MONETARY POLICY AND DOMESTIC SAVINGS MOBILIZATION IN NIGERIA: AN ARDL BOUND APPROACH

Godhas U. EKPENYONG,[1*] Iyabo C. ADEMOLA-JOHN[2] & Bala I. AHMED[3]

ABSTRACT

The paper examined the effectiveness of monetary policy in enhancing the performance of the Nigerian Commercial Banks in terms of domestic savings mobilization for the period 1980- 2020. The monetary policy variables used were monetary policy rate, treasury bill rate and money supply growth. The paper utilized time series secondary data from the publications of Central Bank of Nigeria (CBN) and International Monetary Fund (IMF). Data were analyzed using Autoregressive Distributed Lag Bound Test. Findings showed that monetary policy conduct was ineffective in enhancing commercial banks performance in domestic savings mobilization over the period. The findings also showed that key variables of monetary policy were weak in driving domestic savings in Nigeria's banking system. Based on these findings, the study concludes that monetary policy did not really have significant positive effect on domestic savings mobilization in Nigeria over the period under consideration. However, to deepen domestic savings mobilization in Nigeria, policies that will make income to the people inclusive is necessary to boost domestic savings in Nigeria. The paper, therefore, recommends policy strengthening for effective savings mobilization and equitable redistribution of income in Nigeria

Keywords: *Domestic savings; monetary policy; commercial banks performance; investment.*

JEL Classification: *E52*

INTRODUCTION

The issue of domestic savings mobilization is fundamental to sustainable economic development globally. The Investment-Savings and Liquidity Preference-Money Supply (ISLM) curve is the basis for this necessary concern. In line with ISLM analysis, the level of domestic savings is a means in determining the level of investment a region has; and a lower saving level may put a region in continuous low level of growth (Ekong & Mboho 2021). Hence, regions need to do something that will boost their level of saving to equally generate the same and complementary level of investment.

[1&2]Department of Economics, School of Secondary Education, Federal College of Education, Kontagora.
[3]Department of Economics, Faculty of Social Sciences, Nasarawa State University, Keffi.
*Corresponding author. Email: pacci42013@gmail.com

There are important economic implications for boosting domestic savings in an economy. Boosting domestic savings guarantees adequate funds necessary to generate the desired level of investment an economy needs at a particular time. Once this is accomplished, factor employment will be optimum and income redistribution will be fairly smooth and the economy will maintain reasonable balance (Ekong & Mboho, 2021).

Saving mobilization is one of the most important functions of commercial banks. The commercial banking system has the task of attracting customers to keep deposit with them, and this idea is known as saving mobilization. Basically, commercial banks perform micro functions and macro functions. The micro functions include but are not limited to collection of deposits, credit extension, receiving interest, creation of a medium of exchange, issuing of cheques, circulation of money, whereas in the macro functions, activities like, capital formation, economic development, the transmission of money, and industrialization are core. The performance of commercial banks is thus measured through micro and macro functions around the world (Ekpenyong, 2021).

To enable the commercial banks function efficiently, a system regulation has to be in place. This is the role of the monetary policy. Monetary policy works through the banking system adjusting financial prices and propagating the desired volume of funds for economic activities. Ajayi and Atanda (2012) noted that the instruments of monetary policy do not affect economic activities directly; rather they work through their effects on the banking system. Thus, monetary policy may have their first impact on the deposit taking institutions through their influence on the availability of liquid resource of the system; more than that, the dominance of the commercial banks in the outplay of financial performance of most emerging economies is not disputed, and Nigeria is a witness to this fact in her economy (Bassey & Ekong, 2019).

Monetary policy is one of the important keys of macroeconomic management, the other being the fiscal policy. When the economy experiences declining growth, expansionary monetary policy is expected to move the economy back to a positive production growth path. However, when the economy's growth path is explosive such that inflation induced growth is seen, a contractionary monetary policy helps to bring down economic activities and stabilize prices (Ekong & Ukoha, 2018). Leahy (1993) found out that be it expansionary or contradictory policy, monetary policy has a substantial influence on the rate and pattern of economic growth by influencing the volume and deposition of saving as well as the volume and productivity of investment.

Over time, there has been a staggering domestic saving drive performance index for Nigerian commercial banks. For instance, domestic savings fell sharply from 88.4 percent to as low as 50.2 percent from 1981 to 1985. Domestic savings in 1986, which was 56.3 percent, soon shrank to 49.0 percent in 1988. Further, the high domestic savings level of 68.8 percent experienced in 1989 soon declined steadily to 50.9 percent in 1993 and further dipped to 42.4 percent in 1996. During the period of domestic savings shrinking, even the interest ratio liberalization occasioned by the banking system between 1989 and 1999 could not salvage the dwindling domestic savings situation. Between 1998 and 2000, the domestic savings grew from 37.8 percent to 57.2 percent, but such growth were, however, short lived as domestic savings further declined from 37.8 percent in 2001 to 33.6 in 2013. Domestic savings further dripped from 44.3 percent in 2006 to 24.0 percent in 2010. From 2011 to 2016 domestic savings declined from 24.2 percent to 17.0 percent in 2019 with the lowest value of 13.0 percent recorded in 2016 (Ekpenyong, 2021; Central Bank of Nigeria, 2016).

The downward performance of commercial banks in delivering core micro functions of domestic savings mobilization was in keen contrast with the conduct of money supply as an anchor of monetary policy in Nigeria. For example, the growth rate of money supply was 5.9 percent in 1981, but grew to 14.02 percent in 1983. It further

grew from about 9 percent in 1985 to almost 32 percent in 1988; maintained a steady growth from 13 percent in 1989 to a peak of almost 64 percent in 1993 and even when it should decline, continued to maintain a high double digit of almost 20 percent in 1995. From 1996 to the year 2000, money supply growth jumped from 16 percent to almost 49 percent. Such upward swing was also observed for the years 2003 to 2007 where it grew steadily from 13.5 percent to 65 percent before declining but maintaining double digits for most of the years up to 11.6 percent in 2016. This high growth of money supply to the economy rightfully reflects the policy direction of monetary policy, and the banking system financial assistance to the private sector. The average growth rate of credit to the private sector significantly increased from 13.7 percent between 1981 and 1990 to 23 percent between 1991 and 2000. It further jumped to 24.8 percent between 2001 and 2010 reflecting how income must have gone to the hands of the public that should equally raise the citizens' savings habit that however was not seen. According to Central Bank of Nigeria (2016), money supply follows the nominal needs of servicing economic activities, hence the unparallel peaks and trough, are possibly unaccentuated for drives in domestic savings in the country's economy.

Ndugbu and Okere (2015), Onodugo, Okoro, Amujiri and Onodugo (2015), Obioma and Onyebueke (2018), and Bassey and Ekong (2019) are all studies on monetary policy and commercial banks performance in Nigeria over the years. These studies focused on commercial banks profitability and shareholders wealth at the expense of domestic savings mobilization being the core banking functions. This is the contribution of this study.

Following this introduction, the rest of the paper has been structured as follows; section two discusses the literature review on the subject; section three outlines the method of study; section four analyzes and presents the results; section five is discussion of findings, while section six is conclusion and recommendations.

LITERATURE REVIEW

Conceptual Review

Concept of monetary policy

Monetary policy being a major economic stabilization tool involves deliberate action(s) taken by the government or her agency towards controlling monetary aggregate and other financial product in order to achieve price stability and macroeconomic growth. Central Bank of Nigeria Annual Report (2004) defined monetary policy as a measure introduced by the monetary authority on monetary targeting and the mopping of excess liquidity, aimed at ensuring a non-inflationary macroeconomic environment. Monetary policy is the combination of action(s) designed to regulate and control volume of money and credits in order to achieve certain macroeconomic objectives.

Concept of domestic savings

Domestic savings refer to the savings generated within an economy by households, firms and governments (Culpeper & Blaushan, 2008). The ability to generate adequate, reliable and predictable savings domestically is critical for investment in an economy. It has two sides, which are (i) private domestic savings which exist with the financial sector (private banks channel these savings towards investment) and (ii) public savings, which represent the excess of public revenue on current government expenditure (Ayimadu, 2016).

Theoretical Review

Literature on determinants of domestic savings assume three main factors: the level of economy's income; economic growth rate and the dependency ratio. The perception here is that high income countries will have higher average savings rates than upper middle income countries, which in turn have higher average savings than lower middle income countries. In spite of this fact, there are significant variations. For instance, Gjonnes (2016) in an independent survey of ten level of income on domestic savings across some regions of the world found significant overlaps between income groups. A number of low and middle income countries have savings

levels of above 25 percent of their GDP, which is similar to a high income country's income.

The dependency ratio theory argued that countries with higher dependency ratio – a large ratio of children or pensioners – will largely have declining savings rate relative to the size of the economically productive population. In similar vein to this theory is the lifecycle theory savings attributed to Franco Modigliani in 1966. The premise has been utilized to examine savings and retirement behaviour of older persons exclusively. This theory begins with the observation that income needs and income are often unequal at various points in the life-cycle. The younger people's consumption needs tend to exceed their income. Their requirements tend to be mainly for education and accommodation, consequently, they have little to save. In the middle age, earnings increase, enabling debts accumulated earlier in life to be paid off and savings to be accumulated.

The theory of domestic savings has also been considered in relation to the interest elasticity of savings. This is based on two different approaches. Corsepius and Fischer (1986) identified the approaches as being first, the impact of interest relies on the level of savings and second, its influence on the composition of savings, i.e. the holding of savings in financial and real assets. In one hand, a rise in interest rate makes future consumption less expensive; hence, initializing a substitution effect on domestic saving portfolio. On the other hand, less money has to be saved at present to consume the same amount in the future; thus, initializing an income effect on savings basket. In developing countries, however, the income effect of interest rate volatility on domestic savings are adjudged less operative due to the relatively small importance of interest earnings for a large part of the population (Wai, 1972).

Empirical Review

Developing economies in recent times form a colony for monetary policy stance informed by market forces to drive higher savings in their economies. Corsepius and Fischer (1986) reviewed many of such studies in the Asian region and found mixed result on the preposition. Their conclusion was that a strong financial savings is,

however, not sufficient to conclude that funds for investment purposes can be increased by higher interest rates.

Okumoko and Akarara (2016) investigated the impact of monetary policy on national savings mobilization drive and the possible transmission to investment in Nigeria from 1960 to 2016. Their analytical framework covers the integration of the variables such as Monetary Policy rate, Total investment and Gross Domestic product growth. Invoking Vector Autogressive (VAR) technique on the variables obtained for the study, they found convincing evidence of strong impact of monetary policy on savings mobilization and by extension on investment in Nigeria in the period under review. Specifically, shocks such as increase in monetary policy rate increases both savings and investment in Nigeria in the short-run but not in the long-run. In the long run, monetary policy impact on savings and investment diminishes drastically. Their evidence allowed them to conclude that monetary policy effect on savings mobilization in Nigeria is only a short run phenomenon and not a long run thing. This necessitated them to recommend that monetary policy rate should be hiked for short run growth to be seen and lowered over time for long run growth to be achieved.

Monetary policy rate determines the rate of interest in the general economy. This may well include the rates charged on deposits. This was the idea entertained by Ogbulu, Uruakpa and Umezinwa (2015) when they investigated the nature of the relationship between deposit rates (disaggregated into various categories of deposit rates charged by Deposit Money Banks) and deposit mobilization in Nigeria within the periods 1981 and 2012. Utilizing a combination of multiple regression and vector error correction mechanism, they found no significant relationship between all categories of deposit rates and total deposit liabilities of Deposit Money Banks in Nigeria. Near similar results were also obtained with respect to the impact of deposit rates on time savings and foreign currency deposits. They therefore concluded that a policy of interest rate liberalization alone may not be enough to induce higher levels of fund mobilization.

To what extent the savings mobilized by the deposit money banks in Nigeria has affected the wealth portfolio of Nigeria has remained a subject of debate in recent times. However, Jacob, Ishaya and Innocent (2019) in their study of how savings mobilization affect capital formation in Nigeria from 1980 to 2015 using quarterly data in a multiple regression analysis, showed that commercial banks total deposits have a strong positive impact on the wealth formation in Nigeria. This may be the case for all developing economies. In a related development, Duguma and Han (2018) assessed how the deposits mobilized affect the financial sustainability of the rural poor in Ethiopia using balanced panel data of 166 rural savings and credit cooperatives (RUSACCOs) from Ethiopia over the period 2014 to 2016. The results of their panel regression estimates showed that among the deposits mobilization variables, the deposit to loan ratio, deposit to total asset ratio, the volume of deposits, and demand deposit ratio had significant and statistically proportional impact on financial sustainability of the rural poor in Ethiopia. This allowed them to suggest that rural savings and credit cooperatives should focus more on deposit mobilization specifically on demand deposits and keep the interest rate spread narrow to ensure their sustainability.

Obi and Ezeanyeji (2019) examined the effect of interest rate on domestic savings mobilization after a liberalized monetary policy innovation in Nigeria from 1981 to 2017. In their analysis, they included other macro-economic variables believed to have influenced savings mobilization in Nigeria like gross fixed capital formation, inflation rate and real GDP growth. Infusing Cointegration Error Correction Mechanism on the selected data, they found convincing evidence of weak statistical and insignificant effect of interest rate on savings after a liberalized monetary policy stance. Not only were interest rates insignificant in driving savings in Nigeria but also that other macroeconomic variables failed to deliver on savings generation within the study period. They concluded that with this experience, government policies have failed to optimize commercial banks to deliver on their core mandate of servicing the economy with financial lubricant needed for development. Sunday (2012) conducted a similar study of the impact of interest rate on savings

mobilization for the Nigerian economy but included investment from 1970 to 2008. Simple regression analysis was used to analyze the data. His analysis showed that interest rate had significant positive impact on savings mobilization in Nigeria. Interest rates are pegged based on the prevailing monetary policy rate in the country. Therefore, its effect on savings is reflected by the movement of interest rate in the economy. On whether the savings mobilized by the commercial banks are actually being channeled to investment ventures, Soyibo (1994) showed that this depends mostly on the commercial bankers' perception of the working environment that the loan will thrive.

For Ojeaga, Ojeaga and Odejimi (2013) monetary policy passes through the interest rate to affect savings. In an investigation of how interest rates affect consumer savings behaviour in the Nigerian banking sector for the period 1982 to 2012; utilizing simultaneous quantile regression on bootstrapped dataset, they found strong empirical evidence that interest rates were probably increasing bank deposits; though not only interest rate but also income was found to affect bank deposits in general. However, when monetary policy variable was directly linked to consumer savings behaviour, they found that monetary policy was having no effect on bank deposits in general in the Nigerian banking sector. Therefore, they maintained that oversights regulations have to be strengthened, while inflation has to be checked to keep wages above basic individual budgetary demands. Their results were however different from that obtained by Hassan (2016) for the same economy in the periods 2000 to 2013. His study revealed that there is a negative relationship between interest rates and the commercial banks' deposits suggesting that interest rates have not been responsible for customers' deposits in commercial banks in Nigeria. In his view, this could be as a result of low citizens' education on the value of interest rate changes to saving deposits. Thus through adequate sensitization, policy rate could actually be on the path to drive domestic savings higher.

METHODOLOGY

Research Design

This paper adopts ex-post facto research design in the investigation. Ex-post facto research design involves the ascertaining of the effect of past factors on the present happening or event. This research design is adopted for this study because there was no attempt to manipulate the dependent variables since an Ex-post design presumes that the data are collected after the events of interest have occurred.

Model Specification

We model our domestic savings mobilization drive-monetary policy relationship, following Ojeaga, Ojeaga and Odejimi (2013) but with some modifications as:

$$Dep_t = \partial_0 + \partial_1 mp_{t-1} + \partial_2 \chi_{t-1} + \mu_t \qquad (1)$$

Where: ∂_0 is a constant, χ_t is the vector of exogenous variables that include both bank specific and economic wide variables, mp_t is also a vector of key monetary policy tools in the economy and μ_t is the error term.

Our model draws from the previous lending equations in stating our bound testing procedure as:

$$\Delta \text{Dep}_t = \delta_o + \sum_{i=1}^{\rho} \delta_\kappa \Delta Dep_{it-\rho} + \sum_{i=0}^{q} \beta_\kappa \Delta x_{it-q} + \psi_1 Dep_{it-1} + \psi_{2i} x_{it-1} + \mu_t \qquad (2)$$

Where: $\delta s, \beta s$ and ψs are the parameters of all the included variables in the model, Δ, is the difference operator, Dep_t is savings mobilization index; x_t is a vector of monetary policy variables; and μ_t is the error term. For our analysis, the long run relationship between Savings Mobilization and monetary policy conduct is specified as:

$$\begin{aligned}\Delta Dep_t = \delta_o &+ \sum_{i=1}^{\rho} \delta_1 \Delta \text{Dep}_{it-\rho} + \sum_{i=0}^{q} \beta_0 \Delta \text{mpr}_{it-q} + \sum_{i=0}^{q} \beta_1 \Delta Ms_{it-q} + \sum_{i=0}^{q} \beta_2 \Delta gdp_{it-q} \\ &+ \sum_{i=0}^{q} \beta_3 \Delta Tbr_{it-q} + \sum_{i=0}^{q} \beta_4 \Delta NPL_{it-q} + \sum_{i=0}^{q} \beta_5 \Delta \text{Dr}_{it-q} + \psi_1 Dep_{it-1} \\ &+ \psi_2 mpr_{it-1} + \psi_3 Ms_{it-1} + \psi_4 gdp_{it-1} + \psi_5 Tbr_{it-1} + \psi_6 NPL_{it-1} + \psi_7 Dr_{it-1} \\ &+ \mu_t \qquad (3)\end{aligned}$$

Where: Dep_t is deposits mobilized by the commercial banking system at time t; mpr_t is monetary policy rate, often assumed to be the commercial banks' cost of borrowing funds; Ms_t is money supply growth; gdp_t is the economy's level of income; Tbr_t *is* is treasury bill rate, a proxy for open market operations in Nigeria to regulate funds flow; NPL_t is non performing loans rate as a proxy for bank specific management strength in securing deposits and Dr_t is savings deposit rate of the banking system.

A Priori Expectations

The a priori expectations are: $NPL_t = 0$, $\mathrm{mpr_t} < 0$, $\mathrm{ms_t} > 0$, $\mathrm{Dr_t} > 0$, $\mathrm{gdp_t} > 0$, $\mathrm{tbr_t} > 0$. That is ψ_2, and ψ_6 are expected to be negatively signed implying negative relationship with the regressand. This means that increase in mpr and NPL will reduce domestic deposit. We however expect ψ_3, ψ_4, ψ_5, and ψ_7 to be positively signed, implying that $\mathrm{mpr}_t, \mathrm{Dr}_t, Ms_t$, and gdp_t will have positive effect on the regressand.

Definition of Variables

Monetary Policy Rate (MPR): This is a short term interest rate charged by the central bank to banks when borrowing for onward lending to the private and public sectors. It is usually regarded as the price for credit (CBN, 2014).

Money Supply (MS): The total value of money available in the economy at a particular point in time. Yearly growth of money supply in Nigeria will be used (CBN,2014).

Total Private Domestic Savings (TPDS): Total sum of savings in the commercial banking system (made up of savings, time and demand deposits in the commercial banks) (Jibrina, Danjuma, & Blessing, 2014).

Gross Domestic Product (GDP): GDP is the total market value of all final goods and services produced within a given period by factors of production located within an economy.

Treasury Bill Rate (TBR): The rate at which the central bank buys and sells public

securities to regulate the volume of currency in the economy.

Deposit Interest rate (Dr): Interest rate paid on deposits.

Non Performing Loans (NPLs): It is sum of borrowed money upon which the debtor has not made his scheduled payments for at least 90 days (Caprio & Kilngebiel, 2002).

Nature and Sources of Data

Annualized times series data is used in this paper. All data are obtained from Central Bank of Nigeria data set, World Development Indicators of the World Bank data, the International Monetary Fund (IMF) and the world fact book for the period of 1980 to 2020 (thirty-eight years).

Justification of the Model

The model used for the paper is specified based on the need to avoid bias estimates. Also, the technique of analysis adopted for the model ensures that internal statistical results are stable and reliable.

ANALYSIS OF DATA

Unit Root Test

Table 1: Unit Root Test Results

Variable	P P test			ADF test		
	Level	1st diff	p-value	Level	1st diff	p-value
gdp_t	7.0946			0.1704		
Mpr_t	-2.9021*	-7.8329***	0.0000	-2.3162**		0.0264
$M2_t$	-4.5009***		0.0334	-4.4347***		0.0045
tbr_t	-2.6775*	-7.1896***	0.0000	-2.2860**		0.0282
Npl_t	-5.9409***		0.0000	-6.6246***		0.0000
Dep_t	-1.6146	-9.2232***	0.0000	-1.7441	-6.0045	0.0000
Dr_t	-2.8015*	-7.9758***	0.0000	-2.9923*	-3.3629**	0.0196

Note:*,**,*** indicates significance at 10, 5 and 1 percent
Source: Authors' Computation

The unit root test of the variables for the study is presented in Table 1. As Table 1 shows, the variables in this paper exhibited various levels of stationarity not exceeding second level of stationarity thus making them amenable for our analysis. Unit root test are conducted to avoid spurious results in our analysis. With this stationarity confirmation we proceed to our ARDL analysis.

Correlation of the Variations

As shown in Table 2, most of the variables of monetary policy were negatively correlated with domestic savings. Surprisingly different is the economy's level of income that is negatively correlated with domestic savings. Despite the negative correlation of most of the variables, however, bank specific characteristics (bank deposit rate and bank management strength) were shown to be positively correlated with domestic savings.

Table 2: Correlation Table for the Variables

Variables	Dep	Dr	gdp	mpr	MS	NPL	Tbr
Dep	1						
Dr	0.4569	1					
gdp	-0.3841	0.4617	1				
mpr	-0.0229	0.0869	0.1525	1			
MS	-0.7345	-0.2718	0.1240	-0.2132	1		
NPL	0.3773	0.2052	0.0614	0.5546	-0.5551	1	
Tbr	-0.0531	0.0726	0.0697	0.8780	-0.0698	0.4517	1

Source: Authors' Computation

ARDL Bound Test Analysis

The bound test analysis result is reported on Table 3. It shows that the derived F-value of 6.7 greater than the critical bounds values of 2.27% and 3.28%, respectively, suggesting a possible long run relationship that should be investigated.

Table 3: F-Bound Test for Monetary Policy-Savings Mobilization

Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	6.691833	10%	1.99	2.94
K	6	5%	2.27	3.28
		2.5%	2.55	3.61
		1%	2.88	3.99

Source: Authors' Computation

We proceed to examine the lag structure of the relationship. As reported in Figure 1, after a systematic evaluation of more than 20 related relations, the lag structure of ARDL (2,2,0,2,1,2,0) was adjudged stable and hence selected for the study.

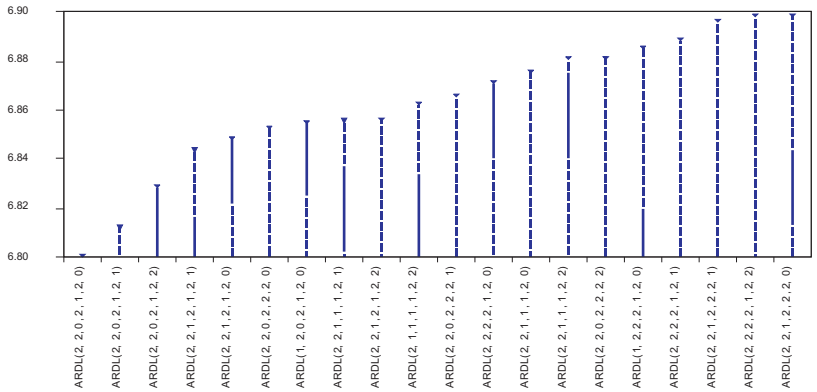

Figure 1: Lag Selected ARDL (2,2,0,1,2,0)
Selection Criteria: Akaike Information Criteria
Source: Author's Computation

The short run analysis of monetary policy effect on commercial banks' domestic savings mobilization is presented in Table 4. The monetary policy rate produced statistically significant negative effect on domestic savings mobilization by almost 24 percentage point. However, this may not last as, citizens may experience incentives to save their funds through positive rise in mpr. Also, a rise in treasury bill rate dipped domestic saving drive by at least 69 percent in the short run. A rise in tbr may trigger more return on investment incentives on the citizens who may readjust their portfolio in favour of treasury bills than savings. A rise in economic

performance dipped domestic savings. This may be as a result of falling business outcomes which eventually weakens citizens' income for savings. Our explanatory variables explain over 56 percent of variations in the dependent variable showing a good fit of our model. The DW value of 2.4 shows that our variables were not autocorrelated.

Table 4: Short Run Results of Monetary Policy and Savings Mobilization
Dependent Variable: Private Domestic Savings (Dep)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Dep(-1)	-0.245277	0.125325	-1.957123	0.0638
Mpr	2.118086	0.516365	4.101917	0.0005
mpr(-1)	1.820780	0.475855	3.826336	0.0010
Tbr	-0.697143	0.390848	-1.783667	0.0889
tbr(-1)	-1.310626	0.448231	-2.923997	0.0081
Gdp	-0.241003	0.249780	-0.964859	0.3456
Npl	0.035400	0.126875	0.279015	0.7830
Npl(-1)	-0.175009	0.063478	-2.757013	0.0118
ECM	-0.231296	0.043165	-5.358440	0.0000

R-squared	0.658893	Mean dependent var	-1.907297
Adjusted R-squared	0.561434	S.D. dependent var	8.171198
S.E. of regression	5.411322	Akaike info criterion	6.422637
Sum squared resid	819.9075	Schwarz criterion	6.814482
Log likelihood	-109.8188	Hannan-Quinn criter.	6.560781
Durbin-Watson stat	2.355448		

Source: Authors' Computation

The long run results of monetary policy and commercial banks savings mobilization performance is presented in Table 5. As the result shows, a rise in monetary policy rate will grow domestic savings in the economy by more than 5 percent and statistically significant. Over time, citizens may perceive the rise in mpr to be a boost in returns on investment and hence raise their deposits. However, a percentage rise in money supply will dip domestic savings by 0.11 percent in the long run but not significant. Such negative effect is also exhibited by treasury bill rate. A percentage rise in tbr will significantly dip domestic savings by more than 3 percent in the long

run. A rise in tbr may trigger more return on investment incentives on the citizens who may readjust their portfolio in favour of treasury bills than savings that started from the short run. As mpr rises, other rates in the economy rise and so do deposit rates. This has the implication of driving a certain level of domestic savings in the banking system that will not be significant. More than that, the general poor economic environment occasioned by the global financial crisis in recent years may have affected the Nigerian economy to have impacted negatively on domestic savings.

Table 5: Long Run results of Monetary Policy and Savings Mobilization Dependent Variable: Domestic Savings

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Mpr	0.052830	0.025143	2.101200	0.0455
MS	-0.001133	0.012357	-0.091679	0.9277
Tbr	-0.034988	0.019389	-1.804472	0.0828
NPL	0.001972	0.001630	1.210143	0.2371
Dr	0.005607	0.012491	0.448872	0.6572
Gdp	-0.004182	0.005822	-0.718219	0.4790
C	0.094161	0.047054	2.001138	0.0559

Source: Authors' Computation

When the validity of our results were investigated and reported on Figure 2, we could not reject the hypothesis of stable parameter estimates. Stated differently, the cumulative sum of squares falling within the confidence interval at 5 percent level of significance implies that the parameters derived from the monetary policy-domestic savings mobilization relationship are stable, reliable and hence can be used for policy formulation.

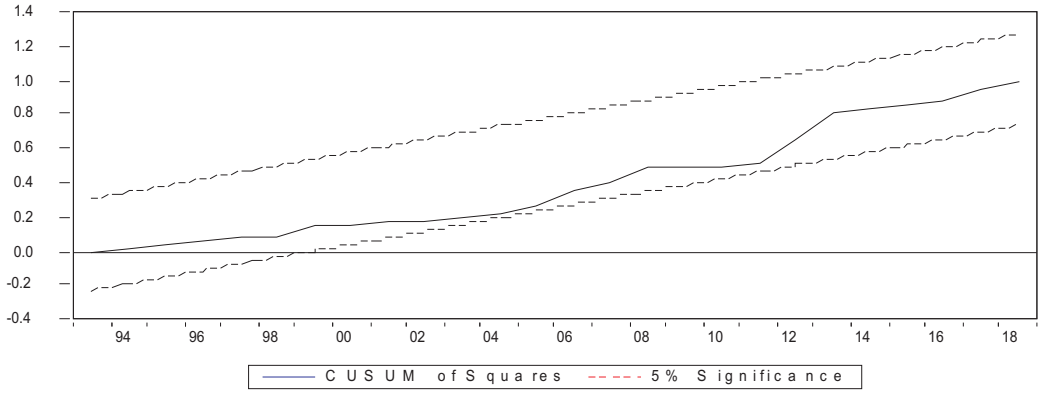

Figure 2: Stability results for monetary policy and savings mobilization

Discussion of Findings

The results show that key variables of monetary policy were weak in driving domestic savings in Nigeria. Monetary policy rate variance only produces short term deposit impact that fades away over time. Even the banking system deposit rates which itself follow the monetary policy rates corridor for other rates did not provide any positive effect on savings mobilization. Generally, commercial banks do not pay interest on domestic savings. Even when they do, the rate is so low to encourage further savings growth. As a result, citizens now use their funds on other items in their wealth portfolio, thereby depriving the banking system of the needed savings to channel into more necessary economic ventures. There is thus, declining savings culture. For instance savings declined from 37.8 percent in 2001 to 33.6 percent in 2003; and from 44.3 percent in 2006 to 24.0 percent in 2010.

The results confirm the position of Ogbulu, Uruakpa and Umezinwa (2015) who investigated the nature of the relationship between deposit rates (disaggregated into various categories of deposit rates charged by Deposit Money Banks) and deposit mobilization in Nigeria within the period of 1981 and 2012 and found no significant relationship between all categories of deposit rates and total deposit liabilities of Deposit Money Banks in Nigeria. Gaire (2012) also found a similar outcome for the Nepal economy after policy influences. His findings suggest a probable long run

relationship existing between real interest rate and savings behaviour in Nepal of rather weak nature of say 1.32 percent. When the data was disaggregated into phases, the weak relationship deepened. This led him to argue that trying to influence deposit mobilization is not likely effective for the Nepal economy.

The long run results show highest effect on domestic savings mobilization in the economy's level of income and least effect by the banking system domestic savings deposit rate. This is true of the experience in developing economies where deposit rate does not show any effect on encouraging savings as banks no longer pay any reasonable interest on savings in their banks, and savers will only save from the residuals of their increased income. More than that, the theoretical speculation of the role of income in determining domestic savings is also true for Nigeria.

CONCLUSION AND RECOMMENDATIONS

This paper examined the effectiveness of monetary policy instruments in enhancing the performance of the Nigerian commercial banks in terms of domestic savings from 1980 to 2020. Findings suggest that monetary policy variables were much slower in driving domestic savings in the banking system. This allows us to conclude that monetary policy did not really have significant positive effect on domestic savings mobilization in Nigeria over the period under consideration. However, to deepen domestic savings mobilization in Nigeria, policies that will make income to the people inclusive so as to drive domestic savings in the economy such as equitable distribution of income in order to ensure pro-poor financial inclusion are necessary as against mere monetary policy adjustments.

REFERENCES

Ajayi, F. O., & Atanda, A. A. (2012). Monetary policy and bank performance in Nigeria: A two-step cointegration approach. *African Journal of Scientific Research, 9*(1), 461-476.

Ayimadu, B. Y. (2016). Financial depeening, domestic resource mobilization and per capita income growth in Africa. An Unpublished Thesis submitted to the Department of Economics, University of Ghana, Legon.

Bassey, G. E., & Ekong, U. M. (2019). Monetary policy and bank performance in Nigeria: A vector autoregression (VAR) approach. *International Journal of Economics & Finance Research & Applications, 3*(1): 11-34.

Caprio, G., & Kilngebiel, D. (2002). *Episodes of Systemic and Borderline Financing Crisis*. Washington D.C.: The World Bank.

Central Bank of Nigeria (CBN). (2004). Annual Report 2004.

Central Bank of Nigeria (CBN). (2014). Understanding Monetary Policy Series. Domestic Savings. No.16

Central Bank of Nigeria (CBN). (2016). Central Bank of Nigeria Statistical Bulletin, 2016.

Corsepius, U., & Fischer, B. (1986). Interest rate policies and domestic savings mobilization: A survey of the empirical evidence of Asian countries. *Kiel Working Paper, No. 267*, Instutfur Welwirtschaft (IFW), Kiel. Retrieved on March 12, 2020, from http://hdl.handle.net/10419/46898.

Culpeper, R., & Blaushan, A. (2008). Domestic resource mobilization: A neglected factor in developing strategy. Workshop on domestic resource mobilization in Sub-Saharan Africa. Entebbe, Uganda May 27-28.

Duguma, G. J., & Han, J. (2018). Effect of deposit mobilization on the financial sustainability of rural saving and credit cooperatives: Evidence from Ethiopia. *Sustainability, 10*(3387): 1-23.

Ekong, U. M., & Ukoha, O. O. (2018). Monetary policy pass-through in Nigeria: An ARDL bound testing approach. *Atlantic Review of Economics (ARoEc), 1*, 1-24.

Ekong, U. M., & Mboho, E. U. (2021). Monetary policy and domestic saving mobilization in Nigeria: Evidence from an ARDL estimation. *Asian, Basic and Applied Research Journal, 4*(2), 120-132.

Ekpenyong, G. U. (2021). Impact of Monetary Policy on Commercial Banks Performance in Nigeria. An unpublished M.Sc dissertation.

Gaire, H. N. (2012). Real interest rate and savings behaviour in Nepal. *Banking Journal, 2*(1), 16-24.

Gjonnes, S. K. (2016). Mobilizing for development: Assessing the impact of public saving institutions in determining national savings levels. *Institute Barcelona Estudis Internaternacionals Students Paper Series No, 26*. Available at http://www.kse.org.ua 16-June-2020.

Hassan, O. M. (2016). Effect of interest rate on commercial bank deposits in Nigeria (2000-2013). Proceeding of the First American Academic Research Conference on Global Business, Economics, Finance and Social Sciences (AAR16 New York Conference) New York, USA. 25-28 May, 2016. Retrieved on February 10, 2020, from www.globalbizresearch.org.

Jacob, B. J., Ishaya, Y., & Innocent, I. O. (2019). Effect of deposit mobilization and credit financing of commercial banks on capital formation in Nigeria. *International Journal of Small and Medium Enterprises, 2*(1), 47-55.

Jibrina, M. S., Danjuma, I., & Blessing, S. E. (2014). Private domestic savings mobilization by commercial banks and economic growth in Nigeria. *Beykent University Journal of Social Sciences, 7*(1), 1-22.

Leahy, J. (1993). Investment in competitive equilibrium: The optimality of myopic behaviour. *Quantitative Journal of Economics, 108*, 1105-1133.

Obi, C. O., & Ezeanyeji, C. I. (2019). Interest rate deregulation and savings mobilization in Nigeria: An impact analysis. *International Journal of Applied Research, 5*(3), 186-193.

Obioma, J., & Onyebueke, C. (2018). Bank asset quality reform are among Nigerian banks in the role of monetary policy. *11ARD Interventional Journal of Banking and Financial Research, 4*(1), 1-31.

Ogbulu, O. M., Uruakpa, P. C., & Umezinwa, C. L. (2015). Empirical investigation of the impact of deposit rates on fund mobilization by deposit money banks in Nigeria. *Journal of Finance and Bank Management, 3*(1), 77-89.

Ojeaga, P., Ojeaga, D., & Odejimi, D. O. (2013). The impact of interest rate on bank deposits. evidence from the Nigerian banking sector. *Munich Personal RepEc Archive (MPRA) paper No. 53238*. Retrieved on February, 12, 2020, from https://mpra.ub.unimuenchen.de/53238/.

Okumoko, T. P., & Akarara, E. A. (2016). The impact of monetary policy rate on savings and investment in the Nigerian economy. *FUNAI Journal of Humanities and Social Sciences, 2*(1), 39-53.

Onodugo, I. C., Okoro, O. E. U., Amujiri, B. A., & Onodugo, V. A. (2015). *Impact of monetary policy regimes on performance of commercial banks in Nigeria*.

Ndugbu, M. O., & Okere, P. A. (2015). Monetary policy and the performance of deposit money banks – The Nigerian experience. *European Journal of Business and Management, 7(17), 65-72.*

Soyibo, A. (1994). The savings-investment process in Nigeria: An empirical study of the supply side. *African Economic Research Consortium (AERC) Research Paper Series No. 100278*.

Sunday, K. U. (2012). *The impact of interest rates on savings and investment in Nigeria*. Unpublished M.Sc. Thesis.

Wai, U. T. (1972). *Financial intermediaries and national savings in developing countries*. New York: Palgrave, 160-168.