protection of investors as well as the efficiency of the market. Furthermore, government should discourage Nigerian investors' attitude of buy and hold securities instead of trading in the capital market. Communication and information network should be upgraded. Lastly, 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 efficiency to thrive which will boost economic activities.

Introduction

The capital market is a network of financial institutions that interact to mobilize and allocate long term funds in the economy. According to Al-Faki (2006), The capital market refers to a network of specialized financial institutions , series of mechanism, processes and infrastructure that in various ways facilitate the bringing together of suppliers and users of medium and long term capital for investment in any economy. The sourcing of long term finance through the capital market is essential for sustainable economic growth which is consistent with external adjustment and rapid economic growth (Iyola, 2004). Osaze and Anal (1999) asserts that capital market is the corner Stone of any financial system since it provides the fund needed for financing not only business and other activities but also the programs of government as a whole.

Hailstorm and Smith (1996), and Nwude and Agbo(2013) all strongly emphasized the need for nations to maintain a dynamic and vibrant stock market in order to guarantee easy and faster investment for all stakeholders. According to Ezeoha (2009), capital market provides liquidity which contributes to capital formation, and investment risk reduction by offering opportunities to portfolio diversification. Nyong (1997) emphasized that financial structure of a firm, that is, the mix of debt and equity financing changes as economies develop. It moves towards equity financing through the capital market.

Omotor (2011) said that maintaining market liquidity highly rest on stable equity pricing which is greatly influenced by the purchasing power of both domestic and foreign investors. Price stability helps in determining whether the economy is stable or not. Inflation creates uncertainty in the economy and make both domestic and foreign investors unwilling to invest (Mobolaji 2005). Inflation impacts negatively on the savings ability of citizens and as a result, low savings which leads to a fall in demand for stock and equity as financial wealth. This decrease in demand causes the price of equities to decline thereby reducing returns, in equity and stocks (Joyce 2012). Olagunde, Elumilade and Asaolu (2016) mentioned that good investors always look for investing in an efficient market. In an inefficient

market, only few people are able to generate extra ordinary profit which causes the general public to lose confidence in the market. They also mentioned that if the rate of interest paid by banks to depositors increased, people switch from the capital market to money market. This leads to decrease in the demand of shares and in turn decrease the price of share. On the other way, when rate of interest paid by banks to depositors increase, the lending rate also increased which leads to decrease of investment in the capital market.

Statement of the Problem

According to L.U Okoye (2016) capital market plays an important role in the economic health of most developed countries while developing economies rely extensively on the operations of the money market.

In recent times, the impact of capital market on economic growth has been a great concern due to the perceived benefit it provides to the economy. Research has been carried out on this topic using different variables to determine the relationship between capital market and economic growth and has led to controversies in the results obtained. Therefore, this leads to further research on effect of capital market development on economic growth using variables such as market capitalization; inflation rate ; and interest rate.

Research Objectives

The primary objective of this study is to analyze the effect of capital market development on economic growth in Nigeria. To actualize this, the main objective is broken down into the following specific objectives:

1.   To evaluate the effect of market capitalization on gross domestic product.
2.   To examine the effect of interest rate on gross domestic product.
3.   To determine the effect of Inflation rate on gross domestic product.

Research Questions

1. How does market capitalization affects gross domestic product in Nigeria?

2. To what extent does interest rate affect gross domestic product in Nigeria?
3. How does Inflation rate affects gross domestic product in Nigeria?

Research Hypotheses

Ho_1: Market capitalization has no significant effect on gross domestic product in Nigeria

Ho_2: Interest rate has no significant effect on gross domestic product in Nigeria.

Ho_3: Inflation rate has no significant effect on gross domestic product in Nigeria.

Significance of the Study

The result of this study will provide a working tool for regulatory bodies and policy makers to enable them take decisions that will contribute to capital market development and economic growth. The outcome of this study will also be of benefit to investors, financial analysts, stock brokers, etc. It will also add to the available literature and provide a platform for further research by other researchers.

Scope and Limitation of the Study

The scope and limitation of this study is to examine the relationship between capital market and economic growth. This study adopts a time series design and will cover the period between 2008 and 2018, which is 11 years.

Review of Related Literature
Theoretical Review

Kumar (1984) stated that the capital market contributes to economic growth through mobilization of savings, creation of liquidity, risk diversification, improved dissemination and acquisition information and enhanced incentive for corporate control. Improving the efficiency and effectiveness of these functions through prompt delivery of their services can spur economic growth.

Obstfeld (1994) also stated that capital market may also have an effect on economic growth activities through the creation of liquidity. Liquid equity market makes available savings for

profitable investment that requires long term commitment of capital. Illiquid stock market makes it difficult for investors to invest in large, long term projects. He also said that it can affect economic growth through the function of risk diversification. When stock markets are internationally integrated, it enables greater economic risk sharing. Because high return projects are tend to be comparatively risky.

Filler et el (1999) mentioned that the relationship between capital market development and economic growth varies according at the country's level of economic development with a large impact on less developed economies.

Bencivenga, Smith and Stan (1996) and Levine (1991) argues that stock market (the ability to trade equity easily) is important for growth. In the contrary, Conte and Dairat (1988) argue that stock market liquidity no matter how large is an unimportant source of corporate finance.

According to Spears (1991) and Kiviet (1995), stock market can spur economic growth through acquisition of information. Levine and Zenlos (1996) noted that larger and more liquid stock market will make it easier for investors who have gotten information to trade at posted prices. The investors are able to make money before the information become widespread and prices change.

Levine and Zenlos also stated that stock market affect economic growth through savings mobilization. They opined that large, liquid and efficient stock markets can cause savings mobilization.

Empirical Review
F.T Kolapo and A.O Adaramola (2012) studied the impact of the Nigerian Capital Market on economic growth from the period of 1990-2010. Using Gross Domestic Product (GDP) as variable for economic growth and market capitalization, total new issues, value of transactions, and total listed equity and government stocks. Applying Johansen co-integration and granger casualty tests, the result

shows that a long run relationship exist between capital market and economic growth in Nigeria.

Ologunwa O.P and O.D Sadibo (2016) also examined the effect of capital on economic growth. Market capitalization and turnover ratios were used as indicators for capital market; and GDP for economic growth. The result from this study showed that capital ratio and turnover ratio are both significant and postive drivers of economic growth in Nigeria and that the stock markets affects economic growth through savings mobilization.

Okoye Lawrence, ModeleNwanneka, Taiwo and OkorieUchnna (2016) investigated the relationship between capital market development and economic growth using data on GDP (indicators for economic growth), market capitalization ratio, value traded ratio and stock market turnover ratio (indicators for capital market development) over the period (1981-2014). Using the econometric methodology of the vector and correction model, they came to a conclusion that stock market constitutes a significant determinant of economic growth in Nigeria. That is, there is positive effect of value traded ratio as well as negative effect on inflation rate on GDP though not significant. And there is also a negative effect of market capitalization ratio and turnover ratio on GDP.

To examine the relationship between stock market development and economic growth, Osakure C.I and Ananwud A.C (2017) used a time series data from 1981 to 2015, market capitalization ratio and turnover ratio as stock market indicators while GDP was used to measure economic growth. The methodology used to analyze data was Autoregressive Distributive Lag (ARDL) and Granger Casualty Analysis model. The result showed that stock market development has positive but insignificant relationship with economic growth both in short and long run.

Okonkwo Ikeoturunye V., Ananwud A.C., Echekoba F.N (2015) examined the impact of stock market development and economic growth in Nigeria using a time series data from 1993-2013. They applied the Johansen Co-integration

Model to evaluate the stock market development and economic growth and casual relationship using four (4) stock market development indices which are; share indices, market capitalization, number of deals and total value of market transaction.

The results suggest that there is an existence of unidirectional relationship between stock market development and economic growth which means that the state of development of the economy will determine the development and operations of the stock market. And that there is also a correlation between stock market development and economic growth, via all share indices, market capitalization, number of deals and total value of market transaction.

Adam and Sanni (2005) studied the roles of stock market on economic growth in Nigeria using the Granger Casualty test and regression analysis. The result showed a one-way casual relationship between GDP growth and market turnover. They also discussed a positive and significant relationship between GDP growth and turnover ratios. Therefore, government was advised to encourage the development of capital market since it has positive effect on economic growth.

Research Methodology
Research Design
Descriptive Research Design has been adopted for the purpose of this study. Descriptive Research Design is used because it deals with the collection and analysis of data for the purposes of describing and interpreting existing conditions and also make discovery and explanation of past events. It enables exploring relationship between two or more variables.

Sources of Data Collection
The study adopts a time series research design with reliance on secondary data from the CBN statistical bulletin and the NSE annual reports. This study will cover the period 2008-2018.

Methods/Techniques of Data Analysis
The data analysis method that will be used in this study is multiple regression analysis in which the multivariate co-integration and error correction model will be used in order to undertake a thorough examination of the characteristics of the time series economic data. Four (4) analytical procedures are involved in the co-integration and error correction model. First, the unit root test will be carried out for each of the variables so as to ascertain the time series properties of the data set and obtain the stationary status. This is necessary in order to ensure that the variables are stationary and that stocks are only temporary and will dissipate and revert to their long-term mean. Next, the test of co-integration is performed in order to discover the long-run rational properties of data. The third step is to obtain the error correction representation for the model which helps to analyze the dynamic short run and long run behavior of the model.

Model Specification
A multivariate econometric model will be specified and estimated for the purpose of this study. The model examines the relationship between the capital market and economic growth using some selected capital market variables such as market capitalization rate (MCG), interest rate (INT) and inflation rate (INF). The functional specification is shown thus;

$GDP = \beta_0 + \beta_1 MCG + \beta_2 INT + \beta_3 INF + \mu$

Where;
GDP= Gross Domestic Product
MCG= Market Capitalization rate
INT= interest Rate
INF= Inflation Rate
U= Error Term
Appropriate Expectation;β_1, β_2, $\beta_3 \geq 0$

Data Presentation and Analysis
Data Presentation
This chapter deals with the presentation and analysis of data collected. Multiple regression model is used to test the hypotheses. The findings and policy implication are discussed. The table that follows contains the data extracted from the Nigerian stock exchange bulletin and the Central Bank statistical bulletin which was used in running

the regression and obtaining the results of this study.

Multiple regressions have been used to estimate the relationship between the independent variables of capital market development (market capitalization, growth rate, interest rate and inflation rate) and the dependent variable (Gross domestic product).

Table 1

YEAR	MCG	INT	INF	GDP
2008	-0.43	3.27	11.60	7.2
2009	-0.33	6.03	12.50	8.4
2010	0.57	11.06	13.7	11.3
2011	-0.23	10.33	10.8	4.9
2012	0.44	8.39	12.2	4.3
2013	0.43	8.78	8.5	5.4
2014	-0.22	7.21	8.0	6.3
2015	-0.20	7.70	9.0	2.7
2016	-0.40	9.37	15.7	-1.6
2017	0.25	8.00	16.5	0.8
2018	-0.15	7.20	12.1	1.9

MCG = Market Capitalization Growth rate
INT = Interest Rate
INF = Inflation Rate
GDP = Growth Domestic Product

Descriptive Statistics
This shows the mean, standard deviation, minimum, maximum and skewness values of the variables used in the study.

Table 2

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
MCG	11	-.43	.57	-.0245	.37106	.606	.661
INT	11	3.27	11.06	7.9400	2.12128	-.794	.661
INF	11	8.00	16.50	11.8727	2.75321	.235	.661
GDP	11	-1.60	11.30	4.6909	3.65362	.056	.661
Valid N (listwise)	11						

The independent variables MGS, INT and INF have minimum values of -0.43, 3.27 and 8.00 respectively, with maximum values of 0.57, 11.06 and 18.50 respectively while the dependent variable (GDP) has a minimum value of -1.60 and maximum value of 11.30.

MCG has a mean of 0.0245 and a standard deviation of 0.37106, INT has a mean of 7.9400 and a standard deviation of 2.12128, while INF has a mean of 11.8727 and standard deviation of 2.75321. However, GDP has a mean of 4.6909 and a standard deviation of 3.65362.

This shows that they have low variability but the dependent variable (GDP) has the highest risk of variability while MCG has the lowest risk of variability.

MCG has a skewness of 0.606 which is close to +1 so is positively skewed. INT has a skewness of -0.794 which is closer to -1 so is negatively skewed. INF is skewed with 0.235 which is closer to zero with a normal distribution implication. Whereas, GDP was skewed with 0.056 which is also a normal distribution

Model Summary

TABLE THREE
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.476a	.227	-.105	3.83993	.579

a. Predictors: (Constant), INF, MCG, INT
b. Dependent Variable: GDP

From table 3, R represents correlation coefficient of 0.476 which indicates a positive but not significant relationship between the variables.

R square is 0.227 which shows that changes in the dependent variable are a result of 0.227 changes in the independent variable (MCG, INT and INF).

AR square represents Adjusted R square which indicates less than 0% of influence of the independent variables (MCG, INT and INF) on the dependent variable (GDP).
Durbin Watson is 0.579 which show that the dependent and independent variables are positively auto correlated and can be used for predictions and further studies.

Test of Hypothesis

Table Four
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
Constant)	13.027	7.173		1.816	.112	-3.935	29.989
MCG	4.092	3.865	.416	1.059	.325	-5.048	13.232
INT	-.404	.683	-.235	-.592	.572	-2.019	1.210
INF	-.423	.447	-.319	-.947	.375	-1.481	.634

a. Dependent Variable: GDP

The result of data analysis used for test of hypothesis:

1. There is no significant relationship between market capitalization and GDP.
2. Interest rate has no significant relationship with GDP.
3. Inflation rate is not significantly related to GDP.

Decision Rule: Accept the null hypothesis if the P value of the t statistics is higher than 0.05 and reject the null hypothesis if the P value of the t statistics is lower than 0.05.

From table 4, MCG has t value of 1.059 with a probability of 0.325 which is higher than 0.05. We therefore accept the null hypothesis and conclude that there is no significant relationship between market capitalization and GDP.

The t value and probability of INT are -0.592 and 0.572 respectively which is higher than 0.05. We therefore draw conclusion that there is a positive but not significant relationship between Interest rate and GDP. INF has a t value of -0.947 and probability of 0.375 which is less than 0.05. It is therefore concluded that INF is not significantly related to GDP.

Discussion of Findings
This study investigated empirically the effect of capital market development on economic growth in Nigeria using annual time series of a period of 2008-2018. The multiple regression analysis was used to achieve this objective. It was revealed that market capitalization rate, interest rate and inflation rate have positive but significant relationship with GDP. This indicates that the stock market is not developed and thus, does not contribute to the growth of the Nigerian economy.

Conclusion and Recommendations
Conclusion
This study examined the effect of capital market development on economic growth and it is found positive. This suggests that for a significant growth to be achieved, the focus of policy makers should be on measures to provide growth in the stock market.

Recommendations
The findings from this study raise the following recommendations:

1. Capital market regulators like the Security and Exchange Commission (SEC) should be more open to innovations and be flexible without jeopardizing the interest and protection of investors as well as the efficiency of the market.
2. Furthermore, government should discourage Nigerian investors' attitude of buy and hold securities instead of trading in the capital market. Communication and information network should be upgraded.
3. Lastly, 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 efficiency to thrive which will boost economic activities.

References
Adam, J. A., & Sanni, I. (2005). Stock Market Development and Nigeria's Economic Growth.*Journal of Economics and Allied Fields,* Vol. 2 No. 2, pp. 116-132.

Al-faki, M. (2006), The Nigerian capital market and socio-economic development, Public Lectures, University of Benin, Nigeria.

Conte, Michael, & Ali Darrat. (1988). "Economic Growth and the Expanding Public Sector: A Re-examination," Review of Economics and Statistics. 70(2): 322-30.

Ezeoha, A., Ebele, O., & NdiOkereke, O. (2009).Stock Market Development and Private Investment Growth in Nigeria.*Journal of Sustainable Development in Africa,* Vol.11, No.2.

Grossman, S.J., & Miller, M.H. (1988).Liquidity and Market Structure.*Journal of Finance.*Vol.43.

Gugler, K., Mueller, D.C. & Yurtoglu, B.B. (2003). The Impact of Corporate Governance on Investment Returns in Developed and Developing Countries. *The Economic*

Journal, 113 (November), pp. F511 – F539*.*

Guiso, L., Sapienza, P. & Zingales, L. (2002). Does Local Financial Development Matter? National Bureau of Economic Research Working Paper.

Harris, R.F. (1997).Stock Markets and Development: A Re-assessment. *European Economic Review,* Vol. 1, pp136-139.

Harrod, R.F. & Domar, E.C. (1957).*"An Essay in Dynamic Theory, Capital Expansion Rate of Growth and Employment.* New York: Prentice Hall.

Holmstrom, B. & Tirole, J. (1993). Market liquidity and performance monitoring; *Journal of Political Economy,* 101 (4): 678-709.

Kiviet, Jan F. (1995). "On Bias, Inconsistency, and Efficiency of Various Estimators in Dynamic Panel Data Models," Journal of Econometrics. 68: 53-78.

Levine, Ross, & Sara Zervos.(1996). "Stock Market Development and Long-run Growth," World Bank Economic Review. 10(2): 323-339.