

# Effect of Capital Market Financing on Economic Growth of Nigeria

Aniefor, Sunday Jones<sup>1</sup>; Amahalu, Nestor Ndubuisi<sup>2</sup>

<sup>1</sup>Department of Accounting, Delta State University of Science & Technology, Ozoro, Delta State, Nigeria

<sup>2</sup>Department of Accountancy, Nnamdi Azikiwe University Awka, Anambra State, Nigeria  
anieforjones@yahoo.com

DOI: 10.56201/jafm.v8.no6.2022.pg26.43

---

## Abstract

*This study examined the effect of capital market financing on economic growth in Nigeria from 2011 to 2020. The specific objectives of this study are to determine the effect of the explanatory variables captured with equity financing, bond financing and hybrid financing on gross domestic product (as a measure of economic growth). Time series data from 2011 to 2020 relevant to this study were collected from the Office of the Securities and Exchange Commission, National Bureau of Statistics and Central Bank of Nigeria statistical bulletins. The Augmented Dickey-Fuller unit root test was employed to establish the stationarity of the variables. Descriptive statistics of the data was carried out while inferential statistics; Pearson Coefficient Correlation, Ordinary Least Square method of regression, Granger Causality test and Johansen Cointegration test were utilized in analyzing the models via E-Views 9.0. The findings were that, there is evidence of long run equilibrium relationship between capital market financing and economic growth in Nigeria during the period studied. The specific capital market financing variables; which are equity financing and hybrid financing have significant positive effect on gross domestic product at 5% level respectively while bond financing has a significant negative effect on gross domestic product of Nigeria at 5% level. It was therefore recommended that there is need for the government through the central bank to implement policy that will increase the level and size of equity finance in the capital market. The implication of the findings is that an increase in capital market financing will provide the needed funds for investors for further investments and hence increased productivity in Nigeria.*

---

**Keywords:** Equity Financing, Bond Financing, Hybrid Financing, Gross Domestic Product

---

## Background to the Study

Mobilising capital market financing for Nigeria's economic growth, is a subject that fills me with excitement and hope for the future of Nigeria. There is no gainsaying that capital market is a critical pillar to long term fund mobilisation needed for capital formation to fast track economic growth and development. The short term funding profile of the money market makes it

unsuitable for project infrastructure investment hence the capital market which creates an enabling environment for the generation of long-term financing and active private sector participation in infrastructure development. In addition, the capital market provides variety of financing instruments and investor categories which could lead to larger pool of funds than other financing options. Capital market has been identified as an institution that contributes to the socio-economic growth and development of emerging economies (Okeke, Mbonu & Amahalu, 2018). The capital market is the market for securities, where companies and governments can raise long term funds. The main function of the capital market is to channel investments from the investors who have surplus funds to the investors who have deficit funds. The different types of financial instruments that are traded in the capital markets are equity, debt, hybrid, insurance and derivative. The capital market consists of the primary market, where new issues are distributed to investors, and the secondary market, where existing securities are traded. Usually the capital market provides relatively cheaper source of fund.

The capital market is a network of financial institutions and infrastructure that interact to mobilize and allocate long-term funds in the economy. The market affords business firms and governments the opportunity to sell stocks and bonds, to raise long-term funds from the savings of other economic agents. The capital market is a highly specialized and organized financial market and indeed an essential agent of economic growth because of its ability to facilitate and mobilize saving and investment. A key decision of the business firm financing is the funding of its activities. If funding is not efficient, it will influence the firm's capability to accept profitable projects and this will affect the level of profit from its operations. The main objectives of efficient and effective financial policy are: to provide sufficient financial funds; at the time when funds are required; and by the lowest cost. This helps to understand the relationship between financial decisions adopted by the financial management of the firm and the business firm owners. In order to be efficient financial policies, business firms should be informed about potential funding sources (Amahalu, Egolum, Nweze & Obi, 2018). In terms of developed financial markets, business firms can raise funds from more financial resources through financial instruments used to finance the activities of the firm. The importance of the capital market as an efficient channel of financial intermediation has been well recognized by the researchers, academicians, and policy makers as a primary determinant of the economic growth of a country, both developed and developing. Economic growth in a modern economy hinges on an efficient financial sector that pools domestic savings and mobilizes foreign capital for productive investments. Underdeveloped or poorly functioning capital markets typically are illiquid and expensive which deters foreign investors. Furthermore, illiquid and high transactions costs also hinder the capital raising efforts of larger domestic enterprises and may push them to foreign markets. Nigeria as an emerging economy needs a sound and effective capital market that is properly regulated and supervised to bridge the huge infrastructure financing gap that exists.

### **Statement of the Problem**

Facilitating access to finance is essential to set up a favorable environment for the development of enterprises. In general, business firms in developing countries face numerous barriers to financing, although this problem is not unknown in the developed countries. Surveys of current

and potential entrepreneurs suggest that obtaining adequate access to capital is one of the biggest hurdles to starting and growing a new business (Okeke, Mbonu & Amahalu, 2018). Obstacles faced by the enterprises usually relate to high administrative costs, high collateral requirements and the lack of willingness of banks to lend to business companies. Increasing the level and the possibility of access to finance for business companies can improve economic conditions in developing countries by promoting innovation, growth of GDP and reduce unemployment.

A good number of studies have been conducted to examine the effect of capital market on economic growth and development both in developed and developing economies with varying and divergent views, thereby, creating a gap in knowledge (for example, Omabu, Okoye & Amahalu, 2021; Becncivenga, Burce, & Ross, 2016; Caporale, Howells and Soliman, 2014) provided evidence that an organized and managed stock market stimulate investment opportunities by recognizing and financing productive projects that lead to economic activity, mobilize domestic savings, allocate capital proficiency, help to diversify risks, and facilitate exchange of goods and services. Undoubtedly, stock markets are expected to increase economic growth by increasing the liquidity of financial assets, make global and domestic risk diversification possible, promote wiser investment decisions, and influence corporate governance that is, solving institutional problems by increasing shareholders' value. Alajekwu and Achugbu, (2012); Osuala, Okereke and Nwansi (2013), on the other hand, argues that a nation requires a lot of local and foreign investment to attain sustainable economic growth and development. The capital market provides a means through which this is made possible. However, the paucity of long term capital has posed the greatest predicament to economic development in most African countries including Nigeria. Granted that so many studies have investigated the capital market-economic growth nexus, the main focus of these studies was on capital market, while the main focus of this present study is on capital market financing (which prior studies are yet to consider), which is the gap that this study tend to fill.

### **Objectives of the Study**

The main objective of this study is to determine the effect of Capital Market Financing on Economic Growth in Nigeria.

The specific objectives are to;

- i. Ascertain the effect of equity financing on gross domestic product in Nigeria.
- ii. Evaluate the effect of bond financing on gross domestic product in Nigeria.
- iii. Determine the effect of hybrid financing on gross domestic product in Nigeria.

### **Research Hypotheses**

In line with the objectives of the study, the following null hypotheses were formulated:

**Ho<sub>1</sub>:** Equity financing has no significant effect on gross domestic product in Nigeria.

**Ho<sub>2</sub>:** Bond financing has no significant effect on gross domestic product in Nigeria.

**Ho<sub>3</sub>:** Hybrid financing has no significant effect on gross domestic product in Nigeria.

### **Conceptual Review**

### **Capital Market**

A capital market is a financial market in which long-term debt (over a year) or equity-backed securities are bought and sold. Capital markets channel the wealth of savers to those who can put it to long-term productive use, such as companies or governments making long-term investments (Ndum, Okoye, & Amahalu, 2019).. Capital market is one of the major institutions that acts in propelling a prostrate economy for growth and development. It as a complex institution imbued with inherent mechanism through which long-term funds of the surplus sectors of the economy are mobilized, harnessed and made available to deficit sectors of the economy (Macaulay, 2015).

### **Capital Market Financing**

Capital markets deal with the purchase and sale of long-term debt securities and equities or stocks of shares in companies. In most developing countries, the sale of debt securities has been dominated by the government, with domestic commercial banks and non-bank financial institutions, such as insurance, trust and investment companies, being the principal purchasers. Until recently, the governments and central banks in developing countries paid very little attention to the potential economic benefits of equities as a source of business finance. With the effective implementation of financial reform policies in some countries, the regime of negative real interest rates, conducive to bank credit as a principal source of business finance, was largely abandoned and the dominant role of private-sector companies in economic activities was emphasized (Ledenyov & Ledenyov, 2018)

### **Equity Financing**

Equity financing is the process of raising capital through the sale of shares in an enterprise. Equity financing essentially refers to the sale of an ownership interest to raise funds for business purposes. Equity financing is a method of raising capital by issuing additional shares to a firm's shareholders, thereby changing the previous percentage of ownership in the firm. In other words, it's the process of raising funds from investors (Wagner, 2018).

### **Bond Financing**

A bond is an instrument of indebtedness of the bond issuer to the holders. The most common types of bonds include municipal bonds and corporate bonds. The bond is a debt security, under which the issuer owes the holders a debt and (depending on the terms of the bond) is obliged to pay them interest (the coupon) or to repay the principal at a later date, termed the maturity date. Interest is usually payable at fixed intervals (semiannual, annual, sometimes monthly). Very often the bond is negotiable, that is, the ownership of the instrument can be transferred in the secondary market. This means that once the transfer agents at the bank medallion stamp the bond, it is highly liquid on the secondary market (Amahalu & Ezechukwu, 2019). Thus a bond is a form of loan or IOU: the *holder* of the bond is the lender (creditor), the *issuer* of the bond is the borrower (debtor), and the *coupon* is the interest. Bonds provide the borrower with external funds to finance long-term investments, or, in the case of government bonds, to finance current expenditure.

### **Hybrid Financing**

Hybrid financing is defined as a combined face of equity and debt. This means that the characteristics of both equity and bonds can be found in hybrid financing. There are several types of hybrid financing like preference capital, convertible debenture, warrants, innovative hybrids and so on. Hybrid Financing is the financial instrument that possesses some characteristics of debt and some characteristics of equity. Simply, it is the financial security that possesses the characteristics of both the debt and equity (Berg & Fuchs, 2013).

### **Economic Growth**

Economic growth is the sustained increase in per capita national output or net national product over a long period of time. Economic growth occurs when a nation's production possibility frontier shifts outward. Economic growth is the increase in a country's productive capacity, as measured by comparing the gross national product in a year with that of the previous year. Increase in the capital stock, advances in technology, and improvement in the quality and level of literacy are considered to be the principal causes of economic growth. Economic growth can be proxied, using different economic indicators, ranging from Gross National Product (GNP), Market Capitalization, Gross Domestic Product (GDP), and Per Capita Income (Okeke, Mbonu & Amahalu, 2018).

### **Gross Domestic Product (GDP)**

GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products, It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. The Central Bank of Nigeria (2010) defines GDP as the money value of goods and services produced in an economy during a period of time irrespective of the nationality of the people who produced the goods and services. It is usually calculated without making any allowance for capital consumption (or deductions for depreciation). (Okeke, Mbonu & Amahalu, 2018).

### **Equity Financing and Economic Growth**

The pursuit of economic growth and sustainable development is one of the core macroeconomic goals in every nation. Economic growth is usually anchored on the financial development of a country. This is underscored by the fact that an effective financial system, in addition to the economic transformation role, provides the possibility of better savings mobilisation and allocation of same for development purpose (Ecowas. Omojolaibi, Oladipupo & Okudo. 2019). This can be achieved through increasing the level of investment in general as well as in human resources in particular to induce and sustain economic growth and development. The goal of financial development is to achieve efficiency in the financial sector and engender financial deepening and economic growth. Equity financing drives any economy's economic growth and development because it is necessary for long term growth capital formation but evidences from past studies have revealed a growing concern and controversies on the role of capital markets on economic growth. While some (Amahalu, Obi, Abiahu, & Ezechukwu, 2017; Okudo & Ndubuisi, 2021) supported a positive link, some others (Luintel, 2016) do not find any empirical

evidence to support such conclusion, while Oluwole (2014) found a negative link.

### **Bond Financing and Economic Growth**

A bond is a debt instrument. Simply, it is a loan in which the terms, pay-back date and interest rates are detailed in a legal document. In finance, a bond is a debt security, in which the authorized issuer owes the holders a debt and is obliged to pay interest (coupon) and repay the principal at a later date. It is a formal contract to repay borrowed money with interest at fixed intervals. Bonds are also referred to as fixed income securities (Okudo, Omojolaibi & Oladele, 2021). Bond market is one of the major sources of finance to government and corporate firms in both developed and developing countries. The relationship between stock market and growth has attracted many researches, studies on bond-growth link however is very limited. For instance, Amahalu, Okoye, Nweze and Okika (2017). found no correlation between bond financing and economic growth; Berthelemy and Varoudakis (2017) found a negative relationship between financial depth and real growth. On the other hand, Goldsmith (2016) found a positive relationship between bond financing and economic growth.

### **. Hybrid Financing and Economic Growth**

Enhancing economic growth is a central objective of economic and structural policies in many countries. While financial development has widely been considered an essential element in this process, more nuanced views have gained credence in the wake of the recent global financial crisis. The mainstream view is that mobilizing savings and allocating investment needs to be a function performed by open, voluntary, decentralized, and competitive private-sector capital markets operating at market interest rates (Amahalu, Abiahu , Okika & Obi 2016). Prior studies have documented varying findings on the nexus between capital financing and economic growth. For instance, Omojolaibi, Okudo & Shojobi (2019) showed that market capitalization and value traded ratios have a very weak negative correlation with economic growth, while Okoye, , Amahalu, Nweze & Obi (2016) found a positive relationship between capital stock and economic growth.

## **Theoretical Framework**

### **Finance Led Growth Hypothesis**

Schumpeter (1911) is viewed to have laid the foundation for the finance led growth hypothesis. He contended that a well-functioning financial system will stimulate technological innovations through efficiency of resource allocation from unproductive sector to productive sector. This view focused on the role played by finance in mobilizing domestic savings and investments through creation of efficient capital markets and more open and liberalized financial system. Amahalu, Egolum and Okoye (2014) built on the finance led growth hypothesis. He concluded that the evolution of domestic financial markets may enhance and lead to high levels of capital accumulation. Mbonu and Amahalu (2021) argued that finance led growth hypothesis assumes the “supply leading” relationship between financial and economic developments. They argued that the existence of financial sector, as well-functioning financial intermediations in channeling the limited resources from surplus units to deficit units, would provide efficient allocation of resources thereby leading the other economic sectors in their growth process.



### **Empirical Review**

Qamruzzaman (2017) assessed the relationship between institutional innovation and economic growth of Bangladesh over the period from 1991 to 2015. The study employed various econometric models to establish association between institutional innovation and economic growth. Study results revealed that all the variables are stationary at level and after first difference all the variables become non-stationary. Test of Cointegration results revealed that innovation in the financial system through non-bank financial institutions and the financial market can contribute long run in the economic growth of Bangladesh. While Granger Causality Test revealed that Capital flow and GDP showed unidirectional causality but financial market development and GDP shows the Bidirectional causal relationship in the economy. It is also observed from causality analysis that capital flow and financial market development shows bidirectional causality, which indicated that innovation either in a financial institution or financial market can cause both variables and eventually influence on economic growth.

Magweva and Mashamba (2017) examined the relationship between stock market development and economic growth in Zimbabwe for the period 1989 to 2014. The study employed the Vector Error Correction Model approach after establishing the order of integration (unit root tests) and cointegration between variables. All the variables were found to be stationary at 1% level after first differencing using the Phillips-Peron tests. The long run relationship was negative, whereas the short run coefficients were insignificant. Though contrary to financial theory, the results, to a large extent, testify to what happened during the period. Based on these findings, the Zimbabwe Stock Exchange and Securities and Exchanges Commission are urged to come up with alternative products to lure new listings from the small to medium enterprises. It was also recommended that all the stakeholders focus beyond the Zimbabwe Stock Exchange to promote economic growth as the firms seem to raise funds from other sources.

Sin-Yu and Bernard (2018) investigated the short- and long-term impact of trade openness on financial development for a panel of 43 sub-Saharan African countries over the period 1996 to 2014. The study found that trade openness enhances financial development in the long term. In the short term, however, the effect of openness is not clear but appears to be negative. When we divided the sample into low and middle-income groups, the study found that openness enhances financial development in the former group but detrimentally affects it in the latter group. This suggests a non-linear relationship between financial development and openness. Among other factors that may be relevant in explaining the trade openness–financial development nexus, we examined the role of governance, human capital development, and infrastructural development. The study found that governance, human capital development and infrastructure development are critical to financial development, particularly in the long term.

## Methodology

### Research Design

This study focused on ascertaining the effect of capital market financing on economic growth with emphasis on Nigeria. Data from secondary source were obtained for a ten (10) year period spanning from 2011-2020. The research design employed in this study is the Longitudinal Research Design, since the data are time series data.

### Population of the Study

The thirty-six (36) states of the Federal Republic of Nigeria and the Federal Capital Territory, Abuja, constitute the population of this study.

### Source of Data

Time series data were extracted from the publications of Central Bank of Nigeria (CBN), Statistical Bulletin Office of the Securities and Exchange Commission (SEC) and Annual Abstract of Statistics from the National Bureau of Statistics (NBS) for a ten (10) year period spanning from 2011-2020.

### Model Specification

This study specifies a functional relationship between economic growth and capital market financing.

$$\text{Economic growth} = f(\text{capital market financing}) + \mu$$

Representing the equations with the variables of the construct, hence the equations below were formulated:

$$\text{GDP}_t = \beta_0 + \beta_1 \text{EQF}_t + \mu_t \quad - \quad - \quad - \quad - \quad \text{equ (1)}$$

$$\text{GDP}_t = \beta_0 + \beta_1 \text{BOF}_t + \mu_t \quad - \quad - \quad - \quad - \quad \text{equ (2)}$$

$$\text{GDP}_t = \beta_0 + \beta_1 \text{HYF}_t + \mu_t \quad - \quad - \quad - \quad - \quad \text{equ (3)}$$

### Legend:

$\text{GDP}_t$  = Gross Domestic Product for period t

$\text{EQF}_t$  = Equity Financing for period t

$\text{BOF}_t$  = Bond Financing for period t

$\text{HYF}_t$  = Hybrid Financing for period t

$\mu_t$  = Error term for period t

$\beta_0$  = Constant term

$\beta_1$  = Coefficient of Capital Market Financing

### Description of Variables

#### Independent Variables

The independent variable in this study is Capital Market Financing which was decomposed into:

- i) Equity Financing (EQF): Obtained from Central Bank of Nigeria (CBN) and Securities and Exchange Commission (SEC) statistical bulletin (various issues).
- ii) Bond Financing (BOF): Obtained from Central Bank of Nigeria (CBN) and Securities and Exchange Commission (SEC) statistical bulletin (various issues).



- iii) Hybrid Financing (HYF): Obtained from Central Bank of Nigeria (CBN) and Securities and Exchange Commission (SEC) statistical bulletin (various issues).

### Dependent Variables

The dependent variable is economic growth, which is proxied by:

Gross Domestic Product (GDP): Collected from Central Bank of Nigeria publications and National Bureau of Statistics (various issues).

### Data Presentation and Analysis

#### Test of Reliability

**Table 1 Differenced Result**

Variables	Test Statistic	Test Critical Values			Status	Prob.
		1% level	5% level	10% level		
	ADF				Stationary	
DGDP	-4.995047	-4.803492	-3.403313	-2.841819	1(1)	0.0197
DBOF	-4.862040	-4.803492	-3.403313	-2.841819	1(1)	0.0367
DEQF	-5.790194	-5.119808	-3.519595	-2.898418	1(1)	0.0056
DHYF	-4.625569	-4.582648	-3.320969	-2.801384	1(1)	0.0107

Source: E-views 9.0, Detrended Output, 2021

### Interpretation

In order to ascertain the stationary state of the time series variables, this study employed the unit root test. This is imperative since we are ignorant of the data generating process. The Augmented Dickey-Fuller test was employed and the results are shown in table 1. The results of the unit root test using Augmented Dickey-Fuller at 1 percent level shows that all the time series variables are non-stationary, but became stationary only after first differencing, hence the variables have an order of integration of one.

**Table 2 Pearson Correlation Matrix**

	GDP	EQF	BOF	HYF
GDP	1.000	0.310	0.704	0.852
EQF	0.310	1.000	0.180	-0.015
BOF	0.704	0.180	1.000	0.710
HYF	0.852	-0.015	0.710	1.000

Source: E-Views 9.0, Correlation Output, 2021

The correlation analysis in table 2 indicates that there is a positive correlation coefficient between GDP and EQF, BOF, HYF by correlation factors of 0.310, 0.704 and 0.852 respectively.

### Test of Hypothesis I

**H<sub>0</sub>**: Equity financing has no significant effect on gross domestic product in Nigeria

**H<sub>1</sub>**: Equity financing has significant effect on gross domestic product in Nigeria

**Table 3: Ordinary Least Square regression analysis showing the effect of EQF on GDP**

Dependent Variable: DGDP

Method: Least Squares

Date: 10/25/21 Time: 12:56

Sample (adjusted): 2012 2020

Included observations: 9 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.086020	0.017669	4.868294	0.0018
DEQF	0.101721	0.088776	3.145814	0.0229
R-squared	0.357934	Mean dependent var		0.088889
Adjusted R-squared	0.337639	S.D. dependent var		0.053489
S.E. of regression	0.052473	Akaike info criterion		-2.863904
Sum squared resid	0.019274	Schwarz criterion		-2.820076
Log likelihood	14.88757	Hannan-Quinn criter.		-2.958484
F-statistic	7.312891	Durbin-Watson stat		0.914830
Prob(F-statistic)	0.022928			

Source: E-Views 9.0 Regression Output, 2021

**Interpretation of Estimated Regression Coefficients**

The effect of equity financing on gross domestic product in Nigeria was evaluated based on the result of table 3. From table 3, EQF with a positive co-efficient of;  $\beta_1 = 0.101721$  has a significant effect on GDP as indicated by the t-statistic of 3.145814 and its associated probability value of 0.0229. The R squared which examines the extent to which the predictor explain the variations in the dependent variable (GDP) shows that the R Squared figure of 0.358 indicates that, reliance on this model will account for 35.8% of the variations in the dependent variable (GDP). The Durbin-Watson value of 0.914830 buttressed the fact that the model does not contain auto-correlation, thereby, making the regression fit for prediction purpose. The analysis resulted in F-value of 7.312891 with corresponding p-value of 0.022928. This confirms that, the model is significantly reliable. That means one can rely on the model to predict GDP with high accuracy.

**Decision**

Since the p-value of the test is less than the critical significant value of 5%, thus  $H_1$  is accepted and  $H_0$  rejected. This implies that equity financing has a significant positive effect on GDP in Nigeria at 5% level of significance.

**Table 4: Granger Causality Test showing the Causality between GDP and EQF**

Pairwise Granger Causality Tests

Date: 10/25/21 Time: 12:57

Sample: 2011 2020

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
DEQF does not Granger Cause DGDP	7	9.08642	0.0395
DGDP does not Granger Cause DEQF		1.14773	0.4656

Source: E-Views 9.0 Causality Output, 2021

### Interpretation of Diagnostic Test

Table 4 indicates that there is a uni-directional causality between GDP and EQF, since the causality only runs from EQF to GDP at two (2) lags with a F-Statistic = 9.08642 and associated P-value = 0.0395, thereby establishing the fact that, there is a statistically significant relationship between equity financing and gross domestic product in Nigeria at 5% level of significance.

### Table 5: Johansen Co-integration Test

Date: 10/25/21 Time: 13:02

Sample (adjusted): 2014 2020

Included observations: 7 after adjustments

Trend assumption: Linear deterministic trend

Series: DGGP DEQF

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 *	0.831183	15.48377	13.49471	0.0042
At most 1 *	0.604449	0.531210	3.841466	0.0397

Trace test indicates 2 cointegration 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 *	0.831183	11.45256	10.26460	0.0074
At most 1 *	0.604449	0.531210	3.841466	0.0397

Max-eigenvalue test indicates 2 cointegration 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 Co-integration Output, 2021

### Interpretation of Cointegration Test Result

From the cointegration test result presented in table 5, the decision rule is to reject the null hypothesis of no cointegration if the computed trace statistic is greater than the 5% critical value. The test result indicates the rejection of no cointegration under none. Thus, there exists the presence of two cointegrating equation among the variables, hence, indicating the presence of long run relationship among the variables.

### Test of Hypothesis II

**H<sub>02</sub>:** Bond financing has no significant effect on gross domestic product in Nigeria.

**H<sub>2</sub>:** Bond financing has significant effect on gross domestic product in Nigeria.

**Table 6: Ordinary Least Square regression analysis showing the effect of BOF on GDP**

Dependent Variable: DGDP

Method: Least Squares

Date: 10/25/21 Time: 13:19

Sample (adjusted): 2012 2020

Included observations: 9 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.092446	0.016018	5.771516	0.0007
DBOF	-0.029773	0.016981	-3.753316	0.0131
R-squared	0.385150	Mean dependent var		0.088889
Adjusted R-squared	0.325886	S.D. dependent var		0.053489
S.E. of regression	0.047666	Akaike info criterion		-3.056066
Sum squared resid	0.015904	Schwarz criterion		-3.012238
Log likelihood	15.75230	Hannan-Quinn criter.		-3.150646
F-statistic	9.074118	Durbin-Watson stat		0.829912
Prob(F-statistic)	0.013096			

Source: E-Views 9.0 Regression Output, 2021

### Interpretation of Estimated Regression Coefficients

The effect of bond financing on gross domestic product in Nigeria was evaluated based on the result of table 6. From table 6, BOF with a negative co-efficient of;  $\beta_1 = -0.029773$  has a significant effect on GDP as indicated by the t-statistic of -3.753316 and its associated probability value of 0.0131. The R squared which examines the extent to which the predictor explain the variations in the dependent variable (GDP) shows that the R Squared figure of 0.358 indicates that, reliance on this model will account for 38.5% of the variations in the dependent variable (GDP). The Durbin-Watson value of 0.829912 buttressed the fact that the model does not contain auto-correlation, thereby, making the regression fit for prediction purpose. The analysis resulted in F-value of 9.074118 with corresponding p-value of 0.013096. This confirms that, the model is significantly reliable. That means one can rely on the model to predict GDP with high accuracy.

Since the p-value of the test is less than the critical significant value of 5%, thus  $H_1$  is accepted and  $H_0$  rejected. This implies that bond financing has a significant negative effect on GDP in Nigeria at 5% level of significance.

**Table 7: Granger Causality Test showing the Causality between GDP and BOF**

Pairwise Granger Causality Tests

Date: 10/25/21 Time: 13:20

Sample: 2011 2020

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
DBOF does not Granger Cause DGDP	7	12.2793	0.0044
DGDP does not Granger Cause DBOF		5.24595	0.1601

Source: E-Views 9.0 Causality Output, 2021

### Interpretation of Diagnostic Test

Table 7 indicates that there is a unilateral causality between GDP and BOF, since the causality only runs from BOF to GDP at two (2) lags with a F-Statistic = 12.2793 and associated P-value = 0.0044, thereby establishing the fact that, there is a statistically significant relationship between bond financing and gross domestic product in Nigeria at 5% level of significance.

### Table 8: Johansen Co-integration Test

Date: 10/25/21 Time: 13:27

Sample (adjusted): 2014 2020

Included observations: 7 after adjustments

Trend assumption: Linear deterministic trend

Series: DGDP DBOF

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 *	0.949591	23.29007	15.49471	0.0027
At most 1	0.287917	2.376927	3.841466	0.1231

Trace test indicates 1 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 *	0.949591	20.91314	14.26460	0.0039
At most 1	0.287917	2.376927	3.841466	0.1231

Max-eigenvalue test indicates 1 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 Co-integration Output, 2021

### Interpretation of Cointegration Test Result

From the cointegration test result presented in table 8, the decision rule is to reject the null hypothesis of no cointegration if the computed trace statistic is greater than the 5% critical value. The test result indicates the rejection of no cointegration under none. Thus, there exists the presence of one cointegrating equation among the variables, hence, indicating the presence of long run relationship among the variables.

### Test of Hypothesis III

**H<sub>0</sub>**: Hybrid financing has no significant effect on gross domestic product in Nigeria.

**H<sub>3</sub>**: Hybrid financing has significant effect on gross domestic product in Nigeria.

**Table 9: Ordinary Least Square regression analysis showing the effect of HYF on GDP**

Dependent Variable: DGDP

Method: Least Squares

Date: 10/25/21 Time: 13:24

Sample (adjusted): 2012 2020

Included observations: 9 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.091677	0.019546	4.690372	0.0022
DHYF	0.022009	0.044099	6.499072	0.0000
R-squared	0.534359	Mean dependent var		0.088889
Adjusted R-squared	0.503589	S.D. dependent var		0.053489
S.E. of regression	0.056192	Akaike info criterion		-2.726970
Sum squared resid	0.022102	Schwarz criterion		-2.683142
Log likelihood	14.27137	Hannan-Quinn criter.		-2.821550
F-statistic	12.49072	Durbin-Watson stat		0.919176
Prob(F-statistic)	0.000029			

Source: E-Views 9.0 Regression Output, 2021

**Interpretation of Estimated Regression Coefficients**

The effect of hybrid financing on gross domestic product in Nigeria was evaluated based on the result of table 9. From table 9, HYF with a positive co-efficient of;  $\beta_1 = 0.022009$  has a significant effect on GDP as indicated by the t-statistic of 6.499072 and its associated probability value of 0.0000. The R squared which examines the extent to which the predictor explain the variations in the dependent variable (GDP) shows that the R Squared figure of 0.534 indicates that, reliance on this model will account for 53.4% of the variations in the dependent variable (GDP).

The Durbin-Watson value of 0.919176 buttressed the fact that the model does not contain auto-correlation, thereby, making the regression fit for prediction purpose. The analysis resulted in F-value of 12.49072 with corresponding p-value of 0.000029. This confirms that, the model is significantly reliable. That means one can rely on the model to predict GDP with high accuracy. Since the p-value of the test is less than the critical significant value of 5%, thus  $H_1$  is accepted and  $H_0$  rejected. This implies that hybrid financing has a significant positive effect on GDP in Nigeria at 5% level of significance.

**Table 10: Granger Causality Test showing the Causality between GDP and HYF**

Pairwise Granger Causality Tests

Date: 10/25/21 Time: 13:36

Sample: 2011 2020

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
DHYF does not Granger Cause DGDP	7	17.6744	0.0008
DGDP does not Granger Cause DHYF		1.02406	0.4941

Source: E-Views 9.0 Causality Output, 2021



## Interpretation of Diagnostic Test

Table 10 indicates that there is a unilateral causality between GDP and HYF, since the causality only runs from HYF to GDP at two (2) lags with a F-Statistic = 17.6744 and associated P-value = 0.0008, thereby establishing the fact that, there is a statistically significant relationship between hybrid financing and gross domestic product in Nigeria at 5% level of significance.

### Table 11: Johansen Co-integration Test

Date: 10/25/21 Time: 13:25

Sample (adjusted): 2014 2020

Included observations: 7 after adjustments

Trend assumption: Linear deterministic trend

Series: DGDPDHYF

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 *	0.858415	19.95349	15.49471	0.0078
At most 1 *	0.591654	6.269485	3.841466	0.0123

Trace test indicates 2 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 *	0.858415	14.68400	13.26460	0.0096
At most 1 *	0.591654	6.269485	3.841466	0.0123

Max-eigenvalue test indicates 2 cointegration 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 Co-integration Output, 2021

### Interpretation of Cointegration Test Result

From the cointegration test result presented in table 11, the decision rule is to reject the null hypothesis of no cointegration if the computed trace statistic is greater than the 5% critical value. The test result indicates the rejection of no cointegration under none. Thus, there exists the presence of two cointegrating equation among the variables, hence, indicating the presence of long run relationship among the variables.

## Findings, Conclusion and Recommendations

### Findings

Based on the analysis of this study, the following findings were deduced:

- i. Equity financing has a significant positive effect on GDP in Nigeria at 5% level of significance. An increase in equity financing would lead to a corresponding increase in GDP.
- ii. Bond financing has a significant negative effect on GDP in Nigeria at 5% level of significance. An increase in bond financing would lead to a corresponding decrease in GDP.
- iii. Hybrid financing has a significant positive effect on GDP in Nigeria at 5% level of significance. An increase in hybrid financing would lead to a corresponding increase in GDP.

### **Conclusion**

This study explored the effect of capital market financing on economic growth in Nigeria. The data set used for this analysis is the annual series of the selected relevant macroeconomic variables from 2011 to 2020. Data for equity financing, bond financing and hybrid financing were used as capital market financing variables. Data for gross domestic product were used as economic growth variable. The data were obtained from Central Bank of Nigeria Statistical Bulletin, Securities and Exchange Commission Office publications, and National Bureau of Statistics publications for the study period. As a preliminary step in testing, the study employed the Augmented Dickey Fully Unit root test to confirm the order of integration of the time series variables. The findings indicated clearly that capital market financing exert significant influence on Nigeria economic growth at 5% level. This research therefore accepts the alternative hypotheses; that equity financing, bond financing and hybrid financing have a significant positive effect on gross domestic product in Nigeria at 5% level of significance.

### **Recommendations**

From the results obtained, the following recommendations were made:

- i. There is need for the government through the central bank to implement policy that will increase the level and size of equity finance in the capital market. Such increase in capital market will provide the needed funds for investors for further investments and hence increased productivity in Nigeria.
- ii. In order to reverse the negative effect of bond financing on economic growth, it is important that interest rate should be lowered so as to increase the level of investment. An increase in investment will lead to an increase in economic growth in Nigeria.
- iii. The positive effect of hybrid financing calls for proper policies to be implemented so as to attract more investors to invest in the market. There is also need to relax some stringent registration and operating procedures to enable more people and organizations to participate in the market. An increase in the value of transaction will in turn lead to economic growth in Nigeria.

## References

- 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.
- Amahalu, N.N., Egolum, U.P & Okoye J.N. (2014). Due Process and Fiscal Responsibility Act as tools for effective fund management in Nigeria, Sub-Sahara Africa and the Transformation Question, Faculty of Management Sciences, 2014 Conference Proceedings, 285-305.
- Amahalu, N.N., & Ezechukwu, B.O. (2019). Effect of capital structure on market value added of quoted hospitality firms in Nigeria. *Academic Staff Union of Polytechnics (ASUP), Federal Polytechnic Oko. 2nd National Conference, held on September 23-26, 2019.*
- Amahalu, N.N., Abiahu M-Fidelis., Okika E.C., & Obi J.C. (2016). Determinants of capital structure: Empirical evidence from quoted electrical and electronic firms in Nigeria (2010-2015). Managing diversification for sustainable development in sub-saharan Africa, Faculty of Management Sciences, 2016 International Conference, 8-10, November, 2016.
- Amahalu, N.N., Egolum, U.P., Nweze, C.L., & Obi, J.C. (2018). Capital structure determinants: Empirical evidence from quoted deposit money banks in Nigeria . *International Journal of Research in Business, Economics and Management* 2(4), 70-85.
- Amahalu, N.N., Obi, J.C., Abiahu, M.C., & Ezechukwu, B.O. (2017). Loan management and financial performance of quoted deposit money banks in Nigeria. Proceedings of the 2017 Faculty of Management Sciences, International Conference on African Entrepreneurship and innovation for sustainable development, Nnamdi Azikiwe University, Awka, 26<sup>th</sup>-29<sup>th</sup> July, 2017, 752-771.
- Amahalu, N.N., Okoye, E.I, Nweze, C.C & Okika, E.O. (2017). Effect of capital adequacy on financial performance of quoted deposit money banks in Nigeria. Proceedings of the 2017 Faculty of Management Sciences, International Conference on African Entrepreneurship and innovation for sustainable development, Nnamdi Azikiwe University, Awka, 26<sup>th</sup>-29<sup>th</sup> July, 2017, 841-862.
- Becncivenga, V. R., Burce D.S., & Ross, M.S. (2016), Equity markets, transaction costs, and capital accumulations: An illustration. *The World Bank Review*, 10(2), 241-265.
- Berg, G., & Fuchs, M. (2013). Bank financing of SMEs in five sub-Saharan African countries. *Working Paper 6563*.
- Berthélemy, J.C., Varoudakis, A. (2017). *Financial development and growth convergence: A panel data approach*, in Hausmann, R., H.Reisen (eds.), Promoting Savings in Latin America, Paris: *OECD*, 35-69.
- Ecowas. J.A., Omojolaibi, A.O., Oladipupo, A.G., & Okudo. A.G. (2019). Fragility and macroeconomic outcomes. *Journal of Economics Library* 6 (1), 11-34.
- Goldsmith, R.W. (2016). *Financial structure and development*, New Haven: Yale University Press.
- Ledenyov, V.O., & Ledenyov, D.O. (2016). Forecast in capital markets. Saarbrucken, Germany: Lap Lambert Academic Publishing.
- Luintel, K.B. (2016). Financial development, economic growth and banking sector controls: Evidence from India. *The Economic Journals* 10(4), 359 – 374.
- Magweva, R., & Mashamba, T. (2017). Stock market development and economic growth: An

- empirical analysis of Zimbabwe (1989-2014). *Journal of Banking and Finance*, 2(3),20-36.
- Mbonu, C.M., & Amahalu, N.N. (2021). Effect of firm characteristics on capital structure of insurance companies listed on Nigeria stock exchange *International Journal of Management Studies and Social Science Research*, 3(5), 217-228
- Ndum, N.B., Okoye, E.I., & Amahalu, N.N. (2019). Pension fund asset investment and economic growth in Nigeria. *Journal of Global Accounting*, 6(2), 57-77.
- Okeke, M.N., Mbonu, C.M., & Amahalu, N.N. (2018). Tax revenue and economic development in Nigeria: A Disaggregated Analysis. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8(2), 178-199.
- Okeke, M.N., Mbonu, C.M., & Amahalu, N.N. (2018). Effect of tax revenue on economic development in Nigeria. *International Journal of Research in Business, Economics and Management*, 2(4), 25-61.
- Okoye, E.I., Amahalu, N.N., Nweze, C.L., & Obi J.C. (2016). Effect of financial leverage on dividend policy of quoted conglomerates. Managing diversification for sustainable development in sub-saharan Africa, Faculty of Management Sciences, 2016 International Conference, 8-10, November, 2016.
- Okudo, A.G., & Ndubuisi, A.N. (2021). Corporate governance and carbon disclosure practices of quoted manufacturing firms in Nigeria. *International Journal of Contemporary Research and Review*, 12 (07), 20409
- Okudo, A.G., Omojolaibi, J., & Oladele, M. (2021). Impact of waste recycling on environmental quality and revenue generation: Case Study of University Of Lagos, Nigeria *International Journal of Contemporary Research and Review* 12(8), 20211-20227.
- Oluwole, F.O. (2014). Financial development and economic growth nexus in Nigeria. *Global Journal of Commerce & Management Perspective*, 3(5), 231-241.
- Omabu, S.E., Okoye, Pius V.C., & Amahalu, N.N. (2021). Financial leverage and shareholders wealth creation of quoted industrial goods firms in Nigeria. *International Journal of Trend in Scientific Research and Development (IJTSRD)*, 5(6), 673-681
- Omojolaibi, J.A., Okudo, A.G., & Shojobi, D.A.. (2019). Are women financially excluded from formal financial services? Analysis of some selected local government areas in Lagos State, Nigeria. *Journal of Economic and Social Thought*, 6(1), 16-47.
- Osuala, A.E., Okereke, J.E., & Nwansi, G.U. (2013), Does stock market development promote economic growth in emerging markets? A causality evidence from Nigeria, *World Review of Business Research*, 3(4), 1 – 13.
- Qamruzzaman, M. (2017). Innovation and economic growth: Evidence from financial institutional innovation. [https://www.researchgate.net/publication/320329665\\_Innovation\\_and\\_economic\\_growth\\_evidence\\_from\\_financial\\_institutional\\_innovation](https://www.researchgate.net/publication/320329665_Innovation_and_economic_growth_evidence_from_financial_institutional_innovation). Retrieved on 19/6/2018
- Schumpeter, J.A. (1911). The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle. *Harvard Economic Studies* 46, 18-33.
- Sin-Yu, H., & Bernard, N.I. (2018). Short- and long-term impact of trade openness on financial development in sub-Saharan Africa. *Munich Personal RePEc Archive*, 84272, 1-29.
- Wagner, J. (2018). *What is equity financing?* <https://study.com/academy/lesson/what-is-equity-financing-definition-pros-cons-examples.html>. Retrieved on 12/9/2018