

INTEREST RATE AND SAVINGS IN NIGERIA

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Abstract

The major aim was to assess the implication of interest rate on savings in Nigeria's economy. The Loanable funds theory of interest rate was applied. The paper used the historical research design. Data used was from time series data from 1970 to 2016 from Statistical Bulletin of CBN. The Augmented - Dickey Fuller test for evidence of unit root and the Johansen cointegration test for analysis of controlled and explanatory variable. The test showed that all the variables were of order I (1) and were co-integrated. The Vector Error Correction Mechanism (VECM) was used to estimate the model. The findings from the analyses revealed that there was non- significant long run and short run effect of interest rate on savings. Accordingly, it was recommended that Central Bank Nigeria (CBN) should formulate and enforce policies to bridge the margin between lending rate and deposit rate spread in order to achieve a rate that will boost the level of savings.

Key words: Interest rate, loanable funds theory, lending rate, deposit rate and Savings.

Introduction

The capacity to increase savings, finance investment, stabilize the pricing system and increase productivity is the desire of every developing economy. Available economic theories and even literature suggest that macroeconomic factors such as savings, investment, output and money supply are driven by the price for money known as interest rate. Interest rate is capable of changing, transforming and redirecting savings and investment patterns of a country and to a certain degree, its productivity level (Umeora, 2010). Interest rate is seen as the reward for not putting aside but the recompense for doing away with liquidity. Banks are primarily known for moving funds from excess units to the units that are lacking within the economy. This process is termed intermediation. The future prospects or

failures of this process is a function of culture of savings of income earners and the degree of infrastructural development of the banking sector of any given nation. Interest rate plays a major role as compensation for assuming risks as well as an instrument of regulating monetary issues in Nigeria.

The CBN in August, 1987 introduced a market-based interest rates which is determined by market forces. The decision was necessitated by improved competition and efficient allocation of resources within the economy. Although, the decision of this policy brought argument because low interest rate discourages savings. In the same vein, it was feared that a more than two digits interest rate will dampen businesses, investments and thereby slow gross domestic product. The market-based interest rate in operation during the liberalization period,

allowed banks to determine their lending and deposit rate that will equilibrate the market. Nevertheless, the CBN, still continue to maintain the Minimum Rediscount Rate (MRR). In other to stimulate the economy, the MRR was reduced to 15% in December, 1987 from 12.5% in August, 1987.

Savings is the excess of earned income over expenses. Therefore, for an individual to be able to save, one must strike a balance between consumption and the tendency to spend in order to have some naira to save. (Bhatia & Khatkhate, 1973). However, where per capita income is low and the spending habit is high for the consumer, deposits by customers of banks are also very low. This affects the rate of savings in any given nation. Due to low interest payment, deposits are also low culminating to low savings. A rational man would always save if the interest paid on capital or deposit is high. Interest rate serves as a return on financial assets and attracts more volume of deposits when it favours savers. Though, a high rate of interest is a stimulant for businesses and economic units to save and invest in security market and make deposit to attract interest in financial institutions (Osofisan, 1993).

The upsurge in real interest rates in Nigeria raised widespread concern about its possible detrimental effects on some macroeconomic variables like savings and output. Many arguments were made that wide interest rate margins had the tendency to promote low savings level and to reduce the ability of the financial sector to effectively mobilize deposits to fund investments and promote employment

sufficient enough to trigger growth in the economy. Various policies were implemented to tackle the problem of interest rate with a view to enhancing savings, investments, promoting employment and economic growth but turned out to be unsuccessful. The preponderance of studies on interest rate and savings had continued to arrive at mixed results making their association unclear. There seemed to be no deep-rooted conclusion in respect of the direction and degree of influence of interest rate on savings. This was exemplified in the various interest rate policy formulation and reversal and the continuous low performance of other macroeconomic variables to the extent that many previously well-performing businesses were now performing poorly and many people lost their jobs as consequence. Hence, this gap needs to be connected in order for policymakers to understand, articulate and administer interest rate regimes that will promote employment, savings attitude, economic performance and output. The objective is to assess the influence of interest rate on savings.

Conceptual framework

This aids to comprehend the linkage between the components of interest rate and savings. The independent variable was majorly discussed in terms of monetary policy rate, treasury bills rate and deposit rate. One of the macroeconomic variables used was savings. However, high interest rate will trigger savings culture on households, economic units and firms. This is because households, firms and governments may want to gain interest on money saved. The conceptual framework of the relationship between interest rate and savings is thus presented below:

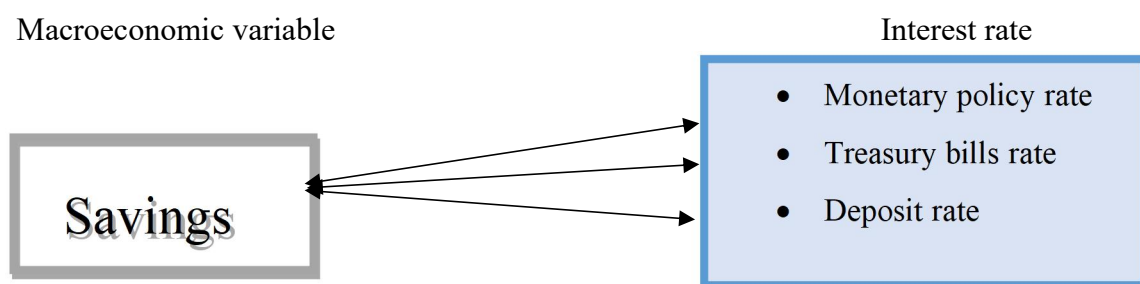


Figure 1: Conceptual framework Transmission mechanism

Source: Researcher's work, 2018

Theoretical Framework

Loanable funds theory of interest rate: This was enunciated by Kuttner (2001). The total cash presented for lending and needed by customers, individuals and businesses is known as a loanable fund. The prevailing rate of interest is arrived at through the interaction of market forces at an equilibrium price. The sources of demand include: individuals, households, businesses and the government while the supply of loanable funds are: households, the CBN system that facilitates the level of money supply and businesses through their retained earnings. Other factors that affect this theory are: the degree of economic development, the issue of political instability and the state of financial infrastructure. Saymeh & Orabi (2013) identifies economic conditions and the monetary expansion to cause shift in loanable funds.

The economic implication of interest rates on savings, investment and inflation was studied by Osuala, Osuala, and Onyeike (2013). The loan rate, deposit rate, and monetary policy rate were used to measure the interest rate, which was based on data from CBN during a forty-year period. Econometric tests were used to determine the presence of stationarity, as well as direct influence among the variables using granger causality. The results showed a statistically significant direct association between deposit rates, savings, and investment, but a significant inverse relationship with inflation. In Nigeria, the monetary policy rate and the lending rate had a negative association with savings and investment but a positive link with inflation. Because all of the variables were significant, the paper concluded that the effect is simultaneous.

Mallik & Chowdhury (2001) proved the presence of a link between inflation and savings for Sri Lanka, Pakistan, Bangladesh, and India. To estimate the model's parameters, the researchers used the error correction technique. In all four nations, the analysis discovered a

long-run positive link between savings and inflation. Due to large feedbacks between inflation and savings, it was also discovered that moderate inflation is beneficial to these countries. In their research of the relationship between interest rates and other macroeconomic indices, such as savings and investment. In a similar manner, Khat and Bathia (1996) used techniques that were probabilistic in nature. Fifty-four developing nations were segmented into four sets based on the nature and structure of real interest rate prevailing within the period. The authors measured macroeconomic variables such as gross savings, income and investment for all the nations used for the study. The Mann - Whitney test was used in the analyses and was found that the effect of interest rate was non-significant for the four different sets of countries.

Jolaosho & Simon-Oke (2018) applied Vector-Auto Regression (VAR) model to look into the assessment of interest rate on savings utilization in selected African countries including Nigeria. The scope of the study was 1980-2008. It was discovered that real interest rate has an inverse relationship with savings mobilization. Monetary authorities should address the galloping two digit lending and saving rates in order to promote a productive base of small and medium enterprises and other businesses.

This will encourage savings that will boost investment and economic growth in the country. Contrary to the above, Samuel and Andrew (2012) used a Vector Autoregression (VAR) technique to investigate the link between inflation and some selected macroeconomic interest rate variables in Nigeria. In addition to VAR, multiple linear regression analysis and Granger causality tests were used to supplement findings and demonstrate the robustness of the conclusions. Annual data from the CBN statistical bulletins 1970 and 2010 was used. The researchers used VAR models to figure out how the endogenous factors interacted.

The empirical findings were, on the whole, impressive. Over 93% of the fluctuations in

output for the estimated coverage were reported using the indices of the study, based on the OLS result. Each of the regressor variable's individual coefficients similarly displayed the expected a priori signals, implying that as savings encourages output, inflation reduces output. The study recommended that monetary authorities should boost private savings to efficiently encourage output and productivity in the Nigerian economy.

Methodology

Thus, the historical research design was used. This was borne out of the fact that the variables studied were of secondary nature. Data from 1970-2016 were collated to find out the association between interest rate and saving in Nigeria. The endogenous variable is Savings (SAV). Data used were from 1970-2016 from CBN. The Vector Error Correction Mechanism (VECM) was applied.

Model Specification

This study however considers savings as endogenous variables. This relationship was decomposed into the following equation:

$$SAV = f(MPR, TBR, DR) \dots\dots\dots (Eqn.1)$$

Where:

- SAV = Savings
- MPR = Monetary policy rate
- TBR = Treasury bills rate
- DR = Deposit rate

Results and Discussion of Findings

Analysis of long run dynamics

The error correction term were extracted and used for the analysis of the presence of a long run causality from monetary policy, treasury bill rate and deposit rate to savings.

Table 1: Long Run Error Correction Analysis

After the estimation of the VECM, the study proceeded to make system equation to view the probability of the estimate as presented in Table 1. The C (20) was the error correction term which measures how far it will take the savings toward long-run equilibrium. The expectation about C (20) was that it must be negative and significant at 5% level. From the above, C (20) was adverse but non-significant at 5% level. This implied, therefore, that there was no long-run causality from explanatory variables to savings. This means that interest rate had no influence on savings within the period under review. Furthermore, the R² value of 0.4726 or 47.26 percent showed that about 47.26% of the observed changes in savings had been expounded by the variations in interest rate such as monetary policy, treasury bills rate and deposit rate., the F-statistics value of 1.2447 with it corresponding p-value of 0.30106% indicates that the savings equation was non-statistically significant at 5% level.

Source:

Eview	Dependent Variable: LSAV				9.1
Short run analysis test	Variables	Coefficient	t-stats	p-value	
	C (20)	-0.01912	-0.73741	0.4677	wald test statistics. The wald test results revealed the existence of a short-run causality
	R-Square	0.47265			
	F-Statistics	1.2447		0.30106	

From the results, the short-run causality could be examined. This was achieved through the

running from monetary policy rate, treasury bill

rate and the deposit rate to savings. However, the table below explains the result.

Table 2: Analysis of the short run causality

Regressand Variable: SAV (Savings)			
Null Proposition	Interest rate	F-Stats	Prob.
C(32)=C(33)=0	MPR	0.8246	0.4500
C(34)=C(35)=0	TBR	0.2613	0.7715
C(36)=C(37)=0	DR	0.8650	0.4333

Source: Eview 9.1.

Analysis of above table 2 shows that there is no short-run causality running from monetary policy rate, treasury bill rate and the deposit rate to savings. This could be seen as none of the null hypotheses for the savings equation has been rejected. Meaning that lag one and two of explanatory variables do not jointly influence or cause a short-run change in savings.

Findings from the result of analyses of interest rate and savings revealed that interest rate has a non-significant effect on savings both in the long run and short run periods. The result indicated that there is no considerable influence of interest rate on savings both in the long and short run. In other word changes in interest rate does not influence saving level in Nigeria. Findings from this study agree with the work of Jolaosho & Simon-Oke (2018) who appraised the implication of savings mobilization and interest rate on Nigeria’s economy. In their findings, real interest rate had a non-significant impact on the level of savings in Nigeria. It follows from this finding that the ability to save

is not influenced by the rate of interest prevalent within the period. That savings may be influenced by other factors outside interest rate like precautionary motive.

Conclusion and recommendations

The study evaluated the influence of interest rate on savings while variables used were monetary policy rate, treasury bill rate and deposit rates as measures of interest rate. The selected dependent variable used in the study was savings. The study employed various econometric techniques for analyses to achieve its stated objective. The major findings from the analyses were summarized as follows: There was no significant long run and short run effect of interest rate on savings. Interest rate has a non- significant impact on savings in the long run and short run. It was suggested that to achieve the interest rate that will boost the level of savings the study recommends that the Central Bank of Nigeria (CBN) should formulate and enforce policies to bridge the margin between lending rate and deposit rate’

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