

## Financial Intermediation and Economic Growth in Nigeria

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Article DOI: 10.48028/iiprds/ijaraebp.v8.i1.18

### Abstract

The study examined the role of financial intermediaries especially the banking sector and their impact on economic growth in Nigeria. The study adopted the Harrod-Domar growth Model which stipulates that economic growth is a function of domestic savings and productivity of investment. The study employed quasi experimental research design. It employed the use of secondary data for the period of 1990- 2019 which were sourced from CBN Statistical Bulletin. Nigerian banks being dominant financial intermediaries, Bank credit to private sector, Bank deposits, Bank spread and Interest rate spread were considered as proxies for the independent variables. Real Gross Domestic Product RGDP was used as proxy for the dependent variable. The findings revealed that Bank credit to private sector has negative (in lag 1&2) and insignificant effect on economic growth, Bank deposit has negative in lag 1 and positive in lag 2 insignificant effect with economic growth, Bank spread has positive (in lag 1&2) and insignificant effect on economic growth, Interest rate spread has negative (in lag 1&2) and insignificant effect on economic growth while the variables jointly impact on economic growth significantly. The paper concludes that financial intermediation has positive and negative effect on economic growth. The study therefore recommends that in-depth knowledge of the operations and efficiency of financial intermediation is paramount in realizing a sustainable economy. And there is need for close monitoring of bank intermediation processes for effective and efficient channeling of bank credit to the deficit unit.

**Keywords:** *Financial Intermediation, Economic Growth, Bank Credit and Bank Spread*

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### **Background to the Study**

Financial intermediation is a process whereby a financial intermediary such as a bank mobilizes and consolidates bank deposits and transform the mobilized or consolidated deposit money into bank credits, usually loans and overdraft. (Okoro, 2018). This involves the conversion of bank target liabilities (deposit liabilities) to bank largest interest earning assets (bank credits) Onoh (2002) posited that finance has been identified as the lending requirement for input factor in economic development and also regarded as an engine of growth in any economy. Financial services are significant for the promotion of investment and development of infrastructural facilities for maximum output. In every economy, financial resources are pertinent for enhancing growth and development through efficient financial intermediation (Sulaiman and Aluko, 2015). Financial intermediaries particularly banks play a crucial role in a country's overall financial system by embarking on several activities vital for economic growth (Aziakpono, 2005; Unvan and Yakubu, 2020).

Sulaiman, Migiro and Yeshihaveg (2015) opine that financial intermediaries play a significant role within a nation's financial system by mobilizing funds from the surplus economic units and channeling them to the deficit economic units of the economy. In developing economies, banks have a greater propensity to influence the degree of financial intermediation because the financial system of these countries is bank-based (Sulaiman, 2015). Levine (1997; 2005) explains that economic growth is closely linked to the liquidity provision function of the financial system. The link arises because some high-return projects require a long-term commitment of capital, but savers do not like to relinquish control of their savings for long periods. As one of the empirical evidences linking Liquidity provision and economic growth, Levine (2005) noted that isolating this liquidity function from the other financial functions performed by banks. Nzotta (2004) posited that the banking sector is the dominant sector in the Nigerian financial service industry. He also described it as the most vibrant component and whatever difficulties it passes through affects the entire economy greatly, Generally, activities of the deposit money banks impact on the soundness and stability of the financial system hence the special attention alluded them by the regulatory authorities (Umoh, 2005).

In July, 2004 the Central Bank of Nigeria (CBN) launched a 13-point agenda aimed at creating a bigger bank with stronger statements of financial position, ensuring safe and sound banking practice and enhancing regulatory capacity to supervise the industry (Ogiriki & Andabai, 2014). According to Soludo 2004, the key element of the reform program was the increase in minimum capital base of Banks from N 2billion to N25 billion by December, 2005. The reform program was driven by the following factors (i) Nigerian banks were small, depended on government or public sector deposits and unable to meet the economy finding needs. (ii) Banking penetrations were low and retail offering were limited. For example, deposits in the hands of small businesses and individuals was 80% of the total currency in circulation. (iii) The narrow scale and scope of services provided by Nigerian banks led to lose of businesses to their foreign counterparts (iv) the industry was fragmented and many banks operated as fringes players, (v) Corporate governance was poor and insider abuse and sharp practices by directors and other related parties were rampant. (vi) There was loss of confidence in the banking system. Nnanna (2004) concluded that, the banking reforms by the CBN were those

intended to address these issues and specifically strengthen the Nigerian banking system, with the vision to ultimately make Nigeria the financial hub of Africa and to stem the systematic distress that have played the system, practically reposition Nigerian banks to compete favourably with foreign banks, encourage consolidation through mergers and acquisition, enhance professionalism in the conduct of banking business, and make the banking system safer and engender depositors confidence.

Despite series of reforms and restructuring aimed at strengthening the banks' ability for efficient service delivery and fund provision and supply activities, we still experience decline in domestic credit by the banking system to the private sector of the Nigeria economy to the detriment of other sectors (Okoro, 2018). Looking at the Nigeria economy which seen to be characterized with low savings, low investments and low economic growth, the study tried to investigate the effectiveness of the intermediation process.

The broad objective of the study is to examine the role of financial intermediaries on the economic development of Nigeria. The specific objective of the study is to;

1. Determine the effect of bank credit to the private sector on Real Gross Domestic Product (RGDP)
2. Investigate the relationship between bank deposit on RGDP
3. Ascertain the impact of Interest Rate Spread on RGDP
4. Analyze the relationship between Bank spread on Real Gross Domestic Product (RGDP).

### **Research Questions**

1. What is the relationship between Bank credit to private sector and Real Gross Domestic Product growth?
2. Is there any relationship between bank deposit and Real Gross Domestic Product?
3. What is the relationship between Interest rate spread and Real Gross Domestic Product?
4. Is there any relationship between bank rate spread and Real Gross Domestic Product?

### **Research Hypotheses**

The Research Hypothesis that was used includes:

Ho<sub>1</sub>: Bank credit to private sector has no significant effect on Real GDP growth rate

Ho<sub>2</sub>: Bank deposit has no significant impact on Real GDP growth rate

Ho<sub>3</sub>: Bank spread has no significant impact on Real GDP

Ho<sub>4</sub>: Interest rate spread has no significant effect on Real GDP

### **Scope of the Study**

The study carried out an empirical analysis on the role of financial intermediaries especially the banking sector on the economic development of Nigeria, Bank credit to private sector, Bank deposit, Bank spread and Interest rate spread were used as proxies for independent variable (financial intermediaries) while RGDP was used as proxy for the dependent variable economic development. Study covered the period of 20years spanning from 1990-2019.

### **Significance of Study**

The study will be of immense benefit in the growth of our economy as follows:

1. **Investors:** The study will enlighten investors on the benefit of banks as intermediaries for economic growth and the need to explore investment opportunities therein.
2. **Banks:** The study will also reveal to banks the vital role they play in economic growth and development to our country thereby increasing their efficiency and management.
3. **The Government:** The study will help monetary authorities in decision making to promote financial flow from surplus unit to the deficit unit of the economy.
4. **Researchers:** The study will be useful to researchers for reference and for studies in the topic, thereby contributing to existing literature.
5. **Students/Lecturers:** The research material can be used for lectures and for consultation by both lecturers and students on the above subject matter.

### **Conceptual Review**

Broadly, an economy is divided into two major sectors namely, the financial sector and the real sector. The purpose of the financial sector as a whole is to finance the business affairs of the real sector of the economy. This necessitates the connection between the real sector and the financial sector via the financial intermediaries. Financial system is made up of various financial institutions that operate in an orderly manner to ensure the smooth flow of funds, the regulatory and supervisory authorities that control the activities of the institutions, the financial market, its participants and instruments traded. The financial system mobilizes savings from the surplus units (lenders) and moves these funds to deficit units (Borrowers). According to Barnisile (2005), volume of credit available to economic units for investment determines the rate of economic growth as measured by the Gross Domestic product. Nzotta (2004) observed that, interest rates, credit ceiling and sectorial allocation have been found useful to ensure efficiency in resource allocation as well as innovative ideas and development in institutions.

Developed financial intermediaries mitigate risks by diversifying and sharing these risks between investors (Acemoglu & Zilibotti, 1997). In contrast, it is too risky for producers and investors in countries with inefficient financial markets to increase productivity by specialization. Benhabib and Spiegel (2001) also confirmed the hypothesis that financial intermediaries support economic growth by increasing total factor productivity. In addition to increasing efficiency, financial intermediaries also drive economic growth through capital accumulation. Development of financial services networks, financial markets, and instruments are necessary for transformation of savings to investments Uneconomic growth. However, Beck (2013) found evidence that financial sector affects economic growth through productivity rather than capital accumulation. Financial impact conduit for economic growth may also differ depending on the level of economic development of countries. Industrialized countries might be more sensitive to productivity path, whereas capital accumulation is more important for developing countries.

### **Theoretical Review**

There has been a long theoretical debate on the relationship between financial intermediation and economic growth. While some researchers are of the view that financial intermediation

promote economic growth, others believe that economic growth lead to financial Intermediation, some also believe that there exists a bi-directional relationship between financial intermediation and economic growth. These arguments draw their strength from different Intermediation theories below.

1. **Endogenous Growth Theory:** This theory challenged the assumption of Neo-classical theory. Furthermore, endogenous growth theory pointed that policy measures may impact long run growth rate, and that long run growth rate is determined by the variables in the model and not exogenous rate of technological progress as asserted by Solow and Swan (1956) This theory is supported by Jhingan (2006) who argued that rate of investment, capital stock size and human capital stock determines technical progress and not the reverse.
2. **The Schumpeterian Growth Model:** This theory was propounded by Joseph Schumpeter, an Australian American economist in the year 1911. Unlike most growth theories, he explicitly referred to the role of financial intermediation in economic growth. The Schumpeterian growth model could be referred to as the second variant of the endogenous growth theory. Schumpeter noted that economic growth in a country could be influenced by two major factors which are capital and labour, he introduced financial capital which was ignored by most researchers as a proxy for capital. The Schumpeterian Growth Model tends to improve on the previous growth models.
3. **Harrod-Domar Model of Economic Growth:** Harrod-Domar Model is an economic growth model that is an economic growth model that was developed by Sir Roy Harrod and Evsey Domar in the 1930s and 1940s. The model is based on the ideology that the rate of economic growth is a function of two key factors; namely the amount of capital investment in the economy and the level of productivity of the capital. The propositions of this theory is that all savings goes into productive investments and all productive investment goes into capital, thus saving(s) in an economy encourages production when properly channeled.

### **Empirical Review**

Nsiah & Tweneno (2023), studied Determinants of Financial Inclusion in Africa: Is Institutional Quality Relevant? The paper examined the determinants of financial inclusion in Africa, considering both demand and supply as well as infrastructure side factors using General Method of Moments (GMM) and the Ordinary Least Square (OLS) methods with data that spanned from 2004 to 2020. It used a panel type that employed secondary data, that was sourced from the World Development Indicators, compiled by the World Bank. Twenty countries were purposively selected for the study. It revealed that GNI per capita, domestic credit to private sector and institution quality are significant determinants of financial inclusion in Africa. It was further revealed that GNI per capita, money supply and institutional quality contribute to the minimization of barriers to financial inclusion in the continent.

Adolphus and Samuel (2022) examined the relationship between financial intermediation and economic growth in Nigeria from 1981-2017 using secondary data obtained from central bank of Nigeria quarterly bulletin. The study employed the vector Auto Regression (VAR)

methodology in analyzing the data while Block Heterogeneity Wald test was used to the hypothesis. The results show that financial intermediate measures such as bank deposit, commercial bank loans to rural customers, commercial bank deposits from rural customers and gross national savings jointly have no causal effects on real GDP growth, but individually, only the effect of bank deposits ratio is significant. The study therefore recommends that the central Bank of Nigeria should persuade deposit money banks to reduce the current interest rate margin by reducing the lending rate and increasing the deposit rates. This would significantly reduce the current high financial exclusion rate as cost of borrowing would decrease.

Babatunde, Oyedokun and Emmanuel (2022) empirically examined the influence of financial intermediation on the economic growth from world Bank Development indicated National Bureau of Statistics for the periods of 2011-2020. The study applied OLS in its data analysis. The report proved that credit and government expenditure have enhanced Nigeria Economic growth. The paper recommended that financial intermediaries should improve their support for Micro, Small and medium enterprises (MSME) and real sector of the economy to enhance Nigeria Economic growth. Regulatory Authorities should formulate policies to encourage financial intermediaries to cover their lending ratios to nurture the productive sectors of the economy to do better.

The Usman, Alimi and Omayemi (2018) evaluated the effect of bank, intermediation activities on economic growth in Nigeria using secondary data obtained from Central Bank of Nigeria Statistical Bulletins within the period 1983 and 2014. The OLS regression result showed that loan and advances and money supply have positive effect on economic growth. The cointegration result indicated the existence of a long-run relationship between the variables. The study concluded that financial intermediation by banks has statistically significant impact on economic growth in Nigeria. Oluwasogo, Princes, Oluwalpyin and Folasade (2017) examined the effect of financial intermediation on economic growth in Nigeria covering the period 1980 to 2014. The study used Johansen cointegration test and Error Correction Model. The study showed that financial intermediation has a long-run relationship with economic growth.

Olovoleso, Adeleke and Uboji (2015) examined the impacts of private sector credit on economic growth in Nigeria using the Gregory and Hansen (1996) cointegration test which accounts for structural breaks and endogeneity problems. The method was applied to quarterly data spanning 2000: 01 to 2014 04, while the fully modified ordinary least squares procedure was employed to estimate the model coefficients. The study found a cointegrating relationship between output and its selected determinants, albeit, with a structural break in 2012 Q4. Amongst others, findings from the error correction model confirmed a positive and statistically significant effect of private sector credit on output, while increased prime lending rate was inhibiting growth. In view of the financial intermediation roles of deposit money banks, the paper supports efforts of the Central Bank of Nigeria (CBN) in promoting a sound and real sector-friendly financial system.

### **Gap**

According to studies carried out, researchers seem to go around in circles rehearsing the same variables of Bank credit to private sector, Bank deposits, Interest rate spread and Real gross domestic product. However, this empirical research employed additional variable like Bank spread (BS) to ascertain its contribution to financial intermediation and economic development.

### **Methodology**

The study embarked on a cross-sectional collection of data of the variables tested and vector error correction model was employed. While Augmented Dickry-Fuller (ADF) and Johansen Cointegration were employed as econometric analytic tool

### **Design**

The study employed quasi experimental research design. The data use in this study include: credit to private sector (CPS) bank deposit (BD) Interest Rate Spread (IRS) and Bank Spread (BS) as proxies for Financial Intermediation Theory while Real Gross Domestic Product (RGDP) is used as proxy for economic development. The data were extracted from the Central Bank of Nigeria reports and word hank reports, sample covered the period 1990-2019 for all hanks selected from the listed in the Nigerian stock exchange.

### **Source of Data**

The data used for this study was obtained from secondary sources and it is time series in nature. The data was sourced from Central Bank of Nigeria (CBN) statistical bulletin, CBN annual reports and CIN economic and financial reviews.

### **Method of Data Analysis**

To establish the impact of financial intermediation on economic growth in Nigeria, vector error correction model was employed. However, before estimating the model, the properties of the variables were substantiated in terms of stationarity of the variables and long-term relationship determined. The econometric tools that used for these verifications were the Augmented Dickey-Fuller (ADF) test for stationarity and Johansen co- integration test for long term relationship given that the variable is integrated of the same order, especially order 1(1). The data was yearly time series data spanning from 1990- 2019, the data includes Bank Credit to RGDP, Bank Deposit to RGDP, Interest Rate Spread to RGDP, and Bank Spread to RGDP

### **Model Specification**

The study adopted Harrod-Domar principle of economic growth where output is a function of capital is  $Y = X$  where Y represent Real Gross Domestic Product measuring economic growth. While K represents availability of capital using Bank credits to private sector, Bank deposits, Bank spread (No of branches), and Interest rate spread.

Therefore, the functional form of the model for the study becomes;

$$RGDP = f(CPS, BD, BS, IRS) \text{-----} 1$$

The econometric model becomes;

$$RGDP = B_0 + B_{1CPS} + B_{2BD} + B_{3BS} + B_{4IRS} + U. \text{-----}2$$

$$\begin{aligned} \text{LOGRGDP} = & C(1) * (\text{LOGRGDP}(-1) - \text{LOGCPS}(-1) + \text{LOGBD}(-1) + \\ & \text{LOGBS}(-1) + \text{LOGIRS}(-1) + C(2) * D(\text{LOGRGDP}(-1)) + C(3) * D(\text{LOGRGDP}(-2)) \\ & + C(4) * D(\text{LOGCPS}(-1)) + C(5) * D(\text{LOGCPS}(-2)) + C(6) * D(\text{LOGBD}(-1)) \\ & + C(7) * D(\text{LOGBD}(-2)) + C(8) * D(\text{LOGBS}(-1)) + C(9) * D(\text{LOGBS}(-2)) + C(10) * \\ & D(\text{LOGIRS}(-1)) + \\ & C(11) * D(\text{LOGIRS}(-2)) + C(12) \dots\dots\dots 3 \end{aligned}$$

**Where:**

RGDP = Real Gross Domestic Product

CPS = Credits to Private Sector

BD = Bank deposit

BS = Bank Spread

IRS = Interest Rate Spread

**Data Presentation Analysis and Interpretation of Results**

This section consists of the empirical investigation and interpretation of result of the study. It captures various diagnostic test and estimation of variables.

**Stationarity Test**

The outcome of the Augmented Dickey-Fuller test for unit root for each of the variables are shown in the table below;

**Table 1:** Augmented Dickey-Fuller (ADF) Stationarity Test Result

Variables	ADF Stat @ Level	ADF Stat @ 1 <sup>st</sup> Diff	Order of Integration
RGDP	-0.977041	-3.291103	I(1)
BD	-2.071423	-4.007265	I(1)
BS	-1.338157	-4.322895	I(1)
CPS	-2.315087	-3.736483	I(1)
IRS	-4.151885	-7.077295	I(1)
<b>Critical Level @ 5%</b>	<b>-2.967767</b>	<b>-2.976263</b>	

**Source:** Researcher's Computations from E-Views 10 Result

The stationary test result summarized in Table 4.1 reveals that Real Gross domestic Product Bank credits to private sector, Bank deposits, Bank spread (No of branches), and Interest rate spread are stationary at first difference or integrated of order [1(1)]. Thus, we concluded based on the above result that vector error correction model is suitable for this study.



**Table 2:** Co-integration Test

<b>Unrestricted Cointegration Rank Test (Trace)</b>				
<b>Hypothesized No. of CE (s)</b>	<b>Eigenvalue</b>	<b>Trace Statistic</b>	<b>0.05 Critical Value</b>	<b>Prob. **</b>
None *	0.730220	88.92887	69.81889	0.0007
At most 1 *	0.507493	52.24467	47.85613	0.0183
At most 2 *	0.443721	32.41375	29.79707	0.0244
At most 3 *	0.365654	15.99217	15.49471	0.0421
At most 4	0.109514	3.247662	3.841466	0.0715

**Source:** E-view version 10 statistical 2021

The cointegration result presented above indicate four cointegrating equations. This implies that all the parameter estimate will co-move in the long run towards equilibriums.

**Table 3:** Test for Multicollinearity

Variance inflation factor was used to test for presence of multicollinearity in the model.

Below is VIF result;

Included observations: 27

<b>Variable</b>	<b>Coefficient Variance</b>	<b>Uncentered VIF</b>	<b>Centered VIF</b>
C(1)	0.000578	4.320514	4.320514
C(2)	0.080556	14.69918	4.999831
C(3)	0.050220	9.131623	3.311931
C(4)	0.001658	7.383892	2.627730
C(5)	0.001537	6.975051	2.296247
C(6)	1.00E-05	1.554548	1.547603
C(7)	1.18E-05	1.829731	1.821541
C(8)	0.004875	3.376330	3.120826
C(9)	0.007269	4.996724	4.637004
C(10)	0.000117	3.209960	3.205066
C(11)	9.67E-05	2.663968	2.658303
C(12)	9.10E-05	25.40690	NA

The above real revealed VIF for the estimated parameters to be less than ten (10). This implies that there is no correlation among variable. Indicating that the variables w independent of themselves since the  $VIF < 10$ .

**Table 4:** Estimated Vector Error Correction Model Result

	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C(1)	-0.045687	0.024047	-1.899949	0.0768
C(gdp)	0.464319	0.283824	1.635944	0.1227
C(gdp)	-0.218430	0.224098	-0.974709	0.3452
C(cps)	-0.038998	0.040720	-0.957721	0.3534
C(cps)	-0.034702	0.039206	-0.885133	0.3901
C(bd)	-0.002050	0.003167	-0.647225	0.5273
C(bd)	0.005004	0.003436	1.456598	0.1658
C(bs)	0.126279	0.069824	1.808536	0.0906
C(bs)	0.140445	0.085258	1.647302	0.1203
C(irs)	-0.010617	0.010806	-0.982592	0.3414
C(irs)	-0.005493	0.009835	-0.558510	0.5847
C(con)	0.019621	0.009537	2.057349	0.0575
R-squared	0.758013	Mean dependent var		0.020775
Adjusted R-squared	0.580555	S.D. dependent var		0.015181
S.E. of regression	0.009832	Akaike info criterion		-6.105306
Sum squared resid	0.001450	Schwarz criterion		-5.529378
Log likelihood	94.42162	Hannan-Quinn crit		-5.934052
F-statistic	4.271518	Durbin-Watson Stat		2.026331
Prob(F-statistic)	0.005333			

**Source:** E-view version 9.0 statistical Result, 2019

#### Estimated Model

$$D(\text{LOGRGDP}) = C(1) * (\text{LOGRGDP}(-1) - 0.267526804503 * \text{LOGCPS}(-1) + 0.115398949563 * \text{LOGBD}(-1) + 0.00648737820346 * \text{LOGBS}(-1) + 0.420955624205 * \text{LOGIRS}(-1) - 4.52917846002) + C(2) * D(\text{LOGRGDP}(-1)) + C(3) * D(\text{LOGRGDP}(-2)) + C(4) * D(\text{LOGCPS}(-1)) + C(5) * D(\text{LOGCPS}(-2)) + C(6) * D(\text{LOGBD}(-1)) + C(7) * D(\text{LOGBD}(-2)) + C(8) * D(\text{LOGBS}(-1)) + C(9) * D(\text{LOGBS}(-2)) + C(10) * D(\text{LOGIRS}(-1)) + C(11) * D(\text{LOGIRS}(-2)) + C(12)$$

#### Test of Hypothesis One

**Ho<sub>1</sub>:** Bank credit to private sector has no significant effect on Real GDP. The P-value of Bank credit to private sector was obtained as 0.3534 and 0.3901 for lag 1 and 2 respectively. Since the Prob value 0.3534 and 0.3901 is greater than 5%, the null hypothesis is accepted and the alternative rejected, thereby concluding Bank credit to private sector have no significant effect on the growth of Nigeria economy.

#### Test of Hypothesis Two

**Ho<sub>2</sub>:** Bank deposit has no significant impact on Real GDP. The P-value for Bank deposit was obtained as 0.5273 and 0.1658 for lag 1 and 2 respectively. Since the Prob. Value of 0.5273 and 0.1658 are greater than 5%, the null hypothesis is accepted and the alternative rejected, thereby concluding that Bank deposit has no significant impact on Real GDP.

#### Test of Hypothesis Three

**Ho<sub>3</sub>:** Bank spread has no significant impact on Real GDP. The P-value for bank spread was obtained as 0.0906 and 0.1203 for lag 1 and 2 respectively. Since the Prob. Value of 0.0906 and 0.1203 are greater than 5%, the null hypothesis is accepted and the alternative rejected, thereby concluding that Bank spread has no significant impact on Real GDP.

0.1203 are greater than 5%, the null hypothesis is accepted and the alternative rejected, thereby conclude that Bank spread have no significant effect on Real GDP.

#### **Test of Hypothesis Four**

**Ho<sub>4</sub>:** Interest rate spread has no significant effect on Real GDP. The P-value for Interest rate spread was obtained as 03414 and 05847 for lag 1 and 2 respectively. Since the Prob. Value of 0.5414 and 0.5847 are greater than 5%, the null hypothesis is accepted and the alternative rejected, thereby conclude that Interest rate spread have no significant effect on Real GDP.

#### **Findings**

##### **Relationship between Credit to private sector and Real Gross Domestic Product**

The estimated slope for Credit to private sector was found to be negative in both lag 1 & 2 with economic growth. This implies that the relationship between bank credit to private sector and economic growth tends towards same direction with respect to lag length as evident in our result. That is a 14 increase in the slope of credit to private sector will result to a corresponding decrease in agriculture productivity in lag 1 and 2 respectively. This study does not support the work of Nwite, (2014) who studied the effect of financial intermediation on economic growth. The study reveals that credit to private sector has positive and significant effect on economic growth.

##### **Relationship between bank deposit and Real Gross Domestic Product**

The estimated slope of bank deposit was found to be negative in lag I and positive in lag 2 with economic growth. This implies that relationship between bank deposit and economic growth differs with respect to lag length as evident in our result. That is a 1% increase in the slope of bank deposit will result to a corresponding decrease in economic growth in lag 1 and Increase in economic growth in lag 2. This study is in line with Nwanne (2015) who studied the implication of cost of financial intermediation on the economic growth in Nigeria. The study asserts that financial intermediary indicators have positive effect on economic growth.

##### **Relationship between bank spread and Real Gross Domestic Product**

The estimated slope for **bank spread** was found to be positive in both lag 1 & 2 with economic growth. This implies that the relationship between bank spread and economic growth tends towards same direction with respect to lag length as evident in our result. That is a 15% increase in the slope of bank spread will result to a corresponding increase in economic growth in lag 1 and 2 respectively. This study supports the work of Usman Alimi and Onayemi (2018) who evaluated the effect of bank intermediation activities on economic growth in Nigeria. They inferred that bank intermediation has statistical positive significant with economic growth.

##### **Relationship between interest rate spread and Real Gross Domestic Product**

The estimated slope for interest rate spread was found to be negative in both lag 1 & 2 with economic growth. This implies that the relationship between interest rate spread and economic growth sends towards same direction with respect to lag length as evident in our result. That is a 1% increase in the slope of interest rate spread will result to a corresponding

decrease in economic growth in lag 1 and 2 respectively. This study did not agree with the work of Nwite, (2014) who studied the effect of financial intermediation on economic growth. His findings hold that interest has positive and significant effect on economic growth.

### **ECM**

This shows the speed of adjustment of the variables in the long run. From our estimated result, the ECM value is given as -0.045687. this implies that it will take 0.04times within a year for the variables to restore from disequilibrium.

### **Summary**

This study centered on financial intermediation and economic development in Nigeria (banking sector operation 1990-2019). The study tried to investigate the effectiveness of the intermediation process and the economic development in Nigeria. Data was sourced from CBN statistical bulletin. Augmented Dickey-Fuller (ADF) and Johansen Cointegration test were used as econometric tool. The study revealed that, Bank credit to private sector has is negative (in lag 1&2) and insignificant effect on economic growth. Bank deposit hat negative in lag 1 and positive in lag 2 insignificant effect with economic growth. Bank spread has positive (in lag 1&2) and insignificant effect on economic growth. Interest rate spread has negative (in lag 1&2) and insignificant effect on economic growth. The joint effect of the variables reveals significant effect on economic growth.

### **Conclusion**

From the findings, it is evident that financial intermediation has a mixed impact on the growth of Nigeria economy. The study conclude that financial intermediation variable jointly impacts on the economic growth in Nigeria.

### **Recommendations**

The study recommends as follows,

1. To encourage economic development, government should ensure credit are made available for Investment purposes to the private sector through the banks,
2. There is need for regulatory authorities to look into hanks deposit position since it asserts negative effect on economic growth.
3. Regulatory authorities should maintain policies that encourage the spread of banks since it asserts positive effect on economic growth.
4. The interest rate spread met the apriori expectation of the study but however, regulatory authorities need to constantly monitor the cost of borrowing by the deficit unit so as to encourage economic development.
5. There is need for close monitoring of bank intermediation processes for effective and efficient channeling of hank credit to the deficit unit.

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