EFFECT OF INTEREST RATE DEREGULATIONS ON BANKS DEPOSIT MOBILIZATION IN NIGERIA

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Abstract

This study assessed, in empirical terms, the effect of interest rate deregulations on banks deposits mobilisation in Nigeria. It adopted the econometric tool of Ordinary Least Square (OLS) Regression method to analyse the relationship between interest rate and deposit mobilized over a period of 26 years (1985 to 2011). The study found a positive relationship between the independent and dependent variables, indicative of the fact that interest rate has a major influence on deposit mobilisation. The study therefore recommends that manufacturing companies should be favoured by government when deregulating the interest rate by way of stimulating productive sector of the economy, amongst others.

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1.1 Introduction

1980s marked the advent of serious deregulations in the banking sector especially deregulation of interest rates and foreign exchange transactions. Direct intervention of government which necesitates the introduction of structural adjustment programme (SAP) in 1986. SAP was designed as a financial sector reform to ensure efficiency in financial system and purposely focussing on structural changes, monetary policy, interest rate administration and foreign exchange management. In 1987, the Central Bank of Nigeria embarked on liberalisation of interest rate and adopted the policy of making only its minimum rediscount rate to indicate the desired direction of interest rate. This was further modified in 1989, when the CBN issued further directives on the required spreads between deposit and lending rate.

A maximum margin between individual bank average cost of fund and the maximum lending rate was prescribed in 1991. Another regulation came later in the year, which specified saving deposit rate and the maximum lending rate. The removal of the maximum lending rate ceiling in 1993 saw interest rates rising to high roof levels in sympathy with rising inflation rate, which rendered bank's high lending rates negative in real sense. Direct interest rate controls was however restored in 1994. Because of the negative reactions to interest regulations instituted in 1995, total deregulation of interest rates was again adopted in the last quarter of 1996. All these have effects on volume of deposits in the system and interest rate on deposit impacts positively on the level of deposits being mobilised in the system.

1.3 Literature Review

The main focus of every financial systems is financial intermediary, that is, mobilising finacial resources from the surplus sector and lend to the deficit outlets to facilitate business transactions and economic development based on the monetary and fiscal policy of the nation. The attraction for getting the deposit from the surplus sector is interest payment, which must be reasonable and acceptable to the owner of the money. Conversely, the attraction for granting credit facility by the bank is interest payment for the use of credit by the borrowers in consideration for parting with liquidity by the lenders. Therefore interest rate dictates both the level of deposit and the amount of credit being offered by the banks.

Nigerian financial systems, like other countries, have undergone numerous changes from independence to date. Such changes include structure of capital, ownership combination, number of institutional participation in the system as well as depth of instruments in use. All these changes were possible because of the following factors:

- the establishment of Central Bank of Nigeria;
- attainment of political independence;
- variation in government financial requirements;
- oil boom;
- changing view of monetary authorities on the role of the banking system in the economy.

Comparatively, Nigerian financial system have performed averagely well, when one considers limited resources at the country's disposal, political instability and various government regulations. Nevertheless, the followings are some of the constraining factors that militate against the efficiency of the system:

- inadequate capital base even with the recent increase in bank's capital base to N25 billion;
- imprudent lending practices that escalate incidence of non-performing loans;
- concentration of credit on the short end of the lending spectrum;
- high rising inflation rate and
- depreciation of our currency exchange rate

Nigerian financial system is structured after the capitalist and western economic pattern and is divided into formal and informal sectors. The money market (where short term instruments are traded) and the capital market (for long term instrument) constitute the formal sector. The Capital market trades on medium, and long term instrument which includes stocks and shares, debentures, development stocks and other long and medium term instruments. Commercial banking constitutes about 80% of money market in Nigeria. Other instruments of money market are Treasury bills, Treasury Certificates, Certificate of Deposit, Loan and Advances etc. Oyinbo (2000) posited that the establishment of money market in Nigeria was motivated by the following factors:

- indigenisation of the credit base of the economy by presenting outflow of funds from the

country, thereby meeting working capital requirements of business men and industrialists;

- creating opportunities for the mobilization of liquid funds to meet the temporary credit requirements of government;
- enable banks to economise on their cash holdings and adjust their liquidity positions as coincidentally as possible;
- providing the basis for operating and executing an effective monetary policy.

An appraisal of the financial market reveals that deregulations have tremendously increased the depth of the money market instruments in Nigeria. This has also affected the ownership structures. The market has succeeded in providing facilities for the retention of funds within the economy; there had been increase in institutionalised savings; and competition had led to innovation and efficiency in service delivery, all these are as a result of deregulations in the industry. In spite of all these improvements, the market has however been faced with some problems, some of which are:

- relegation of the private sector to the background, evidenced by low amount of private sector instruments in the economy;
- inflation resulting from high rate of interest associated with deregulation which has destabilised the economy;
- imperfection of the market which has caused gap between saving rate and wide lending rate despite minimum rediscount;
- inadequate branch network, in spite of merger and acquisition embarked upon in 2005 by the erstwhile Governor of CBN, Professor C.C. Soludo;
- absence of macroeconomic stability which is necessary for the success of deregulation policy;

Interest rates, like other prices, perform a rationing function by allocating limited supply of credit among the many competing demands on it.. Interest rate management refers to the totality of steps and processes designed and used by the monetary authorities to determine, sustain or support the level of interest rates in an economy in ways that engender the achievement of the stated macroeconomic goals of price and exchange rate stability, rapid and sustainable employment and generating growth. Tony Elumelu (2002). Interest rate management entails

anticipating the financial markets and develop appropriate policy measures to impact the market using known tools. Instruments and techniques used to manage interest in an economy depends on the stated goals of the political and financial authorities of that country. Nevertheless, the authority must ensure that rates do not fall to the level where the liquidity traps the economy. Interest rate policy is an integral part of monetary policy used to facilitate mobilisation of domestic finacial resources; stimulate economic growth; promote price stability/efficient resource allocation and attract foreign capital and curb capital flight. The effectiveness of the interest rate policies would however depend among other factors on the saving habit, the spread of banking facilities and availability of alternative assets. Oyinbo (1997).

Interest Rate Management techniques are two i.e. Administrative fiat and Free market determination. Government was in the habit of employing administrative fiat prior to the structural adjustment era. Adminstrative fiat is done by:

- the regulatory authority exclusively using direct control to regulate the economy;
- the apex bank fixing interest and other banking charges;
- regulatory authority setting the maximum rate by which credit could be extended to different sectors.

Free market determination, on the other hand, involves the deregulation of interest rates and abolition of sectoral allocations. The regulators are only to set the rules and allow the operators to play according to the rules.

Ndekwe(1989), institutionalised savings grew during the financial system deregulation era in line with the view that liberalisation of financial sector results in increase in supply of savings to the banking sector as expressed by Mckinnon and Shaw. The increase in aggregate savings is not unconnected to the higher interest rate offered for deposit with the bank. However, the resultant high borrowing cost discouraged the borrowers, especially private sector producers, as their capital became inefficiently costly.

An assessment of the current monetary policy framework would now be done under money supply and credit, prices and domestic output. Money supply growth in 1995 to 2000 exceeded anticipated targets due to the following factors:

- rapid monetisation of oil inflows;
- minimum wage adjustments;
- financing of government fiscal deficit through the banking system.

All of them accounted for the growth in the monetary aggregated target. Credit to prefered sectors declined sharply from 48% in 1995 to 23.9% in 1997 and thereafter increased gradually to 30.9% in 2000.

The major objective of the indirect control monetary policy of regime was the maintenance of macroeconomic and price stability. By price stability, CBN expects a single digit inflation rate on an annual basis. From 1995 to 2000, this target was only achieved in 3 out of the 6 years. Nnanna (2001) attributed the meeting of the target in those years due to favourable agricultural harvest, as the weight of food accounted for over 70% in computation of Nigeria's consumer price index.

Output performance has similarly been unimpressive as domestic output growth has repressively been on the decline in the period under review indicating that monetary policy conduct did not impact positively on output even in the face of increased income from oil exports.

1.4 Model Building

The model suitable for determining the effect of interest rate deregulation on bank deposit will have interest rate (IN) as dependent variable; while Saving and Deposits (SD), Time Deposit (TD), Money Supply (M2) and Total Institutional Savings (TIS) are independent variables. Hence the aggregate model will be:

IN = f(Saving and Deposit, Time Deposit, Money Supply, Total Institnal Savings)

IN = f(SD, TD, M2, TIS)

Explicitly we have

$IN = b_o + b_1SD + b_2TD + b_3M2 + b_4T + \mu$

where,

IN = Interest rate (dependent variable)

b_o = slope of the model

b_1, b_2, b_3, b_4 = coefficient of parameters

SD = Saving and Deposits

TD = Time Deposits

M2 = Money Supply

TIS = Total Institutional Savings

μ = stochastic variable or error term

The A priori expectation from the model

- dIN/dSD = $b_1 > 0$ implying that b_1 is expected to have a positive sign or there should be a positive relationship between interest rate and saving and deposits in the banking sector;
- dIN/dTD = $b_2 > 0$ implying that b_2 is expected to be positive or a positive relationship between the interest rate and time deposits;
- dIN/dM2 = $b_3 > 0$
- dIN/dTIS = $b_4 > 0$ also implying positive relationship between interest rate and money supply and total institutional savings.

1.5 Sources of data

The variables considered in this work are the Saving and other Deposits, Time Deposits, Money Supply and Institutional Savings as independent variables, while Interest rate is the dependent variable. Data on these variables were collected from CBN statistical bulletin from 1985 to 2011.

1.6 Method of Data Analysis

Ordinary Least Square (OLS) technique of data analysis was employed to estimate the specified model equation. An econometric software, E-views, was used to facilitate the estimation process. Multiple Regression methods were adopted to quantify the effect of interest rate deregulation on deposit mobilisation in Nigerian banks. (R-squared); T-statistic, F-ratio, Durbin Watson (D-W) statistic, Standard error of coefficients (SER) were carried out to assess the relative significance of variables under review. The evaluation were based on the statistical significance of the estimated coefficients using 5% level of significance.

1.7 Regression Result

Dependent Variable is IN or Interest Rate

Variables	Coefficient	Standard Error	t-Statistic

Constant	15.83632	2.354135	6.727023
Saving Deposit	6.885406	1.5005	0.458129
Time Deposit	0.000149	0.000331	0.451003
Money Supply	5.37607	1.8206	0.295361
Institutnal Saving	7.744507	4.5805	0.016880

R-squared = 0.79242; Adjusted R-squared = 0.37407

D-W Statistics = 0.727067; F-ratio = 0.365763

1.7 Interpretation of Model Estimation Result

From the result obtained, Saving Deposit (SD), Time Deposit (TD), Money Supply (M2) and Total Institutional Savings (TIS) are positive and significant at 5% level and they all explain 79% of total variations in the interest rate as R-squared, called coefficient of determination is 79% or 0.79242. This gives the regression line a good fit while the remaining 21% of the total variation in the interest rate (IN) is accounted for by the factors included in the error term (μ). The main reason for the high fit in R-squared is because there is a strong correlation between the dependent variable (IN) and the independent variables (SD, TD, M2, TIS). The implication is that all the independent variables are positively related to interest rate.

In effect T cal > T tab (0.05) for b_o. The implication is that we accept the alternative hypothesis (H_1), i.e. there is a positive relationship between Saving Deposits and Interest Rate at 5% significant level. Again, at the same level of significance, Time Deposit, Money Supply and Total Institutional Savings are all statistically related to the dependent variable (IN)

The Durbin Watson (D-W) statistics gives 0.72. The main reason why this is less than 2 is simply because of the existence of autocorrelation between the independent variables and the error term.

The positive correlation between the dependent variable and the independent variable confirms the fact that interest rate has a major influence on the deposit mobilisation and agrees with the submission of Pintrich (2005)

1.7 Conclusions

The study revealed that the banking sector plays significant roles in the sustainance of growth and development in an economy. The role of savings cannot be over-emphasised in banking credit allocation as saving represents that part of income that has not been consumed and when utilized for capital investment, it increases productivity. Because of the fact that the real sector is indispensable, nominal sector is paramount as its inefficiency is capable of destabilising the whole system of the economy.

Secondary source of data was adopted for this study with time frame covering 1986 to 2011, the figures were analysed using regression method of analysis to facilitate the conclusion. It was therefore concluded that there is significant relationship between prevailing interest rate and how much an individual in the economy is willing to hold as transactionary and precautionary motives. This is also in line with the conclusion that the volume of credit allocated to any sector determines the extent by which such sector will have access to credit and equity in order to enhance their services and increase their productivity and profitability for a given fiscal period.

1.8 Recommendations

Based on the finding of this study, it is recommended that:

- credit sectoral allocation should be made available to the manufacturing sector so as to enhance production and boast investment rate in the system;
- government should closely monitor the monetary policy to ensure bank's compliance with policy on credit allocation to the manufacturing sector;
- CBN should be advised to subsidize or bring down interest rate on credit facility to the manufacturing sector to make significant impact on their productivity and reduce the cost of production, thus making the commodities cheaper and increasing the amount available for investment in the hand of the people;
- Bank should increase the interest rate on savings so as to encourage people to save more and spread their investment rather than keeping money under their pillows.

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