

FINANCIAL DEVELOPMENT, TRADE OPENNESS AND ECONOMIC GROWTH IN NIGERIA

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Abstract: The study investigates the effect(s) of financial development and trade openness on economic growth in Nigeria over the period of 1980 – 2017. It made use of empirical data to explore the channels through which financial development would influence economic growth in Nigeria specifically in the context of international trade openness and foreign direct investment. The economic model is designed such that it investigates the long run relationship among the three variables, the Autoregressive Distributed Lag Model (ARDL) Bounds co-integration approach was adopted for the analysis. Result findings show that there are strong evidences of the long-run relationship between financial development, Trade Openness and economic growth in Nigeria. The broad money supply has a positive but insignificant effect on the nation's Gross Domestic Product in the short run while Credit to Private Sector ratio has a negative but significant effect on Gross Domestic Product in the short run in Nigeria. The short run and long run model shows that both the trade Openness policies and financial development policies are significant variables in the development of the Nigerian economy; this calls for effective policy measures to address the challenge of economic growth.

Keywords: Financial Development, Economic Growth, Nigeria, Trade Openness.

1. INTRODUCTION

1.1 Background of the Study

The series of financial crises globally in which the recent one occurred in the mid-2000s has spurred a lot of research on the subject area. Researchers believe that these crises have worsened since the great depression in the 1930s. Therefore, renewed interests have been sparked in the desirability of financial development, and the optimal size and structure with which trade openness can lead to economic growth. Strong advocates of trade openness are of the opinion that developing economies should adopt trade openness related policies because it serves as a strong factor in favoring growth and thus convergence and catching-up with developed countries. Early studies on trade and economic growth, can be traced to the work of David Richardo (on absolute and comparative advantage) in 1817 where he explains why countries engage in international trade and how it affects economic growth as well as the Hecksher-Ohlin model and their followers. Empirical literature reviewed on the trade-growth nexus tried to explain that open economies; engage in international trade tend to grow faster compared to closed ones.

1.2 Statement of the Research Problem

A review of studies on the subject matter shows that since the relationship of economic growth, financial development and trade openness has extensively been analyzed in the world, it remained controversial among policy makers and economists based on empirical findings, variables measured and the techniques used. From theories, specifically the endogenous theory explains that a positive relationship would exist as the financial system develops, the economy would

grow.. However, the Nigerian economy has not experienced significant economic growth even in the presence of trade openness and financial development. Despite the number studies conducted on the subject matter specific solutions have not achieved in order to solve the challenges faced on economic growth in Nigeria as it relates to financial development and trade openness. It is against this that there is a need for further study to research the challenge of decrease in economic as it relates to international trade and the financial development.

2. LITERATURE REVIEW

According to [1]Shahbaz and Rahman, 2010, economies whose financial markets are developed and the financial institutions function efficiently, tend to have significantly higher economic growth rate. An advanced and developed financial sector promotes economic growth; by stimulating the Small and Medium Scale Enterprises (SMEs) which in turn increases the demand for final goods and services. One of the gaps this study fills is to shed light on the challenges faced by researchers. One of such is the issue of conceptualization which is the difference in the definition and measurement of trade openness and trade liberalization. The two concepts while closely related are not identical; they could mean different things in trade analysis. In addition, this study adds to the body of knowledge by taking the advantages of recent development; it employs relatively more comprehensive measures of financial development and trade openness in scope and methodology. It also uses an applicable estimation method to measure the relationship between financial development, trade openness and economic growth.

2.1 Conceptual Review

2.1.1 FINANCIAL DEVELOPMENT - Financial Development is a multidimensional concept used in finance; it is an important concept because of the role it plays in the macro economy. Financial development can be defined as the improvement in the quality and quantity of financial intermediaries, the quantity can be measured in terms of the number of transactions carried out between financial institutions and among other non-finance consumers, it is also measured in terms of the availability and accessibility of finance. [2]Levine, 2004 opines that financial development is said to have occurred when financial instruments, markets, and intermediaries are enhanced.

2.1.2 INTERNATIONAL TRADE - International trade refers to the exchange of goods and services between two or more countries, where both of the countries exchange their resources; capital, goods and services. Terms commonly associated with International trade are globalization, imports and exports; imports are referred to by the receiving country, while exports are used by the sending country. International trade here is premised on the fact that no country is self-reliant which is why trade is required due to the constraint of resources.

2.1.3 INTERNATIONAL TRADE OPENNESS - Trade liberalization majorly includes policy measures to increase trade openness while increased trade openness is usually considered as an increase in the size of the trade sector in an economy relative to total output for consumption. In recent times, the meaning of "openness" has become identical to the idea of "free trade" that is a system without restrictions. An increase in trade openness can but must not lead to trade liberalization. [3]Pritchett (1996) simply defines "openness" as an economy's trade intensity. Recent economic growth models define trade openness specifically as low international trade cost which is a reduction in transport cost, tariffs, subsidies taxes and non-tariffs barriers which would increase the cost of the goods or services to the importing country.

2.1.4 ECONOMIC GROWTH - When we talk about growth we are mostly referring to increase, in terms of a thing that is measurable. Therefore, economic growth is simply the increase in the goods and services produced by an economy, typically a country for consecutive period of time. It is measured as proportional increase in real gross domestic product (GDP) which is gross domestic product (GDP) adjusted for inflation. GDP is calculated as the sum of the value of all final goods and services produced in a nation.

2.2 Empirical Review

Several empirical findings have been carried out on the financial development nexus with trade openness and economic growth. These studies ended up with mixed results, these differences are due to various explanations such as the estimation techniques, the proxies for financial development, country specific factors as well as the time period involved. The works of [4]Adam Smith (1937) and [5]David Ricardo (1973), have recognized the positive role of openness to trade on economic growth and from other recent studies its impact on financial development. More recently, there has been growing interests in the linkage between trade, financial development and economic growth.

A study was carried out in Argentina by [6]Tsurai, 2017 the result of the research showed that there is a positive and significant causality in the longrun between financial development and trade openness in Argentina. Also, [7]Altaee and Al-Jafari, (2015) conducted a similar study in which their findings suggest that trade openness and financial developments are important elements in determining economic growth in Bahrain. [8]Chimobi, 2010 in their study, examined the relationship between financial development, trade openness and economic growth in Nigeria. The study further confirmed a long run relationship between these variables in the country of study. Furthermore, [9]Ewetan and Okodua 2013, examined the long run relationship between financial development and economic growth the result showed evidence of co-integration among economic growth, financial development, and other variables, indicating the existence of long run relationship between the variables. Using panel data analysis with data from 1965 to 2008 among different African countries, [10]Menyah et al, 2014 studied the relationship among the three variables in question in different African countries. Their empirical findings revealed the existence of negligible or no relationship between trade openness and financial development on economic growth. [11]Ho and Iyke, 2018 did a study on 43 countries in sub-Saharan Africa over the period of 1996 to 2014. They found out that trade openness enhances financial development in the long term. However, in the short term, the effect of trade openness seems to be negative.

On the other hand, there are some empirical studies that suggest that there is no or insignificant of financial development and trade openness towards economic growth. For instance, [12]Gries et al, 2009 in their study found out that trade openness would reduce economic growth in a country in the short run while in the long run it would then have a positive effect on economic growth. Furthermore, [13]O'Donnell (2001) and [14]Klein and Olivei, (1999) had similar results; they found out that financial development and trade openness, had impact on middle income countries, but not the poorest and richest countries.

2.3 Theoretical Review

Evidence from theory reveals that a relationship exists between financial development, trade openness and economic growth, but the direction of causality has remained the bone of contention. Early works on finance-growth nexus can be attributed to [15]Smith (1776) who argued that real growth in an economy is driven by activities of the financial system. Furthermore, [16]Bagehot (1873) asserts that 19th century industrial revolution in Europe occurred due to the financial system which was used to move funds massively for the industry. Then [16]Schumpeter 1934 emphasized the need for a developed financial system.

2.3.1 Neoclassical Growth Theory

The neoclassical growth model developed in the 1950s by [17]Solow (1956) and Swan serves as the initial point where most analyses of economic growth begins in order to understand the basis of old and new theories of economic growth. A major idea from neoclassical growth theory particularly from the works of Solow is that technology is majorly considered as the major driver of continuous economic growth. "The permanent rate of growth of output per unit of labor input is independent of the saving (investment) rate and depends entirely on the rate of technological progress in the broadest sense" [17] (Solow 1956). His conclusion was derived from a particular equation which is known as aggregate production function –depreciation and population growth were included in the function. Technology as used here would likely be imported from other developed economies and thereafter integrated into the needing economy. Therefore, the theory agrees on the importance of trade openness of an economy in order to enjoy economic growth.

2.3.2 Endogenous Growth Theory

Endogenous growth theory explains that growth in an economy in the long run, emanates from increase in economic activities which in turn creates technological knowledge. This theory did not find physical capital accumulation to be the dominant factor in spurring economic growth, rather, human capital which depends on the time allocation of the individuals for acquiring skill. However, over time, the theory has evolved with response to empirical discoveries which has broadened the theory and how it applies to different economies. The basis of this discussion draws heavily on the contributions of the "endogenous growth" literature, as exemplified from the works of [18]Romer (1986), [19]Prescott and Boyd (1987), [20]Rebelo (1987), and [21]Lucas (1988). Regarding the growth model proposed by them, human capital and knowledge spillovers are important when considering growth in the long run. The model is based on knowledge; countries engage in activities that require high skills therefore higher values. The model thus does not predict convergence, mainly because of the presence of skills/learning/knowledge obstacles in lagged countries.

2.3.3 Modern Growth Theory

Most contemporary economists might trace the emergence of the modern growth theory to the 1950's particularly to the work of great classical economists such as Adam Smith, David Ricardo, and Thomas Malthus were the first economists to discuss many of the basic parts of modern growth theory. The works of classical economists have also contributed to the birth of the theory. The fundamentals such as basic framework and assumptions of the growth model of the neoclassical theories can be attributed to [22]Solow and Swan (1956), [23]Koopmans (1965).

3. METHODOLOGY

3.1 Theoretical Framework

The theoretical models of the relationship between financial development and economic growth can best be considered from the four finance-growth theories: the supply-leading theory; the demand-following theory; the finance-growth neutrality theory; and the reciprocal theory. Some decade ago, the endogenous growth theory was added to the finance-growth theories. According to [24]Greenwood and Jovanovic (1990), this was based on the notion that the role of financial intermediaries of information collection and analysis.

3.2 Model Specification

Based on the Endogenous growth model-adopted as the theoretical framework-which hypothesis human capital, physical capital and total factor productivity as the main drivers of economic growth, this study augment the model as used recently by [25]Manwa and Wijeweera (2016) on the same topic to include trade openness and financial deepening. Thus, the basic model for the paper can be expressed as:

$$Economic\ growth_t = f(Trade\ Openness_t, Financial\ Development_t, Capital_t) \quad (4.3)$$

However, the variables that are used to proxy Financial Development (FD) in this study are: Broad Money Supply (M2) as a percentage of GDP; and Domestic Credit to Private Sector (PC) as a percentage of GDP.

The functional model can be expanded to accommodate the two indicators in their logarithm form as:

$$INGDP_t = \alpha_0 + \alpha_1 INTOP_t + \alpha_2 INBMS_t + \alpha_3 INCPS_t + \varepsilon_t \quad (4.4)$$

Where:

GDP is the Economic Growth proxied by Growth rate of real GDP, *TOP* is the Trade Openness which is the sum of import and export as a ratio of real GDP. APRIORI EXPECTATION $\alpha_0; \alpha_1; \alpha_2; and \alpha_3$ are the parameters of the model. The apriori expectations is that there will be a positive and significant relationship between the dependent variable (economic growth) and the independent variables (trade openness, broad money supply and domestic credit to private sector). i.e. $\alpha_0 > 0, \alpha_1 > 0, \alpha_2 > 0, and \alpha_3 > 0$.

4. EMPIRICAL ANALYSIS

Summary of descriptive statistics highlights the historical background of Nigeria gross domestic product; the trade openness; the broad money supply ratio; and the credit to private sector ratio. Table 5.1 shows that there seems to be no evidence of significant variations within the mean, median, maximum and minimum of each data set except for gross domestic product which seems to suggest evidence of significant variation as shown by the huge difference between its minimum and maximum values. The mean based coefficient of skewness and kurtosis is used to check the normality of all the variables. Skewness measures the direction and degree of symmetry.

4.1 The Stationarity Test (Unit Root Test)

Regression of a non-stationary time series data on another non stationary time series may cause a spurious regression; providing misleading results. The stationarity test is fundamental when working with time series data. The data is transformed from nonstationary data into stationary data by taking the difference of the series. All the series are examined for stationarity using the Augmented Dickey Fuller and Phillip-Perron tests.

4.1.1 Co-integration Test

Having established that all the variables are integrated at order one, there is a possibility that the linear combination of these variables may have long-run equilibrium /relationship. Thus, the Autoregressive Distributive Lag (ARDL) bounds co-integration test is employed. This approach suitable and has advantages over other co-integration methods in the following ways: First, the test is relatively more efficient as it has estimates super consistent for small or finite data sizes. Secondly, unlike other techniques, the approach is applicable irrespective of whether the regressors in the model are of the same stationarity or mixed stationary.

Table 4.1: Summary of ARDL Bounds Test for Co-integration Source: Author’s Computation, (2019)

Test Statistics	Value	k
F-Statistics	3.991715	3
Critical Values Bounds:		
Significance	I(0)	I(1)
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

4.2 Granger Causality Test

Granger causality test is performed to examine the direction of causality between pairs of the variables under consideration. Granger (1969) posits that “a variable Y_t is said to Granger-cause X_t if X_t can be predicted with greater accuracy by using past values of Y_t variable rather than not using past values, all other terms remaining unchanged”. The result is presented in Table 5.4.

4.3 Long Run and Short Run Models Estimation

After establishing the existence of the co-integrating relationship among the variables, we proceed to the estimation of the long run and short run model using the autoregressive distributive lag (ARDL) model. The long run coefficients are derived from the dynamic ARDL model. Thus, the model estimated is given as:

$$INGDP_t = \alpha_0 + \alpha_1 INTOP_t + \alpha_2 INBMS_t + \alpha_3 INCPS_t + \epsilon_t \tag{5.1}$$

Table 4.2: Long Run Model Estimates Source: Author’s computation, (2019)

Dependent Variable: LNGDP				
Observations Included: 33				
Variable	Coefficient	Std. Error	t-statistic	Probability
C	-0.560996	2.246353	-0.249736	0.8062
LNTOP	0.974583	0.075194	12.960935	0.0000
LNBMS	5.552792	1.894017	2.931755	0.0103
LNCPS	-2.443475	1.226843	-1.991677	0.0649

This presence of co-integration implies that the variables have a long run equilibrium relationship. However, this says nothing about the short run relationship. Hence, the autoregressive distributed lag co-integrating form will be used to capture the short run dynamics and include its lagged error correction term as one of the explanatory variables which will act as the equilibrating error. The model estimated is presented as follows:

$$\Delta INGDP_t = \alpha_{01} + \sum_{i=1}^{k_1} \alpha_{11} \Delta INGDP_{t-i} + \sum_{i=0}^{k_2} \alpha_{12} \Delta INTOP_{t-i} + \sum_{i=0}^{k_3} \alpha_{13} \Delta INBMS_{t-i} + \sum_{i=0}^{k_3} \alpha_{14} \Delta INCPS_{t-i} + \beta_{11} INGDP_{t-1} + \beta_{12} INTOP_{t-1} + \beta_{13} INBMS_{t-1} + \beta_{14} INCPS_{t-1} + \gamma ECT_{t-1} + \epsilon_{t1} \tag{5.2}$$

4.4 DISCUSSION OF FINDINGS

In varying proportion, the short run and long run model shows that both the trade Openness policies and financial development policies are significant variables in the development of the Nigerian economy. With the variables expressed in log forms, the parameter estimates can be interpreted as elasticities. Having established that the variables exhibits desirable features, the study examine the causality test and found that GDP and broad money supply granger causes one another and GDP causes trade openness but not vice versa. The study also found the existence of long run equilibrium relationship among the variables. Thus, the study estimates the long run model and short run model.

In the long run, the study found a positive and significant relationship between trade openness and gross domestic product. Similarly, the study reveals the same effects of positive and significance of trade openness on gross domestic product in the short run. This implies that the higher the degree of openness of the country border to trade with other countries, the higher the induced responses of the gross domestic product to increase at all times. Hence, Nigeria can grow her economy by partnering with other country to buy and sell raw material and finished as well as intermediate goods thereby generate increase foreign reserves and boost in domestic production. Generally, the study finds a significant relationship between gross domestic product and financial development. Based on theoretical proposition, we found that Nigeria experience both the finance-led growth and the growth-led finance. That is, the financial development of Nigeria which is evidence in it financial institutions' state of the art technologies and their innovative banking is a major contributor to its rise nominal growth rate.

Increasing supply of money into the economy over the longer period has a positive and significant effects on the economy of Nigeria. However, the relationship breaks down in the immediate period-the short run. Broad money supply has a weak effect on GDP in the short run but influence the same GDP in the long run. At the instance of pumping money into the economy, the economy is heated up and the rate of inflation rises which consequently reduce the aggregate demand in the immediate period. However, overtime, the inflationary effect on aggregate demand put the economy at a higher level of demand. Thus, the total GDP is increase nominally. The study also shows that the credit to private sector ratio has a negative and significant effect on gross domestic product. This implies that as the financial intermediaries grant more loans or credits to the private sector players as part of its functions in the growth and development drive of the country, many of these private sectors have little or no growth to show for it and those that succeeded prefers to find ways to prevent their activities from being included as part of the national outputs. Thus, higher credit to private sector creates a leakage to the GDP.

5. CONCLUSION AND POLICY RECOMMENDATIONS

This study aims to provide an important insight on the potential benefits/demerits as the case may be of the African Continental Free Trade Agreement (AFCFTA) in terms of growth, diversification of sources of growth and exports, development of global value chain, but also in terms of integration of Nigeria into the global economy. It then answers the questions of how international trade has impacted the Nigeria economy and sectors that need to be developed to accommodate the required changes. The empirical results obtained from the co-integration analysis show that a long-run equilibrium relationship exists among the variables. The long run model shows that holding all other variable constant at zero, the GDP will have a negative growth rate which will not be significant. The model also shows that all the explanatory variables have significant and positive relationship with gross domestic product conforming to a priori expectations except credit to private sector ratio which has a negative coefficient. It was also discovered that an increase in money supply in the economy, in the long term has a positive and significant effects on the economy of Nigeria. Meanwhile, the relationship breaks down in the immediate period-the short run. Broad money supply has a weak effect on GDP in the short run but has the same influence on GDP in the long run.

Certain recommendations have been highlighted to boost the economy through the trade sector and international trade openness. First, policies that encourage foreign Portfolio Investment should be made in order to make funds available for the system's development; this is a cheaper measure to attract funds instead of borrowings which would attract interest rates over time. In addition to these policy requirements, more emphasis needs to draw on the importance of a stable and efficient macroeconomic environment. An enabling environment needs to be present to foster the development of the economy. Finally, it is important that there is consistency in the economic policy reforms that take place, this is such that policies do not counter each other.

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