International Academy Journal of Business Administration Annals

Volume 7, Issue 1, PP 54-67, ISSN: 2382-9175, April, 2019
Double Blind Peer Reviewed International Research Journal
http://arcnjournals.org
journals@arcnjournals.org

Effects of Financial Deepening on Economic Growth of Nigeria (1981-2016)

Igwebuike Evangeline Chidimma,[1] Udeh Sergius Nwannebuike[2] and Okonkwo, Oluchi Martha-Lucia[3]

[1]Department of Accounting and Finance, Godfrey Okoye University, Enugu, Nigeria | E-mail: stephanieedwins@gmail.com | Phone: 07066147733
[2]Department of Accounting and Finance, Godfrey Okoye University, Enugu, Nigeria | E-mail: sergius.udeh@yahoo.com | Phone: 08033554066
[3]Department of Business Management, Godfrey Okoye University, Enugu, Nigeria | E-mail: okonkwoml@gmail.com | Phone: 08130520998

Abstract: *This study examined effects of financial deepening on the economic growth of Nigeria (1981 to 2016) through two of the basic arms of the financial industry (Insurance companies and Banking Industry). Secondary data from CBN statistical bulletin and Global Financial Development bulletin, 2017 as provided by the World Bank were utilized. The study adopted an ex-post facto research design. The analytical tool used was Ordinary Least Squares (OLS). It was found that insurance industry premium to GDP has positive but no significant effect while credit to private sector by commercial banks to GDP has positive and significant effect on economic growth in Nigeria. Based on the results of the study, it was concluded that credit to private sector by commercial banks to GDP has significant effect while insurance industry premium to GDP has no significant effect on economic growth in Nigeria. It was recommended, among others, that the insurance industry should undergo another round of recapitalization to further widen their capacity to provide cover in the economy. In this position, they can create an environment of greater security, which will foster more investment and innovation and in extension economic growth.*

Key words*: Financial deepening, insurance companies, banking industry, economic growth, Nigeria*

1.0 Introduction

Every individual in the society needs finance for different purposes. To provide the needed finance, there are many financial institutions rendering financial services. They make up the financial system in an economy. The financial system is the system that enables lenders and borrowers to exchange funds (Investopedia, 2019). It is a system that covers financial transactions and the exchange of money between investors, lenders and borrowers. The financial system provides an enabling environment for economic growth and development, productive

activity, financial intermediation, capital formation and management of the payments system (Central Bank of Nigeria, CBN, 2017). With intermediation, savers lend to intermediaries, who in turn lend firms and other fund using units. The saver holds claim against the intermediaries, in form of deposits rather than against the firm. These institutions provide a useful service by reducing the cost to individuals, of negotiating transactions, providing information, achieving diversification and attaining liquidity.

These financial institutions include the Central bank, commercial banks, and discount houses,. Others are the stock exchange market, assets management firms, insurance companies, pension sectors and capital market. The major activities of these institutions are accumulating and redistributing funds in an economy (Yakubu & Affoi, 2014). Financial institutions serve most people in some ways, as financial operations are a critical part of any economy, with individuals and companies relying on financial institutions for transactions and investing.

The financial system play a key role in the mobilization and allocation of savings for productive use, provide structures for monetary management, the basis for managing liquidity in the system. It also assists in the reduction of risks faced by firms and businesses in their productive processes, improvement of portfolio diversification and the insulation of the economy from the vicissitudes of international economic changes. Additionally, the system provides linkages for the different sectors of the economy and encourages a high level of specialization expertise and economies of scale. The financial system, additionally, provides the necessary environment for the implementation of various economic policies of the government which is intended to achieve non-inflationary growth, exchange rate stability, balance of payments equilibrium foreign exchange management and high levels of employment. In all the existence of a financial system is a precursor to financial deepening.

Financial deepening has been defined as an increase in the supply of financial assets in the economy (Ngerebo & Lucky, 2016). It includes the aggregate or wide range of financial assets that are available in the economy. It basically supports the view that development in financial sectors leads to development of the economy as a whole (Azu-Nwangolo & Ogechi, 2018). Financial deepening also implies the ability of financial institutions to effectively mobilize savings for investments. The growth of domestic savings provides the real structure for the creation of diversified financial claims. Financial deepening generally entails an increased ratio of money supply to Gross Domestic Product (Christian, 2013). Financial deepening/development thus involve the establishment and expansion of institutions, instruments and growth process. Osinsanwo (2013) describes financial deepening as increased financial services geared to all levels of the society. Onyemachi (2012) defined financial deepening as an effort aimed at developing the financial system that is evident in increased financial instrument/assets in the financial markets-money and capital markets, leading to the expansion of the real sector of the economy. Obviously, it is the effort of developing countries to achieve growth through financial intermediation.

1.2 Statement of the Problem

In the Nigerian economy are several financial institutions offering separate services to the society. They include Banks, Insurance, Capital Market, Pension and Mortgage institutions. These institutions provide the incentive structure of an economy; as that structure evolves, it shapes the direction of economic change towards growth, stagnation or decline. The quality and quantity of services they render determine the measure of financial dexterity that members of the public can undertake. Simply put, the volume of assets they bring to bear affords the general public a wider berth of financial opportunities. This is a pointer to the extent of financial

deepening in an economy, and in extension its effect on economic growth.

The diversity of the financial institutions in the country implies that one needs to look at its multiple sectors to measure financial deepening (Sahay, Čihák, N'Diaye, Barajas, Bi, Ayala, Gao, Kyobe, Nguyen, Saborowski, Svirydzenka & Yousefi, 2015). Considerable attention has been devoted to evaluating financial deepening and its effect on economic growth. Most studies we have on financial deepening concentrated on banking system alone, with insurance and credit to private sector receiving only little or no attention in spite of the fact that they are important arms that play essential roles in the economic growth of any nation.

In assessing financial deepening-economic growth nexus within Nigeria, most studies arrived at same or related findings; mainly that economic growth is positively affected by financial deepening. However, a seeming gap is in the proxies used to identify the particular sectors in the financial industry that financial deepening was being measured from. No study, known to us, examined insurance industry assets to GDP and credit to private sector by commercial banks to GDP in Nigeria at the same time. This is the gap that this study seeks to address.

1.3 Objectives of the Study

The broad objective of this research is to examine the effect of financial deepening on economic growth in Nigeria. Specifically, the study seeks:

1. To examine the effect of insurance industry premium to GDP on economic growth in Nigeria
2. To evaluate the effect of credit to private sector by commercial banks to GDP on economic growth in Nigeria.

1.4 Research Questions

The following are research questions for the study:

a. To what extent did insurance industry premium to GDP have effect on economic growth in Nigeria?

b. To what extent did private sector by commercial banks to GDP affect economic growth in Nigeria?

1.5 Research Hypotheses

The following null hypotheses were formulated for the study:

H_0: Insurance industry premium to GDP has no and positive significant effect on economic growth in Nigeria.

H_0: Credit to private sector by commercial banks to GDP has no positive and significant effect on economic growth in Nigeria.

1.6 Scope of the Study

The study was restricted to a period of 35 years (1981-2016) because the 1980s marked a period of significant economic reforms in Nigeria that led to the implementation of the Structural Adjustment Programme (SAP) that opened the economy to lots of importation. It was within this decade that the financial sector has to undergo reforms that collectively ensured stability in the economy and affected all financial institutions at a time. The base year was chosen given that it marked the beginning of a decade in which Nigeria adopted the Structural Adjustment Programme, an economic reform plan that sought to solidify the capacity of our financial institutions. Again, the study concentrated on insurance industry premium to GDP and credit to private sector by commercial banks to GDP only.

2.0 REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Financial Deepening

Conceptually, financial deepening refers to: i) sectors and agents are able to use a range of financial markets for savings and investment decisions, including at long maturities (access); ii) financial intermediaries and markets are able to deploy larger volumes of capital and handle larger turnover, without necessitating large corresponding movements in asset prices (market liquidity); and iii) the financial sector can create a broad menu of assets for risk-sharing purposes (hedging or diversification). In other words, deep markets allow savers to invest in a broad range of quality investment and risk-sharing instruments and allow borrowers to likewise tap a broad range of financing and risk management instruments (Osinsanwo, 2013). Financial deepening/development thus involve the establishment and expansion of institutions, instruments and growth process. According to Balago (2014), financial deepening was defined as a combination of depth (size, and liquidity of market), ability of individual to access financial services and the efficiency of the institutions to provide financial services at low cost and with sustainable revenue, and the level of activity of the capital market.

.

2.1.2 Economic Growth

Economic growth is a measure of aggregate economic progress at a national level. It reflects the process of the year-to-year increase in the total value of goods and services produced in a domestic economy, as well as the income generated within it. The universal measure for the observation of the evolution of economic growth is the actual (real) Gross Domestic Product (GDP) per capita. Long-term economic growth is usually a gradual process in which the real GDP per capita grows at a rate of a few per cent per year (Acemoglu, 2007). Economic growth refers to an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Economic growth can be measured in nominal terms, which include inflation, or in real terms, which are adjusted for inflation. Economic growth is the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP. Of more importance is the growth of the ratio of GDP to population (GDP per capita, which is also called per capita income). An increase in growth caused by more efficient use of inputs (such as physical capital, population, or territory) is referred to as intensive growth. GDP growth caused only by increases in the amount of inputs available for use is called extensive growth (Acemoglu, 2007).

In economics, "economic growth" typically refers to growth of potential output, i.e., production at "full employment". As an area of study, economic growth is generally distinguished from development economics. The former is primarily the study of how countries can advance their economies. The latter is the study of the economic development process particularly in low-income countries (Acemoglu, 2007).

Growth is usually calculated in real terms – i.e., inflation-adjusted terms – to eliminate the distorting effect of inflation on the price of goods produced. Measurement of economic growth uses national income accounting. Since economic growth is measured as the annual percent change of gross domestic product (GDP), it has all the advantages and drawbacks of that measure (Acemoglu, 2007).

2.2 Theoretical Literature

2.2.1 Financial Intermediation Theory

Efficient financial deepening promotes financial intermediation which is seen as the extent to which financial institutions bring deficit spending units and surplus spending units together (Ndebbio, 2004). An important question that theories try to answer is why do investors first lend to banks who then lend to borrowers, instead of lending directly? Arguments point out to the fact that banks are able to effectively monitor borrowers and thus play the role of delegated monitoring. Literature has shown that reduced monitoring costs are a source of this comparative advantage. If an intermediary provided no services, investors who buy the secondary securities issued by the intermediary might as well purchase the primary securities directly and save the intermediary's costs.

The study is anchored on the financial intermediation theory. Each of the selected arms of financial sector has a significant role in the channeling of fund from economic agents having surplus to economic agents having deficits. All the two sectors generate large pool of funds, and provide mechanisms that allow such fund to be assessed by other economic units in the economy. It is through the later (providing mechanisms that allow funds to be assessed) that the respective sectors foster financial deepening in the economy

2.3 Empirical Review

Ogbuagu and Ewubare (2017) investigated the relationship between financial depth, macroeconomic volatility, and economic growth in Nigeria using a general model of error correction and causality model with time series sourced from Central Bank of Nigeria Bulletin 2012. The result shows a long-run impact of financial deepening on exchange rate volatility and economic growth while the error correction term indicates that there is no long-run impact of financial depth on growth volatility. On one hand, there is no short run impact of financial depth on exchange rate and growth volatility though most of the financial deepening variables show signs of dampening the volatility of exchange rate and growth. On the other hand, the error correction result suggests that there is a long-run and short-run impact of financial deepening on economic growth. The causality result showed no causality between financial deepening variable, economic growth, and growth volatility but a unidirectional causality between exchange rate volatility, stock traded, stock market capitalization, and broad money. We therefore, suggest that government and policy makers to embrace policies that will deepen financial services in Nigeria.

Ndako (2017) evaluated the relationship among financial development, investment and economic growth in Nigeria. He also examined the role of investment in financial development and how it influences economic growth in Nigeria. He applied the standard Vector Auto Regression (VAR) framework of Johansen, the Inoue (1999) cointegration framework with endogenous structural break model and Johansen *et al*. (2000) cointegration test with exogenous structural breaks, respectively. After accounting for structural breaks in the series, the researcher established a long-run relationship among financial development, investment and economic growth. This indicates that failure to account for structural breaks in the series may lead to bias estimates and may mislead policy conclusion. It further reveals that investment is a critical channel that influences economic growth through financial development.

Paul (2017) examined the impact of financial deepening on economic growth in Nigeria, using data from secondary sources, (1986-2015). He employed the ordinary Least Square (OLS) technique, Co integration, and Error correction model (ECM) as estimation tools. Specifically, both the Augmented Dickey-Fuller (ADF) and Philips-Perron (Pp) tests were conducted to

ascertain the stationarity of the variables. His results revealed that economic growth in Nigeria in the long-run is influenced by the indices of financial depth. Also financial deepening is positively and significantly related to economic growth. He therefore recommended for financial inclusion, financial reforms; infrastructural development, and efficient payment system to encourage savings; boost public confidence in the money and stock markets to stimulate investment and efficient resource allocation.

Karimo and Ogbonna (2017) examined the direction of causality between financial deepening and economic growth in Nigeria for the period 1970–2013. The study adopted the Toda–Yamamoto augmented Granger causality test and results showed that the growth-financial deepening nexus in Nigeria follows the supply-leading hypothesis. This means that it is financial deepening that leads to growth and not growth leading financial deepening. Among other things, the study recommended that policy efforts should be geared towards removing obstacles that undermine the growth of credit to the private sector, and must restore investors' confidence in the stock market operations.

Olawumi, Lateef and Oladeji, (2017) examined the extent to which financial deepening has affected the performance of selected Nigerian commercial banks in terms of profitability. The researchers empirically investigated the relationship between financial deepening and bank performance using financial deepening (M2/GDP), ratio of credit to private sector—GDP, ratio of deposit liabilities—GDP as variables of financial deepening while performance measure of interest is profitability. They adopted descriptive research design to explore the relevance of financial deepening on banks performance. Methods of descriptive and empirical analysis were used to analyze the data, while relevant statistics were used to evaluate the models for consistency or otherwise with expectations, statistical significance and explanatory power. Findings revealed that each component of financial deepening indicators has a strong relationship and are statistically significant; this provides empirical evidence that financial deepening made positive contributions to the level of profitability of the selected commercial banks in Nigeria. The study concluded that contributions of each component of financial deepening to selected commercial banks performance is strong and are statistically significance.

Okafor, Onwumere and Chijindu (2016) conducted a causality and impact study on financial deepening and economic growth in Nigeria for a-33-year period covering 1981 – 2013. The study used the Phillips-Peron test for unit root to ascertain whether the variables are stationary or not. The VEC residual normality test and the Histogram-Normality test were utilized in other to determine if the data set were normally distributed. Test for a long run relationship was conducted with the aid of the Johansen cointegration test. The Error Correction Model as well as the Granger causality test was also employed. The findings revealed that there is a long run relationship between economic growth, broad money supply and private sector credit, with high speed of adjustment towards long run equilibrium. The results also revealed that while broad money has positive and non-significant impact on economic growth, private sector credit has negative and non significant impact on growth. The Granger causality test results showed that neither broad money supply nor private sector credit is granger causal for economic growth and vice versa. The study therefore recommends that private sector friendly policies should be implemented to ensure that investors do not only have access to credit but such credit should be at affordable cost, i.e. at a relatively low interest rate. Monetary and fiscal policies should be harmonized in other to achieve the economic goal of sustained growth and stability.

Ndalu (2016) examined the relationship between economic growth and insurance financial penetration in Kenya. The study employed a causal study design. Secondary data were

obtained from published reports of Insurance Regulatory Authority (IRA) and Central Bureau of Statistics (CBS) specifically the Annual Insurance Reports and Economic Surveys respectively. The target population was all the 45 Insurance companies registered for operation in Kenya. The study covered six years from 2003 to 2008. Insurance penetration ratio increased by 0.10% to stand at 2.7% in 2008. The long term business accounted for 0.9% and general business accounted for 1.8%. According to the regression equation established, taking insurance penetration factor into account constant at zero, economic growth will still be experienced at 8.395. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in insurance penetration ratio will lead to 1.375 increase in economic growth rate by 1.375.

Ghildiyal, Pokhriyal and Mohan, (2015) examined the causal impact of financial deepening on economic growth in case of India. For analyzing the long term equilibrium relationship between the desired variables, they employed Autoregressive Distributed Lag (ARDL) Bound testing approach. ARDL being a new approach is an improvement over the other traditional techniques of cointegration. Further, using the Granger Error Correction Model (ECM) technique they tried to estimate the causal impact in the short run also. The findings suggest that there exist an equilibrium relationship in long run between financial deepening and economic development. Results suggested that financial deepening causes economic growth in the long run and also in the short run. Therefore, it is concluded that for enhancing the economic growth the government has to take effort to improve the financial deepening. Special efforts should be put to provide easy credit to private sector, stock market development and also to foster foreign trade.

Andabai and Igbodika (2015) examined the causal relationship between financial deepening and performance of Nigerian economy using time series data (1990-2013). Secondary data was used and collected from the central bank of Nigeria Statistical Bulletin and National Bureau of Statistics. Hypotheses were formulated and tested using a causality econometrics model and the study reveals that the variables do not have unit roots. The result of the study found out that there is also a long-run equilibrium relationship between financial deepening and performance of Nigerian economy and the result confirms that about 70% short-run adjustment speed from long-run disequilibrium. The study reveals that there is a causal relationship between financial deepening and performance of Nigerian economy. The coefficient of determination indicates that about 63% of the variations in performance of Nigerian economy can be explained by changes in financial deepening variables. The study therefore recommends that Government policies should be directed towards manipulating the money supply in such a way that will facilitate economic growth and development. The monetary authority CBN should implement policies that will increase the flow of funds and improves the capacity of banks to extend credit to the economy. Security and Exchange Commission should be diligent in the supervision of the operators in the capital market to ensure that efficiency and discipline is restored in the market, so as to increase investors confidence, expand liquidity, mobilize savings and enhances capital accumulation.

Ngouhouo and Moutie (2015) studied the link between financial Intermediation and Economic Growth in Cameroon. In order to achieve this main objective, they modeled the relationship between financial intermediation components and economic growth measured by GNP per capita with a Vector Auto Regression model using secondary data for the period 1977 to 2006. The study shows no causal effect between financial intermediation and growth and vice versa. Also, the study explained the reason for the outcome as due to the restructuring of the

banking system, bank over-liquidity, Micro Finance Establishment's instability and the poor growth environment. Thus banks and Micro Finance Establishments (MFE) might consolidate their management system in order to ensure their credibility as well as their continuity. The study recommends that the Banking Commission of Central Africa (COBAC) and the Cameroonian government should intensify the process of the stabilization of the micro finance sector and create a credible financial market.

Bakang (2015) investigated the effects of financial deepening on economic growth in the Kenyan banking sector. The study achieves this objective using quarterly time series data from 2000 to 2013. Financial deepening, the independent variable was captured by four alternative indicators: Liquid Liabilities (LL) as ratio to nominal Gross Domestic Product (GDP); Credit to the Private Sector (CPS) as ratio to nominal GDP; Commercial Bank Assets as ratio to commercial bank assets plus Central Bank Assets (CCBA); and Commercial Bank Deposits (CBD) as ratio to nominal GDP. The dependent variable, economic growth, was measured by real GDP. All the variables were integrated at level I (1) and the Johansen Jeluisus cointegration test showed evidence of cointegrating equations between GDP and financial deepening indicators. Four models were estimated to determine the long run and short run effects. The study found that banking sector in Kenya has an important role in the process of economic growth. Specifically, the empirical results reveal that liquid liabilities, credit to the private sector, commercial-central bank assets and commercial bank deposits have positive and statistically significant effects on GDP. The study recommends therefore to reinforce existing policies that will encourage the public to save more money with commercial banks. Increasing the interest rate paid to depositors on their deposits for example, will incite people to save more. In addition, the study recommends the intensification of financial inclusion policies through increased access and usage of formal banking services while reducing banks transaction costs. This will encourage more people to participate in economic activities, to borrow and invest more.

Nwaeze, Michael and Nwabekee (2014) studied the extent to which financial intermediation impacts on the economic growth of Nigeria between the period of 1992 – 2011. They adopted the ex-post facto research design using secondary time series data for the twenty years period 1992 – 2011 and the Ordinary Least Squares (OLS) regression technique to estimate the hypotheses formulated in line with the objectives of the study. They adopted Real Gross Domestic Product, (proxy for economic growth) as the dependent variable while the independent variables included total bank deposits and total bank credits. Their empirical results show that both total bank deposits and total bank credits exerts a positive and significant impact on the economic growth of Nigeria for the period 1992 – 2011. They therefore recommend amongst others that banks should increase the interest paid to customers on the different bank accounts they operate to encourage more patronage from them and as well ensure that a major part of their credit is channeled to the productive sectors of the economy such as agriculture, industry and power.

Torbira and Ogbulu (2014) studied the relationship between fund mobilization by insurance companies and gross fixed capital formation (GFCF) in Nigeria and specifically how the latter responds to stimuli emanating from the insurance companies. A five variable-predictor multivariate regression model was estimated and analyzed. The short run results reveal that four explanatory variables namely: premium from fire, accidents, motor vehicles and employee liabilities insurance policies positively and insignificantly correlate with Gross Fixed Capital Formation while the relationship between premium from marine insurance policies and GFCF is both negative and insignificant. In the long run, the fund mobilization variables by insurance

companies positively and significantly impact on the growth of gross fixed capital formation. In addition, the Granger causality test provides no evidence of causality among the variables. The paper therefore recommends the formulation and implementation of policy measures that will increase insurance penetration, improve insurance fund mobilization and enlarge the insurance market in Nigeria.

Odhiambo (2008) seeks to examine the dynamic causal relationship between financial depth and economic growth in Kenya. The study focuses on the period, 1969 to 2005. To achieve the task of the study, two econometric techniques were adopted in the study; the dynamic tri-variate granger causality test and the error correction model (ECM Modelling). The study concludes that one-way direction causality, from economic growth to finance, exists in Kenya. In other words, finance plays a minor role in the attainment of economic growth in Kenya

3.0 Methodology

The study used *Ex-post facto* research design to examine the Effect of Financial Deepening on Economic Growth in Nigeria (1981-2016). Secondary data employed in this study were extracted from the 2017 CBN Statistical Bulletin and Global Financial Development Database, 2017. The study covered a period of 36 years (1981-2016). The study employed Ordinary Least Squares Regression (OLS), represented by the following models:

$GDP = \beta_0 + \beta_1 INSPTGDP + \beta_2 SATGDP + \mu \ldots (i)$

$GDP = \beta_0 + \beta_1 CTPSTGDP + \beta_2 SATGDP + \mu \ldots (ii)$

Where: INSPTGDP = Insurance industry premium to GDP; SATGDP = Savings accumulated to GDP; CTPSTGDP = Credit to private sector by commercial banks to GDP; SATGDP = Savings accumulated to GDP. Prior to applying OLS, the data were tested for stationarity. Furthermore, long run relationship between the dependent and the independent variables were tested.

4.0 Results and Discussion

Table 1: Result of unit root test

	GDP	SAVINGS TO GDP	PREMIUM TO GDP	BANK CREDIT TO GDP
Phillips Perron test statistic	-4.093615	-7.257842	-5.332967	-4.871040
Test critical values	-3.639407	-3.639407	-3.639407	-3.639407
	-2.951125	-2.951125	-2.951125	-2.951125
	-2.614300	-2.614300	-2.614300	-2.614300
Order of Integration	1(1)	1(1)	1(1)	1(1)

Source: Authors' calculation using E-views

The series were examined for unit roots using Phillips Perron test. Table 1 shows that the variables were stationary at first difference.

Table 2: Model Adequacy Test

Model	GDP = f(PRE/GDP)	GDP = f(BC/GDP)
R^2	0.193	0.873
R	0.489	0.938
VIF	1.016	2.274

Source: Author's calculation using E-views

The coefficient of determination (R^2) value of 0.193 shows that the GDP = f(PRE/GDP) model is capable of explaining only 19.3 percent of the variation in economic growth. The coefficient of correlation, R of 0.489 depicts a low linear relationship. This establishes that insurance industry premium to GDP and Savings to GDP (control variable) have an insignificant correlation with economic growth. The variance inflation factor of 1.016 shows essentially there is no collinearity between the independent variables.

Again, the coefficient of determination (R2) of 0.873 shows that GDP = f (BC/GDP) is capable of explaining 87.3 percent of the variation in economic growth.

The co-efficient of correlation, 0.938, shows a high linear relationship. This establishes that the credit to private sector by commercial banks to GDP and savings to GDP (control variable) have a significant correlation with economic growth. The variance inflation factor of 2.274 shows essentially there is no collinearity between the independent variables. .

Test of Hypotheses

H_{01}: Insurance industry premium to GDP has no positive and significant effect on economic growth in Nigeria

Table 3: Result of hypothesis one test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-18109.45	17763.30	-1.019487	0.3154
PREMIUMTOGDP	7866.645	35927.61	0.218958	0.8280
SAVINGSTOGDP	4002.700	1244.966	3.215109	0.0029

Source: Authors' calculation using E-views

The regression equation is GDP = -18109.45 + 7866.645INSPTGDP + 4002.700SATGDP. It is seen that the regression coefficients of insurance industry premium to GDP and that of savings is positive. The regression equation points out that insurance industry premium to GDP and savings to GDP have a positive relationship with GDP in Nigeria. Therefore, one percent change in insurance industry premium to GDP will increase GDP in Nigeria by 786664.5 percent. On the other hand, a percentage change in savings will increase GDP by 400270 percent. As a measure of the statistical reliability of the coefficient estimates, the standard error of insurance industry premium to GDP at 35927.61 shows there is very high noise in the estimates. It **shows that the observations** are not close to the fitted regression line. The p-value of insurance industry premium to GDP at 0.8280 is higher than the level of significance of 0.05 percent. As result of

this, we uphold the null hypothesis. Therefore, we state that insurance industry premium to GDP has positive but no significant effect on economic growth in Nigeria.

H_{02}: Credit to private sector by commercial banks to GDP has no positive and significant effect on economic growth in Nigeria.

Table 4: Result of hypothesis two test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-26051.92	4817.201	-5.408103	0.0000
BANKCREDITTO GDP	7178.743	540.5063	13.28152	0.0000
SAVINGSTOGDP	-3385.225	739.7458	-4.576199	0.0001

Source: Authors' calculation using E-views

The regression equation is GDP = -26051.92 + 7178.743BCTGDP -3385.225SATGDP. It is seen that the regression coefficient of Bank credits is positive while that of savings is negative. The regression equation points out that credit to private sector by commercial banks to GDP has a positive relationship with GDP in Nigeria while savings has a negative relationship. Therefore, one percent change in credit to private sector by commercial banks to GDP will increase GDP in Nigeria by 717874.3 percent. On the other hand, a percentage change in savings will decrease GDP by 338522.5 percent. As a measure of the statistical reliability of the coefficient estimates the standard error of credit to private sector by commercial banks to GDP at 540.5063 shows there is very high noise in the estimates. It **shows that the observations** are not close to the fitted regression line. The p-value of credit to private sector by commercial banks to GDP at 0.0000 is lower than the level of significance of 0.05 percent. Consequently, we reject the null hypothesis and accept its alternative. Therefore, we state that credit to private sector by commercial banks to GDP has positive and significant effect on economic growth in Nigeria.

In terms of direction, the findings of the study aligned with several earlier reviewed empirical studies. It agreed with Paul (2017) who found financial deepening is positively and significantly related to economic growth. The findings of Karimo and Ogbonna (2017) who used the Toda–Yamamoto augmented Granger causality test to establish that financial deepening that leads to growth and not growth leading financial deepening is validated by this study's results.

In terms of magnitude, the findings of this study towed similar and different routes with some earlier reviewed studies. The study aligned with Ndako (2017), Paul (2017), Olawumi, Lateef, Oladeji, (2017), Ghildiyal, Pokhriyal and Mohan, (2015) and Andabai and Igbodika (2015) that financial intermediation has significant effect on economic growth in Nigeria. The relatedness in the findings was achieved as credit to private sector by commercial banks to GDP and Pension fund assets to GDP had significant effect on economic growth in Nigeria. The reforms carried out in the banking industry particularly under the administrations of Professor Charles Soludo and Lamido Sanusi are believed to have deepened deepening in the banking industry.

The recapitalization in the insurance industry have strengthened the capacity of operators in the industry as seen in Tobira and Ogbulu (2014) who found that the fund mobilization variables by insurance companies positively and significantly impacts on the growth of gross

fixed capital formation and by extension economic growth. Yet it is not enough to affect the economy significantly.

5.0 Conclusion and Recommendations.

When the financial system of a country is geared towards widening the quality and quantity of its services and the efficiency with which it performs them there are resultants effects on the economy. The study concluded that credit to private sector by commercial banks to GDP has significant effect on economic growth while insurance industry premium to GDP has no significant effect on economic growth in Nigeria.

Based on the findings, the following recommendations are made:

1. The insurance industry should undergo another round of recapitalization to further widen their capacity to provide cover in the economy. In this position they can create an environment of greater security, which will foster more investment and innovation and in extension economic growth.
2. Since monetary policy rate is the stimulating factor in savings and investment decisions in the economy, the government should adjust monetary policy rate to allow financial service providers to further reduce their own charge when they give credit to the private sector thereby increasing flow of fund and services.

6.0 Areas for further study

It is suggested that further studies be carried out on specific contribution of micro-finance institutions through financial deepening to economic growth in Nigeria.

REFERENCES

Acemoglu, D. (2007). Introduction to modern economic growth. www.theigc.org accessed on Thursday, 18 October 2018.

Andabai, P. W. & Igbodika, M. N. (2015). A causality analysis of financial deepening and performance of Nigerian economy (1990-2013). *African Research Review* 9(4), 26-41.

Azu-Nwangolo and Ogechi, B. (2018). Financial deepening and deposit mobilization of commercial banks in Nigeria: A time variant model. *Indian Journal of Finance and Banking* 2(2), 1-14.

Balago, G. (2014). Financial sector development and economic growth in Nigeria, "An empirical investigation. *International Journal of Finance and Accounting* 3 (4), 253-265.

Bakang, M. L. (2015). Effects of financial deepening on economic growth in Kenya. *International Journal of Business and Commerce* 4(7), 1-50.

Central Bank of Nigeria (2017). The Nigerian financial system at a glance. Retrieved from www.cbn.org.ng on March 25, 2019

Christian, L.N. (2013). *Financial deepening dynamics and implication for financial policy* coordination in a monetary union*:* The case of WAEMU. African Economic Conference 2013 Johannesburg.

Ghildiyal, V., Pokhriyal, A.K.& Mohan, A. (2015). Impact of financial deepening on economic growth in Indian perspective: ARDL bound testing approach to cointegration. Asian Development Policy Review, Asian Economic and Society 3(3), 49-60.

Investopedia (2019). Financial system. Retrieved from www.investopedia.com on April 11, 2019

Johansen, S., Mosconi, R. & Nielsen, B. (2000). Cointegration analysis in the presence of structural breaks in the deterministic trend, *Econometrics Journal, Royal Economic Society* 3(2), 216-249.

Karimo, T. M. & Ogbonna, O. E. (2017). Financial deepening and economic growth nexus in Nigeria: supply-leading or demand-following? *MDPI journal of economies* 5 (4), 1-18.

Ndako, U.B, (2017). Financial development, investment and economic growth: Evidence from Nigeria. *Journal of Reviews on Global Economics 6,* 33-41.

Ndebbio, J. E. U (2004). Financial deepening, economic growth and development. Evidence from selected Sub-Saharan African countries. *AERC Research paper.14*.

Ngerebo-a, T.A., & Lucky, A. L., (2016). Interest rates and deposit money bank's profitability: Evidence from Nigeria (1980 – 2014). *International Journal of Empirical Finance 5 (1), 22 – 35.*

Ngouhouo, I & Moutie, G (2015). Financial intermediation and economic growth in Cameroon. *International Journal of Financial Research* 6(3), 143-149. Available at: http://ijfr.sciedupress.com.

Nwaeze, C., Michael, O., & Nwabekee, C. E. (2014). Financial intermediation and economic growth in Nigeria (1992 – 2011). *The Macrotheme Review a multidisciplinary journal of global macro trends 3* (6), 83-102.

Odhiambo, N (2008). Financial depth, savings, and economic growth in Kenya: a dynamic causal linkage. *Economic Modelling* 25(4), 704-713.

Ogbuagu, A. R. & Ewubare, D. B. (2017). Financial deepening implications for macro-economic volatility and economic growth in Nigeria, a multivariate approach. *International Journal of Economics, Finance and Management Sciences* 5(1), 66-80.

Okafor, I. G., Onwumere, J. U. J. & Chijindu, E. H. (*2016).* Financial deepening indicatorsand economic growth in Nigeria: A causality and impact analysis. *Asian Journal of Economics, Business andAccounting* 1(2), 1-11.

Olawumi, S. O., Lateef, L. A. & Oladeji, E. O. (2017). Financial deepening and bank performance: a case study of selected commercial banks in Nigeria. *Journal of Mathematical Finance* 7(3), 519-535.

Onyemachi, C. (2012). *An empirical analysis of financial deepening and economic growth (1986-2010)*. Ahmadu Bello University, Economics, Zaria.

Osinsanwo, B.G. (2013). The macroeconomic effect of financial development on economic growth in Nigeria: A long run analysis, 1970-2011. *Journal of African Macroeconomic Review* 4, 227-245.

Paul, N. (2017). Empirical analysis of the impact of financial deepening on economic growth in emerging economies: Nigeria in focus. *Journal of Finance, Banking and Investment* 4. (1), 72-86.

Sahay, Čihák, N'Diaye, Barajas, Bi, Ayala, Gao, Kyobe, Nguyen, Saborowski, Svirydzenka and Yousefi (2015). *Rethinking Financial Deepening: Stability and Growth inEmerging Markets*, IMF staff discussion notes. Retrieved from www.imf.org on July 12, 2018.

Torbira, L. L. & Ogbulu, O. M. (2014) Fund mobilization by insurance companies and fixed capital formation: Evidence from the Nigerian economy. *International Journal of Financial Research 5* (2), 1923-1931.

Yakubu, Z, & Affoi, A. Y. (2014). An analysis of commercial banks' credit on economic growth in Nigeria. *Current Research Journal of Economic Theory* 6(2), 11-15.

APPENDIX: VALUES OF GDP, SAVINGS, INSURANCE PREMIUM AND BANK CREDIT

YEAR	GDP (Billion)	SAVINGS TO GDP (Billion)	INSURANCE PREMIUM TO GDP (Billion)	BANK CREDIT TO GDP (Billion)
1981	94.33	6.96	0.391954	5.9
1982	101.01	7.44	0.389234	6.9
1983	110.06	8.58	0.481383	7.2
1984	116.27	9.45	0.489362	7.3
1985	134.59	9.30	0.656261	6.8
1986	134.60	10.35	0.510444	7.5
1987	193.13	9.67	0.459879	8.5
1988	263.29	8.83	0.519643	8.5
1989	382.26	6.23	0.544713	7.3
1990	472.65	6.27	0.450811	6.7
1991	545.67	6.92	0.408975	6.9
1992	875.34	6.30	0.347647	6.4
1993	1089.68	7.80	0.184652	10.1
1994	1399.70	7.93	0.095402	8.1
1995	2907.36	3.73	0.199303	6.2
1996	4032.30	3.34	0.306626	6.3
1997	4189.25	4.24	0.253602	7.7
1998	3989.45	5.01	0.223543	7.7
1999	4679.21	5.93	0.319534	8.1
2000	6713.57	5.74	0.297964	7.7
2001	6895.20	7.08	0.237919	9.4
2002	7795.76	7.60	0.206423	8.2
2003	9913.52	6.61	0.225591	8.2
2004	11411.07	6.99	0.22598	8.2
2005	14610.88	9.01	0.21567	8.3
2006	18564.59	9.37	0.225403	8.0
2007	20657.32	13.04	0.196028	11.2
2008	24296.33	16.95	0.154551	17.7
2009	24794.24	23.25	0.130523	20.7
2010	54612.26	10.90	0.272549	18.6
2011	62980.40	10.37	0.269432	16.9
2012	71713.94	11.24	0.306794	20.4
2013	80092.56	10.81	0.342638	19.7
2014	89043.62	13.49	0.380931	19.2
2015	94144.96	12.17	0.402754	19.8
2016	101598.48	12.13	0.434641	20.8

Source: Central Bank of Nigeria Statistical Bulletin, 2017 and Global Financial Development Database, 2017