

FINANCIAL LIBERALIZATION AND DOMESTIC SAVINGS IN NIGERIA: AN EMPIRICAL ANALYSIS

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ABSTRACT: *One of the reasons for financial liberalization is to adequately mobilize domestic savings in developing countries. Hence, this study investigated the existing relationship between financial liberalization and domestic savings in Nigeria. In achieving this, contemporary econometric approach involving unit root test, co-integration test and error correction model was adopted to analyze the time series data from 1970 to 2015. The study used interest rate spread and financial liberalization index as measures of financial liberalization. It used credit to the private sector over GDP and the number of bank branches over the population to measure financial deepening and financial inclusion respectively. The findings revealed that per capita income and financial deepening were the two factors that affected domestic savings in Nigeria significantly as against interest rate which was widely viewed as the major factor affecting savings mobilization in Less Developed Countries. The study recommended increase in the existing level of per capita income which could be achieved by upward review of wages and salaries of workers every three years. Monetary authorities should use moral suasion to encourage microfinance banks and commercial banks to establish branches in rural areas to help further reduce the population of unbanked Nigerians and ensure greater financial deepening. Monetary authority should ensure that interest rate is determined by market forces to reflect the true depth of the Nigerian financial system and thereby reduce the interest rate spread. The sustenance of CBN autonomy was equally recommended as a key to ensuring financial system stability.*

KEYWORDS: Financial liberalization, Domestic savings, Financial deepening, Financial inclusion, Nigeria

INTRODUCTION

Different programmes have been adopted by developing countries to restructure their economies due to debt burden and other external imbalances. One major programme of such is financial liberalization with its attendant greater role attributed to market forces in the distribution of financial resources. These involve exchange rate liberalization, interest rate deregulation including the cancellation of policy of direct credits. It is generally accepted that countries with more savings grow faster especially if their financial system is deep enough to accumulate such savings. However, some analysts are of the opinion that a rising savings rate may hinder economic recovery if consumer expenditures constitute a greater part of the aggregate demand (McKinnon, 1973). Conversely, low savings rate has been identified in some studies as one of the major factors affecting sustainable economic growth. Due to the introduction of financial liberalization policy, the requirements for establishing a bank and other financial institutions were relaxed, resulting in proliferation of banks. Hence, in 1993, approximately 120 banks were established. Consequently, the proliferation of banks resulted in banking distress in the Nigerian financial system. Between 1994 and 2000, about 33 banks folded in Nigeria. Most of these banks went into liquidation because of fraud, weak corporate governance, undercapitalization and the country's economic crises (Obamuyi, 2013).

Furthermore, a cursory look at savings in Nigeria revealed that the growth rate has not been consistent. For instance, total savings grew from 12.7 per cent in 1970 to 59.6 per cent in 1974, and dropped to 24.2 per cent in 1975. It further dropped to 15.0 per cent in 1976 before increasing to 38.5 per cent in 1978. In 1980, total savings growth rate dropped to 13.7 per cent and in 2008 it increased to 52.7 per cent, but later fall to 03.3 per cent in 2010. (Banking Supervision Annual Report, 2004, 2008; Financial Stability Report, 2010, 2012) The fall in 2010 may be connected with the financial crisis that affected the world then. The growth rate in 2011 slightly increased to 09.7 per cent but there was a tremendous increase by 2012 to 23.4 per cent. This reveals that the savings trend in Nigeria has not been consistent. However, financial repression as reported by Mckinnon and Shaw (1973), compelled financial institutions to pay low interest rates, reduction in private financial savings, thereby leading to a reduction in funds available for financial capital accumulation. Based on the above perspective, it is possible for less developed countries to mobilize more domestic savings to increase growth thereby reducing unnecessary dependence on foreign capital.

Statement of the problem

Financial liberalization though helpful in most cases, may in most cases be detrimental to savings mobilization in a situation where distortions exist. It can also instigate financial instability and misappropriation of capital which also hinders macroeconomic performance (Eichengreen, 2001). Over the years, empirical literature finds it difficult to resolve this theoretical argument especially in less developed countries including Nigeria. Some researchers (Kraay, 1998 and Rodrik, 1998) concluded that financial liberalization has no influence on domestic savings as well as growth, others were of the opinion that its effect is direct (Levine, 2001; Bekaert, Harvey & Lundblad 2003; Bonfiglioli & Mendilino, 2004), more so, others are of the opinion that its effect is inverse (Eichengreen & Leblang, 2003). Other studies believed the effects are different from one country to another. Edwards (2001) and Bekaert, Harvey & Lundblad, (2005) concluded in their studies that the effect will differ in countries based on the stage of institutional and economic development prevalence in such country and in the macroeconomic frameworks adopted. Nevertheless, the aim of financial liberalization was to stimulate economic growth via increased savings mobilization hence investment, freeing up of interest rate and exchange rate etc.

Nigerian scholars such as Akpan (2008) and Emenuga (2005) in their separate studies concluded that financial liberalization is critical to savings mobilization. Udegbonam (1995) in his study found that financial liberalization has provided great incentives for the expansion of banking institutions. On the other hand, Bakare (2011) found that financial liberalization and private savings and how it is allocated were significant and inversely related in Nigeria. Similarly, Ogwumike & Ofoegbu (2012) concluded that interest on deposit attributed to financial liberalization was not a critical factor that encourages depositors to save but rather unreliable investment alternatives outside financial assets.

Thus, there is no unanimous agreement on nature of financial liberalization effect on domestic savings. The relationship is complex not only because there are short and long-term effects involved but because financial liberalization is a process with many dimensions. As a result of these, the study attempts to address the following questions:

- i. How has financial liberalization influenced domestic savings in Nigeria?
- ii. What are the factors that drive savings in Nigeria?

More so, the broad objective of the study is to examine the existing relationship between financial liberalization and domestic savings in Nigeria. Specifically, the study sought to achieve the following:

- i) Examine the existing relationship between financial liberalization index and domestic savings in Nigeria.
- ii) Examine the existing relationship between real deposits rate and domestic savings in Nigeria.
- iii) Examine the existing relationship between interest rate spread and domestic savings in Nigeria.
- iv) Determine the major factors that stimulate domestic savings in Nigeria.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Theoretical underpinnings

This study is premised on financial liberalization thesis. The theoretical arguments for financial liberalization are centred mainly on the need for a more laissez faire financial policy, especially the domestic financial market that is determined by the market forces. It will ensure that interest rates capture the actual scarcity of capital in less developed countries and the liberalization of foreign trade. McKinnon (1973) and Shaw (1973) produce a theoretical basis for financial development that has been formalized and extended to show how some financial controls that produce financial repression effects could make the financial sector stifle rather than promote a country's development. The McKinnon – Shaw analysis is anchored on the fact that interest rate ceilings stagnate savings and reduce the quality of investments. McKinnon-Shaw hypothesis implies that an end to interest rate ceilings and other government regulations responsible for slow competitive operations in the market for funds will be beneficial to developing countries. Higher interest rates will result in increased savings and investments, which will in turn contribute to growth. It is a true reflection of scarcity of capital and enhances allocative efficiency of capital. All these place the major aim of monetary policy on interest rate deregulation.

Efficient financial system will lead to appropriate channeling of financial resources provided that the financial system is efficient and well-functioning. This means that firms could grow their enterprises through the opportunity of borrowing at lower interest rates. More so, financial intermediaries enable investors to direct their funds to more rewarding projects. And that will lead to the development of financial intermediary services (Aug, 2008). The main critique of the financial liberalization theory emanates from the imperfect information hypothesis. That school of thought assesses the problem of financial development within the context of information asymmetry and costly information resulting from credit rationing.

Measure of Financial Liberalization

Having an acceptable measure for financial liberalization is difficult primarily because of its multifaceted nature. Data on some of the composition of liberalization are also not readily available on every dimension and even when they are available; such data are usually extremely fragmented. Ogwumike & Ofoegbu (2012) in their study considered seven components of

financial liberalization as implemented in the country overtime. Two other indicators were added to the five indicators used in Fowowe (2008) namely: denationalization and restructuring of banks, interest liberalization, prudential regulation, direct credit abolition and free entry into banking. Fowowe's index captures only financial liberalization in the money market, given that equity/capital market and the foreign exchange market liberalization which are components of financial liberalization in most countries including Nigeria were left out. This study draws from the work of Ogwumike & Ofoegbu (2012) in extending the research horizon to 2015 since their computation stopped at 2009.

We assign each of the seven component variables 0 for the period before liberalization and 1 for liberalization era based on the level of progress achieved in each specific liberalization policy components. This translates to a matrix of seven indicators and, therefore, the index for financial liberalization is arrived at by adding each component variables for each year, thus reflecting the intensity/degree of liberalization. Appendix 1 contains the table that summarizes financial liberalization policy index in Nigeria. Each cell or point indicates the presence of liberalization or absence of it. 0 indicates non-existence of liberalization and 1 indicates period of financial liberalization. The very last column as presented signifies the aggregate of all the seven components of financial liberalization variables: this research adopted this aggregate value as a proxy for measuring the depth of financial liberalization in Nigeria.

Empirical studies

Researchers have made significant attempts to examine the nature of the existing relationship between financial liberalization and domestic savings both outside Nigeria and in Nigeria. Hermes & Lensink (2000) studied the existing relationship between financial liberalization and savings, investment and growth. New data on 25 developing countries were used for measuring financial liberalization for the period of 1973-1996. The study discovered that financial liberalization exerts a meaningful impact on domestic savings as well as total investment; although some indications exist which suggest that liberalization may lead to a reduction rather than a boost in domestic savings.

Fowowe (2002) investigated the impact of financial liberalization on the growth process of 19 countries from Sub-Saharan Africa using panel data method of analysis. The panel data result estimate indicates that a strong significant relationship exist between growth and financial liberalization in these countries considered. Galindo, Schiantarelli & Weiss (2003), in a study to examine whether financial liberalization increases the level of investment funds allocated for different uses, opined that in most situations, financial reform resulted in an increase at the rate where investment funds are allocated. Such conclusion was arrived at by adopting firm level panel data from twelve less developed countries. Akpan (2008), in a paper that evaluated the impact of financial liberalization on economic growth in Nigeria via endogenous growth model, error correction mechanism (ECM) using time series data from 1970-2006, revealed that financial deepening was significant and impact positively on growth, thus supporting banking system consolidation. However, openness, investment (represented by INV/GDP) and private sector credit are some of the variables that impacted negatively on economic growth. Generally, evidence of the study indicates that financial liberalization in the long-run coupled with adequate regulatory structure has favourable impact on economic growth. Obamuyi (2013) assessed the impact of Nigeria's financial liberalization policy for promoting the development of the private sector. He obtained relevant data that reveals the impact of financial liberalization on macro-economic performance and private sector development from primary and secondary sources. The findings showed that financial liberalization has led to increased

manufacturing capacity utilization necessary for economic growth. However, poor infrastructure, low savings mobilization, high level of corruption, political and economic uncertainty, and high cost of funds inhibited the impact of the private sector on economic growth. Another research by Okpara (2010) assessed the implications of financial repression and liberalization in Nigeria using the paired comparison test and multiple regression analyses. He discovered that financial development impacted more on growth variable (GDP) during financial liberalization than any other period. More so, empirical result in the study reveals that financial liberalization stimulates an increase in the growth of any economy. Bakare (2011) examines the extent financial sector liberalization has affected private savings and how this savings are allocated in Nigeria for instance. The study made use of quasi- experimental method and time series data. These time series data were subjected to stationarity test and cointegration test. However, from the empirical results, it has been discovered that a significant but negative relationship exists between financial liberalization and private savings in Nigeria overtime. Hence, the study suggests that government should develop the financial sector with a view to ensuring greater effectiveness and efficiency.

Anthony (2012) examined the factors that determine savings behaviour in Nigeria and the effects of bank savings ratio and bank credits ratio in Nigeria's economic growth process from 1970-2006. He adopted DK-EC, as well as, Distributed model. The results showed that per capita income (PCI), financial deepening (FD), and interest rate spread (IRS) impacted positively on the size of private domestic savings. At the same time it showed that real interest rate (RIR) and inflation rate (INFR) had an inverse effect on the volume of private domestic savings. Also, there was a direct relationship existing between the previous values of total private savings, interest rate spread, credits to public sector, private sector credit, exchange rates and growth.

Onwumere & Ibe (2012) investigated interest rate liberalization effect on Nigeria's domestic savings and investment. The study covered 1976 through 1999 using simple regression method of analysis. The study showed that interest rate liberalization had an inverse insignificant effect on savings as well as an inverse but significant effect on investment in Nigeria. Interest rate liberalization was counter-productive in Nigeria. The study opined that it might be due to uncoordinated pace and sequencing. It therefore recommended that the government should separate transactions that have to do with loan and those that involve deposits. According to Ogwumike & Ofoegbu (2012) in a study that investigated how financial liberalization impacted on Nigeria's domestic savings from 1970 to 2009 using autoregressive distributed lagged (ARDL) model method of estimation, the study discovered that domestic savings, financial liberalization lagged one exerts a minimal positive effect on domestic savings, but its significance lasted for a short time as it turned to be an inverse effect in the long-run. The findings further revealed that financial liberalization did not instigate a positive interest rate that is strong enough to drive more savings. Also, private sector credit, exhibited a positive and significant influence on domestic savings in the long and short-run periods. More so, the study reveals that interest on deposit owing to the adoption of financial liberalization, was not the major factor that stimulated an increased savings but absence of investment alternatives different from financial assets. Several scholars in their studies concluded that financial liberalization supports economic growth, but such conclusion did not mention the variables that will stimulate the growth process. Ogwumike & Ofoegbu (2012) maintained that financial liberalization did not stimulate any meaningful increase in savings since real interest rate was low but they did not explore other possible measures of financial liberalization. Though, previous studies have made significant efforts towards examining the relationship between

financial liberalization and domestic savings in Nigeria, their studies simply used financial liberalization index to measure the degree of financial liberalization. Hence, this study fills that gap by using some measures of financial liberalization within the extended period of the study. Two models were formulated in this study; the first is for interest rate spread and the second one for real deposit rate. This is necessary to identify the measure that behaves better and more appropriate in the Nigerian context.

METHODOLOGY

An econometric approach was adopted to empirically analyze the sustaining interplay between financial liberalization as well as domestic savings in Nigeria. The design for this research is exploratory in nature (Ndiyo, 2005). The adopted design was useful in describing the phenomenon in context of financial liberalization and domestic savings so as to arrive at a functional relationship linking the dependent and explanatory variables in the study. Thus, factors such as income (y) measured by per capita income, financial liberalization and financial deepening was considered as relevant factors due to the effects they have on domestic savings.

Thus, this argument is presented below in a linear form as:

$$\text{TSAV} = f(y, \text{PCI}, \text{FIN}, \text{FDE}, \text{SOB}) \quad (3.1)$$

However, for the purpose of clarity, Income (y) is represented in the model by per capita income. The models cover the period 1970 – 2015. The study used real deposits rate to measure financial liberalization in the first model while it used interest rate spread to measure financial liberalization in the second model. In the models, financial deepening was measured using credit to private sector divided by GDP while it used ‘spread of banks’ as a measure of financial inclusion.

Therefore, equation (3.1) is the functional form for our empirical estimation for the first equation. Hence, our model is specified thus;

$$\text{TSAV} = f(\text{PCI}, \text{RDR}, \text{FIDEX}, \text{SOB}, \text{CPS}) \quad (3.2)$$

From equation (3.2), the model is express in an econometric form as:

$$\text{TSAV} = a_0 + a_1\text{PCI} + a_2\text{RDR} + a_3\text{FIDEX} + a_4\text{SOB} + a_5\text{CPS} + U_t \quad (3.3)$$

In the log- linear form, we have

$$\text{Log TSAV} = a_0 + a_1\text{LogPCI} + a_2\text{LogRDR} + a_3\text{FIDEX} + a_4\text{LogSOB} + a_5\text{LogCPS} + U_t \quad (3.4)$$

The theoretical expectations reveals that $a_1 > 0$, a_2 , a_3 , a_4 and $a_5 > 0$.

The second model is specified thus:

$$\text{TSAV} = f(\text{PCI}, \text{IRS}, \text{FIDEX}, \text{SOB}, \text{CPS}) \quad (3.5)$$

From equation (3.5), the model is expressed in an econometric form as:

$$TSAV = a_0 + a_1 PCI + a_2 IRS + a_3 FIDEX + a_4 SOB + a_5 CPS + U_t \quad (3.6)$$

In the log-linear form, we have

$$\text{Log TSAV} = a_0 + a_1 \text{Log PCI} + a_2 \text{Log IRS} + a_3 \text{Log FIDEX} + a_4 \text{Log SOB} + a_5 \text{Log CPS} + U_t \quad (3.7)$$

The theoretical expectations reveal that $a_1 < 0$, a_2 , a_3 , a_4 and $a_5 > 0$.

Where: TSAV = Total savings, PCI = Income measured by Per Capita Income, IRS = Financial Liberalization measured by Interest Rate spread, FIDEX = Degree of Financial Liberalization measured by Financial Liberalization index, CPS = Financial deepening captured using credit to private sector divided by Gross Domestic Product, SOB = Financial inclusion measured by spread of banks (Population divided by number of bank branches), RDR = Real deposits rate and

U_t is the stochastic error term whereas a_1 - a_5 is the coefficient of the explanatory variables that were estimated.

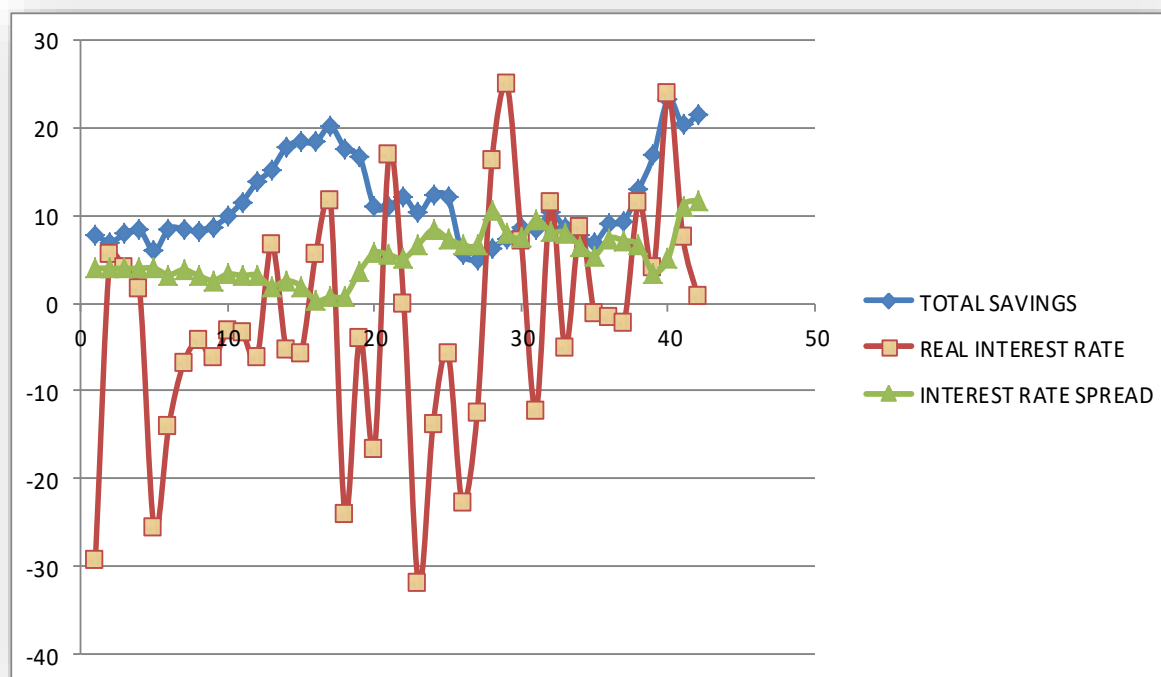
ANALYSIS AND DISCUSSION OF RESULTS

Descriptive analysis of domestic savings in Nigeria

The wide spread link between the deposit rates as well as the lending rates was assumed to be detrimental to the growth of Nigerian economy. Around 1980 and 1984, interest rate spread stood at an average of about 3.9 per cent. Though this falls within the accepted limit of single digit differentials, the spread increased between 1985 and 1989, averaging 4.3 per cent yearly. This had an inverse effect on the amount of loanable funds allotted to the private sector for investment (Annual Report and Statement of Accounts, 2014). The differential in interest rate further increased to an average of 7.9 per cent around 1990 and 1994. Subsequently, the annual interest rate differentials retained an upward trend, increasing from 6.70 per cent in 1995 to 8.10 per cent in 2002, before reducing to 6.12 per cent in 2010.

Real interest rate statistic was interesting, between 1970 and 2011; the figure was negative 25 times while assuming a positive figures 17 times. A closer look at the real interest rates figures revealed that the figures have hovered on the negative trend more after financial liberalization compare to the positive trend exhibited between 2007 and 2011. Total savings, on the other hand, was less volatile because it did not record any negative value in the 45 year period. Total savings rate fluctuated between 6.0 per cent and 11.6 per cent between 1970 and 1980. Between 1990 and 2000, total savings hovered between 5.0 per cent and 12.4 per cent, reaching an impressive range of between 7.0 per cent and 14.8 per cent in the period 2001 to 2014. Total savings stood at 16.3 per cent in 2010 and increased to 21.56 per cent in 2011. Appendix II shows the relationship between total savings, real interest rate, interest rate spread and differentials in total savings in Nigeria.

Fig. 1: Trend of total savings, real interest rate and interest rate spread in Nigeria.-



Source: World Bank Data, 2011 and CBN Statistical Bulletin, 2015.

From fig.1 above, total savings witness a slight increase in the period 1970 through 1984. However, immediately after financial liberalization, total savings decreased, but later picked up at the later part of the years especially in the late 90s till current period. Real interest rate hovered within the same level over the years; real interest rate exhibits a negative trend within the period of study. Interest rate spread is not stable but rather its movement is a specific limit looking at the figure above.

Unit Root Results

Table 1: Augmented Dickey Fuller Unit Root Result

Variables	Level	First Difference	Decision
CPS	-2.2888507	-6.333467	I(1)
FIDEX	-0.725853	-6.922423	I(1)
IRS	-2.171240	-6.423555	I(1)
PCI	1.078382	-5.979220	I(1)
RDR	-2.495039	-6.736935	I(1)
SOB	-2.220981	-4.439205	I(1)
TSAV	1.048743	-3.324955	I(1)

Source: Author's Computation, 2016.

From the Augmented Dickey Fuller unit root result in table 1, all the variables used in the study were not stationary at level - $I(0)$; however, they were all stationary at first level differencing - $I(1)$. This is because their calculated values at first differencing are greater than their critical value at 1 per cent, 5 per cent and 10 per cent levels. Therefore, the variables are integrated of order $I(1)$.

Co-integration Estimates

Table 2: Co-integration estimate for real deposit rate as measure of financial liberalization

Series: TSAV, PCI RDR, CPS, FIDEX, SOB

Lag interval: 1 to 1

Eigen value	Likelihood Ratio	5 per cent critical value	1 per cent critical value	Hypothesized No. of CE(s)
0.850864	177.3052	94.15	103.18	None**
0.610282	99.28647	68.52	76.07	At most 1**
0.466622	60.65089	47.21	54.46	At most 2**
0.372656	34.88140	29.68	35.65	At most 3*
0.248517	15.76476	15.41	20.04	At most 4*
0.094076	4.050782	3.76	6.65	At most 5*

Source: Author's Computation, 2016.

According to the result, long-run equilibrium relationship exists amongst the variables used in the model. This is due to the fact that, the co-integration result reveals that there exist six co-integrating equations from our Johansen result estimates. According to the result, the Likelihood ratio shows that 177.3052, 99.28647, 60.65089, 34.88140, 15.76476 and 4.050782 at 5 per cent level is greater than their critical values. However, there are three co-integrating equations at 1 per cent level. Therefore, it means that our variables co-integrated in the long-run.

Table 3: Co-integration estimate for interest rate spread as measure of financial liberalization

Series: TSAV, PCI, IRS, CPS, FIDEX, SOB

Lag interval: 1 to 1

Eigen value	Likelihood Ratio	5 per cent critical value	1 per cent critical value	Hypothesized No. of CE(s)
0.811285	171.9867	94.15	103.18	None**
0.639793	103.6184	68.52	76.07	At most 1**
0.465850	61.75430	47.21	54.46	At most 2**
0.397671	36.04412	29.68	35.65	At most 3**
0.239630	15.25911	15.41	20.04	At most 4*
0.093554	4.027174	3.76	6.65	At most 5*

Source: Author's Computation, 2016.

According to the result in table 3, long-run relationship exists amongst the variables considered in the second model of this study. This is because the likelihood ratio indicates that we have four co-integrating equations. This is due to the fact that our estimated likelihood ratio is greater than their critical value at 5 per cent level.

Error Correction Estimates

Table 4: Error correction estimates for real deposit rate as measure of financial liberalization

Dependent variable = LOG (TSAV)

Variables	Coefficient	Std. Error	t-statistic	Prob.
D(FIDEX)	-0.110077	0.635287	3.173272	0.0005
D(FIDEX(-1))	-0.080062	0.679844	-0.117765	0.9070
D(RDR)	-0.005874	0.030730	-0.191136	0.8496
D(LOG(SOB))	5.481920	5.704925	-1.960910	0.0038
D(LOG(SOB(-1)))	6.777098	5.498861	1.232455	0.2268
D(LOG(PCI))	-0.090594	3.245407	-2.827914	0.0000
D(LOG(PCI(-1)))	2.016802	3.384468	-1.995899	0.0034
ECM(-1)	-0.529506	4.348406	-3.605707	0.0000
C	-11.42511	0.914500	12.49329	0.0000

Source: Author's Computation, 2016.

R- Squared = 0.707783

Adjusted R-squared = 0.687772

F-statistic = 63.29202

Durbin-Watson statistic = 2.36544

Table 5: Error correction estimates for interest rate spread as measure of financial liberalization

Dependent variable = LOG (TSAV)

Variables	Coefficient	Std. Error	t-statistic	Prob.
D(LOG(TSAV(-1)))	-1.812890	4.592440	-0.394755	0.6957
D(LOG(PCI))	2.121027	4.175630	-2.507954	0.0001
D(LOG(PCI(-1)))	1.660134	3.517626	-1.971626	0.0003
D(IRS)	-0.386048	0.236493	-2.448417	0.0000
D(IRS(-1))	-0.279355	0.261358	3.068859	0.0000
D(LOG(CPS))	1.714266	2.587027	-2.662639	0.0005
D(FIDEX)	0.351430	0.714942	-0.491550	0.6265
D(FIDEX(-1))	-0.345228	0.743690	-2464209	0.0007
ECM(-1)	-0.322906	2.30E-01	-3.429228	0.0001
C	10.95624	1.286400	8.516929	0.0000

Source: Author's Computation, 2016.

R- Squared = 0.697027

Adjusted R-squared = 0.675126

F-statistic = 23.70116

Durbin-Watson statistics = 1.995480

Table 4 above indicates the results of the error correction estimates for real deposit rate as measure of financial intermediation in Nigeria with the coefficient of determination put at 0.687772, showing that about 69 percent of the total savings in the country is accounted for by the various variables captured in the model, leaving 31 percent for the unexplained variation. Hence, judging from the R-Squared and Adjusted R-Squared values, the estimated model has good explanatory power and appreciable goodness of fit. According to the result, the spread of banks at current year and at one year lag as well as one year lag of per capita income are rightly signed indicating positive relationship with total savings. On the other hand, financial liberalization index at both the current and at one year lag period, real deposit rate and per capita income at current year relate inversely to the dependent variable and hence violates the a priori expectation. The result reveals that financial liberalization index at the current year, spread of banks at the current year, per capita income at both the current year and one year lag are statistically significant. The F-statistics shows that our model has a good fit and could be relied upon in forecasting the dynamics of total savings in Nigeria. Our Durbin-Watson statistics estimated value of 2.365 falls on the no autocorrelation region; hence there is no autocorrelation in our estimated result. The error correction estimate shows that about 52.95 per cent of the deviations in the short-run could be corrected in the long-run. This means that our model has a fairly high speed of adjustment.

The second result as presented in table 5 reveals that per capita income at both current period and one year lag period conform to their a priori expectations. Financial deepening captured by credit to private sector divided by GDP, and financial liberalization index at current period all conform to the a priori expectations. According to the result, one year lag of total savings, interest rate spread at both current period and at one year lag period as well as one year lag of financial liberalization index violate their a priori expectations.

The result reveals that all the explanatory variables were significant exception of one year lag of total savings and financial liberalization index at current period. The F-statistics is statistically significant since the calculated value of 23.70 is greater than the tabulated value of 2.34. This indicates that our model has a good fit and could be relied upon in forecasting the future behavior of total savings in Nigeria. The Adjusted R-Squared indicates that the model explains about 67.51 per cent of the total variations in total savings leaving the remaining 32.49 per cent to factors not taken into consideration in the model. The Durbin-Watson result estimate of 1.995480 reveals that there is no autocorrelation in the estimated result as it does not fall within the autocorrelation region. The error correction estimated value of -0.322906 indicates that the speed of adjustment is very slow considering that only 32.29 per cent of the short-run deviation will be adjusted in the long-run. This means that urgent steps should be taken to improve the existing level of savings in Nigeria.

POLICY IMPLICATIONS, CONCLUSION AND RECOMMENDATIONS

Policy Implications

Domestic savings plays an important role in the economic development of any nation, both developed and less developed. Financial liberalization was adopted as a means to facilitate increased domestic savings in Nigeria. However, empirical result reveals that financial liberalization does not stimulate domestic savings in Nigeria over the period of study especially through real deposit rate and one year lag of financial liberalization index. The implication of this is that any policy that focuses on financial liberalization in Nigeria has no significant impact on domestic savings. However, financial deepening and spread of banks have been identified as some of the critical factors in stimulating domestic savings according to the first and second models. This means that there is need for policies aimed at deepening the financial sector of Nigeria so as to enhance savings mobilization. Per capita income exhibits a positive and significant impact on domestic savings in both models; hence, any policy with a negative impact on per capita income will translate to a reduction in Nigeria's domestic savings. Therefore, there is need for government through its agencies to increase the existing level of per capita income so as to sustain its positive impact on domestic savings in Nigeria.

Conclusion and Recommendations

The development of any nation is tied to the amount of savings the country is able to mobilize. However, financial liberalization was identified as a surest way for countries especially developing economies to enhance domestic savings mobilization. This is because proponents of financial liberalization policy believed market-determined interest rate, exchange rate as well as privatization and restructuring of the banking sector will assist in stimulating domestic savings. By and large, the finding revealed that financial liberalization is not significant in stimulating domestic savings in Nigeria as anticipated by proponents of financial liberalization policy but rather per capita income, spread of banks and financial deepening has proved to be the major factors relevant for domestic savings in Nigeria. Therefore, these variables should be held in high esteem in the financial sector of Nigeria as far as domestic savings mobilization is concerned. On the basis of our findings and the conclusion thereof; the government should increase wages and salary after every two years in tandem with the level of increase in gross domestic product. This is necessary because per capita income has been identified as one of the most important variables necessary in stimulating domestic savings in Nigeria. Hence, any policy that affects per capita income negatively will certainly lead to a reduction in domestic savings in Nigeria. Government should further deepen the financial system of Nigeria. This can be achieved if Central Bank of Nigeria initiate policies that will encourage both commercial and Microfinance banks to establish branches in the rural areas so as to take banking services closer to the grass root. Such policies will help to further reduce the population of unbanked Nigerians in the rural area and ensure that finances outside the control of the CBN especially in the informal sector is mobilized and brought within the confines of the CBN for effective monetary policy. Financial liberalization variables such as real deposit rate and interest rate spread should be flexible in nature or be determined by market forces to enhance a quarterly review of the impact of these variables in the economy by the major stakeholders of the Nigerian economy. Therefore, critical variables such as real deposit rate and interest rate spread should not be left entirely at the mercy of the banks and other non-bank financial institutions. While the rate of interest should not be totally flexible, the use of moral suasion could be effective in encouraging commercial banks to pay reasonable interest on deposit; this will help to stimulate domestic savings. Also, prudential regulation of the banks will play a

very important role in promoting competition amongst the banks. The Central Bank of Nigeria should strengthen her different units and departments directly responsible for the supervision and regulation of financial institutions in Nigeria. They should always assess and review the impacts of formulated policies. This will ensure that policies implemented are adequately adhered to by the commercial banks and other financial institutions. Offenders should also be sanctioned to serve as a deterrent to others. Monetary authorities should continue to formulate and initiate policies that will engender savings mobilization and not policies that will discourage it. The recent removal of charges on cash lodgment above the specified limit for individual and corporate entities and planned gradual reduction of interest rate will further facilitate the mobilization of domestic savings in Nigeria. Lastly, political interference and policy reversals have continued to create tension and fragility in the Nigerian financial system. The CBN should be independent of political interference and ensure continuity in policy formulation and implementation. That will help to further deepen the Nigerian financial system.

REFERENCES

- Akpan, D.B. (2008). Financial liberalization and endogenous growth in Nigeria. *Economic and Financial Review*, 46 (2), 1-27.
- Anthony, O. (2012). Bank savings and bank credits in Nigeria: Determinants and impact on economic growth. *International Journal of Economics and Financial Issues*, 2(3), 357-372.
- Aug, J. B. (2008). A survey of recent developments in the literature of finance and growth. *Journal of Economic Surveys*, 22 (3), 556-516.
- Bakare, A.S. (2011). Financial sector liberalization and economic growth in Nigeria: An empirical study. *Economics and Finance Review*, 1(4), 8-16.
- Bakare, A.S. (2011). Financial sector reforms and domestic savings in Nigeria: An econometric" assessment. *Prime Journals of Business Administration and Management (BAM)*, 1(6), 198-204. Retrieved from www.primejournal.org/bam.
- Bekaert, G. & Harvey, C. R. & Lundblad, C, (2003). Does financial liberalization spur growth? *Journal of Financial Economics, Elsevier*, 77(1), 3-55.
- Bonfiglioli, A. & Mendilino, M. (2004). How does financial liberalization affect economic growth? Seminar papers, Stockholm University, Institute for International Economic Studies.
- Central Bank of Nigeria (2004). Banking Supervision Annual Report. Abuja, Nigeria: Central Bank of Nigeria Publication, 2-11.
- Central Bank of Nigeria (2008). Banking Supervision Annual Report. Abuja, Nigeria: Central Bank of Nigeria Publication, 26-29.
- Central Bank of Nigeria (2010). Financial Stability Report. Abuja, Nigeria: Central Bank of Nigeria Publication, pp.24-27.
- Central Bank of Nigeria (2014). Financial Stability Report. Abuja: Central Bank of Nigeria, December 2014, 31-40.
- Dickey D.A. & Fuller, W.A. (1979). Testing for serial correlation in least square regression. *Biometrical*, 58, 20-35.
- Edward, S. (2001). "Capital mobility and economic performance: Are emerging economics different? NBER, 8076.

- Eichengreen B. J. & Leblang, D. (2003). Capital account liberalization and growth: Was Mr. Mahathir right? *International Journal of Financial Economics*, 8, 205-224.
- Eichengreen, B. J. (2001). Capital account liberalization: What do the cross-country studies tell us? *World Bank Economic Review* 15, 341- 366.
- Emenuga, C. (2005). The outcome of financial sector reforms in West Africa. *International Development Research Centre (IDRC)*, retrieved from http://www.idrc.ca/en/ev-56356-201-1-DO_TOPIC.htm
- Fowowe, B. (2002). Financial liberalization policies and economic growth: Panel data evidence from sub-Saharan Africa. *African Development Review*, 20, 549-574.
- Hermes, N. & Lensink, R. (2000). Does financial liberalization influence savings, investment and economic growth? Evidence from 25 emerging market economies, 1973-1996. Centre of International Banking, Insurance and Finance (CIBIF) University of Groningen, Netherlands.
- Johansen S, (1991). Estimation and hypothesis testing of cointegration vectors in Gaussian vector autoregressive models. *Econometrica*, 59, 1551-1580.
- Kraay, A. (1998). In search of the macroeconomic effects of capital account liberalization. World Bank Group. Retrieved from https://ciber.fuqua.duke.edu/~charvey/Spur/Kraay_In_search_of.pdf.
- Levine, R. (2001). International financial liberalization and economic growth. *Review of International Economics* 9, 688-702.
- Mckinnon, R.I. & Shaw, E. S. (1973). Financial liberalization, financial sector development and growth: Evidence from Malaysia. *Journal of Development Economics*, 84(1), 215-233.
- Mckinnon, R.I. (1973). *Money and capital in economic development*. Washington D.C: Brookings Institution.
- Ndiyo, N. A. (2005). Fundamentals of research in behavioural sciences and humanities. Calabar: Wusen Publishers.
- Obamuyi, T. M. (2013). Financial liberalization policy for fostering credit to the private sector in Nigeria for economy growth. *Global Journal of Management and Business Research*, 10(1), 56.
- Ogwumike, F.O. & Ofoegbu, D.I. (2012). Financial liberalization and domestic savings in Nigeria. *The Social Sciences*, 7(4), 632-646.
- Okpara, G.C. (2010). Relative potency of financial repression and liberalization on financial development and economic growth: An empirical survey. *American Journal of Scientific and Industrial research*, 1(3), 643-650.
- Onwumere, J.U.J & Ibe, I. G. (2012). The Impact of interest rate liberalization on savings and investment: evidence from Nigeria. *Research Journal of Finance and accounting*, 3(10), 130-136.
- Rodrik, D. (1998). Why do more open economies have bigger governments? *Journal of Political Economy*, 106(5), 997-1032.
- Shaw G.S. (1973). *Financial deepening in economic development*. New York, NY: Oxford University Press.
- Udegbonam, R.T. (1995). Financial deregulation and monetary policy in Nigeria: An examination of the new operating techniques. *Nigeria Economic and Financial Review*, 33(1), 41-63.