

Original Research Article

Financial Liberalization and Rural Financial Landscape: Study of Nigeria

Abstract

The study **aims** at evaluating the impact of financial sector liberalization on the financial landscape of rural Nigeria represented by resource mobilization and allocation using time series data from 1981 to 2014. The study **was** motivated by the high level of financial exclusion in the rural area and the search for solution to this problem. The study adopted **Autoregressive Distributed Lag (ARDL)** model as the preferred method of analyzing the data. **It was that** found financial liberalization had significant impact on the rural financial landscape. Specifically, the study found that increase in number of bank branches in the rural areas **in** significantly improved resource mobilization **but had significant positive effect on** allocation. It was also found that **lending rates significantly encourages resource allocation while deposit rates also encourage resource mobilization**, though insignificantly. On the basis of these findings, the study **recommends** that financial liberalization should be continued in Nigeria especially through increase in number of bank branches in rural areas. Banks should also be encouraged to maintain competitive interest rates.

Keywords: financial liberalization, resource mobilization, resource allocation, rural financial landscape

Section 1

1.1 Introduction

Nigeria is faced with many developmental challenges among which is inadequate financial resources to generate and sustain economic activities. The discovery of oil in commercial quantity and its subsequent exploitation would have been the much needed blessing to reduce this inadequacy but the oil boom of 1973 and 74 that drastically changed the structure of production and consumption and worsened the economic woes of the country. The boom created a mono-product economy that depended on the oil sector as the chief source of revenue and total neglect of other viable sectors like agriculture and manufacturing. With the global economic crisis, the Nigeria economy that was already structurally imbalanced was in a deep economic crisis which included fiscal deficit, shortage of foreign exchange (with overvalued naira), negative economic growth, external debt crisis, high unemployment rate etc.

Due to these unfavourable situations and the deteriorating economic and financial conditions, the government of the day resorted to a number of policy measures to resuscitate the already crumbling economy. In order to finance many of the projects embarked by the government as a result of the oil boom, the financial system was repressed. This is evidenced by imposition of interest rate ceilings in lending and deposit rates; restriction on entry into the banking sector as well as limitation on foreign ownership of domestic financial institutions; high liquidity and required reserve ratio; selective credit control; administered exchange rate etc. Rather than ameliorating the situation, the repression of the financial system in order to raise inflation tax worsened the economic woes of the country. The financial

system could not effectively carry out its mobilization function as real interest rate was negative. The allocation role was also hampered as the most productive investments were edged of in favour of government preferred sectors.

In July 1986, the Structural Adjustment Programme (SAP) was adopted as a tool to restructure the economy and save it from impending doom; create a suitable environment for investment and develop the private sector that will take a lead role in economic transformation. Specifically, the thrust of SAP was towards deregulation and liberalization of the heavily controlled economy. A critical ingredient to achieve this was financial liberalization. The direction of SAP towards this end was relaxation of controls on interest rate and also conditions for granting license; abolition of credit ceilings and guidelines; deregulation of money and capital markets etc (Anyanwu,et al, 1998). It was also geared towards giving Central Bank of Nigeria (CBN) more authority to conduct monetary policy and more generally, to develop and promote the role of financial markets in financing the economy. These will enable the economy to grow and sustain the growth.

In addition to these economic woes, the structure of the country is skewed in many aspects. For instance the country is sharply divided into formal and informal; urban and rural; rich and poor etc. Dwellers of the rural sector, which make up a considerable percentage of the informal sector, lack access to many productive resources and is characterized by high incidence of poverty, stagnated and depressed economy. One of the important resources the rural area lack access to is financial resources.

Statistics revealed that many Nigerians are unbanked and lack access to formal financial services. According to a 2010 survey for FinScope Nigeria (2010) by the Enhancing Financial Innovation and Access (EFInA) on Access to Financial Services in Nigeria, about 46.3% (39.2 million) of the adult population are financially excluded; whilst only 25.4 million Nigerians, representing 30% of the adult population are banked (EFInA, 2010). The 2014 FinScope Nigeria (2014) show that 39.5% (36.9 million) of the adult population were financially excluded while 36.3% (45.5 million) of the adult population are formally included (EFInA, 2014).

An integral part of financial liberalization is to expand financial services in general and banking services in particular so as to include the excluded people especially in the rural areas. To achieve this, governments over the years have increasingly pursued the financial liberalization policy to reduce the resource-type disadvantage that the rural dwellers face. The study thus seeks answers to the following questions: What is the impact of financial sector liberalization on financial resource mobilization in rural Nigeria? What is the impact of financial sector liberalization on financial resource allocation in rural Nigeria?

Section 2

2.1 Theoretical Literature Review

The financial system plays very important and indispensable roles in economic growth and development. Specifically, financial systems: (1) facilitate the trading, hedging, diversifying, and pooling of risk, (2) allocate resources, (3) monitor managers and exert corporate control, (4) mobilize savings, and (5) facilitate the exchange of goods and services (Levine, 1997). It is, therefore, widely accepted that well-functioning financial markets is sine quo non to economic growth in both developed and developing economies.

Seminal works of McKinnon (1973) and Shaw (1973) posited the importance of freeing the financial system against the widespread "financial repression" in developing countries. It was argued by Agenor and Montiel (1996) that financial repression that have the effect of keeping interest rates that domestic banks offer to savers very low and sometimes negative. This low interest rate discourages savings, makes investment impossible to achieve and retard economic growth. While financial repression is commonly associated with placing restriction on interest rate with its attendant consequences, financial liberalization is often associated with freeing the interest rate so as to encourage savings and efficiently allocate financial resources.

The effect of financial liberalization on saving can be direct or indirect (Nyanzi and Kaberaka, 2013). Its direct effects include but not limited to: entrance of more banks and attendant competition thereby removing liquidity constraints faced by households and businesses; offering of a variety of saving products; increase in real interest rates and improvement macroeconomic management. The indirect effects include increased wealth holdings of households and businesses.

According to the financial repression theory of McKinnon (1973) and Shaw (1973), financial liberalization causes financial deepening. The increased interest rates, as a result of financial intermediation, raises savings and shifts households from buying unproductive assets towards financial assets, thereby deepening the financial sector.

Financial liberalization includes has elements and includes three basic categorizations: capital account liberalization; banking sector liberalization; stock market liberalization. Within these elements, several factors and measures of financial liberalization have been identified as seen in box 1.

Box 1: Factors and Measures of Financial Liberalization

Factors of Financial Liberalization • Deregulation of credit controls • Encouragement of indirect monetary control instrument like the use of Open Market Operations (OMO) and less use of direct controls • Deregulation of interest rate controls • Removal of any barrier to bank entry • Privatization of state-owned banks • Increased activities in the securities and stock exchange markets • Strengthening bank supervision and regulation • Liberalization of foreign exchange market Source: Nyanzi and Kaberaka, (2013)	Measures of Financial Liberalization • Interest rate liberalization • Reduction in reserve requirement • Reduction in directed credit • Foreign bank entry • Privatization of state-owned domestic bank • Widening of scope of activities in banking sector • Increased prudential regulation • Opening of stock market to foreigners • Stock trading system • Incentives to foreign investors • Issue of share capital • Exchange rate liberalization Source: Waliullah (2010)
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The desire to liberalize the financial system is hinged on the positive impact the improved competitiveness, size, effectiveness and efficiency of financial markets on the performance of the economy. This positive externality will also spillover to the real sector of the economy. However, the impact of liberalization has also negative effects especially in developing countries where critical markets are highly underdeveloped and there is asymmetric information. As the underdeveloped economies are quickly integrated with developed markets through financial liberalization, the uneven relationship between them is worsened and results to financial crisis in the underdeveloped economies.

Financial liberalization in Nigeria intensified in 1986 when the government adopted the World Bank/International Monetary Fund (IMF)-backed named Structural Adjustment Programme (SAP). SAP was aimed to achieve many objectives, chief among them was to liberalized the economy for efficient resource allocation; expand the saving mobilization and to foster greater competitiveness.

Embarking on SAP was ultimately aimed at directing the economy to capitalism instead of government interventions and restrictions of a centrally-controlled economy. The paradigm shift is based on simple economic principle on the power of market forces to properly coordinate economic activities and allocate scarce resources.

Soyibo (1994) observed that SAP in Nigeria was as the nation faced serious economic crisis and the attendant instability in the financial system. Financial systems liberalization was needed because a well-

functioning and virile system is an important support for economic development and when it is inefficient spells doom and crisis for the economy.

2.2 Financial Liberalization in the Informal/Rural Sector

The rural sector often lack access to many productive resources, notably formal financial market. To this effect, rural dwellers seek other means to fill this awning gap: they patronize the informal financial sector. This leads to financial dualism, segmentation and fragmentation with grave implications on the financial development and monetary policy. On the part of the rural dwellers, getting financial services from the informal sector is often at a high cost. For this reason, it is important to look at the effects of financial liberalization on the rural financial terrain as the effects may be different from its effects on the formal sector.

It is believed that with liberalization in the formal sector, the informal sector should shrink in favour of the formal sector. This is happens as interest rates in the formal market rises while that of the informal sector falls, leading to a convergence. As a result, savings in the formal sector rises while savings in the informal sector falls, making more funds available for borrowing in the formal sector. With financial liberalization comes with relaxing of entry barriers for financial service providers and competition drives them to open more branches.

2.3 Empirical Literature

A study by Uwajumogu, et al (2014) was aimed at investigating the effect of finance on rural entrepreneurial development in Nigeria between 1981 and 2013. Using the Ordinary Least Square (OLS) method, they found that lending rate, loans and advances and banks' performance had positive and significant relationship with rural entrepreneurial development. The finding signifies that finance is capable of increasing and sustaining rural entrepreneurial development.

Mathew and Olowe (2011) embarked on a study aimed at finding the impact of financial liberalization on Nigeria's GDP between 1997 and 2008. The method used One-Way ANOVA using Microsoft Excel Analytical tool on some economic variables that includes GDP, savings, gross capital formation, number of bank branches and inflation rate. They found that there is a significant difference on the impact of

liberalized financial system on savings, gross capital formation and GDP. The study is considered flawed on the method of analysis used and the choice of variables used to capture financial liberalization.

A research aimed at investigating the effect of financial liberalization on private savings in Ugandan between 1980 and 2007 was embarked by Nyanzi and Kaberuka (2013). They regresses private savings against GDP; government deficit as a ratio to GDP; interest rate; real effective exchange rate; broad money as a ratio to GDP; external debt as a ratio to total exports and a financial liberalization dummy. Methods of data analysis included cointegration, Error Correction Model (ECM), Ordinary Least Square (OLS) as well as structural change analysis. Findings revealed that financial liberalization had a positive effect on savings.

Adeusi et al (2012) studied the effect of financial liberalization on the corporate performance of informal capital market in Nigeria with a case study of Unity (Ife) NUT Cooperative Investment and Credit Society from 2001 to 2010. In one of the models of the study deposits mobilized was regressed against savings rate and loan disbursed. In another model, loan disbursed was regressed against lending rate and deposits mobilized. Method of data analysis used was OLS and study found a negative and significant relationship between deposit mobilized and savings rate as well as a positive and insignificant relationship between lending rate and loan disbursed.

Onwumere, et al (2012) studied the effect of financial liberalization (measured by deposit and lending rates) on savings rate and investment using simple OLS. They disaggregated their data into pre and post liberalization era. They found positive and insignificant impact of deposit rate on savings rate pre liberalization but negative and insignificant impact post liberalization. They also found positive and insignificant impact of lending rate on investment pre liberalization but negative and significant impact post liberalization. This work by Onwumere et al had lots of flaws and therefore, the findings are unacceptable. Firstly, they did not conduct any unit test without which is likely to lead to spurious regression. Their interpretation of their result is also very faulty. Also, the use of simple regression for a study like this is not realistic.

2.4 Summary of Literature Review and Gap in Literature

The study reviewed relevant theoretical and empirical literature in the field of financial liberalization. The seminal works of McKinnon (1973) and Shaw (1973) showed the beauty of financial liberalization given several conditions. But empirical evidence on the impact of impact financial liberalization on resource mobilization and allocation is inconclusive. Further, there is scanty work on the impact of financial liberalization on resource mobilization and allocation in the rural area. This is the gap the present study tried to fill.

2.5 Theoretical Framework

It has been recognized that financial liberalization is capable of mobilizing financial resources and efficiently allocate them to their most efficient use. In the light of this, savings and investments are increased. This is the bedrock of McKinnon (1973) and Shaw (1973) hypothesis. Removal of controls on interest rate increases savings and ensures efficient allocation of financial resources to their productive use. Financial liberalization also results to financial deepening which offers people a variety of financial assets to invest in.

Section 3

3.1 Methodology

The study employs both descriptive approach and econometric techniques so as to examine the impact of indicators of financial liberalization on rural savings mobilization and credit allocation. Econometric methodology in itself talks about the procedure which economics or econometricians follow in order to analyze economic relationship as well as problem as regards to micro and macroeconomic variables. The intercept and slope parameter of economic model was estimated using Autoregressive Distributed Lag (ARDL) model.

3.2 Models Specification

Two models were specified to capture the objectives of the study. Model one captured the impact of financial sector liberalization on resource mobilization in rural Nigeria. Model two captured the impact of financial sector liberalization on resource allocation in rural Nigeria. These models followed the work of Adeusi, et al (2012)

The functional representations of the models for this work are as follow:

Model 1 $RUS = F(AGDP, DR, NB, RUS(-1))$ ----- 1

Model 2 $RUC = F(AGDP, LR, NB, RUC(-1))$ ----- 2

Where: RUS = Rural Savings; RUC = Rural Credit; $AGDP$ = Gross Domestic Product (proxy for rural income); LR = Real Lending rate; DR = Deposit rate; NB = Number of Rural bank Branches; $RUC(-1)$ and $RUS(-1)$ are lagged forms of rural credit and rural savings respectively.

Econometrically, the models in equation 1 and 2 are stated thus:

$$RUS = \alpha_0 + \alpha_1 AGDP + \alpha_2 DR + \alpha_3 NB + \alpha_4 RUS(-1) + u1 \text{ --- --- --- --- --- } 2$$

$$RUC = \theta_0 + \theta_1 AGDP + \theta_2 LR + \theta_3 NB + \theta_4 RUC(-1) + u2 \text{ --- --- --- --- --- } 3$$

$\alpha_0, \alpha_1, \alpha_2, \alpha_3, \theta_0, \theta_1, \theta_2, \theta_3$ = parameter to be estimated and $u1$ and $u2$ are error terms.

To standardized and reduce our data to manageable size and interpret our result in terms of elasticities, the models were set in logarithm form:

$$\log RUS = \alpha_0 + \alpha_1 \log AGDP + \alpha_2 DR + \alpha_3 \log NB + \alpha_4 \log RUS(-1) + u1 \text{ --- --- --- } 5$$

$$\log RUC = \theta_0 + \theta_1 \log AGDP + \theta_2 LR + \theta_3 \log NB + \theta_4 \log RUC(-1) + u2 \text{ --- --- } 6$$

It was expected that $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \theta_1, \theta_3$ and θ_4 should be positively signed while θ_2 should be negatively signed.

3.3 Source of Data and Method of Data Analysis

The data for the study was subjected to a unit root test. This is to enable us avoid spurious regression. The Augmented Dickey Fuller (ADF) test was used for the process.

The data used are secondary data that spanned from 1981 to 2014 and were sourced from Central Bank of Nigeria (CBN) Statistical Bulletin of various years. E-Views Version 6 was used for estimation.

Section 4

Results and Discussion

4.1 Unit Root Test

Result of the Unit Root test shows that RUS , $AGDP$, LR and NB were integrated at order 0 while RUC was integrated at order 2. On the other hand, DR was integrated at order 1. The summary of result of the ADF test is shown in the appendix.

4.2 ARDL Result

The summary ARDL results for models 1 and 2 are presented in table 1.

Table 1: ARDL Results

MODEL 1 (Dependent Variable = LOG(RUS))				MODEL 2 (Dependent Variable = LOG(RUC))			
Variable	Coefficient	Standard Error	t-Statistic	Variable	Coefficient	Standard Error	t-Statistic
C	-4.571776	7.725131	-0.591806	C	-21.90299	9.383035	-2.334318**
LOG(AGDP)	-0.409520	0.580262	-0.705751	LOG(AGDP)	0.182177	0.402283	0.452857
DR	0.049902	0.048308	1.033005	LR	-0.112828	0.052785	-2.137493**
LOG(NB)	1.244853	1.506417	0.826367	LOG(NB)	3.990300	1.706179	2.338734**
LOG(RUS(-1))	0.776613	0.109887	7.067392***	LOG(RUC(-1))	0.686189	0.138133	4.967589***
R-squared		0.755935		R-squared		0.878620	
Adjusted R-squared		0.721069		Adjusted R-squared		0.861280	
F-statistic		21.68089		F-statistic		50.67008	
Prob(F-statistic)		0.00000		Prob(F-statistic)		0.00000	
DW		1.761704		DW		2.125791	
***Significant @ 1%				**Significant @ 5%			
10%				*Significant @			

Source: Authors' E-View computation results, 2016

The ARDL result for model 1 shows that a percentage increase in rural bank branch (NB) insignificantly boost rural savings by 124%, while a percent increase in deposit rate (DR) insignificantly spurs rural savings (RUS) by about 5%. On the other hand, a percentage increase in agriculture's contribution to GDP (AGDP) insignificantly decreases rural savings by about 41%. This is contrary to a priori expectations. Past rural savings have positive and highly significant impact on current savings.

The adjusted R^2 is about 72%, signifying that about 72% variation in rural savings is explained by indicators of financial liberalization, given the income level in the rural area. The F-statistic, 21.68089 is more than the critical $F = 19.5$, we thereby conclude that the model is statistical significant. That means a true relationship exist between rural resource mobilization and financial liberalization. The Durbin-Watson value of 1.761704 which is approximately 2 signifies the absence of autocorrelation.

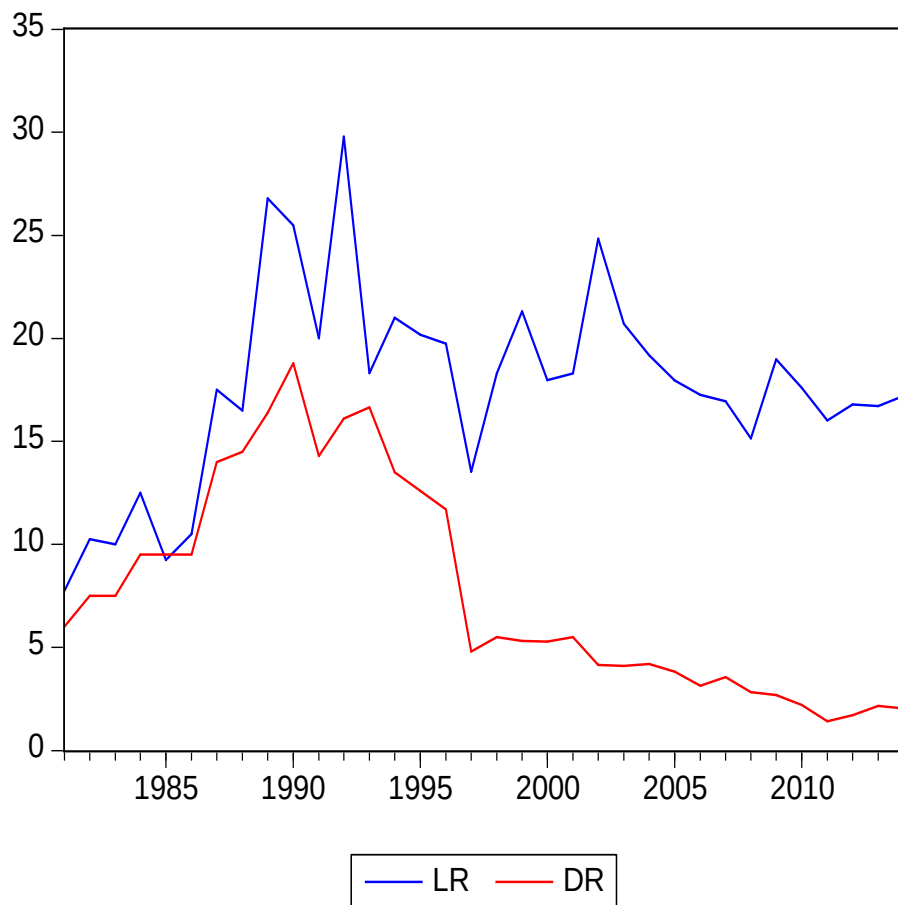
Model 2 results show that a percentage increase in AGDP insignificantly raises rural credit (RUC) by about 18% while a percentage increase in NB significantly raises RUC by about 399%. On the other hand, a percentage increase in lending rate (LR) significantly depresses RUC by about 11%. The result also show that past rural credit has significant and positive impact on present rural credit. The adjusted R^2 is about 86%, signifying that about 86% variation in rural credit allocation is explained by indicators of financial liberalization, given the income level in the rural area. The F-statistic, 50.67008 is more than the critical $F = 19.5$, we therefore conclude that the model is statistically significant. This means that a true relationship exist between rural resource allocation and financial liberalization. The Durbin-Watson value of 2.125791, which is approximately 2, signifies the absence of autocorrelation.

4.3 Discussion of Results

The study evaluated the impact of financial liberalization on the Nigeria's rural financial landscape. Financial liberalization was represented by lending rates, deposit rates and number of bank branches in the rural areas. These are simple indicators of banking system liberalization which is usually the first aspect of financial liberalization. The rural financial landscape was represented by the quantity of savings mobilized and credit disbursed in the rural area.

The study found that deposit rate had positive, though insignificant impact on mobilization of savings while lending rate had negative and significant impact on resource allocation. The signs of the coefficient of the variables conformed to a priori expectations. According to classical theory of interest rate, savings and interest rate are positively sloped while investment and interest rate are negatively sloped. Thus, liberalization of interest rate encourages savings because it is a reward for abstaining from current consumption. On the other hand, interest rate which is a cost of borrowing, and the higher the cost, the lower the quantity borrowed and vice-versa.

Figure 1: Trend of Lending Rate and Deposit Rate

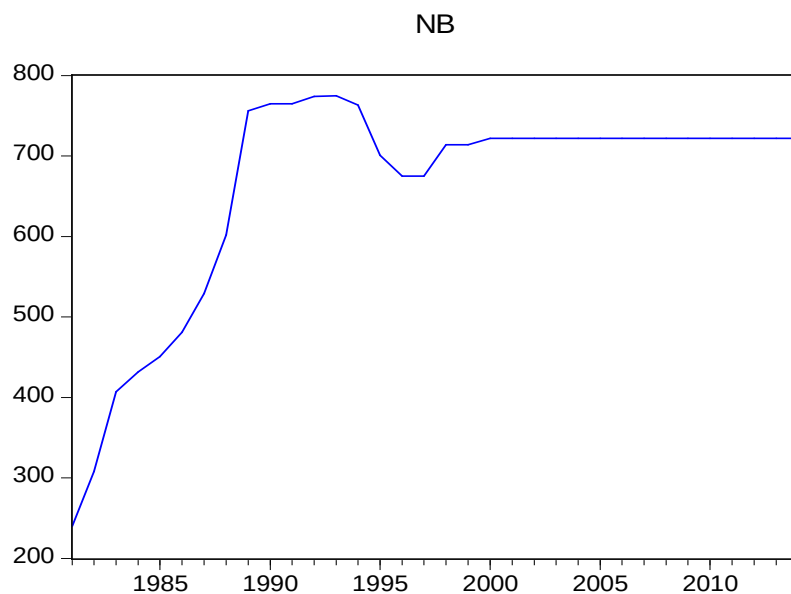


Source: Author's E-View computation result, 2016

The period 1974 to 1992 was the era of direct monetary control and was mainly characterized by administratively determined interest rate level and structure so as direct flow of credit to priority sectors. But this objectives and targets were not achieved. Figure 1 shows that the period before 1990, lending rate and deposit rate were on average 10.5% and 13.6% respectively. By September, 1993, indirect monetary control started and the Central Bank of Nigeria began removal of selective credit ceiling for banks that met some of the criteria set under the Basel accord prudential guidelines (Mordi, 2009). This liberalization saw a great volatility in these rates as depicted in figure 1. By year 2000, deposit rate saw

some level of stability but volatility continued for lending rate. It is also apparent that the spread between the two rates continued widening from after 1995.

The study also found that number of bank branches in the rural area insignificantly encourages resource mobilization but significantly encourage resource allocation. Rural banking, which is an integral aspect of universal banking, is critical for financial liberalization. Increased number of banks in the rural areas makes it possible for rural dwellers to access financial services easily without spending much on transportation fares to the cities where many banks are located and therefore, is a tool for financial inclusion. This will increase the saving culture and afford entrepreneurs in the rural area the opportunity of accessing loans. The impact of this, according to the study, was significant on resource allocation but insignificant on resource mobilization. Figure 2: Trend in Number of Rural Bank Branches



Source: Author's E-View computation result, 2016

A cursory look at the figure two shows that the numbers of rural bank branches have been on the increase, reaching its peak in 1993 with a total of 775 rural bank branches. However, after the banking sector consolidation in 2005, the number of rural branches tapered off to 722 branches.

The impact of this expansion in the number of rural branches on resource mobilization and allocation can be gleaned from figure 3. The figure shows that the number of rural bank branches, rural savings and rural credit move in the same direction.

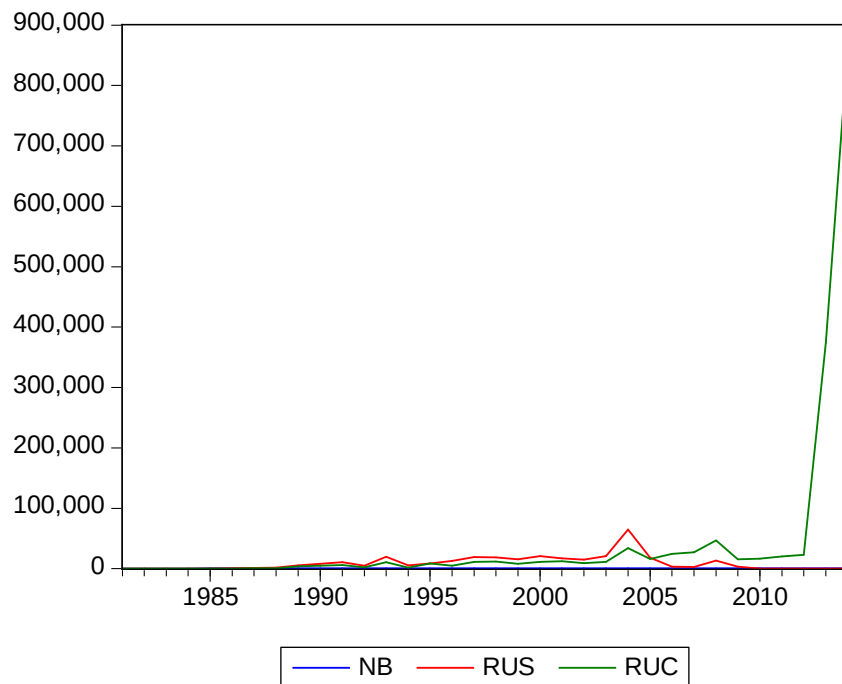
Section 5

5.1 Conclusion

Financial sector mobilization is one potent way of increasing financial inclusion in Nigeria as it enables the rural population to have easier access to financial resources. Lack of access to financial resources is one of the numerous challenges facing the rural area and this study has shown that it is beneficial both to the rural dwellers and the providers of financial services to have bank branches in the rural areas.

The study has shown that there exists idle cash balances and lots of opportunities in the rural area. Thus increase in number of bank branches will offer the rural dwellers the platform to deposit their idle cash balances as well as platform for borrowing for investment. The providers of financial services also benefits from the resources mobilized as well as that allocated.

Figure 3: Relationship between Rural Resource Allocation and Mobilization



Source: Author's E-View computation result, 2016

5.2 Recommendations

On the basis of the findings of the study, the following were recommended:

- Government should continue with the financial liberalization policy with all sense of responsibility with frameworks that are best suited for rural dwellers.
- The current effort geared towards increased funds allocated to agricultural sector should be continued and even improved upon. This is because the rural economy is agriculture-driven and any effort to improve the sector has positive effects on the rural economy.
- Financial service providers (banks, insurance companies etc) should be encouraged to increase their presence in the rural areas by establishing more branches in the rural area.
- Banks should encourage competitive interest rates that will encourage savers and borrowers as well as reduce the spread between lending rates and deposit rates.

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APPENDIX

Table 1: Result of ADF Unit Root Test

Variable	Level	First Difference	Second Difference	Remark
RUS	ADF test statistic	-		Integrated at level form @ 5% level of significance
	3.308604			
	1%	-		
	3.646342			
	5%	-		
	2.954021			
RUC	10%	-		Integrated after second differencing @ 5% level of significance
	2.615817			
	ADF test statistic	-		
	3.454075			
	1%	-		
	3.752946			
	5%	-		
	2.998064			

		10%	-
		2.638752	
AGDP	ADF test statistic	-	Integrated at level form @ 1% level of significance
	5.307484		
	1%	-	
	3.646342		
	5%	-	
	2.954021		
DR	10%	-	Integrated after first differencing @ 1% level of significance
	2.615817		
	ADF test statistic	-	
	5.895397		
	1%	-	
	3.653730		
LR	5%	-	Integrated at level form @ 5% level of significance
	2.957110		
	10%	-	
	2.617434		
	ADF test statistic	-	
	3.33108		
NB	1%	-	Integrated at level form @ 5% level of significance
	3.646342		
	5%	-	
	2.954021		
	10%	-	
	2.615817		

Source: Author's E-View computation result, 2016