# IMPACT OF FINANCIAL INTERMEDIARIES ON ECONOMIC GROWTH

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#### **ABSTRACT**

This study investigates the impact of financial intermediaries on economic growth in Nigeria between 1986 and 2017. The study uses Gross Domestic Product as the dependent variable and also used Money Supply (MS), Credit to Private Sector, Lending Rate (LR) and Total Credit (TC) as independent variables coupled with the use of Auto Regressive Distributed Lag (ARDL) model as method of analysis. The result revealed that only money supply is statistically significant with economic growth in both the short run and long run. However, Credit to Private Sector, Lending Rate and Total Credit assert a negative effect on economic growth while money supply has positive effect on economic growth. Also, the granger causality test shows a unidirectional causality from GDP to both CPS and TC also from MS to GDP. Meanwhile, the direction of causality is inconclusive between LR and GDP. Hence, through the preponderance of empirical proofs from various places around the world and the findings of this study, it can be inferred that financial intermediaries have a significant impact on economic growth. The study therefore, recommends that the financial intermediaries should properly monitor credit provide to sectors in the economy in other to ensure that these sectors profitably use such credit to boost the economy.

**Keywords**: ARDL Approach, Credit to Private Sector, Lending Rate, Economic Growth.

### INTRODUCTION

The development of an economy apropos the role of financial intermediaries has been recognized in literature (Schumpeter, 1911; Goldsmith, 1969; King & Levine, 1993) as essential in the financial system. Financial intermediation refers to the process of pooling funds from the surplus unit of the economy and making it available to the deficit unit of the economy. However, the publication of Schumpeter (1911) posited that financial intermediaries spur economic growth, Harrod (1939) opined that investment is the main oil needed for the wheels of economic growth to move and contentiously Solow (1956) emerged to posit that financial intermediaries cannot just take into cognizance the concept of investment alone as investment cannot stand in isolation, but must also consider the factors of production.

Ordinarily, the role of intermediation cannot be ignored as the development of any economy is closely linked to financial intermediaries, it is widely recognized that financial intermediaries exist due to imperfections in the capital market (Sindani, 2013). In the light of this, it quintessential for these intermediaries to be in existence as a perfect financial system is nearly impossible in the real situation. As a result, the efficiency of every financial system hinges on the viability of its financial intermediaries.

#### **Statement of Research Problem**

Financial intermediation has been recognized as a necessity for every financial system to survive. As a result, the monetary authorities and players within the financial system must recognize their roles and harness its power to spur economic growth through various mechanisms available to them. Several studies have been conducted in this regard (Massa, 2011; Dima & Opria, 2013; Nyasha & Odhiambo, 2015; Umar et al., 2015; Salda & Frikha, 2016; Mahran, 2012; Shittu, 2010; Ogiriki & Andabai, 2014). This study will also contribute to the existing body of knowledge in this regards.

Correspondingly, previous studies as regards this subject matter in Nigeria (Nwite, 2014; Ogiriki & Andabai, 2014; Shittu, 2010; Chude & Chude, 2016; Efayena, 2014) considered just the impact of financial intermediaries on economic growth. However, there exists a paucity of contributions in literature apropos the impact of international financial intermediaries on economic growth. Hence, this study will transcend such previous studies in its contribution to literature by focusing on international financial intermediaries in a bid to circumvent this snag.

Also, taking into consideration the inconsistent results in literature vis-à-vis this subject matter whereby Aysha & Zaheer, (2014); Al-Malkawi et al. (2012); Mahmood & Bilal, (2010) discovered a negative link between financial development, intermediaries and economic growth, Nyasha & Odhiambo, (2015) discovered an inconclusive relationship and Umar et al. (2015); Nwaeze et al. (2014); Massa (2011) discovered a positive relationship between financial intermediaries and economic growth, it is imperative to conduct a study to discover the concrete fact. Hence, it is based on these premises that this study seeks to investigate the impact of international financial intermediaries on economic growth.

# **Significance of the Research**

Monetary authorities within and beyond national frontiers will find this study helpful as it will assist them in the formulation and implementation of policies and regulations as regards the activities of international financial intermediaries all over the world. Also, the study will provide the acumen necessary for financial intermediaries to carry out their activities taking into consideration the extent of impact on the economy.

#### LITERATURE REVIEW

### **Conceptual Clarifications**

# **Financial Intermediation and Economic Growth**

Financial intermediaries are those institutions that deal with the trade of financial instruments (Benston & Smith, 1976). These intermediaries can be developed financial institutions, banking, insurance and finance firms which deal with the channeling of funds from the surplus to the deficit sector of the economy. These intermediaries spur private investment in a bid to promote economic growth and concurrently ensuring financial stability in the long run (Massa, 2011). In fact, Schumpeter (1911) as portrayed by King & Levine, (1993) considered financial intermediaries as vehicles for economic development through their functions of managing risk, evaluating projects and monitoring managers as well as aiding the smooth running of transactions.

In the throes of intermediation, these institutions contribute significantly to the economy in various ways; for instance, taking into cognizance the Development Impact Assessment Framework established by the European Investment Bank in 2005 considered

seven facets viz; financial performance, economic performance, social performance, environmental performance, governance, contribution to investment facility strategy and contribution to the millennium development goals (EIB, 2005). Financial intermediaries have been found to make funds available to the extent to which they will gain, in the light of this, financial intermediaries will not on most occasions finance projects that have prospects of failure (Stulz, 2000). Although, they exist due to vicissitudes in the financial system, they are needed because there is nearly no perfect market in reality.

Hao (2003) in a study discovered that economic growth is the outcome of the existence of active financial intermediaries to mobilize savings and make funds available to the right sector of the economy. Similarly, Deidda & Fattouh, (2008) as relayed by Aysha & Zaheer, (2014) also realized that the development of the stock market has exerted a positive influence on economic growth in that the capital market makes the wherewithal needed for economic growth available. Meanwhile, Nyasha & Odhiambo, (2015) discovered that the relationship between financial intermediation and economic growth is abstruse depending on the channel adopted.

#### **International Financial Intermediaries**

These are institutions that carry out the activity of financial intermediation across national frontiers. They are; the World Bank, International Monetary Fund (IMF) and even the African Development Bank (ADB). Most especially in emerging economies of the world like Nigeria and other African countries, these institutions have been found to be consistently active to come to the rescue of the countries affected in the face of economic challenges. As a result, Multilateral Development Banks like the ADB has been known over time to confront these challenges (ADB 2000). These institutions do not only make funds available but also carry out studies as regards the causes and solutions to economic challenges all over the world and contributing to the economy through various policy dialogue, report publications and capacity building (ADB 2000). This is further supported by IMF's aims of capacity building, strengthening domestic revenue, technical assistance to countries and balancing financial deepening with financial stability (IMF, 2015). Massa (2011) divulged that the activities international financial intermediaries have significant impact on economic growth.

# **Financial Structure**

Merton (1991) opined that every viable financial system should embrace a payment system, a means for intermediation, means to regulate price, mitigate risk and handle information lopsidedness. The financial structure of every country involves its financial institutions, financial mechanisms and its financial regulations (Stulz, 2000). A country's milieu of financial intermediation is mostly a reflection of its financial structure which is internally determined. Stulz (2000) posited that financial structure can hinder growth based on the policies adopted by the policy makers within the financial system to curb all excesses.

# THEORITICAL FRAMEWORK

# **Theory of Financial Intermediation**

This theory as recognized by Alkerlof (1970); Spence (1973) justifies the existence of financial intermediaries because of the reduction in information asymmetries and transaction costa due to their existence in the economy. Financial intermediaries in literature have been found to both provide liquidity and alter the risk nature of certain financial assets (Claus & Grimes, 2003). In support of the above assertions, Bisignano (1998) stated that the financial intermediaries can be

distinctively recognized by some qualities in that their liabilities can be withdraw even on demand and their assets are also not transferable. Schumpeter (1911) considered players in the financial market as catalysts of economic growth through proper capital formation and disbursement pattern.

Scholtens & Van Wensveen, (2003) went further in the description of financial intermediaries to posit that they can even create financial commodities. Although, they exist due to inadequacies present in the financial system (Sindani, 2013), it is imperative that they exist because they is nearly no such concept as 'perfect market or financial system' in reality.

### **Harrod-Domar Growth Theory**

This theory of economic growth was developed by the British economists, Harrod & Domar, (1939, 1948); Domar (1946) assumed that investment has a two-way effect on both aggregate demand and aggregate supply in that business expands and capital stock increase at same time spurring economic growth. However, the weak capital formation in impecunious countries is a major hindrance to the materialization of this theory in most emerging countries (Masoud, 2014). Fortunately, international financial intermediaries have come to the rescue to circumvent this obstacle by promoting capital formation resulting in an increase in investment and consequently, economic growth. However, the major criticism against the theory is the snubaccorded to factors of production in the long run in that no investment is independent.

# **Neo-Classical growth Theory**

The Neo-Classical growth theory as supported by various scholars like Solow (1956); Swan (1956); Arrow (1962); Cass (1965); Koopmans (1965) posited that factors of production like capital and labour are necessary to spur economic growth in any economy. Their proposition was backed up by the fact that there is no output without considerable input and consequently, these inputs are the factors of production available in the economy at the time (Solow, 1956; Swan, 1956). Hence, this model considered production as a function of the input factors within the scope of the constant returns to scale adopting the Cobb Douglas Production function (Masoud, 2014). This theory also assumes that growth is exogenous, although, technological advancement is seen as a determinant of growth, it is still assumed to be exogenously related to the economy (Pollard et al., 2011).

# **Endogenous Growth Theory**

This theory as advanced by Romer (1986); Lucas (1988); Rebelo (1991) disproves the constant return to scale to assert that an economy can grow without limits and that technological change can be internally driven increasing the capital available and hence, spurring growth. Also, this growth rate relies more on the rate of the accumulation of capital. The theory assumed that output and productivity do not depend only on exogenous factors but also on endogenous technology. The theory as supported by Arrow (1962); Rebelo (1991) assumed that the affiliation between investment and technology diffusion portrays the endogenous nature of the growth process. It was believed that technology diffusion and knowledge diffusion within the economy is also a major determinant of economic growth as firms advance based on innovation which is a function of the fusion of knowledge and technology. This model assumes that output prospers on capital, labour and technology with the assumption that these factors can exhibit either increasing or constant returns to scale. Aghion & Howitt, (2009) in support of this theory posited that the sustenance of economic growth can be achieved by saving a fraction of Gross Domestic Product as it can be used to finance technological advancement leading to spurred economic growth. Aside from labour, capital and technology, Romer (1986) assumes that another important factor responsible for growth which is endogenous in nature is knowledge, that is, research and development. The accumulation of knowledge without the interruption of government restrictions

can be responsible for growth.

### **Empirical Evidences**

# **Developed Countries**

Aysha & Zaheer, (2014) looked into the impact of financial intermediation development on economic growth in seventeen countries viz; USA, UK, Australia, Japan, Sweden, Netherland, Pakistan, India, Malaysia, Turkey, Thailand, Sri Lanka, Mexico, Egypt, Nigeria, Sudan and Philippines between 1961 and 2011. The study adopted GDP as the explained variable and domestic credit to private sector as percentage of GDP and quasi money as percentage to GDP as explanatory variables coupled with the use of the Regression Two Stage Least Squares Technique, the study revealed that financial development exerts a negative effect on economic growth.

Dima & Opris, (2013) appraised the relationship between financial intermediation and economic growth in 28 countries between 2001 and 2010. The study utilized data from Argentina, Armenia, Bangladesh, Brazil, Bulgaria, Chile, China, Costa Rica, Croatia, Czech Republic, Estonia, Georgia, Hungary, Indonesia, Jordan, Latvia, Macedonia, FYR, Mauritius, Nepal, Panama, Peru, Philippines, Romania, Russia, Singapore, South Africa, Sri Lanka and Ukraine. The study which further adopted domestic credit provided to the banking and private sectors, broad money and market capitalization of listed companies as explanatory variables also used GNI per capita was used as the explained variable. Meanwhile, the study adopted the correlational and regression analytical technique to this end and revealed that there exist a significant and positive relationship between financial intermediation and economic growth. The study further recommended that fiscal policy should be synchronized with monetary policy to achieve growth, while the stability of the banking sector should be not be taken for granted and financial stability oriented policies should be formulated and implemented.

Al-Malkawi et al. (2012) studied the relationship between financial development and economic growth in the United Arab Emirates between 1974 and 2008. The study adopted Gross Domestic Product as the dependent variable and also used broad money, inflation, trade openness and government expenditure as indices for financial development coupled with the use of the Auto Regressive Distributive Lag Model, the study showed that there exists a negative relationship between financial development and economic growth due to the evolving stage of the economy. The study further recommended that policies that will spur liberalization of financial services should be formulated and implemented.

Massa (2011) considered the impact of multilateral development finance institutions on economic growth in 101 countries across the world between 1986 and 2009. The study adopted the per capita growth rate of each country as the dependent variable and investment by these international financial intermediaries, foreign direct investment, trade openness, government consumption and inflation as the control variables. Employing the Generalized Moments Method, correlation analysis and descriptive statistics, the study revealed that international financial intermediaries have a significant impact in fostering economic growth.

Caporale et al. (2009) examined the relationship between financial development and economic growth between 1994 and 2007 considering ten European Countries viz; Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. The study used GDP as the explained variable while income per capita, investment, trade to GDP, inflation, government expenditure, secondary school enrollment, domestic credit to private sector, stock market capitalization, liquid liabilities,. Reform index of financial institutional development, and interest rate margin were all used as explanatory variables. The study further used the Regression Generalized Moments Method to this effect coupled with the use of Granger Causality Test to

determine the direction of causality. The study revealed that financial development including the development of financial intermediaries spurs economic growth. Meanwhile, the causality test divulged that causality runs from financial development to economic growth. The study revealed that the government should see financial stability as a major economic target.

Hsu et al. (2004) looked into the relationship between financial development and economic growth in Taiwan, Korea and Japan between 1981 and 2001, 1970 and 2001 and 1980 to 2001 respectively. The study further used real GDP as the dependent variable, meanwhile, labour, capital, financial development and factors relating to economic growth were used as control variables. The study also adopted the Generalized Method of Momenta Regression technique to this end and revealed that investment and stock market development have significant impact on the economic growth.

# **Emerging Economies**

Salda & Frikha, (2016) considered the contribution of Islamic and conventional banks to economic growth in ten countries viz; Bahrain, Egypt, Jordan, Kuwait, Pakistan, Qatar, Saudi Arabia, Sudan, Turkiye and United Arab Emirates between 2005 and 2012. The study adopted bank profitability, bank development, control variables; total assets, market share, income diversity and inflation rate, state role as explanatory variables while GDP was employed as the controlled variable. The study further employed the classical ordinary least square regression technique to this end and revealed that both financial intermediaries have significant impact on economic growth. Also, Islamic banks were found to spur economic growth as compared to conventional banks. The study further revealed that educational programmes should be established apropos the importance of financial intermediaries in the economy.

Ayany & Otieno, (2014) considered the relationship between financial intermediaries and economic growth in Kenya. The study which adopted descriptive statistics was conducted on 112 respondents and divulged that financial intermediaries played a significant role in the economy.

Mahran (2012) studied the relationship between financial intermediation and economic growth in Saudi Arabia between 1968 and 2010. The study adopted Real GDP as the controlled variable and also used financial development, investment, government spending, human development and trade openness as the control variables. The study further used the Auto Regressive Distributive Lag procedure to this end and revealed that financial intermediation has a negative impact on economic growth due to the structure of the economy of Saudi Arabia. The study suggested that better innovations in the process of credit allocation should be adopted.

# **Country Specific**

Chude & Chude, (2016) studied the impact of financial development on economic growth in Nigeria between 1980 and 2013. The study GDP as the controlled variable and also adopted Broad money supply and domestic credit to private sector as the control variables, the study further used the regression techniques to this end. The study therefore revealed that there exists a significant long run relationship between financial development and economic growth. The study therefore recommended that the CBN should reduce the interest rate and ensure proper supervision of financial institutions.

Umar et al. (2015) studied the relationship between financial intermediaries and economic growth in Nigeria between 1970 and 2013. The study which adopted Gross Domestic Product (GDP) as the indicator of the controlled variable also used Insurance, Value of Transactions, Insurance and Lending rate as control variables. The study which adopted regression, descriptive and causality techniques showed that there exists a significant positive relationship between financial intermediation and economic growth. The causality test revealed that economic growth is caused by financial development. The study further urged policy makers to attempt to circumvent

hindrances in the stock market and promote the financial system.

Nyasha & Odhiambo, (2015) considered the impact of financial development spurred by banks as financial intermediaries on economic growth in Ghana spanning from 1970 to 2014. The study which used Gross Domestic Product as the indicator of economic growth being the dependent variable also utilized ratio of quasi liquid liabilities to GDP, ratio of domestic credit extension to private sector by banks to GDP, ratio of claims of deposit money banks on private sector to broad money, ratio of deposit money banks' assets to GDP, investment proxied by gross fixed capital formation to GDP, savings indicated by Gross Domestic Savings to GDP and Trade Openness indicated by ratio of imports to exports to GDP as the explanatory variables. The study further adopted the Auto Regressive Distributed Lag model technique divulged that the impact of bank based financial development on economic growth is inconclusive based on the variables adopted.

Nwite (2014) investigated the effect of financial intermediation on economic growth in Nigeria between 2001 and 2014. The study adopted GDP as the dependent variable and credit to private sector, lending rate and interest rate margin as control variables. The study also used the classical Ordinary Least Square Technique for this investigation and revealed that financial intermediation has positive impact on economic development. Hence, the monetary authorities were urged to regulate banks with excess liquidity, regulate properly all financial institutions and make credit available to the real sector of the economy.

Efayena (2014) examined the role of financial intermediaries in economic growth in Nigeria between 1981 and 2011. The study adopted GDP as the dependent variable and ratio of bank loans and advances to GDP as the independent variable. Employing correlation analysis, the study divulged that there exists a high positive relationship between financial intermediation and economic growth in the Nigerian economy. Consequently, it was recommended that Nigerian banks should make loanable funds more available to small and medium enterprises.

Nwaeze et al. (2014) examined the relationship between financial intermediation and economic growth in Nigeria between 1992 and 2011. The study which used real GDP as the independent variable also used commercial bank deposits, commercial bank credit and government expenditure as the dependent variables. The study further employed the multiple regression analysis. The study then showed revealed that financial intermediation has a positive and significant impact on economic growth of Nigeria. The study further recommended that interest paid to bank customers should be increased while the charges should be reduced to encourage customers. Meanwhile, an enabling environment that can foster investment should be made available.

Ogiriki & Andabai, (2014) looked into the affiliation between financial intermediation and economic growth in Nigeria between 1988 and 2013. The study used GDP as the dependent variable and also used aggregate short term credit, aggregate medium term credit and aggregate long term credit as independent variables. The study also used regression techniques to this end. The study therefore revealed that there is a significant relationship between financial intermediation and economic growth. Meanwhile, the study suggested that monetary authorities should properly control the activities of intermediaries to ensure a firm financial system in the country.

Shittu (2010) studied the impact of financial intermediation on economic growth in Nigeria between 1970 and 2010. The study adopted GDP as the dependent variable and used broad money supply, nominal gross domestic product, and domestic credit to the private sector as independent variables. The study further adopted the regression technique and revealed that financial intermediation has significant impact on economic growth.

#### **METHODOLOGY**

In conducting this study, secondary data was utilized for the analysis. The data utilized was extracted from the CBN statistical bulletin (2017 edition) and the data was loglinearized for analysis to avoid spurious results as they were converted to the same base. The study adopted the Auto

Regressive Distributed Lag (ARDL) technique to test for the relationship between financial intermediaries and economic growth. The scope of the study spans from 1986 through 2017. However, the analysis is conducted utilizing the E-Views 9 statistical package.

# **Model Specification**

To capture the impact of financial intermediaries on economic growth of Nigeria, the study employs an empirical model which is built based on the modification of the model in the work of Nwite (2014) which after modifications is presented as:

 $GDP = f(CPS, LR, TC, MS, \mu)$ 

 $GDP = LN^{\wedge}CPS + LN^{\wedge}LR + LN^{\wedge}TC + LN^{\wedge}MS + \mu$ 

Where:

CPS = Credit to Private Sector

LR = Lending Rate

TC = Total Credit

MS = Money Supply

# **Controlled Variable**

The study selected Gross Domestic Product as the dependent variable.

### **Control Variables**

The control variables for the study are Credit to Private Sector, Interest Rate Margin, Lending Rate and Total Credit. Data relating to these variables were loglinearized before analysed in a bid to draw proper conclusions and recommendations.

#### ANALYSIS AND DISCUSSION OF RESULTS

This segment of the study discusses the analysis and result of the study. The regression analysis conducted using E-Views 9. The Auto Regressive Distributed Lag (ARDL) technique is used for analysis. The study used the Akaike Information Criterion (AIC) for the selection of ARDL (1, 0, 1, 0, 1) in Table 1.

| Table 1               |                  |                   |  |  |  |  |
|-----------------------|------------------|-------------------|--|--|--|--|
| CO-INTEGRATION RESULT |                  |                   |  |  |  |  |
| F-Statistics          | Lower Bound (5%) | Upper Bounnd (5%) |  |  |  |  |
| 6.697812              | 2.86             | 4.01              |  |  |  |  |

Source: Author's Computation

The F-statistics greater than the upper bound at 5% significance level shows that there exists a long run relationship among the variables in Table 2.

# **Long Run Result**

| Table 2<br>DEPENDENT VARIABLE: - GDP |             |            |           |        |  |  |  |
|--------------------------------------|-------------|------------|-----------|--------|--|--|--|
| Variable                             | Coefficient | Std. Error | T-Stat.   | Prob.  |  |  |  |
| CPS                                  | -0.415855   | 0.308587   | -1.347610 | 0.1909 |  |  |  |
| LR                                   | -0.723410   | 0.477987   | -1.513453 | 0.1438 |  |  |  |

| TC | -0.656171 | 0.458375 | -1.431517 | 0.1657 |
|----|-----------|----------|-----------|--------|
| MS | 2.073748  | 0.639809 | 3.241198  | 0.0036 |
| С  | 5.564955  | 1.460681 | 3.809835  | 0.0009 |

Source: Author's Computation using E-Views 9 (2017)

The result revealed that only money supply is statistically significant with economic growth in both the short run and long run. However, Credit to private sector, Lending rate and Total credit assert a negative effect on economic growth while money supply has positive effect on economic growth. Also, the granger causality test shows a unidirectional causality from GDP to both CPS and TC also from MS to GDP. Meanwhile, the direction of causality is inconclusive between LR and GDP. Also, the normality test, LM Serial Correlation test and the Heteroskedasticity test revealed that there was no problem of abnormal distribution, serial correlation and heteroskedasticity in the model.

#### CONCLUSION

This study investigates the impact of financial intermediaries on economic growth in Nigeria between 1986 and 2017. The study uses Gross Domestic Product as the dependent variable and also used Money Supply (MS), Credit to Private Sector, Lending Rate (LR) and Total Credit (TC) as independent variables coupled with the use of Auto Regressive Distributed Lag (ARDL) model as method of analysis. The result revealed that only money supply is statistically significant with economic growth in both the short run and long run. However, Credit to private sector, Lending rate and Total credit assert a negative effect on economic growth while money supply has positive effect on economic growth. Also, the granger causality test shows a unidirectional causality from GDP to both CPS and TC also from MS to GDP. Meanwhile, the direction of causality is inconclusive between LR and GDP. In conclusion, the study through various evidences in literature has explicated the concept of financial intermediaries and economic growth. Moreover, through the preponderance of empirical proofs submitted at various places all over the world and the findings of this study, it can be inferred that financial intermediaries have a significant impact on economic growth. The study therefore, recommends that the financial intermediaries should properly monitor credit provide to sectors in the economy in other to ensure that these sectors profitably use such credit to boost the economy.

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