The Macrotheme Review
A multidisciplinary journal of global macro trends

THE PLACE OF MARKET INTEREST RATES VARIABILITY ON COMMECIAL BANKS' PROFITABILITY: AN EMPIRICAL INVESTIGATION OF BANKS IN NIGERIA (1996 – 2016)

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Abstract

The study examined the Impact of Market Interest Rate Variability on Commercial Banks' Profitability in Nigeria. The survey research design was adopted in the study. Questionnaires were used in data collection while data obtained were presented and analyzed using tables and simple percentages respectively. The results show that market interest rate variability does affect the profitability of commercial banks positivity. And a significant impact of market interest rate fluctuations does affect savings deposits of commercial banks in Nigeria. The paper recommends that interest rates in Nigerian commercial banks should be such that will induce investment, greater employment drive and growth of Nigerian economy as a whole.

Keywords: Commercial Banks, Market Interest Rate, Profitability

1.0 Introduction

Among the various macro-economic variables (monetary and fiscal policies), the most sensitive and critical is the interest rate, particularly, its appropriate level and direction in the developing economy such as Nigeria. This is so because; it is a tool for both short term stabilization and long term growth policies (Ndugbu, 2003).

As a price for obtaining loanable funds and a return for parting with liquidity funds, interest rate has an important allocate influence on the level of economic and financial activities (Ezirim, 1996). By affecting vital operating cost of a business, changes in interest rate exert a significant effect on the distribution of income between present and future consumptions, like any other price. Interest rate plays a large part in equating supply of and demand for loanable funds (Nzotta, 1999).

Also, as a price of financial assets, it can be used to argument financial resources among alternative investments. In other words, many economic and financial variables are very sensitive to interest rate movements. It is because of these influences that monetary authorities, such as Central Bank of Nigeria (CBN), attach much importance to the structure, level and changes in interest rate in the Nigerian economy.

This, according to Anyanwu (1990), interest rate is the reward for parting with liquidity and with a strong influence in commercial banks' profitability.

Market interest rate is a central issue in the financial system of every economy in the world. In fact, in both financial and real sectors of every economy, the positive and influence of market rate cannot be over emphasized. The dynamic nature of market interest rate coupled with the inherent savings in the Nigerian financial system has created a lot of challenges for the operations in the Nigerian financial system, including commercial banks and other non bank financial institutions.

1.1 Statement of the Problem

Banks expand and contract their demand deposits, acquire and dispose earning assets. These assets plus the banks' cash make up what is known as its portfolio. The earning assets consist of securities issued by the federal, state, local government, quasi-government institutions and promissory notes by business. Taken together, earning assets typically comprised between one-fourth and one-third of commercial banks' total assets. The remaining portion of its total assets consists primarily of loans and to a lesser extent, of demand deposits with other banks, including Central Bank and vault cash.

Therefore, commercial banks' earning assets are important source of their income. The manner, in which banks manage their portfolio, acquires and dispose of their earning assets as the need arises, has important impact throughout the financial markets and borrowing and expenditure practices of private and other organized private sectors of the economy. It is desirable, therefore, that banks look into some implications of their portfolio management because their major task is to acquire proper balance between liquidity, profitability and safety, which are the ideal goals of commercial banks' portfolio.

Unfortunately, it has been impossible to maximize all the three mentioned ideal objectives of commercial banks due to the underlying reasons. Interest rates determine the level of funds that banks can attract from depositors as well as the loans they can extend to borrowers.

Generally, the rates are fixed by the Central Bank of Nigeria (CBN) which is the regulatory body. Banks are most times constrained by the CBN guidelines. In the face of all these, banks are expected to make profit. The commercial banks understudy do experience challenges on how to balance the interest rates vis-à-vis attraction of deposits and extension of loan facilities to customers. This study shall address such challenges with a view to determining the positions of commercial banks in Nigeria as regards the effects market interest rates could have on the profitability of the commercial banks.

1.2 Objectives of the Study

The objectives of this study are basically,

1. To probe into the impact of interest rate fluctuations on the profitability of Nigerian commercial banks.
2. To ascertain whether there is any positive and significant impact of market interest rate variability on the savings deposit of commercial banks in Nigeria within the years understudy.

1.3 Scope of the Study

This work covers mainly the impact of market interest rate variability on commercial banks profitability. An empirical investigation of commercial banks in Nigeria. Hence the study on the impact of interest rate variability did not cover other areas of the commercial banks and other financial system in Nigeria. The study basically focuses on the profitability, savings mobilization and granting of loans and advances to customers by commercial banks, with particular interest on three Nigerian commercial banks that have been maintaining their brand names since 1976 to 2016.

The choice of 1976-2016 for analysis comes from the fact that it covers the era of indigenization period, structural adjustment period, pre and post consolidation of banks and returns in market interest rate policy in Nigeria.

2.0 Review of Related Literature

2.1 Conceptual Framework

Interest rates are among the most closely matched variables in the economy. Their movements are reported daily by the News Media because they directly affects people's every day lives and have important consequences for the health of the economy. They affect personal decisions such as whether to consume or save, whether to buy a house, and or whether to purchase bonds or put funds into a savings account or any other similar accounts.

Interest rates also affect the economic decision of businesses and households. Such as whether to invest in new equipment for industrial production, other real assets or to save in a bank (Uchendu, 1995). Nzotta (1999) posits that, interest rate represent payment made by an individual, a firm, or an organization for money used or borrowed He maintains that, the interest rates constitute the compensation which is often given to people who are ready to part with money at present and have it repaid at later date.

Generally, changes in interest rates influence savings and investment. In the words of Nzotta (1999), a consumer holds cash balances to assist in making transactions in the future up to a point where marginal utility is derived from spending the Naira balance on goods and services.

In the words of Afolabi (1999), the idea of collecting interest on money lent has attracted the attention of people of different callings and different shades of opinion since time immemorial. The position of most ancient thinkers and in most religious cycles and perhaps, up till now, in certain economies, is that interest rate which invariably equated usury, is a sin and should not be allowed.

2.1.1 Interest Rate Structural Reform in Nigeria

2.2.1 Deregulation of Interest Rate in Nigeria

As a result of imperfection in the system of credit allocation, the cost of credit and intermediation process generally, the Federal Government of Nigeria introduced a wide range of reforms in the banking system from 1986 as part of the general deregulation of the economy.

This reform saw the privatization of government interest in various banks and entry of more commercial and other banks into the system (Nzotta, 2004). The regulation of an economy has also often been rationalized on the grounds that the imperfection in the financial and real markets would certainly constrain the allocate efficiency of resources in a free market system that would generate the attainment of social, political and economic priorities of the government. Among the policies aimed at Nigeria's economic recovery was the realignment of relative prices, both as demand and supply management tool and as a means of improving efficiency in the allocation of limited resources. This led to the introduction of deregulation of interest rates which was effected through the Revised Monetary Policy Circulars No. 21 of August 31, 1987 (Godson, 1988). The factors which led to the interest rate deregulation were mainly inflationary pressures, which led to negative interest rates, rapid monetary expansion, fuelled by large fiscal deficit controls, due to the expansion in the activities of both banking and non-banking financial institutions, and above all, failures of the regulatory environment to exploit fully the rapid advances in communication and data processing technology (Odoko, 1992). The issues of low and in fact negative real interest rates in Nigeria have long been contended. Hamilton (1990) holds the view as Odoko (1992). He recalled that until August 31, 1987 when the economy was officially deregulated, fixed and administrated interest rates were the rule, which together with ubiquitous inflation had resulted in interest payments that were very low, or even negative in real terms. This view earlier held by Godson (1988) also corroborated the low and indeed negative real interest rates relative to inflation. He maintained that prior to 1987, the nominal interest rates which subsisted were particularly low, relative to the rate of inflation and it is conceivable that those interest rates could have been negative by substantial margin.

2.2 Theoretical Framework

2.2.1 Expectation Theory

The expectation theory is formulated on the premise that the term structure of interest rates reflects investors' expectation of future short-term rates. In other words, the level of short-term yield curve at a particular point in time reflects the level of short-term interest rates that is anticipated for future. The long term rate of interest is equal to the mean of current short-term rate of interest that market participants expect to prevail over the maturity of the long-term security. The important point emphasized in this theory is that, market participants have disjointed expectations about the long term rate, Nzotta (2004).

However, this does not imply that these expectations have to be realized. The yield curve would then depend on the short-term obligation. If market participants expect short-term interest rates to increase, the yield curve will be of ascending type. Each long term rate will be equal to the current short-term rate plus the expected short-term rate over the life of the long term maturity. On the basis of the analysis above, since long-term bonds will have greater number of expected short-term interest rate included in their average, the long term rates will be higher than the short-term rate.

However, the assumptions underlying the theory, as enumerated by Jhingan (1980), such as, the investors do not incur transaction cost and that investors have uniformity and accurate short-term forecasts are not realistic in the real world.

2.2.2 The General Equilibrium Theory

This theory states that interest rates depend on the forces at both the monetary and real variables and not on either of the two. Here, general equilibrium involves both the monetary sector, while savings and investments will be equal in the real sector. Thus, at equilibrium.

Savings (S) = investment (I) in the sector on the other hand.

Money supply (Ms) = Money Demand (Md) in the monetary sector. Thus, at equilibrium, the monetary sector and the real sector must be in equilibrium. In other words, the equilibrium rate of interest will be the one at which the above two conditions exist and are satisfied simultaneously. This means that only a combination of Keynessian and the classical views will lead to the determination of the unique interest rte Keynes (1936).

2.2.3 Market Segmentation Hypothesis

The market segmentation hypothesis assumes extreme risk aversion and the fact that institutional restrictions are fundamental to the rate structure. The theory holds that investors are very much risk averse and hence they hedge against risk by matching the maturity of their assets and liabilities. The essence is to avoid a mismatch and thus, better manage their investment risks.

The theory further holds that short and long term interest are prevalent in various segmented markets. These markets (long-term and short-term securities) / essentially influence the rate structure, Uchendu (1993).

2.2.4 The Loanable Funds Theory

This theory, also called the classical theory, believes that interest rates are determined by the supply and demand for loanable funds. Nzotta (2004) posits that the loanable funds theory of interest determination state that the prevailing rates of interest at any one time represent an equilibrium price at which the demand for credit from those who prefer to have the goods now, will equal the supply of loanable funds to those who prefer to have the interest.

2.2.5 Liquidity Premium Theory

The liquidity premium theory is based on the expectation theory but rejects the assumption that the market participants are indifferent to short-term versus long-term obligations. Because of their greater liquidity due to a more active secondary market and maturity, the small price fluctuations for any given change in interest rates, short-term securities are more desirable. Thus, interest rates on the long-term obligation must include a liquidity it affords.

According to this theory, the long-term interest rate is equal to the mean of the current short-term rates, the expected short-term rate and the liquidity premium.

2.3 Empirical Framework

This study x-rayed some researched work related to this work. Ogunbiyi and Ihejirika (2014), examined how interest rates affect the profitability of deposit money banks in Nigeria. Their study took an aggregate level of annual data that covered a period of thirteen years from 1999-2012. The Augmented Dickey and Fuchy Unit Root Test was applied with a finding that real interest rate and savings deposit rate have negative significant effect on the profitability of Nigerian Deposit Money Banks.

Uchendu (1995), examined the impact of bank savings and bank credits on Nigeria's economic growth from 1970-2006. The study showed that a positive influence of valves at GDP Per Capita (PCY), Financial Deepening Real Interest Rate Spread (IRS) and negative influence of Real Interest Rate (RIR) and Inflation Rate (INFR) on the size of private domestic savings.

Okeye and Eze (2013) studied the impact of bank lending rate on the performance of Nigerian Deposit Money Banks between 2000 and 2010. It mainly determined the effects of lending rate and monetary policy rate on the performance of Nigerian Deposit Money Banks and analyzed how bank lending rate policy affects the performance of Nigerian deposit money banks. They found that lending rate and monetary policy rate has significant and positive effects on the performance of Nigerian Deposit Money Banks.

Enyioko (2012) examined the performance of banks in Nigeria based on the interest rate policy of banks. The study analyzed published audited accounts of twenty (20) out of twenty five (25) banks that emerged from consolidation exercise and data collected from Central Bank of Nigeria (CBN). The study found that interest rate policies have not improved the over all performance of banks significantly. Akabom-Ita (2012) examined the impact of interest rate on the net asset at multinational companies in Nigeria from (1995-2010). The results of the regression showed that an increase in interest rate results in reduction in net assets of the firms.

3.0 Research Methodology

3.1 Research Design

The researcher made use of survey research design for this study. This entails investigation of the behavior, opinions and other manifestations of a group of people by questioning and obtaining data on what the respondents feel or think about the subject under study. The three banks under study are represented as X_1 X_2 and X_3.

3.2 Sources of Data

Two sources of data were employed in this study. They are primary sources which comprised of responses obtained through the use of questionnaires, results of interviews and discussions held with the management team of the three banks under study. Secondary sources of data were from textbooks, journals, Bank Annual Reports and magazines that were consulted in the course of this work.

3.3 Method of Data Analysis

A total of 1500 questionnaires were randomly administered to the branches of these three banks within the South Eastern Nigeria, 1,200 questionnaires were duly completed, returned by the respondents indicating 80% of total values. Descriptive statistical methods involving tables and simple percentages were used in data presentation and analysis respectively.

4.0 Data Analysis and Results

Table 4.1: Composition of Selected Commercial Banks' Branches in the South Eastern Nigeria

STATES	BANK BRANCHES			TOTAL	% TOTAL
	X_1	X_2	X_3		
ABIA	18	11	10	39	21
ANAMBRA	27	9	26	62	32
EBONYI	5	1	4	10	6
ENUGU	18	11	15	44	22
IMO	21	7	9	37	19
TOTAL	**89**	**39**	**64**	**192**	**100**

Source: Researcher's Field Data, 2016

Table 4.2: Questionnaire Distribution to Bank Staff of Some Selected Banks

STATES	BANK BRANCHES			TOTAL	% TOTAL
	X_1	X_2	X_3		
ABIA	146	91	82	319	22
ANAMBRA	220	47	211	478	31
EBONYI	42	10	35	87	6
ENUGU	146	91	123	360	24
IMO	171	38	47	256	17
TOTAL	**725**	**277**	**498**	**1500**	**100**

Source: Researcher's Field Data, 2016

Table 4.1 above shows the distribution of branch network of banks under study within the South-East Region of Nigeria. It is induced that Anambra, Enugu and Abia State have 32%, 22% and 21% of totals in percentage signifying the higher number at the three banks' branches under study while Imo state and Ebonyi state has 19% and 6% respectively. Perhaps, this could be attributed to volume of business being carried out in these states.

Table 4.2 above runs percentage distribution of questionnaires in all the branches of all the banks. A total of 478 questionnaires, being 31% of the total questionnaires of three banks were distributed in Anambra state. This is as a result of high number of branches of the three banks in Anambra state. Enugu state has 360 questionnaires, being 24% of the totals. Abia state has 319 questionnaires as the 22% of the total questionnaires. Imo, Ebonyi states have 256 and 87 questionnaires with 17% and 6% of the total questionnaire distributed.

Table 4.3: Demographic Profile of Respondents

Respondent's Category	Number Of Respondents	Percentage Of Respondents (%)
Gender		
Male	900	75
Female	300	25
Educational Qualification		
HND/B.Sc.	960	80
Post Graduate Degree	240	20
Current Position in the Bank		
Credit Officers	720	60
Assistant Managers	360	30
Managers	120	10

Source: Researcher's Field Data, 2016

Table 4.3 above shows demographic profile of respondents out of 1,500 questionnaires distributed, 1,200 were duly responded to male respondents are 900 and female 300 being 75% and 25% of the gender composition of male and female respectively. HND/B.Sc. holders has larger number composition with 960 and 80% of the group, while Post Graduate Degree Holders are 240 in number with 20% make up.

The respondents of these questionnaires are the credit offices, assistant managers, and managers who are 720,360 and 120 in number respectively with 60%, 30% and 10% composition respectively.

Table 4.4: Responses on the Place of Market Interest Rates on Commercial Banks' Profitability.

Issues	No. Of Responses	Percentage (%)
Determination of market interest rates fluctuation on banks' profitability • Yes • No	 1128 72	 94 6
The attendant effect of market interest rates fluctuations on the three banks • Positively • Negatively	 1128 72	 94 6
The degree to which market interest rate fluctuations affect the volume of savings deposits in banks • High • Low	 1092 108	 91 9
The extent to which market interest rate fluctuations affect the ability of banks to mobilize savings deposits • Large extent • Low	 1092 108	 91 9
The degree to which fluctuations in market interest rate affect the amount and volume of loans and advances granted to customers within the review period of 1976-2016 • Large Extent • Lower Extent	 1092 108	 91 9
Does increase in market interest rate bring about increase in the amount and volume of savings deposit • Yes • No	 1068 132	 89 11
Does decrease in market interest bring about a corresponding decrease in the amount and volume of savings deposits • Yes • No	 1032 168	 86 14
Assessment of the variability of interest rate in the Nigerian banking system 1976-2016 • Highly volatile • Moderately volatile • Not volatile	 840 240 120	 70 20 10
Assessment of both banks' ability to mobilize savings deposits since 1976-2016 • Yes • No	 1032 168	 86 14
Confirmation of the extent to which interest rate variability has contributed to the profile of both banks • To a great extent • To a considerable extent • To a slight extent • Not at all	 792 312 48 48	 66 26 4 4

All the respondents in table 4.4 are engaged in day-to-day operations of the bank, and they are referred to as management staff. They are credit officers, assistant managers and the full managers.

On the determination of market interest rate fluctuation on banks' profitability, 94% affirmed to that, while 6% of the respondents disagreed. 94% of them may have had much experiences in banking as regards interest rate volatility and its effects on loanable funds. In the same vein, 94% of respondents attest to the positive effect of market interest rate fluctuation on the commercial banks in Nigeria, while 6% responded negatively. Perhaps, this high degree may have contributed to the sporadic posting on banks' profitability in Nigeria.

On the degree to which interest rate fluctuations affect the ability of banks to mobilize deposits, 91% are of the opinion that, to a large extent, market interest rate fluctuation does affect banks' ability to a mobilize savings deposit, while 9% of the respondents opted for low extent. This may have been the reason why most commercial banks in Nigeria were not able to retain their liquidity position, during the structural adjustment era and the recent world economic meltdown.

On the degree of interest rate fluctuation and volume of loans and advances granted to customers, within the review period of 1976-2016, 91% of the respondents attest that such has significant effect on the question under study, while 9% of the respondents opted for lower extent on the subject matter. That may have been the reason why banks within these periods had and considered short term loans and advances than a longer period with a mortem.

On the relationship between increase in market interest rate and increase in the amount and volume of savings deposits. 89% of the respondents affirmed that such has a significant relationship while 11% says no. 89% may have been that, as interest rate increases, customers tend to make their funds to banks in order to earn more interest. Such action gives rise to more loan-able funds to banks.

On the other hand, 86% affirmed that a decrease in market interest rate would bring about corresponding decrease in amount and volume of savings deposits. 14% opted in a new answer. 86% may have anchored their assertion on the relationship between increase in interest rate and increase in volume of savings deposit.

From the respondents on the assessment of variability of interest rate in the Nigerian banking system, 70% of the respondents affirmed it highly volatile while 20% said moderately volatile, while 10% says non volatile. The 80% respondents, perhaps may have hinged their affirmation on the inability of foreign investors and other investors to have a strong and viable investment on the banking sub-sector in Nigeria to support the need economy, may have prompted such responses.

5.0 Conclusion and Recommendations

From the summary above, it is evident that market interest rate variability has a lot of positive and significant impact on profitability of commercial banks in Nigeria. Mobilization of deposits and extension of loans and advances have been noted to have positively affected profitability significantly within the review period 1976-2016.

With the result of the research, the following conclusions are draw:

i. Changes in market interest rate have been carefully managed by commercial banks in Nigeria. This is evident in maximization of shareholders wealth within the review period of 1976-2016.

ii. Extension of credit to customers in commercial banks in Nigeria has been tailored to meet the demands of ever changing macro-economic environment such that the value of banks has increased.

Based on the above, the following recommendations are made:

i. That every commercial bank in Nigeria which wants to remain relevant in the banking industry should have a reliable signal that should indicate at all time the direction and pattern of market interest changes.

ii. That the regulatory authorities in Nigerian banking industry should strive to provide a reasonable and formidable platform for cushioning the effect of market interest risk in the banking industry.

iii. Competitive or market interest rates adopted by commercial banks should be such that would put a moderation to inflationary trends in Nigerian economy.

iv. Interest rate variability in commercial banks should be such that will induce investment, employment and growth of Nigerian economy.

v. The system in market interest rate should be efficient in its operations, less cumbersome and devoid of market instability.

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