
Acha Ikechukwu A. (Corresponding author)
Department Of Banking and Finance, University of Uyo,
Uyo, Akwa Ibom State, Nigeria
Tel: 234-08036057080 E-mail: achaiyke@yahoo.co.uk

Abstract
This study investigated the role banks play in economic growth. It used bank deposits and bank credit to the private sector as variables for bank intermediation and real gross domestic product (RGDP) to proxy economic growth. The regression of RGDP as dependent variable against bank deposit and credit confirmed that banks through their intermediation function contribute to economic growth in Nigeria. The paper therefore recommends that banks should be encouraged to expand credit to the private sector.

Keywords: Bank, Financial Intermediation, Economic Growth, Savings, Credit

1. Introduction
Going down memory lane one discovers that initial indigenous banks were founded to address the perceived discrimination against Nigerian borrowers by foreign banks. The main objectives of these indigenous banks were to encourage local investors, support budding entrepreneurs and hence foster economic growth. Many of these early indigenous banks failed, hindering their contribution to the economy.

Several reasons have been adduced for the high rate of failure by these early indigenous banks. One of the most compelling ones is that they operated in an unregulated banking environment. This thinking must have informed the establishment of the Central Bank of Nigeria (CBN) with the principal mandate of regulating the banking industry. Looking at the rules, guidelines policies and statements issued by the CBN one is convinced that it shares in the belief of the early indigenous banks that banks should contribute to economic growth. Guidelines such as those prioritizing agriculture and manufacturing for credit purposes (the Agricultural Credit Guarantee Fund Scheme (ACGFS) and Microfinance Fund), and policies like deregulation and consolidation are all aimed at positioning the banks as engines of economic progress.

The policies of deregulation and consolidation of the financial sector are based on the thinking of the financial repression school. The school holds that regulations constrain the ability of financial institutions to optimally contribute to economic growth. They therefore suggested the liberalization of the economy to enable these institutions perform this growth function. On the other hand, the main idea behind consolidation was the increase the size of the Banks. This was based on the thinking that with increased size these banks will become stronger, resilient to shocks and capable of funding the real sector and by extension enhance economic growth.

Apart from these compulsory regulatory directives and policies, aimed at ensuring banks contribution to the economy, banks are known to engage in financial intermediation. Banks mobilize funds from the surplus economic unit and make same available to deficit unit as loans in ordinary course of their business. Through this granting of loans banks are able to create credit, expand the economy and finance investment.

Inspite of this seeming obvious link between banks and economic growth, economists remain polarized in their opinions. On one hand are those who strongly hold that banks through their intermediation activities contribute to economic growth (Gerschenkron, 1962, Mckinnon, 1973, Shaw, 1973, Levine, 1997, Montiel, 2003) and on the other hand are others that hold a contrary view (Lucas, 1988, Dornbusch and Reynoso 1989:204, Stiglitz, 1994 & 2000).

This study is therefore necessitated by the compelling arguments by the opposing economic camps. The obvious tilt of our policy makers (including the CBN) towards accepting the position that banks contribute to economic growth
unquestioningly and more importantly the fact that none of these studies used Nigerian data to arrive at its conclusion further buttresses the need for this study. This study intends to fill this gap.

This study therefore investigates the link between the intermediation (savings mobilization and lending) activities of banks and economic growth in Nigeria. Its main purpose is to assess the relationship between banks’ gross deposit/credit to private sector and growth of the Nigerian economy.

To achieve this objective the following research questions are raised:

i. As part of their intermediation role are Nigerian banks encouraging people to save?
ii. Are they applying the mobilized deposits in funding the private sector?
iii. Is the economy growing and are Nigerian banks contributing to this?

The hypotheses to be tested in this study are presented in their null form as:

i. Savings mobilized by Nigerian banks are not significant considering the amount of currency in circulation.
ii. Banks are not extending significant portion of their loan portfolio to the private sector.
iii. Nigerian banks are not making any significant contribution to economic growth.

A timeframe of 1990 to 2008 has been used for this study. This period is seen as long enough to enable the drawing of the necessary inference and arriving at a conclusion. Only deposits and credits advanced by Deposit Money Banks (DMBs) are considered in this study. Deposits of microfinance banks, primary mortgage institutions and other deposit taking institutions are not taken into considerations. On the other hand the real gross domestic product (RGDP) is used as a determinant of the size of the economy.

This study is organized in five sections. The first of these is this introduction. Following the introduction is the theoretical framework, under which concepts and theories are reviewed. The third section examines the research methodology used in this study. In the fourth section, data is presented and analyzed and in the fifth, conclusion is drawn and recommendations are made.

2. Theoretical Framework

To explain economic growth, several models have been developed by economists. One of such is the Harold-Domar model on which this study is hinged. This model holds that the impact of money in an economy depends on its ability to influence interest rate. The rate of interest in turn influences the rate of investment which in turn influences national income. The model postulates that changes in national income depend linearly on change in capital stock or investment. The assumption is that investment is a function of savings, they conclude that economic growth will proceed at the rate which society can mobilize savings coupled with the productivity of investment (Levine, 1997:693, Azege, 2009:7, Masha, et al, 2004:10). Theoretically therefore, savings is seen as positively impacting on economic growth through its positive influence on capital formulation.

The emphasis laid on savings by the Harold-Domar growth model preempts a conclusion that banks intermediation function leads to economic growth. This thinking is reinforced by the McKinnon-Shaw hypothesis that economic growth is dependent on bank intermediation. To them, the important role banks play in growth can be confirmed by comparing repressed financial systems and liberalized ones. They conclude that liberalization leads to increased real interest rate which acts as an incentive for people to save and invest (Tenant, 2006:3, Gemech & Struthers, 2003:2).

This theoretical framework which traces the path to economic growth through the mechanism of savings and investment is adopted by this study. This does not preclude the existence of other opposing strands of theories. For instance, the Solow growth model opposed the Harold-Domar model. It holds that any increases in growth resulting from increase savings is only temporary as only technological progress can assure sustained growth (Solow, 1957).

Also, the Mickinnon-Shaw hypothesis is not without opposition. The opposition asserts that increase in savings does not automatically lead to an increase in investment, as investment also depends on expectation of future demand (Tenant, 2006:4, Stiglitz, 1994 & 2000). Tenant further argued that increased deposit rates, which liberalization engenders leads to increase in propensity to save causes aggregate demand to decrease and precipitates a fall in outputs, profits and investments. Emphasizing the absence of connection between banks and economic growth, Diaz-Alejandro (1985) linked financial liberalization to financial crises.

3. Research Methodology
This study aims at testing the relationship between financial intermediation and economic growth in Nigeria. For financial intermediation, the two sides of the intermediation equation are considered, that is, deposit and credit. Deposits are seen as including current, fixed and savings deposits in banks while credit to the private sector will stand in for credit. On the other hand, RGDP is used to represent the size of the economy.

This study adopts mainly secondary data analysis approach. Despite this, some elements of exploratory research are also used especially in the section on review of literature. Data is mainly sources from the Central Bank of Nigeria (CBN). The study used both correlation and regression analysis.

The study suffers from the following limitations:

- Exclusion of deposits and credits of other financial institutions.
- Exclusion of credit to government.

In spite of these limitations it is believed that the conclusion of this study should be reliable. This is because banks dominate in the financial system and loans to government are used mainly for recurrent expenses not capital formation.

A three step approach is adopted in assessing the relationships. The first tests the ability of banks to mobilize deposit. The second investigates the portion of banks’ loans that are directed to the private sector. The third assesses impact of deposits and credit to private sector on the economy.

(i) Banks ability to mobilize deposits.

To do this it is assumed that money is either saved or held as cash by individuals. Therefore currency outside banks (COB) is influenced by deposits (DPS). Deposit is interpreted to cover all accounts held by customers (current, savings and fixed) plus cash held by banks (M₂). Hence it is expected that an inverse relationship should subsist between deposit in the banks and cash balances held outside the banks. The relationship is denoted thus:

\[ \text{DPS}_t = f(\text{COB}_t) \]  

The functional relationship can then be shown as:

\[ \text{DPS}_t = a_0 + a_1 \text{COB}_t + e \]  

(ii) Banks and Credit to private sector.

To examine the extent of bank loans to the private sector, the relationship between total bank credit to the system (TBC) and banks credit to the private sector (CPS) is considered. The strength of this ratio is instructive.

\[ \text{TBC}_t = f(\text{CPS}_t) \]  

Functionally we state

\[ \text{TBC}_t = a_0 + a_1 \text{CPS}_t + e \]  

(iii) Banks intermediation and economic growth.

RGDP is used to represent growth in the economy while banks credit to private sector (CPS) and deposit in banks (DPS) stand for financial intermediation by banks. Therefore,

\[ \text{RGDP} = f(\text{DPS}, \text{CPS}) \]  

The functional relationship is stated as follows:

\[ \text{RGDP}_t = a_0 + a_1 \text{DPS}_t + a_2 \text{CPS}_t + e \]  

The variables in the models are defined thus:

- \( a_0 \) = model intercept
- \( a_1, a_2, a_3 \) = coefficients
- \( \text{DPS} \) = deposits in banks
- \( \text{CPS} \) = credit to private sector
- \( \text{COB} \) = currency outside banks
- \( \text{RGDP} \) = real gross domestic product
$e = \text{Stochastic term}$

$t = \text{time period}$

### 4. Data Presentation, Analysis and Interpretation

#### 4.1 Introduction

In this chapter, data is presented, analyzed and interpreted. The presentation is mostly tabular. Annual percentage changes and ratios feature prominently in data analysis, while correlation and regression are further used to verify the results of the analysis and test hypotheses. T-test is used to confirm the significance of the results.

#### 4.2 Data Presentation and Analysis

Insert table 1

#### 4.2.1 Test of Hypotheses

Test of Hypothesis 1

Hypothesis tested:

- $H_0$: Savings mobilized by Nigerian banks are not significant considering the amount of money in circulation.
- $H_1$: Savings mobilized by Nigerian banks are significant considering the amount of money in circulation.

Since:

$$DPS_t = f(COB_t) = a_0 + a_1 COB_t + e$$

From SPSS, the obtained model is

$$DPS_t = 745375.5 + 8.39 COB_t + e$$

- Standard error (SE): $(298540.6) 0.76$
- $t$ value: $(2.497) 11.01$
- Beta Coefficients: $0.94$
- Pearson’s Correlation Coefficient (R): $0.94$
- Coefficient of determination ($R^2$): $87.7\%$
- Degrees of freedom: $17$

**Interpretation:**

It was assumed a priori that since deposits in banks (DPS) and currency outside banks make up currency in circulation that there is an inverse relationship exists between them. Going by this, the result is not properly signed. Instead of a negative correlation as expected a positive relationship was obtained.

This high positive correlation of 0.94 indicates that the variables move in the same direction against expectation. It implies that increases in deposits in banks do not necessarily reduce currency outside banks, it also shows that the growth in deposits seen earlier is not necessarily as a result improved efficiency in deposit mobilization by banks but could be due to other factors like increase in money supply by the CBN.

**Test of Significance of Result:**

Since, $tc > tt$

We reject ($H_0$) that savings mobilized by Nigerian banks are not significant considering the amount of money in circulation. Hence we accept the alternative Hypothesis ($H_1$) that savings mobilized by Nigerian banks are significant considering the amount of money in circulation.

Insert table 2
Test of Hypothesis II

Hypothesis tested:

$H_0$: Banks are not extending significant portion of their loan portfolio to the private sector.

$H_1$: Banks are extending significant portion of their loan portfolio to the private sector.

Since:

$$TBC_t = f(CPS_t)$$

$$= a_0 + a_1CPS_t + e$$

From SPSS, the obtained model is

$$TBC_t = 73565.8 + 1.29CPS_t + e$$

Standard error (SE): (58637.4) 0.03
t value: 1.26 49.5

Beta Coefficients: 0.99

Pearson’s Correlation Coefficient (R): 0.99

Coefficient of determination ($R^2$): 99%

Degrees of freedom: 17

Interpretation:

The results generated by SPSS indicate a high positive correlation as a priori expected. This high positive correlation of 0.99 can be interpreted to mean that a reasonable portion of increases in total credit end up in the private sector.

Test of Significance of Result:

Since $t_c > t_t$

The null hypothesis ($H_0$) is thereby rejected and the alternative ($H_1$) accepted. This affirms that banks are extending a significant portion of their loan portfolio to the private sector.

Test of Hypothesis III

Hypothesis tested:

$H_0$: Nigerian Banks are not making any significant contribution to the economy.

$H_1$: Nigerian Banks are making significant contribution to the economy.

Since:

$$RGDP_t = f(DPS_t, CPS_t)$$

$$= a_0 + a_1DPS_t + a_2CPS_t + e$$

From SPSS, the obtained model is

$$RGDP_t = 249017.0 + 0.24DPS_t - 0.22CPS_t + e$$

Standard error (SE): 15072.6 0.04 0.05
t value: 16.5 6.3 (4.9)

Beta Coefficients: 3.99 (3.09)

Pearson’s Correlation Coefficient (R): 0.96

Coefficient of determination ($R^2$): 93%

Degrees of freedom: 17

Interpretation:

The high correlation of 0.96 existing between the independent variables (DPS & CPS) and the dependent variable (RGDP) is in line with a priori expectations. It was anticipated that deposits in banks and credits to private sector
should play an important role with theoretical projections. To further strengthen this is the high coefficient of determination ($R^2$) which is 93%. This shows that the two factors taken together explain 93% of the increases in RGDP while other factors contribute marginal 17%.

Test of Significance of Result:

Since $t_c > t_t$

We also reject the hypothesis ($H_0$) that Nigerian banks are not making any significant contribution to the economy and accept the alternative that they are.

5. Summary, Conclusion and Recommendations

5.1 Introduction

The economic problems of Nigeria have necessitated this study that investigated the contributions of banks to economic growth. The study was also prompted by the lack of a common ground among scholars on the subject of banks’ role in economic growth. The clincher though was the dearth of studies investigating this relationship with respect of sub-Saharan African countries in general and Nigeria in particular. This study used Nigerian banking data for 1999-2008. The summary and discussion of its findings are presented below.

5.2 Summary of the Findings

The study discovered the following:

i. That banks mobilize significant part of currency in circulation as deposits.

ii. That banks lend out significant portion of their credit to the private sector.

iii. That banks contribute reasonably to economic growth

iv. Inefficiency of banks in deposit mobilization was also identified as currency outside banks significantly increased as banks’ deposits increased. This to a long extent explains the dualistic nature of the financial system.

5.3 Discussion of Findings

On the whole the study corroborates the position of those that hold that banks play an active role in economic growth through financial intermediation. As shown in this study, banks are able to mobilize a significant amount of money in circulation as deposits, reduce currency outside banks and improve the performance of CBN’s monetary policy actions. Monetary policy operations of the CBN usually carried out to stabilize the economy in order to achieve certain economic objectives, of which growth is paramount. This is done by contracting or expanding the balances held by banks. If most of these money balances are held outside the banking system then the actions of the CBN to contract or expand economic activities through the banks will be ineffective. It is in this light that the increasing amount of currency outside banks should be checked.

In most economies, especially the market based ones; the private sector is usually the engine of economic growth. This explains why the extension of most of its credits to the private sector by the banks is viewed in a good light. Such loans are normally used for productive purposes. Even when they are devoted to consumption, they still indirectly influence economic growth. When demand increases, it encourages manufacturers to expand their capacity to meet such increases and engenders economic growth.

Banks through their intermediation role are contributing to economic growth. The Nigerian data used in this study confirms this position.

5.4 Conclusion

This study investigated the role banks play in economic development of Nigeria. It examined the concepts of banking and economic development, and delved into the various shades of opinion on the subject of banks and economic development. Two extreme positions were observed: studies that accept that banks through intermediation contribute to economic growth and those that don’t.

On the basis of this conflicting positions, this study applied Nigerian data to assess the contributions banks’ intermediation to economic growth. Results revealed that banks in Nigeria had mobilized significant amounts of
currency in circulation as deposits. It also showed that a reasonable portion of banks’ credit goes to the private sector.

Analysis confirmed that banks deposits and credit to private sector has a positive relationship with the country’s real gross domestic product (RGDP). The study therefore concludes that banks contribute 93% to RGDP given her intermediation function and invariably play an active role in economic growth in Nigeria.

5.5 Recommendations

Going by the findings of this study, the following suggestions are made to improve banks’ contributions to the economy.

i. Banks should devise ways to mop up the increasing currency outside banks. This they could do by going into micro-financing and reaching out to less educated and rural populace.

ii. Banks should be encouraged to continue to expand credit to the private sector. This the government can do by guaranteeing bank credit to the real sector.

iii. Effective intermediation by banks should be encouraged by the regulatory authorities since this has been established to have positive relationship with economic growth. In this vein interest rates should be aligned in a way that it encourages deposit mobilization without discouraging investment.

5.6 Suggestions for Further Research

As fallout of this study some areas have been identified for further investigation. This includes the need to examine the factors that influence currency outside banks (COB), as this variable behaved contrary to theoretical expectations. The implications of the contributions of non-bank financial institutions and the capital market for economic growth can also be investigated.

References


<table>
<thead>
<tr>
<th>YEAR</th>
<th>Credit to private sector</th>
<th>Credit to federal government</th>
<th>Credit to state &amp; local government</th>
<th>Credit to the economy</th>
<th>Real GDP</th>
<th>RGDP growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>26565.8</td>
<td>8702.4</td>
<td>0.0</td>
<td>35268.2</td>
<td>267550.0</td>
<td>-</td>
</tr>
<tr>
<td>1991</td>
<td>30531.3</td>
<td>6813.5</td>
<td>0.0</td>
<td>37344.8</td>
<td>265379.1</td>
<td>(0.81)</td>
</tr>
<tr>
<td>Year</td>
<td>DPS</td>
<td>Currency Outside Banks (COB)</td>
<td>Percentage of COB/DPS</td>
<td>Annual Percentage Increase in DPS</td>
<td>Annual Percentage Increase in COB</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>------------------------------</td>
<td>-----------------------</td>
<td>----------------------------------</td>
<td>----------------------------------</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>68662.5</td>
<td>14951.1</td>
<td>21.8</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** CBN Statistical Bulletin, 2008

**TABLE 1:** Total Bank Deposit (DPS) and Currency Outside Banks (COB), 1990 – 2008 (₦ million)
The table shows total bank deposit (DPS) and currency outside banks (COB). Except for 2008, which figures are provisional, the percentage of currency outside banks when compared to bank deposits maintained a double digit figure. It rose to as high as 34% in 1994 before it steadily declined to 9.7% in 2008. This is considered an indication of improved performance by banks in deposit mobilization compared to as much as 34%, 33.5%, and 31.4% in 1994, 1995 and 1996 respectively. This improvement is corroborated by the annual percentage increase in deposits observed throughout the period. The years 2008 and 1993 are outstanding in this regard with annual percentage increases in excess of 50% (57.8% and 53.8%). The 48.1%, 47.5%, 44.2%, 43.1% increases recorded in 2000, 1992, 2007 and 2006 respectively are also worthy of note.

This improved performance by banks in deposit mobilization tended to be punctuated by increases in the growth of currency outside banks. Increases of over 50% were recorded from 1991 – 1994. After this, the currency outside banks still showed annual increases but at a rate lower than annual increases in deposit mobilized. This implies that banks were able to mobilize more deposits inspite of the growth in currency outside banks.

Table 2: Total Banks’ Credit to the Economy and Banks Credit to the Private Sector, 1990 – 2008. (₦ million)

<table>
<thead>
<tr>
<th>Year</th>
<th>Credit to the economy (TBC)</th>
<th>Credit to Private Sector (CPS)</th>
<th>Percentage of CPS /TBC</th>
<th>Annual percentage increase in CPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>35268.2</td>
<td>26565.8</td>
<td>75.3</td>
<td>-</td>
</tr>
</tbody>
</table>


*2008 figures are provisional.
The table above shows that banks in Nigeria devote a reasonable portion of their credit portfolio to the private sector. Of the 19 years being reviewed, over 80% of total credit by banks went to the private sector in 6 of these years, more than 70% in 8 of the years and over 60% in the remaining 5 years. Since it is assumed that credit directed to the private sector is used for productive purposes. It is inferred from the table that banks are doing a lot in this direction.

This line of thought is enhanced by the data revelation of an incremental trend in the credit to private sector. Though these increases fluctuated, none was less than a double digit with the 13.9% of 2002 being the least. Figures as high as 91%, 87.2%, 70.3% and 61.6% were posted in 1994, 2007, 2001 and 2008 respectively.
This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE’s homepage: http://www.iiste.org

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. **Prospective authors of IISTE journals can find the submission instruction on the following page:** http://www.iiste.org/Journals/

The IISTE editorial team promises to the review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

**IISTE Knowledge Sharing Partners**

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar