

IMPACT OF FINANCIAL DEEPENING ON ECONOMIC GROWTH OF NIGERIA

****YAHAYA, Khadijat Adenola Ph.D.**

Department of Accounting, University of Ilorin, Ilorin, Nigeria.

yakhadijat@unilorin.edu.ng, khadijatadenola@yahoo.com

+2347038595064

And

KOLAPO, Mariam Biodun

Department of Finance, University of Ilorin, Ilorin, Nigeria.

maroah4success@gmail.com

Abstract

The financial sector has been found to promote economic growth by increasing economic efficiency, investment and financial deepening. Financial deepening refers to achieving a greater penetration of financial services to all levels of society. This study examined the impact of financial deepening on economic growth in Nigeria. It employs secondary data from the Central Bank of Nigeria Bulletin 2015. Error correction model and regression analysis was used. The findings revealed that banking sector and capital market related financial deepening variables are significant determinants of economic growth in Nigeria with coefficient value of 4.6015 and 3.28E-09 at 5% significant level respectively. The study concluded that financial deepening promotes economic growth in Nigeria. The study recommended that policy holders should implement the financial inclusion policies that increases the flow of investible funds and improves the capacity of banks to extend credit to the economy.

Keywords: Economic, Financial deepening, Inclusion, Growth.

JEL Classification: O1, G21

Introduction

The financial sector has over the years maintained its leading role in enhancing the economic growth and development of any nation. The effectiveness of the financial sector enhances the prosperity and economic growth of a country while the poor performance of this sector hampers the economic growth and structure of a country (Khan & Senhadji, 2001). Claessen and Feijen (2006) opined that without a developed financial sector, domestic savers and foreign investors would be more hesitant to part with their money to sound investments, resulting in lower economic output. They further stressed that a well-developed financial system enables firms to expand production and provides households with the ability to obtain essential assets like a house, insure against income shocks, start a company, receive cheaper remittances, and enjoy a pension when they retire.

The search for ways of bettering the standard of living of citizens has opened the corridors for alternative view points on paradigms of economic growth and

Impact of Financial Deepening on Economic Growth of Nigeria

development. Financial deepening has been identified as one of those strategies whose implementation can quicken the pace of development. This has prompted the introduction of different reforms in Nigeria overtime which were targeted at making the system more effective and at strengthening its growth potentials. However, despite the various reforms in the Nigerian financial sector, the sector still has not addressed the financial gaps in the system. This is because neither domestic savings nor investments in country have appreciably increased since the introduction of the reforms as the sector remained largely oligopolistic and uncompetitive, as few large banks control the greater segment of the market in terms of total assets, total liabilities and total credit in the banking system. (Torruam, Chiawa & Abur, 2013).

Over the last decade, financial deepening and other growth factors have caused fluctuations in economic growth with the rate as low as 10.5% in 2003, 4.21 in 2012, 7.67% in 2013 and 6.22% in 2014 (Central Bank of Nigeria, 2015). Alisha & Bhutta (2014) opined that financial deepening has led to negative outcomes like restraining the financial markets to be efficient and reducing the profit margin and increased financial fragility of banks which may create financial crises if excessive risks are taken in presence of increased competition. According to Delay & Muhammad (2016), less than one-third of the country's micro, small and medium sized enterprises (MSMEs) have successfully obtained a loan from a financial institution. Instead most use personal savings or reinvested profits as a source of business financing and this has hindered the growth of MSMEs in Nigeria which has impacted negatively on economic growth. The financial gaps still persist. The Nigerian capital market was no longer seen as a market for long-term funds, but that of a short one. As a result of this, the market became overheated with so much speculative activities of companies that by the time the market caved in, it became difficult for them to exit through the narrow door as there were no mega investors to "check them out". Also, the financial sector like the insurance companies has been underdeveloped. Penetration of this sector is very low in relation to Gross Domestic Product, for instance, there has been minimal growth in written premium over the last decade in real terms and more than 90% of premium written is for commercial risk (Enoch, Loukoianova, & Swaray, 2013).

This study seeks to contribute to existing knowledge by including insurance premium to GDP and private debt to GDP as an additional variable. Most studies have failed to consider the role of the insurance sector on economic growth in Nigeria and majority of studies have focused on the banking sector's financial deepening variables. The identified challenges propelled this study.

The main objective of the study is to evaluate the impact of financial deepening on economic growth in Nigeria while the specific objectives are to:

- i. examine the effect of banking sector related financial deepening variables on economic growth,
- ii. evaluate the influence of capital market related financial deepening variables on economic growth

- iii. examine the impact of insurance companies' related financial deepening variable on economic growth.

In achieving the above objectives, the following null hypotheses were formulated: Ho₁: Banking sector related financial deepening variables (Broad Money Velocity, Economic Volatility and money stock diversification) has no significant effect on economic growth in Nigeria, .Ho₂: Capital market related financial deepening variables (Stock Market Capitalization and Private Debt) has no significant effect on economic growth in Nigeria and Ho₃: Insurance companies' related financial deepening variable (insurance premium) has no significant impact on economic growth in Nigeria.

This study is important at this level of economic growth when efforts are being made to reposition the financial sector to enable it play key roles in economic development at all levels of income. It would also help policy makers and government to know the structural changes that have taken place with the reform policies on ground in Nigeria. The focus of this study is to determine the impact of financial deepening on the growth of the Nigerian economy from 1986 to 2015. The choice of 1986 beset the phases of the major reforms in the Nigerian financial system when financial reforms were geared towards deepening the financial sector and also the period of Structural adjustment Programme (SAP). This study covers the banking sector, capital market and insurance sector.

Literature Review

Conceptual Issues

Financial deepening can be defined as increasing provision of financial services with a wider choice of services geared to all levels of society whether through the formal banking sector or through informal channels. It is an increased ratio of money supply to Gross Domestic Product (GDP). The more liquid money is accessible in an economy, the more chances exist for continual growth (Shaw, 1973). Financial deepening stimulates higher investments, faster growth and more rapidly rising living standards (Alrabadi & Kharabsheh, (2016). The financial deepening indicators are provision of financial services across level of society and the growth per capital of real cash in hand.

According to the Central Bank of Nigeria (1993), financial system refers to a set of rules and regulations and the aggregation of financial arrangements, institutions, agents that interacts with each other and the rest of the world to foster economic growth of a nation. The Nigerian financial system is broadly divided into two sub sectors namely the formal and the informal sub sectors. The formal sector comprises of regulatory bodies, money market, capital market, foreign exchange markets, insurance companies, deposit money banks and other financial institutions. The informal sub-sectors includes self-help groups, financial cooperatives and credit associations. It is imperative to know that there is a weak relationship between the

Impact of Financial Deepening on Economic Growth of Nigeria

informal sub-sector and the formal sub-sector (CBN, 2012). The insurance sector is a very key part of the financial sector. According to Pasali (2013), an insurance market is an institutional investor that can offer risk diversification, mobilise savings, encourage accumulation of new capital and simplify the efficient allocation of existing capital in the domestic economy. In developed markets, the insurance sector accounts for a significant portion of the total economy. In collecting premiums from many individuals in the economy, insurers are able to pull together a large pool of funds that could be invested for short or long term periods. The insurance business is split mainly into non-life and life as so many insurers could serve as a means of long term financing thus the sector is important for sustained economic growth. This will in turn deepen the domestic financial services as well as generate higher savings rate and greater economic growth. According to Okwoli & Kpelai (2008). For the purpose of this study, financial deepening is defined as the increase in the supply of financial assets in the economy.

Economic growth means the increase in a nation's real gross domestic product (an increase in a nation's output of goods and services) or the physical expansion of the nation's economy (Antwi, Mills & Zhao, 2013). Economic growth can be illustrated as an upbeat change on the output of a nation's manufacturing goods and services, stretching over a certain period of time (Kanu & Ozurumba, 2013). According to Bakang (2014), there are two main measures instituted and used to measure economic growth. The first is Gross National Product (GNP) that computes the total value of goods and services produced by all nationals within and outside the country over a given period, and the second is Gross Domestic Product considered as the broadest indicator of economic output and growth. It is designed to measure the value of production of those activities that fall within the boundary of the national accounts system. GDP measures economic growth in monetary terms and looks at no other aspects of development. GDP can be expressed in nominal terms which include inflation or in real terms which are adjusted for inflation.

Theoretical Background

Two theories were adopted to serve as theoretical background for this study. The first is Supply Leading Hypothesis; and the second is the Demand Following Hypothesis. The supply leading hypothesis was first put forth by Schumpeter (1911) and later supported by the works of McKinnon (1973), Shaw (1973), Bencivenga & Smith (1991), Onwumere Ibe, Ozoh & Mounanu (2012) among others. The conventional view of the supply-leading hypothesis postulates that financial development causes economic growth. In a world with frictionless transaction, information and monitoring costs, no financial intermediaries are needed. If transaction, information and monitoring costs are sufficiently high, no exchange among economic agents will take place. The desire to reduce those costs and enable exchanges led to the emergence of financial institutions and markets that make up the financial sector. The theory posits that a well-developed financial sector provides

critical services to reduce transaction, information and monitoring costs and increase the efficiency of intermediation. This eventually results into faster and long-term economic growth (Schumpeter, 1911). This theory is related to this study since it provides one of the possible explanations of how development in the financial sector affects economic growth. This relationship is the core of this study.

The demand following hypothesis on the other hand was put forth by Robinson (1952), and Patrick (1966) and later supported by the works of Ndlovu (2013) and Omotor (2007) among others. The demand-following hypothesis postulates that it is economic growth that leads to financial development. Robinson (1952), reveals that it is the necessity from high economic growth that creates demand in the financial sector. Thus, in this view, it is the improvements in the economy that drive higher demand for the use of money, which consequently promotes financial development. In other words, financial markets develop and progress as a result of increased demand for their services from the growing real sector. According to this model, the development of the real economy induces increased demand for financial services. The induced increase in financial services, in turn, generates the introduction of new financial institutions and markets to satisfy that increased demand for financial services. This hypothesis is important to this study because not only does it agree that there is a relationship between financial deepening and economic growth, but it also provides an alternative explanation suggesting that economic growth drives deepening of the financial sector.

Empirical Evidences

Sharmiladevi (2015) examined the relationship between financial deepening (FD), foreign direct investment (FDI) and economic growth in India during the time period 2000 to 2013. A multiple regression model was built taking economic growth as dependent variable and financial deepening and FDI as independent variables. The result of the Pearson correlation coefficient and the regression model jointly indicate that financial deepening together with foreign direct investment is having a strong positive impact on the explanation of economic growth.

Nguena & Abimbola (2013) examined the implication of financial deepening dynamics for financial policy coordination in the West African Economic and Monetary Union (WAEMU) sub-region. The study adopted a hypothetical deductive theoretical approach and an empirical investigation in both static and dynamic panel data econometrics. The explanatory variables used are trade openness, financial openness, inflation, interest rates while the endogenous variable used is financial deepening. The study discovered that Exchange rate and reserves have a negative impact on financial deepening while GDP per capital growth rate, savings rate and density have a positive impact on financial deepening.

Onuonga (2014) examined relationship between economic growth and financial development in Kenya over the period 1980–2011. Financial development was measured by M_2 and domestic credit to the private sector. The study used

Impact of Financial Deepening on Economic Growth of Nigeria

autoregressive distributed lag framework and Granger causality analysis to determine the direction of causality. Findings indicated that there was a long-run relationship among financial development, trade openness and economic growth in Kenya.

Adu, Marbuah & Mensah (2013) studied financial deepening and economic growth in Ghana: The study investigated the long-run growth effects of financial deepening in Ghana using one indicator at a time among a set of control variables. The financial deepening variables used are private sector credit ratio to GDP, money supply ratio to GDP, total domestic credit to GDP and total bank deposit liabilities to GDP and set of control variables namely inflation rate, trade openness, real gross government expenditure. The study tests the variables using the ordinary least square method and found out that all the measures of financial deepening have a positive effect on economic growth in Ghana except broad money supply to GDP.

Aye (2015) investigated the role of financial development on economic growth in Nigeria. A bootstrap rolling window estimation was used to evaluate Granger causality between financial deepening and economic growth from 1961 to 2012. The result reveals periods where economic growth has predictive power for financial deepening: 1980-1982, 1985-1986, 1998, 2000, 2004 and 2008-2011. The results highlight the risk of misleading conclusions based on the standard granger causality test which neither accounts for structural breaks nor time variation in the relationship between financial deepening and economic growth.

Okafor, Onwumere & Chijindu (2016) investigated the causality and impact of financial deepening on economic growth in Nigeria between 1981 -2013. The Error correction model as well as the granger causality test was employed. The findings revealed that broad money supply has positive and non-significant impact on economic growth, private sector credit has negative and non-significant impact on economic growth. The causality test shows that neither broad money supply nor private sector credit is granger causal for economic growth and vice versa.

Several studies such as Nzotta, (2009), Torruam, et al. (2013) and Aye, (2015) have been carried out on the impact of financial deepening variables on economic growth in Nigeria. These studies have used variables such as broad money velocity, money stock diversification, economic volatility and Stock market capitalisation. However, there is a need to examine the impact of financial deepening on economic growth using variables such as insurance premium to GDP and private debt to GDP. Svirydzenka, (2016) identified these variables as measures of financial deepening. In view of this, the study contributed to existing knowledge by including insurance premium to GDP and private debt as an additional variable. This is because most studies on financial deepening concentrated on banking sector financial deepening variables.

Methodology

Model Specification

The model used to achieve the objectives of this study is adapted from the study of Onwumere, Ibe, Ozoh and Mounanu, (2012) which was stated as:

$$EG = f(BMV, MSD, EV, SMC) \dots \dots \dots (i)$$

$$EG = \beta_0 + \beta_1 BMV_{t1} + \beta_2 MSD_{t2} + \beta_3 EV_{t3} + \beta_4 MC_{t4} \dots \dots \dots (ii)$$

Econometrically, it can be written thus:

$$EG = \beta_0 + \beta_1 BMV_{t1} + \beta_2 MSD_{t2} + \beta_3 EV_{t3} + \beta_4 MC_{t4} + u_t \dots \dots \dots (iii)$$

Where:

EG is Economic Growth (Proxy with Growth Rate of Gross Domestic Product), BMV is Broad Money to Velocity, MSD is Money Stock Diversification, EV is Economic Volatility, SMC/GDP is Stock Market Capitalization, μ = Error term, β_0 = Constant, $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 = Slope coefficient.

For the purpose of this study, the model is re-modified to capture the objectives raised in the study. It is important to note that capital market and insurance sector also play a major role in enhancing the financial deepening of any economy. Therefore, the model is re-modified and stated as:

$$EG = f(BMV, MSD, EV, SMC, ISP, PD) \dots \dots \dots (iv)$$

Econometrically it can be written as:

$$EG = \beta_0 + \beta_1 BMV_{t1} + \beta_2 MSD_{t2} + \beta_3 EV_{t3} + \beta_4 MC_{t4} + \beta_5 ISP_{t5} + \beta_6 PD_{t6} + u_t \dots \dots \dots (V)$$

Where:

EG = Economic Growth (Proxy with Growth Rate of Real Gross Domestic Product)

BMV = Broad Money to Velocity (Proxy with the ratio of M_2 to nominal RGDP)

MSD = Money Stock Diversification (Proxy with the ratio of demand deposits to the narrow money stock)

EV = Economic Volatility (Proxy with the ratio of credit to private sector to RGDP)

SMC/GDP = Stock Market Capitalization (Proxy with the ratio of listed shares to RGDP)

ISP= Insurance Premium (Proxy with the ratio of insurance premium to RGDP)

PD = Private Debt (Proxy with the ratio of private debt to RGDP)

μ = Error term

β_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and β_6 = Slope coefficient

Description of the Variables

Economic Growth: GDP is proxy in this work for economic growth. It is the Real GDP i.e. total aggregate value of goods and services produced in a country over a given period (normally a year).

Broad Money Velocity: This is the ratio of M2 to nominal RGDP and is often called the monetization ratio. It reflects the depth of the financial market relative to the

Impact of Financial Deepening on Economic Growth of Nigeria

overall economy. Increases in this ratio indicate further expansion in the financial sector relative to the rest of the economy.

Money Stock Diversification: This is the ratio of demand deposits to the narrow money stock. It represents the complexity or sophistication of the financial market (primarily banks). An increase in this ratio implies a higher degree of diversification of financial institutions and a greater availability, or use, of non-currency balances (bank deposits) in the transaction process.

Economic Volatility: This reflects the extent to which financial services are provided to the private sector. It is a measure of financial development. It is the credit issued by financial institutions to the non-financial private sector as a share of RGDP.

Stock Market Capitalisation: It is a measure that equals the value of listed shares divided by RGDP. It shows the overall size of the stock market as a percentage of RGDP.

Insurance Premium: It is the ratio of premium volume to RGDP, It measures total revenue of insurance companies relative to economic activities. Svirydzienka (2016) identified this variable as a measure of financial deepening.

Private Debt: It is a measure of the depth of the financial market. It measures the indebtedness of sectors, non-financial corporations and households and nonprofit institutions households as a percentage of RGDP. Svirydzienka (2016) identified this variable as a measure of financial deepening.

Research Design

This study adopted an ex-post facto method of research design and this is because the data used are already established data and cannot be manipulated by the researcher.

Sources of Data

The data used for the study is secondary data. Secondary data such as stock market capitalisation, money stock diversification, economic volatility, broad money velocity, insurance premium, private debt and RGDP were collected from CBN statistical bulletin of year 2015.

Apriori Expectations

- (i). It is expected that there will be a positive relationship between commercial banks' related financial deepening variables and economic growth.
- (ii). It is expected that there will be a positive relationship between capital market related financial deepening variables and economic growth.
- (iii). It is expected that there will be a positive relationship between insurance companies' related financial deepening variables and economic growth.

This can be written as: $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and $\beta_6 > 0$

Data Presentation and Analysis

Table 4.1 shows the descriptive statistics for all the variables covering the sample periods of twenty-nine (29) years. Average economic growth over the years is 5.445% and broad money to velocity was average 17.44% while the average of money stock diversification is 56.35 billion naira. Meanwhile, economic volatility stood averagely at 13.35% while the market capitalisation stood at an average rate of 2.85 billion naira with average insurance premium of about 4.22 billion naira and private debt 2.96 billion naira in the economy for the period 1986 to 2015.

The large margins between the minimum and maximum values as well as the large values of the standard variations of all the series indicate evidence of significant variations of the trend of the series over the scope covered. Regarding the statistical distribution of the series, all the variables show evidence of positive skewness implying that the right tail is extreme.

In relation to kurtosis, a series is said to be normally distributed (mesokurtic) when the value is three (3) otherwise it is either platykurtic (less than 3) or leptokurtic (greater than 3). Thus the statistics in Table 4.1 (see appendix) shows that BMV, EV, MC, ISP and PD are leptokurtic (i.e. evidence of fatter tail than the normal distribution) while EG and MSD are platykurtic (i.e. evidence of thinner tail than the normal distribution).

The Jarque Bera (JB) test was conducted to examine whether or not the distributions of the series are normal. It is an improvement on the Skewness and Kurtosis. The null hypothesis for the test is that the series are normally distributed. When the probability value of the JB statistics is less than the 5% level of significance the series is normally distributed otherwise it is not. Therefore, given the Jarque-Bera statistics and the respective probabilities for the variables presented in table 4.1 (see appendix), all the variables except EG and MSD are normally distributed.

Most time series data are characterised by trends and in most cases are non-stationary. So a regression of a non-stationary variable on another non-stationary variable(s) using ordinary least square (OLS) leads to a spurious regression result. To avoid this, ADF and PP unit root test were conducted and the result is presented in Table 4.2 (see appendix). The null hypothesis of the tests is that the variable is not stationary (has unit root). So, rejection of the null hypothesis implies that the variable is stationary. To reject the null hypothesis, the calculated value of the test statistics must be greater than the critical value of the statistics at a chosen level of significance (e.g. 5% level of significance). When the null hypothesis is rejected at order of integration zero, $I(0)$, the variables are considered to be stationary at level. It is only $I(0)$ variables that are considered stationary series. All other orders of integration such as integration of order one $I(1)$ are considered nonstationary series in regression analysis. Both the ADF and PP test reveals that the series of all the variables are integrated of order one $I(1)$ which implies that the series are nonstationary. Thus the

Impact of Financial Deepening on Economic Growth of Nigeria

use of OLS is inappropriate in such situation. This means, we have to control for the nonstationary in the regression analysis I(1).

The results of Engle-Granger and Philips-Ouliaris co-integration tests for the growth model are presented in Table 4.3 (see appendix). Engle-Granger tests indicate two co-integrating equation while Philips-Ouliaris co-integration tests indicates three co-integrating equation.

This is clearly indicated by the corresponding tau-statistics (-7.303 and -6.802) and the P-value(0.0166 and 0.0329) of MSD and PD for Engle-Granger test as well as the tau-statistics (-6.483, -6.092 and -6.130) and the P-value(0.0259, 0.045 and 0.0427) of MSD, MC and PD respectively for Philips-Ouliaris tests. The P-values are less than 5% level of significance. Therefore, the test show that there is co-integration. This means there is long-run relationship between the dependent and independent variables. The co-integration results expressed in the tables above suggest the inapplicability of a Static Ordinary Least Square (SOLS) estimation technique and of course imply the possibility of using an Error Correction Model (ECM).

The result of the error correction model is presented in Table 4.4 (see appendix). The dependent variable is EG while the independent variables are BMV, MSD, EV, MCGDP, ISPGDP and PDGDP. All the variables were lagged because they are integrated of order one (I(1)) (see the result of unit root test). The result of the error correction model shows that BMV, MSD, EV, MCGDP and ISP are positively related to EG while PD is inversely related to it. This implies that increase in broad money to velocity, money stock diversification, economic volatility, market capitalization and insurance premium promote economic growth while rise in private debt impede economic growth in Nigeria. However, the result shows that lagged BMV, EV, MCGDP, ISPGDP and PDGDP are statistically significant.

The significance is shown by the various statistics (standard errors, T-statistics and the P-values). For instance, the standard error (2.9333) of the coefficient (9.3998) lagged BMV (BMV (-1)) is less than half of the coefficient while the t-statistics of the coefficient (3.2046) is greater than ± 1.96 critical value of t-statistics at 5% level of significance. Similarly, the coefficients of EV and SMCGDP (-1) are 4.6015 and 3.28E-09 while their standard errors are 1.4907 1.20E-09 with t-statistics 3.0867 and 2.7315 as well as P-values 0.0176 and 0.0293 respectively. Halves of the values of the coefficients are greater than the standard errors, t-statistics are greater ± 1.96 critical value of t-statistics at 5% level of significance while the P-values are less than 5% level of significance. All these statistics show that the variables, EV and MC/GDP (-1), are statistically significant. This implies that EV, MCGDP are significant determinants of economic growth in Nigeria. The coefficients of ISP and PD/GDP (-1) are 7.69E-08 and -8.02E-09 while their standard errors are 2.40E-08 and 2.48E-09 with t-statistics 3.2001 and -3.2290 as well as P-values 0.0151 and 0.0145 respectively. Halves of the values of the coefficients are greater than the standard errors, t-statistics are greater ± 1.96 critical value of t-statistics at 5% level of

significance while the P-values are less than 5% level of significance while MSD does not have significant impact on economic growth of Nigeria over the period covered. The coefficient of the error correction term (ECT) is -0.9276 with P-value 0.0076 showing the short run to long run dynamics of the model. It is negative and significant at 5% level. This means about 92.75% of the disequilibrium in the model is corrected every year. The R-squared statistics (0.9055) shows that 90% of changes in EG is explained by changes in the independent variables. Therefore, the estimates of this model are valid for policy recommendations.

Discussion of Findings

Error correction model was employed to investigate the impact of financial deepening and economic growth in Nigeria. The study revealed that broad money velocity has significant impact on the economic growth in Nigeria. The finding is consistent with the work of Torruam, *et al.* (2013) while Money stock diversification did not during the period studied. This is in line with the work of Onwumere, *et al.* 2013. The study also discovered that economic volatility has significant impact on the economic growth in Nigeria and therefore the first hypothesis that state that there is no significant effect of commercial banks related financial deepening variables on economic growth in Nigeria should be rejected. Furthermore, the study revealed that market capitalisation to RGDP is a determinant of economic growth in Nigeria which is consistent with the study of Onwumere, *et al.* (2013) and Onuonga, (2014) and therefore the null hypothesis that states that capital market related financial deepening variable has no significant effect on economic growth in Nigeria should be rejected. Also it was revealed that insurance premium is a significant determinant of economic growth and therefore the null hypothesis that states that insurance sector related financial deepening variable has no significant impact on economic growth should be rejected. Finally, the study also revealed that private debt is a significant determinant of economic growth in Nigeria. This study is consistent with the a-priori expectation and also consistent with the study of Nzotta, (2009); Onwumere, *et al.* 2013; Torruam, *et al.*(2013) and Aye, (2015). The study supports the supply leading hypothesis which advocates that financial sector development spurs economic growth and that financial deepening is the leading indicator of economic growth.

Conclusion

The study concluded that commercial bank related financial deepening variables except money stock diversification (MSD) is a determinant of economic growth. The study also concluded that capital market and insurance companies related financial deepening variables are significant determinants of economic growth in Nigeria. Finally, financial deepening variables are direct determinants of economic growth in Nigeria.

Impact of Financial Deepening on Economic Growth of Nigeria

Recommendations

Based on the above findings, the following recommendations are suggested.

- i. The Central Bank of Nigeria should implement a policy that will enhance the capacity of banks to increase the flow of investible funds and improve their capacity to extend credit to the economy. This will make broad money supply and private sector credit, both as ratio of GDP to further impact on economic growth in Nigeria.
- ii. Government policies such as financial inclusion policy should be geared towards providing an efficient capital market that will boost investors' confidence which will enhance overall economic efficiency
- iii. It should also focus on ensuring that some of the premiums collected and other income generated by the industry are being invested to ensure diversification of investible funds of insurance industry to boost the economy.

References

- Adu, G., Marbuah, G. & Mensah, J. (2013). Financial development and economic growth in Ghana: Does the measure of financial development matter? *The Journal of Development Finance*, 3, 192-203.
- Alishah, S. Z., & Bhutta, N. T. (2014). Does financial deepening create financial crisis? *Journal of Emerging Trends in Economics and Management Sciences*. 5(7), 115-120.
- Alrabadi, D. W. H. & Kharabsheh, B. A. (2016). Financial deepening and economic growth: The case of Jordan. *Journal of Accounting and Finance*. 16(6), 158-166.
- Antwil, S., Mills, E.F., & Zhao, X. (2013). Impact of macroeconomic factors on economic growth in Ghana: A cointegration analysis. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3 (1), 35-45.
- Aye, G.C. (2015) .Causality between financial deepening and economic growth in Nigeria: Evidence from a bootstrap rolling window approach. *Journal of Economics, Business and Management*, 3(8), 795-801.
- Bencivenga, V., & Smith, B. (1991). "Financial Intermediation and endogenous growth. *The Review of Economic Studies*, 58, 195-209
- Central Bank of Nigeria (2015). Statistical Bulletin. CBN: Abuja
- Central Bank of Nigeria (2014). Annual Report and Statement of Account; Central Bank of Nigeria: Abuja, Nigeria.
- Central Bank of Nigeria (1993). The Nigerian financial system. CBN: Abuja.
- Central Bank of Nigeria (2012). The Financial stability report, Retrieved on February 29th 2017. Available at <https://www.cbn.gov.ng/out/ccd>

- Claessens, S., & Feijen, (2006). Financial sector development and the millennium development goals. *World Bank Working Paper* no. 89, World Bank, Washington, DC.
- Delay, P., & Muhammad, M. (2017). The credit crunch: How the use of movable collateral and credit reporting can help finance inclusive economic growth in Nigeria. Available @www.worldbank.org/en/inclusivefinance
- Demeriades. P.O., & Hussein, K. A. (1996). Does financial development cause economic growth? Time-Series evidence from 16 countries. *Journal of Development Economic*, 3 (6)387-411.
- Enoch, C., Loukoianova. E., & Swaray. S. (2013). Nigeria financial sector stability assessment. International Monetary Fund. *IMF Country Report*, 13/140.
- Fry, M.J. (1988). Money, interest and banking in economic development, (2nd Edition). Baltimore: *The Johns Hopkins University Press*.
- Greenwood, J., & Jovanovic, B. (1990). Financial development, growth and the distribution of income. *Journal of Political Economy*, 98(5), 1076-1107.
- International Monetary Fund (2011). Recent experiences in managing capital inflows-cross cutting themes and possible Guidelines. Available at <http://www.imf.org/external/np/pp/eng/>.
- International Monetary Fund. (2012). Financial deepening and international monetary stability. *IMF Staff Discussion Note*. SDN/11/16.
- Kanu, S.I., & Ozurumba, B.A. (2013). Migrant remittances and economic growth in sub – Saharan Africa” *Interdisciplinary Journal of Contemporary Research in Business*, 4(10), 157-169
- Kargbo A.A., Ding, Y., & Karbia A.B. (2015). A situational analysis of financial deepening in low, middle and high income economies. *International Journal of Business Management and Economic Research* 6(2), 143-157.
- Khan, M.S., & Senhadji A.S. (2001). Threshold effect in the relationship between inflation and growth: *IMF Staff Papers*, 48(1) 1-21.
- King, R. G. and Levine, R. (1993) Finance and growth: Schumpeter might be right? *The Quarterly Journal of Economics*, 108, 717–37.
- Marlyse L.N., & Bakang, M. (2014) Effects of Financial deepening on economic growth in Kenya: *International Journal of Business and Commerce* 4, 1-50
- McKinnon, R. I. (1973), *Money and capital in economic development*, Washington, DC: Brookings Institution.
- Ndlovu, G. (2013). Financial sector development and economic growth: Evidence from Zimbabwe. *International Journal of Economics and Finance*, 3(3), 435–446.
- Nzotta, S. M., (2004) Money, banking and finance: Theory and practice. Owerri: *Hudson Jude Nigeria Publishers*.
- Nzotta, S.M., & Okereke, E.J. (2009). Financial deepening and economic development in Nigeria: An empirical investigation” *African Journal of Accounting, Economics, Finance and Banking Research*, 5(5): 52-66.

Impact of Financial Deepening on Economic Growth of Nigeria

- Nguena, C. L., & Abimbola, T. (2013). Financial deepening dynamics and implication for financial policy coordination in a monetary Union: The case of WAEMU. African Economic Conference 2013 Regional Integration. Johannesburg, South Africa.
- Okwoli, A.A., and kpebi. S.T (2008). *Introduction to Managerial finance*. 2nd ed. Jos, Nigeria: Go-Go International Limited.
- Omotor, D. (2007). Financial development and economic growth: Empirical evidence from Nigeria. *Journal of economics and social studies*. 49, 209–234.
- Onuonga, M. S. (2014). Financial development and economic growth in Kenya: An empirical analysis 1980–2011. *International Journal of Economics and Finance*; 6(7), 1-45.
- Pasali, S.S. (2013). Where is the cheese? Synthesizing a giant literature on causes and consequences of financial sector development. *World Bank Policy research working paper*.
- Patrick, H. T. (1966). Financial development and economic growth in underdeveloped countries, *Economic Development and Cultural Change*, 14, 174-189.
- Robinson, J. (1952) *The generalization of the general theory.*” *The rate of interest and other essays*. London: Macmillan.
- Shaw, E. S. (1973). *Financial deepening and economic development*. New York: Oxford University Press.
- Shumpeter, J.A. (1911). The Theory of economic development, *Harvard University Press, Cambridge*.
- Sharmiladevi J.C. (2015) Financial deepening, foreign direct investment and economic growth. *Asian Journal of Management Research*, 6 (1), 56-62
- Svirydzhenka, K. (2016). Introducing a new broad based index of financial deepening (*IMF working paper wp/16/5*)
- Yildiz, H., & Atasaygin, S.,(2015). Financial deepening and economic growth: The Turkish experience, *American Journal of Economics*, 5(5), 477-483.

Appendix

Table 4.1: Descriptive Statistics

	EG	BMV	MSD	EV	MCGDP	ISPGDP	PDGDP
Mean	5.445436	17.44483	56.35275	13.35862	2.85E+09	4.22E+08	2.96E+08
Median	6.069142	18.10000	54.10067	11.10000	1.10E+09	4.11E+08	84116487
Maximum	14.60438	38.00000	75.15698	36.70000	1.44E+10	1.05E+09	2.12E+09
Minimum	-0.552030	8.600000	38.54782	5.900000	31279930	1.84E+08	0.000000
Std. Dev.	3.676736	6.419200	13.47935	7.074174	3.67E+09	1.77E+08	5.75E+08
Skewness	0.379394	1.443178	0.198116	1.566484	1.517700	1.623541	2.586656
Kurtosis	2.759509	5.611140	1.475639	5.499508	4.775015	6.849063	7.890161
Jarque-Bera	0.765595	18.30517	2.997482	19.40950	14.94024	30.64191	61.23450
Probability	0.681951	0.000106	0.223411	0.000061	0.000570	0.000000	0.000000
Sum	157.9176	505.9000	1634.230	387.4000	8.27E+10	1.22E+10	8.57E+09
Sum Sq. Dev.	378.5149	1153.772	5087.402	1401.230	3.78E+20	8.77E+17	9.25E+18
Observations	29	29	29	29	29	29	29

Source: Author's Computation (2017)

Table 4.2: Unit Root Test

VARIABLES	Augmented Dickey- Fuller (ADF) test statistic	5% critical level	Phillips- Perron(PP) test statistic	5% critical level	Order of integration	
					ADF	PP
EG	-7.452010	-3.587527	-7.828417	-3.587527	I(1)	I(1)
BMV	-4.869836	-3.580623	-5.568780	-3.580623	I(1)	I(1)
MSD	-7.186737	-3.580623	-7.754512	-3.580623	I(1)	I(1)
EV	-5.271159	-3.587527	-8.405909	-3.580623	I(1)	I(1)
MCGDP	-4.791198	-3.580623	-5.767299	-3.580623	I(1)	I(1)
ISP	-4.181886	-3.595026	-12.25787	-3.580623	I(1)	I(1)
PD	-5.555393	-3.595026	-8.211824	-3.580623	I(1)	I(1)

Source: Author's computation (2017)

Impact of Financial Deepening on Economic Growth of Nigeria

Table 4.3: Result of Co-integration Test

Series: EG, BMV, MSD, EV, SMC, ISP and PD				
Sample: 1994 2014				
Null hypothesis: Series are not cointegrated				
	Engle-Granger		Philips Ouliaris	
Dependent	tau-statistic	Prob.*	tau-statistic	Prob.*
EG	-3.096522	0.9108	-3.604378	0.6547
BMV	-4.958522	0.2890	-4.879649	0.2116
MSD	-7.302731	0.0166	-6.482896	0.0259
EV	-2.392732	0.9880	-3.468944	0.7078
MCGDP	-5.506888	0.1609	-6.091574	0.0450
ISP	-3.403907	0.8363	-4.052576	0.4749
PD	-6.801613	0.0329	-6.129783	0.0427

Source: Author's Computation (2017).

Table 4.4: Error Correction Model

Dynamic regressors (2 lags, automatic): BMV MSD EV MCGDP ISPGDP PDGDP

PD ECT(-1)				
Fixed Regressors:				
Number of models evaluated: 2187				
Selected Model: ARDL(1, 2, 2, 2, 1, 1, 1, 2)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
C	-10.11718	2.994057	-3.379087	0.0118
EG (-1)	9.974128	3.002186	3.322289	0.0127
BMV(-1)	9.399794	2.933257	3.204558	0.0150
MSD	0.130490	0.093362	1.397680	0.2049
MSD (-1)	0.083624	0.076684	1.090496	0.3116
EV	0.335763	0.412734	0.813509	0.4427
EV(-1)	4.601459	1.490740	3.086695	0.0176
MCGDP(-1)	3.28E-09	1.20E-09	2.731547	0.0293
ISP	1.64E-08	6.66E-09	-2.462817	0.0433
ISP(-1)	7.69E-08	2.40E-08	3.200066	0.0151
PD	3.31E-11	1.55E-09	0.021435	0.9835
PD(-1)	-8.02E-09	2.48E-09	-3.229035	0.0145

ECT(-1)	-0.927578	0.250363	-3.704930	0.0076
R-squared	0.905457	Mean dependent var		5.571464
Adjusted R-squared	0.662346	S.D. dependent var		3.731959
S.E. of regression	2.168568	Akaike info criterion		4.535363
Sum squared resid	32.91881	Schwarz criterion		5.454742
Log likelihood	-39.95972	Hannan-Quinn criter		4.800111
Durbin-Watson stat	1.934833			

Source: Author's Computation (2017)