The Macrotheme Review

A multidisciplinary journal of global macro trends

FINANCIAL INTERMEDIATION AND ECONOMIC GROWTH IN NIGERIA (1992 – 2011)

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Abstract

One of the activities of financial institutions (Banks) involves intermediating between the surplus and deficit sectors of the economy. In Nigeria, banks dominate the financial sector and there is detailed information about Nigerian banking history but little information is available on the activities of the financial industry and how they affect the economy where they operate. Therefore, this study seeks to explore in the light of past trends, the extent to which financial intermediation impacts on the economic growth of Nigeria between the period of 1992 – 2011. The study adopted the ex-post facto research design. Time series data for the twenty years period 1992 – 2011 were collated from secondary sources and the Ordinary Least Squares (OLS) regression technique was used to estimate the hypotheses formulated in line with the objectives of the study. Real Gross Domestic Product, proxy for economic growth was adopted as the dependent variable while the independent variables included total bank deposit and total bank credit. The empirical results of this study shows that both total bank deposit and total bank credit exert a positive and significant impact on the economic growth of Nigeria for the period 1992 – 2011. This paper therefore recommend amongst others that banks should increase the interest paid to customers on the different bank accounts they operate to encourage more patronage from them and as well ensure that a major part of their credit is channelled to the productive sectors of the economy such as agriculture, industry and power.

Keywords: Financial Intermediation, Economic Growth, Bank Deposit, Bank Credit.

1.0 INTRODUCTION

1.1 Background of the Study

One of the activities of financial institutions (banks) involves intermediating between the surplus and deficit sectors of the economy. According to Bencivenga and Smith (1991), the basic activities of banks are acceptance of deposits and lend to a large number of agents, holding of liquid reserves against predicated withdrawal demand, issuing of liabilities that are more liquid than their primary assets and eliminating or reducing the need for self financing of investments. In particular, by providing liquidity, banks permit risk averse savers to hold bank deposits rather than liquid (but unproductive) assets. The funds obtained are then made available for investment in productive capital.

Moreover, by exploiting the fact that banks have large number of depositors and hence predictable withdrawal demand, they can economize on liquid reserves holdings that do not contribute to capital accumulation. Again, Bencivenga and Smith (1991) further argued that by eliminating self-financed capital investment, banks also prevent the unnecessary liquidation of such investment by entrepreneurs who find that they need liquidity. In short, an intermediation industry permits an economy to reduce the fraction of savings held in the form of unproductive liquid assets, and to prevent misallocation of invested capital due to liquidity needs (Bencivenga and Smith, 1991). Schumpeter in Kings and Levine (1991), argued that the services provided by financial intermediaries–mobilizing savings, evaluating projects, managing risks, monitoring managers and facilitating transactions, are essential for technological innovation and economic growth and development.

Levine et al (2000) posits that financial intermediaries emerge to lower the costs of researching potential investments, exerting corporation, controls, managing risks, mobilizing savings and conducting exchanges. Financial intermediaries by providing these services to the economy, influence savings and allocation decisions in ways that may alter long-run growth rates. Banks play effective roles in the economic growth and development of a country. This role they perform excellently by helping to mobilize idle savings of the Surplus Unit (SUs) for onward lending to the Deficit Units (DUs), thus helping in the capital formation of a nation (Ujah and Amaechi, 2005). It is in realization of the importance of bank's role in financial intermediation that successive governments in Nigeria have been allocating deliberate roles to them in various National Development Plans.

Afolabi (1998) states that with financial intermediation, the transfer of funds from the surplus sector to the deficit sector becomes very simple. The intermediary will act as a pool, collecting deposits of millions of savers and can create forums, e.g. interest-yielding accounts. The intermediary matches the deposit requirements of the saver with the investment requirements of the borrower. He acts as a pool, collecting savings of different sizes from different categories of savers and meeting the investment needs of the various types of investors. The surplus sector therefore gains by placing his money with the intermediary since the income to be earned does not depend on whether or not the intermediary has in fact lent the money out or whether or not the money was profitably lent. The overall economic effect according to Afolabi (1988) is that financial intermediation leads to a better aggregation of savings and therefore helps in capital formation and investment in the economy.

The banks are mainly involved in financial intermediation, which involves channeling funds from the surplus units to the deficit units of the economy, thus transforming bank deposits into loans or credits. The role of credit on economic growth has been recognized as credits are obtained by various economic agents to enable them meet operating expenses (Bencivenga and Smith, 1991). For instance, business firms obtain credit to buy machinery equipment. Farmers obtain credit to purchase seeds, fertilizers, erect various kinds of farm buildings. According to Nwanyanwu (2010), the provision of credit with sufficient consideration for the sector's volume and price system is a way to generate self-employment opportunities. This is because credit helps to create and maintain a reasonable business size as it is used to establish and/or expand the business to take advantage of economies of scale. It can also be used to improve informal activity and increase its efficiency. This is achievable through resource substitution, which is facilitated by the availability of credit, while highlighting the role of credit. Nwanyanwu (2010), further explained that credit can be used to prevent an economic activity from total collapse in the event of natural disaster, such as flood, drought, disease or fire. Credit can be generated to revive such an economic activity that suffered the set back.

The banking sector helps to make these credits available by mobilizing funds from savers who have no immediate needs of such funds and thus channel such funds in form of credits to investors who have brilliant ideas on how to create additional wealth in the economy but lack the necessary capital to execute the ideas. It is instructive to note that the banking sector has stood out in the financial sector as of prime importance, because in many developing countries of the world, the sector is virtually the only financial means of attracting private savings in a large scale to enhance economic growth (Afolabi, 1998).

Banks all over the world as we have earlier noted, provide a wide range of services including financial intermediation to suit the needs of their customers, be they individuals, corporate or government customers. In developing nations as ours, the majority of the people are poor, capital for investment is in short supply, means of transport are underdeveloped as well as basic infrastructures. Banks through their intermediation role and other services aim at overcoming these obstacles and thus, promote economic growth of the nation. Economic growth is often measured in terms of the level of production within the economy, the Gross Domestic Product (GDP) as well as the rate of physical capital accumulation among other possible measures (Zakaria, 2008). Majority of scholars accept economic growth as an increase in the level of national income and output in a country. According to Nnanna (2004), it implies an increase in the net national product in a given period of time. He explained that economic growth is generally referred to as a quantitative change in economic variables, normally persisting over successive periods. He added that the determinants of economic growth are availability of natural resources, rate of capital formation, capital output ratio, technological progress, dynamic entrepreneurship and other factors.

Oluitan (2010) sees economic growth as a steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national output and income. Jhingan (2006) viewed economic growth as an increase in output. He explained further that it is related to a quantitative sustained increase in the country's per capita income or output accompanied by expansion in its labour force, consumption, capital and volume of trade. The major characteristics of economic growth are high rate of productivity, high rate of structural transformation, international flows of labour, goods and capital. From the synthesizing insights of these definitions, economic growth in this work is defined as a sustained increase in national income or output of a nation. Thus, an economy is said to be growing if there is a sustained increase in the actual output of goods and services per head.

According to Greenwood and Jovanovich (1990), the dependence on domestic sources of capital, therefore, requires a wide range of independent well-organized and adapted financial institution, which has to mobilize internal resources for the purpose of capital formation and allow the capital to be invested conveniently and freely into desired developmental ventures.

Commercial banks, the basic component of financial institutions should be thus the major relevant and important institutions, which encourage and mobilize savings and channel them into productive investments because of their network of offices, their generally numerous clientele and the relative ease with which people transact business with them. Thus, they are the dominant institutions of financial intermediation. It is therefore expected that effective financial intermediation will exert a positive impact on economy.

The importance of banks in generating growth within an economy has been widely discussed by various scholars. Many economists believe that financial intermediaries play important roles in economic growth. Studies by Beck, Levine and Loayza (2000a) and Levine, Loayza and Beck (2000) confirm that well-functioning banks accelerate economic growth. Furthermore, a seminal study conducted by King and Levine (1993) on seventy seven countries made up of developed and developing economies showed that finance not only follow growth; finance seems important to lead economic growth. Greenwood and Jovanovich (1990) also observed that financial institutions produce better information, improve resource allocation and thereby induce growth. These studies further buttress the assertion that financial intermediation stimulate economic growth. Despite the above views, some scholars believe that finance is a relatively unimportant factor in economic growth. They postulate that economic growth is a causal factor for financial development. Gurley and Shaw (1967) as cited in Oluitan (2010) argue that as the real sector grows, the increasing demand for financial services stimulate the financial sector. Lucas (1988) in Kings and Levine (1993) believed that economists have badly over-stressed the role of financial factors in economic growth. Robbinson (1952) as cited in King and Levine (1993) contends that financial development simply follows economic growth and that the engine of growth must be sought elsewhere.

Nigeria is the most populous African country with a population of over 160 million people. It is also one of the world's top producers of crude oil and despite this, the country is among the poor economies in the world. Banks dominate the financial sector in Nigeria and therefore, given the mixed results of empirical finding as shown above, it is important to examine whether such postulations hold for the Nigerian economy. Again, there is detailed information about Nigerian banking history, but little information is available on the activities of the financial industry and how they affect the economy where they operate. Similarly, factors which motivate or drive growth within the economy relative to the industry are largely under researched. All these stimulate and motivate the researcher towards carrying out this study to fill this gap.

It is therefore against this background and given the intermediary role of commercial banks in economic growth and development that this study aims at exploring in the light of past trends, the extent to which the financial intermediation impacts on the economic growth of Nigeria.

1.2 Statement of the Problem

The role of banks in financial intermediation cannot be over-emphasized as they help in mobilizing the idle – savings of the Surplus Units (SUS) for onward lending to the Deficit Units (DUS), thus solving most of the problems standing between the lender and the borrower. However, certain issues or factors have continued to pose problems to the success of financial intermediation on the economic growth of the Nigerian economy.

Financial repression is one factor that affects and constitutes a great problem to financial intermediation by banks. Afolabi (1998) identified that the sources of repression are government legislations and policies such as legal restrictions on activities and interest rate policies that distort the full operation of the market mechanism in fixing prices for financial resources. There is also the issue of poor banking habit among Nigerians. Most of them prefer to keep and save their monies in boxes, under their mattresses or in holes in their houses, to having any business to do with the banks. According to Ngwu (2005), this may be as a result of literacy on their part and also as a result of the losses these people have sustained in the past due to bank failures and distresses. The major issue is, can banks through their intermediation activities contribute to economic growth in Nigeria, in the face of these challenges?

1.3 Objectives of the Study

This work is aimed generally at achieving the following objectives:

1. To determine the impact of deposit mobilization on economic growth of Nigeria.
2. To determine the impact of banks' credit on the growth of the Nigerian economy.

1.4 Research Questions

In this study, the following research questions are pertinent to the realization of the stated objectives of the study:

1. What is the impact of deposit mobilization on Nigeria's economic growth?
2. How far has bank credit significantly impacted on the growth of the Nigerian economy?

1.5 Hypothesis Of The Study

The study will be guided by the following statement of hypotheses formulated based on the objectives of the study:

1. There is no positive and significant impact of the bank deposit on economic growth in Nigeria.
2. There is no positive and significant impact of bank credit on the growth of the Nigerian economy.

1.6 Scope Of The Study

This study shall focus on the impact of financial intermediation on Nigeria's economic growth using variables such as deposit mobilization, bank credit. This study will focus frontally on Nigeria and will cover the period from 1992 to 2011.

2.0 REVIEW OF RELATED LITERATURE

The importance of financial institutions especially, bank in generating growth within the economy has been widely discussed in literature. Several economists have argued that the role of intermediation which banks play help in providing linkages for different sectors of the economy as well as encouraging high level of specialization, expertise, economies of scale and creating a conducive environment for the implementation of various economic policies of government. For instance, Schumpeter (1912) as cited in Zakaria (2008), argued that financial intermediation through the banking system plays an essential role in economic development by affecting the allocation of savings, thereby improving productivity, technical change and the rate of economic growth. He acknowledged that efficient savings through identification and funding entrepreneurs is vital to achieving desired objectives. Thus, one of the activities of financial institutions involves intermediating between the surplus and deficit sectors of the economy. The availability of credit function positively allows the fruition of this role and is also important for growth of the economy.

2.1 Financial Intermediation

Finance is required for different purposes by different organizations, individuals and other economic agents. In order to provide the needed finance, there are varieties of institutions rendering financial services. Such institutions are called financial institutions. Commercial banks are among such institutions that render financial services. They are mainly involved in financial intermediation, which involves channeling funds from the surplus unit to the deficit unit of the economy, thus transforming bank deposits into loans or credits.

In the primitive stages before evolution for financial intermediation, anyone who needs to spend more than he could himself provide would have to look for a wealthy person or persons from whom he could borrow. This is known as a system of direct or unintermediated finance. Afolabi (1998), posits that as crude as this system was, it probably satisfied the need of that time because financial requirements then were limited to such personal uses like marriages, burial ceremonies and minor commercial activities like farming. He further argued that at that time, intermediation was neither necessary nor sufficient for capital formation to take place. Financial intermediation will thus, not be necessary for instance, if the lender and the borrower can come into direct contact and would in fact not be necessary if there is no deficit or surplus sector. However, modern economic transactions will be difficult, if not impossible, with unintermediated finance as the business world nowadays is much more complex and financial requirements are too large. Even without considering the complexity of modern times, unintemediated finance has its inherent problems such as high tendency for subjectivity, unattractive interest rates, method of security was too crude and at times inhuman, repayment periods were usually too short for any meaningful long-term use, such that it became difficult for long-term projects to be financed from money raised from such medium amongst others. According to Bencivenga and Smith (1991), in the absence of banks i.e. financial intermediation, too much investment is self-financed and long delays exist between investment expenditure and receipts of profits from capital invested. They further argued that the absence of intermediary sector results in a composition of savings that is unfavourable to capital formation. Thus, an intermediation industry permits an economy to reduce the fraction of the savings held in the form of unproductive liquid assets, and to prevent misallocations of invested capital due to liquidity needs.

The argument just given suggests that financial intermediaries may naturally tend to alter the composition of savings in a way that is favourable to capital accumulation. Then, if the composition of savings affects real growth rates, intermediacies will tend to promote growth. Here, the analysis draws heavily on the contributions of the “endogenous growth” literature, as exemplified by Romer (1986) and Lucas (1988). One of the many insights of this literature is that savings behaviour will generally influence equilibrium growth rates. In particular, to the extent that intermediaries tend to promote capital investment, they will also tend to raise rates of growth.

Requirements of Financial Intermediation

Afolabi (1998) posits that for financial intermediation to succeed, three qualities are essential. These are usually called the three C’s of intermediation namely: cost, convenience and confidence.

Cost

Costs refer to the transaction cost that the saver or borrower is made to bear in the process of his dealing with the intermediary. Thus, costs like bank charges, commission and interest payable must be considerably low. For instance, the local money lenders most times charge very exorbitant interest, hence only hard pressed people, who are not likely to be credit-worthy to the bank, do patronize them. If there is appreciable cost of transacting business with an intermediary, many people will prefer to by-pass them.

Convenience

Convenience on its own has to do with the ease with which people transact business with the intermediary and this will include the formalities involved – how rigorous? Thus, simplicity of operation must be ensured such that it does not require specialist knowledge or certain level of education to deal with an intermediary. According to Afolabi (1998), the ease with which forms could be complete and terms understood are very important considerations. Also important is the waiting time. Conveniences can in fact be associated with costs. There are some costs that have to do with convenience. If, for example, the intermediary is too far away, the customer will have to incur additional transport costs and inconvenience each time he wants to transact business, though the online banking has gone far in reducing this problem. It is therefore imperative that intermediation facilities be very near the people for effective fund mobilization like rural banking schemes as the microfinance banks are not only socially desirable but an economic necessity to minimize the volume of funds in the otherwise "unbanked" areas.

Confidence

Confidence is another important requirement of financial intermediation. According to Ujah (2010), people must have confidence in the financial intermediary. As a saver, you must have the confidence that your money will be repaid to you as per the terms of the account you keep. Thus, if you maintain a current account, your money must be made available to you on demand and if you maintain a term deposit account, you must be able to withdraw on the expiration of the term or an expiration of the notice, if notice of withdrawal is required like in call deposit account and so on.

Perhaps, confidence is the most pillar upon which financial intermediation rotates. Savers will not keep money with a daily collector who is known as a swindler nor will they keep money in a bank if they have some fear that the bank may fail. Worst still, if a saver has lost money in a bank failure in the past, he will hesitate to patronize another bank in the future and hence, he will as much as possible, keep money away from any intermediary. It is therefore important that in an attempt to use financial intermediaries as vehicles for mobilizing savings, a failure-proof system must be designed and sustained (Afolabi, 1998). If a bank fails, it is not only the customers of the bank that will suffer, the economy as a whole will be affected because a dangerous signal, which may affect people's confidence in the financial system generally, has been sent. According to Uche (2001), bank failure has a contagion effect on the economy.

History has it that the indigenous banks in Nigeria had problems of confidence in the 1940's because of the failure of many of them in the previous decade. Again, the failure of most finance houses and some banks in the mid 1990s affected the confidence of depositors.

Cost, Convenience and Confidence are not only as they related to depositors, they are also in relation to borrowers. We have earlier stated that high interest rate or bank charges will deter borrowers and the processing time and conditions have to be very favourable to attract worthy investors. Also, the borrower must have the confidence that if he has a good project and he is in all other respects credit-worthy, he will not be discriminated against fund-wise, hence, he will not be afraid of investment. It is therefore important that the monetary authorities control these three variables, especially in a relatively uncompetitive financial system. However, once the system becomes competitive, most of these variables will take care of themselves and control will have to be relaxed. For instance, in a competitive environment, cost will be low, efficiency will be high and therefore convenience will be high. Efficiency of each firm will inspire confidence and intermediation will tend to become smooth and friction-free for better savings mobilization and investment generation.

Financial Development and Economic Growth – Empirical Evidence

The importance of financial institutions especially banks in generating growth within the economy has been widely discussed in literature. Early economists such as Schumpeter in 1991 identified banks' role in facilitating technological innovation through their intermediary role. He believed that efficient allocation of saving through identification and funding of entrepreneurs with the best chances of successful implementing innovative products and production processes are tools to achieve growth in an economy. Several scholars thereafter (Mckinnon 1973, Shaw 1973, King and Levine 1993) have all supported the above postulation about the significance of banks to the growth of the growth of the economy. In assessing the relationship, a large number of recent empirical studies have relied on measures of size or structure to provide evidence of a link between financial system development and economic growth.

They use macro or sector level data such as the size of financial intermediation or of external finance relative to Gross Domestic Product (GDP) and found that financial development has a significant positive impact on economic growth.

2.3.1 Financial Development Drives Growth in the Economy

The direction of casualty has been described by Patrick (1966), as supply-leading and demand-following hypothesis. This postulation was buttressed by Mckinnon (1973). When casual relationship runs from financial development to growth, it is termed supply -lading because it is believed that the activities of the financial institutions increases the supply of financial services which creates economic growth. The proponents of this hypothesis believe that the activities of financial institutions serve as a useful tool for increasing the productive capacity of the economy. They opine that countries with better developed financial system tend to grow faster. According to Mackinnon (1973), a farmer could provide his own savings to increase slightly the commercial fertilizer that he is now using and the return on the marginal new investment could be calculated. However, there is a virtual impossibility of a poor farmer's financing from his current savings, the total amount needed for investment in order to adopt the new technology. As such access to finance is likely to be necessary over the one or two years when the change takes place, he concluded.

Going through the literature in more detail, the seminal study conducted by King and Levine (1993), on seventy countries made up of developed and developing economies used cross-country growth regression. The aim of the research was to find out whether higher levels of financial development are significantly and robustly correlated with faster current and future rates of economic growth, physical capital accumulation and economic efficiency improvements. The results showed that finance not only follows growth; finance seems important to lead to economic growth.

Demirguc-Kunt and Levine (2008) in a review of the various analytical methods used in finance literature, found strong evidence that financial development is important for growth. To them, it is crucial to motivate policy makers to prioritize financial sector policies and devote attention to policy determinants of financial development as a mechanism for promoting growth.

Growth in the Economy Motivates Financial Development

Similarly, when growth within the economy results in increase in the demand for financial services and this subsequently motivates financial development, then it is termed demand-following hypothesis. The proponents of this hypothesis believe that economic growth is a causal factor for financial development. According to them, as the real sector grows, the increasing demand for financial services stimulates the financial sector (Gurley and Shaw, 1967). Robinson (1952) was of the opinion that economic activities propel banks to finance enterprises. Thus, where enterprises lead, finance follows. The study by Mushin and Eric (2000) on Turkey further lends credence to this postulation. According to their study, when banks deposits; private sector credit or domestic credit ratios are alternatively used as proxy for financial development; causality runs from economic growth to financial development. They therefore concluded that growth seems to lead financial sector development.

Bi-Directional Relationship Between Financial Development and Economic Growth

However, there are other scholars who believe that causality runs in both directions. The proponents of this view postulate that there is a bi-directional relationship between financial development and economic growth. Demetriades and Andrianova (2004), postulate that whether financial development causes growth, it is important that the financial system is well functioning. If so, they believe it will assist the real economy to fully exploit available new opportunities. When there is reverse causation, it is assumed that when the real economy grows, there will be more savings coming into the financial system which will allow it to extend new loans. This assertion could readily be applied to the Shan and Jianhong (2006) study of China economy where they found a two-way causality between finance and growth. Using five variables namely GDP, total credit to the economy, labour, investment and trade, the study observed that financial development was the second most important sector after the contribution from labour force growth in affecting economic growth. They also found out that strong economic growth in the last 20 years has significant impact on financial development by providing a solid credit base. The study concluded that causality for GDP growth to financial development is stronger than the causality from finance to GDP growth.

Concluding, although evidence from empirical work support the fact that both finance and real output are positively related to each other, the relationship is country specific and one should not extrapolate one country’s to another.

3.0 METHODOLOGY

3.1 Research Design

According to Amaechi and Amara (2005), research design is a blueprint which guides the researcher in his scientific inquiry, investigation and analysis. Research design is a scheme of attack; a plan and a strategy designed for systematically solving research problems of interest to the researcher within his relevant circumstances (Osuala, 1991). In this study, ex post facto design shall be adopted in obtaining, analyzing and interpreting data relating to the objectives of the study. The choice of this type of design will allow the researcher the privilege of observing variables over a long period of time. For this reason, both the dependent and independent variables will be observed over the period, 1992 to 2011.

Data collected will be analyzed and the hypotheses of this study tested using the Ordinary Least Squares technique to determine the impact of the independent variables – bank deposits and bank credits on the dependent variable – Real Gross Domestic Product (RGDP) which is the proxy for economic growth.

3.2 Population And Sample Size

Population according to Onwumere (2009), represents a universe or elements with similar characteristics, hence it is a census of all relevant elements and may be finite or infinite while a sample is a group of variables or items derived from a relevant population for the purpose of examination or analysis. Based on this, the population of this study will comprise of all financial intermediaries in Nigeria such as banks, insurance companies, finance houses, pension funds, etc. These institutions are involved in financial intermediation in one form or the other. Sequel to the fact that there may be obvious difficulties in studying the entire population due to the pattern and size of distribution, sufficient knowledge of the entire population will be gotten from studying a sample of the population.

The sample of this study shall be the commercial banks. The choice of these banks is based on the fact that they are the dominant institution of financial intermediation in Nigeria which encourage and mobilize savings and channel them into productive investments due to their network of offices; their generally numerous clientele, and the relative ease with which people transact business with them and also based on the availability of data.

3.3 Nature and Sources Of Data

The source of data for this work is secondary. Such data are obtained from published materials such as the Central Bank of Nigeria Statistical bulletins and publications of the Federal Office of Statistics (Bureau of Statistics).

3.4 Description of Research Variables

Variables employed in this study are made up of dependent and independent variables.

3.4.1 Dependent Variable

Economic growth constitutes the dependent variable. In line with the works of Ujah (2010) and Levine et al (2000), our proposed test will adopt the Real Gross Domestic Product (RGDP) per capita as a proxy for economic growth. The GDP tell sus the value of all output produced in a country valued at the cost of the factor services that went to their production. Ujah and Amaechi

(2005) see GDP as the total money value of all goods and services produced within a country at any given period of time.

$$\text{Real GDP per capita} = \frac{\text{GDP}}{\text{Total Population}}$$

3.4.2 Independent Variables

The major explanatory variables in use in this study are bank deposits, bank credits, bank liquid reserves and government expenditure and other random or stochastic variables like government policies, exchange rate and foreign direct investment.

3.4.2.1 Commercial Bank Deposits (CBD)

Generally, banks mobilize deposits from the general public as part of their intermediation role by way of demand deposits, savings deposits and time deposits accounts. To ensure that the variables are in the same state, we divide by the GDP.

$$\text{Thus, CBD} = \frac{\text{Total Bank Deposit}}{\text{GDP}}$$

3.4.2.2 Commercial Bank Credit (CBC)

Credit cannot be divorced from the banking sector as banks serve as a conduit for funds to be received in the form of deposits from the surplus units of the economy and passed on to the deficit units who need them for productive purposes. This measure equals, bank total credit divided by GDP in line with the work of Khaled and Samer (2006).

$$\text{CBC} = \frac{\text{Total Bank Credit}}{\text{GDP}}$$

3.4.2.3 Government Expenditure (GE)

This measure equals total government expenditure divided by GDP. It shows the expenses of government in an economy to maintain itself and the economy at large.

$$\text{GE} = \frac{\text{Total Government Expenditure}}{\text{GDP}}$$

3.4.2.4 Stochastic Disturbances

The stochastic disturbances are those variables which can also influence economic growth. In this study, they include government policies, exchange rates and foreign direct investments etc.

3.5 Techniques for Analysis

The researcher used the Ordinary Least Square technique to evaluate the relationship between financial intermediation and economic growth. The adoption of this technique will be based on the premise that the Ordinary Least Square is assumed to be the best linear unbiased estimator (Uremadu, 2002). It also has minimum variance according to Anyanwu (2000).

$$Y \quad - \quad \beta_o + \beta_1 X + \mu$$

Where:

Y = Dependent Variable

X = Independent/Explanatory Variable

β_o, β_1 = Regression Coefficients

μ = Error Term or Stochastic Term

(Uremadu, 2002).

Using data over the period 1992 – 2011, and in tune with the model/methodology adopted by Ujah (2010), Barro (1991) and Levine et al (2000), the Real Gross Domestic Product, proxy for Economic Growth will be regressed on a variety of independent variables while holding constant other factors that may affect economic growth such as government policies, foreign direct investment and exchange rate, etc.

3.6 Specification of Models

In specifying the models for this study, the following alphabets were used to denote respective variables.

RGDPpc = Real Gross Domestic Product per capita (Proxy for Growth)

CBD = Commercial Bank Deposits

CBC = Commercial Bank Credits

GE = Government Expenditure

Hypothesis 1

There is no positive and significant impact of bank deposits on economic growth in Nigeria.

Generally, the model is specified as:

$$RGDPpc = f(CBD, GE) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots..\ldots\ldots\ldots\ldots\ldots.1$$

The equation will be re-written thus in line with the objectives of this study

$$RGDPpc = \beta_o + \beta_1 CBD + \beta_2 GE + \mu\ldots\ldots\ldots\ldots\ldots\ldots\ldots..2$$

Hypothesis 2

There is no positive and significant impact of bank credit on the growth of the Nigerian economy.

Generally, the model is specified as:

$$RGDPpc = f(CBC, GE) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.\ldots\ldots\ldots.3$$

Thus, the equation is written as below in line with the objectives of this study.

$$RGDPpc = \beta_o + \beta_1 CBC + \beta_2 GE + \mu\ldots\ldots\ldots\ldots\ldots\ldots..4$$

4.0 DATA ANALYSIS AND RESULTS

Both descriptive and analytical techniques were adopted in this study. The multiple regression analysis based on the Ordinary Least Square (OLS) technique is adopted.

Table 4.1: Macroeconomic Data on Real GDP per capita, commercial Bank Deposits and Total Government Expenditure

Year	RGDPpc (₦'million)	CBD (₦'million)	GE (₦'million)
1992	2.835	0.2766	0.032
1993	2.794	0.4019	0.6958
1994	2.725	0.5113	0.5841
1995	2.71	0.6097	0.884
1996	2.753	0.7104	1.1487
997	2.754	0.8752	1.4178
1998	2.759	0.9807	1.5668
1999	2.687	1.4135	3.0357
2000	2.669	2.0172	2.1297
2001	2.819	2.521	2.8516
2002	3.334	2.4194	2.3503
2003	3.557	2.5437	2.5673
2004	3.844	2.8222	2.6233
2005	4.364	3.2879	3.1022
2006	4.519	4.939	3.0925
2007	4.697	7.1377	3.7029
2008	4.596	10.4672	4.579
2009	4.804	10.7479	4.5815
2010	5.095	10.6744	0.2609
2011	5.373	11.3756	4.7563

Results:

Dependent Variable: RGDPpc

Variables	Coefficient	std Error	t-statistics	Prob.
C	2.677265	0.172307	15.53777	0.000
CBD	0.218011	0.030572	7.131099	0.000
GE	0.030768	0.082966	0.370847	0.7153

R^2	=	0.844000
$\overline{R}^2$	=	0.825648
F – statistics	=	45.98733
DW	=	0.619942

Source: Author's Computation via E-views.

The result above shows that Commercial Bank Deposit has a positive and significant impact on economic growth. A 1% increase in CBD increases RGDPpc by 0.218011%. Again, the t-statistics value of 7.131099 is greater than 2 by the rule of the thumb, hence CBD has a positive and significant impact on RGDPpc. Also, $P < 0.05$ (i.e. $0.0000 < 0.05$). This confirms the significant effect of CDB on RGDPpc.

The coefficient of GE (0.030768) has a positive sign which means that a 1% increase in GE increases RGDPpc by 0.030768%. However, the t-statistics value of 0.370847 is less than 2 by the rule of the thumb. This means that GE has a positive but insignificant effect on RGDPpc. Also, $P > 0.05$ (i.e. $0.7153 > 0.05$) thereby confirming the insignificant effect of GE in RGDPpc. This situation may be attributed to the fact that Nigeria over the years has always allocated more funds to recurrent expenditure than capital expenditure.

Overall, the R^2 of 0.8440 implies that the explanatory variables explained 84% variation in the dependent variable of RGDPpc.

F statistics is 45.18733 which is greater than 3.96 (critical value). Therefore, the model is significant and reliable. Based on the above analysis, for hypothesis 1, we reject the null hypothesis and conclude that bank deposit has a positive and significant impact on the growth of the Nigerian economy.

Table 4.2: Macroeconomic Data on Real GDP per capita, Commercial Bank Credit and Total Government Expenditure

Year	RGDPpc (₦'million)	CBC (₦'million)	GE (₦'million)
1992	2.835	0.1575	0.032
1993	2.794	0.2389	0.6958
1994	2.725	0.3419	0.5841
1995	2.71	0.5137	0.884
1996	2.753	0.5768	1.1487
1997	2.754	1.2766	1.4178
1998	2.759	0.8778	1.5668
1999	2.687	1.0339	3.0357
2000	2.669	1.5442	2.1297
2001	2.819	2.2301	2.8516
2002	3.334	2.2036	2.3503
2003	3.557	2.5339	2.5673
2004	3.844	2.8797	2.6233
2005	4.364	3.5177	3.1022
2006	4.519	4.2367	3.0925
2007	4.697	7.5892	3.7029
2008	4.596	11.6028	4.579
2009	4.804	47.997	4.5815
2010	5.095	45.6366	0.2609
2011	5.373	77.8129	4.7563

Results

Dependent Variable: RGDPpc

Variables	Coefficient	Std Error	t-statistics	Prob.
C	2.740379	0.257346	10.64862	0.0000
CBC	0.026931	0.007274	3.702525	0.0018
GE	0.241407	0.105079	2.297376	0.0346

R^2 = 0.655310

$\overline{R}^2$ = 0.614758

F – statistics = 16.15985

DW = 1.055578

Here, Commercial Bank Credit has a positive coefficient (0.026931). This means that a 1% increase in CBC increases the RGDPpc by 0.026931%. Furthermore, the t-statistic (3.702525) is greater than 2 by the rule of the thumb, hence showing a significant impact of CBC on RGDPpc. Again, $P<0.05$ (i.e. $0.0018 < 0.05$) which goes to confirm the significance of CBC on RGDPpc. Therefore, Commercial Bank Credit has a positive and significant impact on the economic growth.

The coefficient of GE in this case is also positive. This means that a 1% increase in GE increases RGDPpc by 0.241407%. The t-statistics is 2.297376 which is greater than 2 by the rule of the thumb. This means that the Government Expenditure here is significant. Furthermore, $P < 0.05$ (i.e. $0.0346 < 0.05$), confirming the significant effect of total government expenditure. This situation may be attributed to the concerted effort of government to improve capital expenditure in the country.

In all, the R^2 is 0.655310, meaning that 66% of the variations in RGDPpc is explained by the explanatory variable (CBC and GE). The remaining 34% are unexplained by factors outside the model.

F statistics is 16.15985, which is greater than 3.59 (critical value). This implies that the model is significant and reliable. Therefore, for hypothesis 2, we reject the null hypothesis and conclude that bank credit has a positive and significant impact on the economic growth of Nigeria.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The relevance of financial institutions especially Commercial Banks in generating growth within an economy through their intermediation activities cannot be over-emphasized. This paper examined the impact of financial intermediation on the economic growth of Nigeria. Though the findings of this work show that both commercial bank deposit and credit exert a positive and significant impact on Nigeria's economic growth within the period under study, it also revealed a lot of challenges which militate against the intermediation activities of banks. Some of these include channeling of funds to non-priority sectors of the economy, low interest accrued to depositors, the incidences of fraud and forgeries, high interest rates paid by borrowers amongst others.

Based on the foregoing discussions and findings, the paper recommends as follows:

1. There should be an improvement on the interest paid to depositors on their deposits with the deposit collecting banks. In the same vein, commissions and interests paid by customers on some bank transactions should be reduced. These actions will encourage more people to save money with the banks and at the same time, borrow for investment purposes.

2. The monetary authorities using their credit guidelines should direct and or mandate banks to channel their mobilized savings to priority sectors of the economy such as agriculture and manufacturing.

3. There is also the need for government to provide an enabling environment for investment purposes especially in the area of security. Existing infrastructural facilities should be improved. This will go a long way in improving the productivity of the people, their incomes, mobilized savings by banks as well as funds made available to investors for investment purposes.

4. Banks should ensure simplicity of operation, including formalities involved. This will ensure that dealings with intermediaries don't require specialist knowledge or certain level of education.

5. There is the need to restore confidence in the financial intermediaries. A failure-proof system must be designed and sustained as bank failure has a contagion effect on the economy.

6. Concerted efforts should be made by government to encourage entrepreneurship and small business developments by directing Banks through the Central Bank of Nigeria (CBN) to finance viable projects at no stringent conditions. This will encourage growth and development of the country.

7. Rural banking schemes should be encouraged. Commercial Banks should be made by law to open branches in the rural areas of the country. This will enable them mop up savings from rural dwellers, extend credit to those who have investment opportunities and above all, help create banking habit among the rural populace.

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