The Determinants of Supply Side Intermediation Performance of Commercial Banks in Nigeria: An Error Correction Mechanism Approach

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Abstract
This paper examined the theoretical and empirical literature on the determinants of the supply side intermediation performance of commercial banks in Nigeria. In order to realize the objectives of the study relevant quarterly time series data were collected from 1994 to 2005. In analyzing the data, the study employed one of the popular econometric techniques that has attracted much attention in dynamic empirical macro economic research (that is, the error correction model: ECM) with a view to knowing the predictive power. It was found that deposit interest rate (DRI), treasury bill rate (TBR) and foreign exchange rate (FER) are important determinants of the commercial banks deposit in Nigeria. It was also found that any estimation on the supply side intermediation performance of commercial banks involving the use of the ECM yields better and more reliable results than that involving the use of the orthodox ordinary least square (OLS) method. The paper recommended that in the interest of the economy, the policy of abandoning the traditional banking operation which is lending in preference to trading in the foreign exchange market should be reviewed and moderated.

Introduction and Problem Statement

There are two sides to a given financial intermediation process: the inflow and the outflow sides. The inflow (or the supply) side of financial intermediation is concerned with the activities involved in mobilizing funds from the surplus agents in the economy. In this area financial institutions carry out the depository or treasury functions by generating deposits and saving of various types and magnitude from savers and paying agreed interest amount. The outflow (or demand) side of financial intermediation involves channeling the pooled financial resources to the deficit economic units for a fee (that is, interest amount) agreed ab initio. The inflow side thus characterizes the funds mobilization or financing function while the outflow is referred to as the funds utilization or investment function. Whereas a plethora of studies have been conducted to address the determinants of the demand side intermediation almost to a satiation level (such as those of Cookey, 1997, Muoghalu and Ezirim, 2002; Ezirim and Emenyonu, 1997; Makinde, 1991; and Udegbulam, 1992), only a few have addressed the supply side with evidence from Nigeria. The need for more empirical studies to explain the behaviour of financial institutions, notably commercial banks, in the face of the interplay of certain environmental forces is rife. It is on this premise that this paper is embarked upon to investigate the determinants of the supply side intermediation performance in a bid to bring out how they behave in response to their

effects.

The creditable performance of these intermediation functions is believed by economists and finance experts to affect the overall performance of the economy in terms of aggregate output. For instance efficient lending and investment operations by commercial banks would cause growth in the country's GDP. Similarly, the mobilization of excess funds and savings from surplus economic agents would pool resources and make them ready for gainful allocation in the economy. Thus, what the banks lend or invest will be a function of what they mobilized in the supply side intermediation function. Invariably, a country's output performance must depend, in part, on the general intermediation performance of the banks. In other words, a country's output performance must depend on the general funds mobilization behaviour of the commercial banks in that country.

An obvious implication is that development and forces at play in the country's money market and foreign exchange market and socio-political climate influence commercial banks' performance in their funds mobilization bid. Also in the face of the challenges presented by the environments or markets, commercial banks exhibit such attitudes that are consistent with aggressive marketing, profit maximization and prudential behaviour depending on the prevailing circumstances.

Recently there has been increased interest in econometrics about specification and estimation of economic relationships. Two contending issues inform this interest: the problem of poor data and poor econometric techniques. Since the ultimate aim of any economic model is to be able to draw inference and predictions on the behaviour of the relationship being represented, poor data or econometric technique will have a negative effect on the achievement of such aim. One of the outcomes of these problems is the generation of what has come to be known as spurious regression. Data inconsistency which is a major problem with most developing countries can be resolved by performing a test on the time-series properties of the data set. Such test should be able to yield consistent series for testing short-run dynamics of economic data and predicting long-run equilibrium relationships. However, orthodox estimation technique such as the OLS will not yield an unbiased estimate where there is problem of poor data. One of the popular econometric techniques that has attracted much attention in dynamic empirical macroeconomic research is the error correction model (ECM). The ECM which was introduced by Sargan (1964) and later popularized by Engle and Granger (1987) is used to correct for short-run disequilibrium in dynamic specifications. Granger (1987, 1988) has demonstrated that the importance of the ECM is derived from its usefulness in explaining the long-run equilibrium economic relationship through the process of short-run dynamics of economic data. The ECM has been widely used in empirical economic analysis not only because of its ability to predict economic relationship with certain degree of accuracy but also because such prediction is usually generated through a dynamic adjustment process.

The objectives of the study are to investigate the determinants of the supply side financial intermediation function of commercial banks in Nigeria. To investigate whether there are direct and significant relationships between the indicators of the supply side financial intermediation and the pricing implications of the deposit money market (deposit rate of interest), foreign exchange market (foreign exchange

rate) and the treasury money market (treasury bill rate). Consequently, the hypotheses of the study are: there is no significant relationship between commercial banks deposit and the deposit rate of interest, treasury bill rate and foreign exchange rate. The alternative to this is that there is significant relationship between the deposit and the variables identified above. There is no significant relationship between time deposits, savings deposits, domiciliary account and deposit rate of interest, treasury bill rate and foreign exchange rate. The alternative to this is that a significant relationship exists between the variables. In order to realize the objectives of this study what follows the problem statement and objectives/hypotheses consist of the literature review, methodology, results of major findings and interpretations of data, conclusion and recommendations.

Literature Review

The purpose of this subsection is to clarify the supply side financial intermediation function of commercial banks. The supply side represents the financing function of a typical financial institution. In finance theory, financing function is the function of the firm that is geared toward the sourcing of funds in such a cost-effective and time-efficient manner as to enable the firm to achieve their objectives. Thus four elements are cardinal in the financing function of firms. These are the objective criterion of the firm, the alternative sources of funds, the cost implications of the sources and the time-efficiency in the conduct of financing function. A firm's objective may be to maximize the owners' wealth. Efficiency in the conduct of financing function is attained when the business unit mobilizes funds from convenient sources that guarantee the attainment of cost effectiveness and time efficiency (Ezirim, 1996). The culmination of the funds' mobilization effort of a typical depository institution constitutes the total portfolio of the various types of deposits (that is, the alternative sources of funds) generated by the financial intermediary (Ezirim, 1999, 2003). The help of institutional and non-institutional arrangements, instruments and facilities provided by the financial markets help in the mobilization of funds.

The complex whole of the financial markets, institutions and instruments in a given economy is known as the financial superstructure (Goldsmith, 1969 and Odedokun, 1987). In this context, however, it is taken to mean the most important institutional arrangements such as commercial banks and other deposit money banks and insurance companies that operate in the financial markets to assist in the creation of financial instruments. Banks, for instance, create financial instruments in their depository function. For the banks, the major types of deposits are the savings, time and foreign currency deposits and current account (or demand deposits). These make up the total deposits.

The level of the deposit is postulated to depend on the rate of interest paid on each type of deposit and other macroeconomic factors. A notable factor that affects the ability of economic agents to save and hence the level of deposits among the financial institutions, is the disposable income of the economic agents. Disposable income is the remainder of income after applying tax to the total income of the agents. A proxy for the income of economic agents in a country is the per-capita income. By implication, the income tax rate prevailing in the country is also an important factor

of influence. It is reasoned that high withholding tax rates reduce the willingness of relevant agents in depositing money with banks. Economic units are naturally averse to taxation generally. Apart from these, it is postulated that the aggregate level of economic activity (that is, the GDP) which determines the standard of living and welfare of the citizenry would go a long way to determining the ability of economic units to make deposit with the financial institutions. A buoyant economy with high GDP has a promise of boosting deposits than a poor one. If the level of economic activity grows, it is expected that savings would generally grow. Ajakaiye and Odusola (1995) advance the ratio of foreign savings to GDP as an important variable posing an influence on the level of financial savings. In as much as we recognize the huge leakages in an economy like Nigeria by way of the activities of economic looters (and paradoxically, genuine foreign investors to other economies), it is the thinking that it is difficult to measure this variable. It is, however, believed that a positive force attracting these Nigerian investors to the foreign economy is proxy by the strength of their currency. The relationship between Nigeria's local currency and the foreign currency is defined as the exchange rate. By implication, the foreign exchange rate prevailing in the country becomes a factor of influence on the level of deposits generated by the financial superstructure.

Alasia's (2003) study supports the position that the lending rate of interest, money market rate (treasury bill rate) and the prevailing socio-political trends in the country should be incorporated in the deposit model. According to Alasia (2003) a more encompassing model can be specified to incorporate many more factors such as institutional ratio, institutional habit and institutional deposits. The above arrangement would result in an equation with at least 10 predictors.

Studies on the effects of environmental factors on financial intermediation by financial institutions have shown that the application of the ratio of deposit to output as regressand in typical financial intermediation models has yielded more consistent and reliable estimates than other regressands. This much has been argued in Ojo (1984), Odedokun (1987), Ezirim and Emenyonu (1997) and Ezirim (1999, 2003). Thus commercial banks' intermediation activities must be related to aggregate output or other economic indicators as the case may be. A previous consideration in defining the dependent variable of the supply side models earlier developed relates total deposits to the total national saving of the country and somewhat has the aggregate output or related terms as included arguments. It was basically an attempt at determining the commercial banks' share of aggregate national savings. The essence of the intermediation activities of financial institutions, savings mobilization inclusive, is to positively and significantly impact on macro-economic magnitudes such as aggregate output for the ultimate growth and development of the economy. The determinants of the funds mobilization behaviour of a typical financial institution can be viewed from the environmental angle. Such financial market environments as the money and capital markets where the deposit rates, lending rates and treasury bills rates 'rule the roost' can be identified. We can also identify the foreign exchange market environment with the foreign exchange rates as the critical variable. A notable environment that affects the financial markets operation in Nigeria is the socio-political environment. It has been shown by previous studies that this environment considerably affects the demand

(or outflow) side of the intermediation function of the financial superstructure.

According to Ezirim and Muoghalu (2001) the ratio of total deposits to total output of a country measures the country's banking habit. Invariably a basic question that needs to be addressed relates to the direction and nature of the relationship between the deposit output ratio and the identified explanatory variables. This requires the determination of the sign implication of their relationships. Taking the predictors in turn, it is postulated that a positive relationship must exist between deposit output ratio and deposit interest rate. This is not difficult to see since increases in deposit rates spur depositors and treasury customers of commercial banks to increase their deposits in order to reap higher income. Given that output does not immediately increase at a proportion higher than the total deposits, the deposit output ratio will continue to increase. However, the essential point here is that higher deposit rates attract more deposits to the banks and vice versa. What happens in the money market equally affects the funds mobilization efforts of commercial banks. These banks are major institutional investors in the money market. They dominate the treasury bills market, which is, perhaps the most important segment of the Nigerian money market from the investment point of view. Parts of the sourced funds by banks are channeled to treasury investments. When the treasury bills rate increases, it is natural for these banks to increase their holding of the money market instrument. This behaviour is reversed in case of lower rates. Thus we can identify a positive relationship between treasury bill rate and deposit output ratio.

Commercial banks have also been identified as key players in the Nigerian foreign exchange market. In fact apart from being intermediaries they have been accused of being more of traders than intermediaries in their craze for maximum possible profits (Ezirim, 1999, Ezirim, Muoghalu and Emenyonum 2002). These two positions (traders and intermediaries) equally create a tendency where higher rates of foreign exchange which implies higher profits would cause the banks to be more aggressive in funds sourcing. The tendency is for deposits relative to output to increase as the foreign exchange rates increase. In the case of previous performances consideration of supply side financial intermediation it does not appear quite clear whether the previous period's deposits would affect the current level of deposits. However, they do have some effects through the channel of rollovers. It is both theoretically and practically true that some depositors who do not immediately have the need to utilize their deposits at the expiration of the duration earlier agreed may want to 'roll over' their deposits to another period. This automatically becomes an addition to the level of deposits for the next period. The roll over practice has become a veritable way of retaining, maintaining and generating funds by financial institutions especially when certain attractive features such as increase in deposit rates, availability of up front payment of interest charges and attachment of possible credit assistance condition are present.

Methodology

Introduction and data definitions

Existing studies on deposit model for Nigeria suggest that socio-political trend index is a factor in deposit mobilization (Udegbulam,1992; Cookey, 1997; Ezirim, 1999 and

Ezirim, Emenyonu and Muoghalu, 2003). In this study such trend index is excluded. The study used quarterly time-series data for a period covering 1994 to 2005. The monetary data is expressed in million naira whereas the data on rates are given in percentages. Total deposit output ratio (DOR) is the dependent variable. Following existing studies, DOR is determined by the deposit rate of interest (DRI), the treasury bills rate (TBR) and foreign exchange rate (FER).

Sources of secondary data: It is important to describe the data used for the estimation before presenting and discussing the results. Data relating to total deposits of commercial banks; time, savings, foreign currency domiciliary accounts deposits and demand deposits of commercial banks; average deposit rates of interest of commercial banks, average dollar/naira exchange rates and treasury bills rates were sourced from the Central Bank of Nigeria Statistical Bulletin and Annual Reports and Statement of Accounts for various years.

Model specification and empirical strategy: Following the approach used by Ndekwu (1991), Uchendu (1993), Ikhide (1993), Ajakaiye and Odusola (1995) and Ezirim (1999) we can underscore three prominent factors as the major predictors of the supply side intermediation behaviour of commercial banks. These would include the deposit rate of interest (DRI), the treasury bills rate (TBR) and foreign exchange rate (FER). Also, making appeals to Engle and Granger (1987) a homogenous non-stationary series which can be transformed to a stationary series by differencing d times is said to be integrated of d. Thus Y, a time series is integrated of order $\{d(Y_t \sim I(d)\}$ if differencing d times induces stationarity in Y_t. If $Y_t \sim 1(0)$, then no differencing is required as Y_t is stationary. The test proposed by Dickey-Fuller (DF) to test for the stationarity properties of a time series which is called the Unit Root denoted by DF will be used in this study. The theoretical regression equation for the DF class of Unit Root test is: $\Delta Y_t = o\, Y_{t-1} + E_t;\ E_t \sim N(0, \sigma_2)\ Yo = 0$

The simple unit root test is valid only if the series is an autoregression, AR(1) process. If the series is correlated at higher order of lags, the assumption of white noise disturbance is violated. The Augmented Dickey-Fuller (ADF) test for checking unit roots was employed in this study. The ADF test uses a different method to control for higher-order serial correlation in the series. The ADF test makes a parametric correction for higher-order correction by assuming that the Y series follows an AR process and adjusting the test methodology. It is identical to the standard DF regression but augmented by k lags of the first difference of the series as follows:

$$\Delta Y_t = \propto Y_{t-1} + \Sigma W_1\, \Delta\, Y_{t-1} + E_1$$

where the lag k is set so as to ensure that a reasonable degree of freedom is preserved while the error term is white noise. The concept of cointegration derives from the fact that if two series Xt and Yt are I(d), then Xt and Yt are said to be cointergrated if there exists a unique value, b which ensures that the residuals, (Yt-βXt) is I(0). Testing for cointegration therefore amounts to testing for a unit root in the residuals of regression equation. If the residuals are stationary, then the series are cointegrated. The equation

of the regression for this is thus:

$$\Delta E_t = {}_{\propto}E_{t-1} + \Sigma_{\propto 1}\Delta E_{t-1} + U_t$$

where Et is the residual from our static regression and the test for the null of no cointegration, is conducted by comparing the t-statistic of the coefficient. The null hypothesis of no cointegration is Ho: = 0. Significant negative values would lead to a rejection of the hypothesis. The stationarity of the residual implies cointegration of the variables. Flowing from the above discussion is the functional specification of the deposit model as follows:-

The long-run functional specifications of the functional forms of the deposit model are

DOR = f (DRI, TBR, FER)…..……..1

The short-run functional specifications of the functional forms of the deposit model are

DOR = f (ΔDRI, ΔTBR, ΔFER) + λ ECM_{t-} ……....…2

Where f = Functional notation
DOR = Deposit output ratio
DRI = Deposit rate of Interest
TBR = Treasury bill rate
FER = Foreign exchange rate
Δ stands for change
ΔDOR = Change in output ratio
ΔDRI = Change in Deposit rate of Interest
ΔTBR = Change in Treasury bill rate
ΔFER = Change in Foreign exchange rate
ECM_{t-1} = The deviation of the dependent variable from its long-run value at t-1
λ = The error correction coefficient.

Equation (1) represents the long-run functional forms of the deposit model and it states that deposit output ratio is a function of deposit rate of interest, treasury bill rate and foreign exchange rate while equations (2) is the short-run equivalent of (1). Equation (2) states that deposit output ratio is a function of change in deposit rate of interest, change in treasury bill rate and change in foreign exchange rate and error correction variable. Equation (2) is considered appropriate if the explanatory variables in their level forms are not cointegrated with DOR.

Having specified the above functional forms it becomes necessary to state their respective operational forms as in equations (3) and (4) below:

$$DOR_t = a_0 + a_1\ DRItt + a_2\ TBR_t + a_3\ FER_t + V_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(3)$$

$$a_1,\ a_2,\ a_3,\ >\ 0$$

where all the variables are as previously defined above. The ai's are parameters. Equations (3) is now considered as the basic long – run relations and it states that the deposit output ratio at time, t is directly related to deposit rate of interest, treasury bill rate and foreign exchange rate. Other influences on deposit output ratio are explained by the error term, Vt.
For the long – run equation in (3) above, we test for the existence of co-integrating vector. Dickey – Fuller (DF) unit root test is carried out on the residual, Vt. If Vt is stationary, the variables in the equation are said to be co – integrated. Thus there is a valid long – run relation among the variables considered. The estimated coefficients in the regression equation (3) are in their steady state. The question now is, how do the variables in the model react during short – run cyclical movement? The OLS regression of equation (3) cannot simply explain this as it only gives the long – run relationship amongst the variables in the model. This is where the error correction model of representation comes handy. If our argument is based on the fact that co – integration has been assumed to exist in the given model above, the ECM involves using the lagged residual to correct for deviations of actual values from the long – run equilibrium values.

The operational form of the deposit equation which is the short – run equivalent of (3) is stated below as

$$\Delta DOR_t = a_o + \sum \Delta DOR_{t-1} + \sum a_{1i}\, \Delta DRI_{t-1} + \sum a_{2i}\, \Delta TBR_{t-1} + \sum a_{3i}\, \Delta FER_{t-1} + \lambda ECM_{t-1} + V_t \ldots\ldots\ldots\ldots\ldots\ldots (4)$$

where k is the number of lagged changes in DRI, TBR and FER necessary tomake Vt serially uncorrelated.
$\sum$ is sigma notation showing that the lag lengths can differ. The dependent variable often takes only one lag.
Δ represents the short-run dynamics of the deposit variable which manifest in their first differences.
The parameters, ai's represent how changes in the explanatory variables lead to changes in the dependent variable.
The ECM separates the short-run (first difference) from the long-run (the static equilibrium relations in level). The ECM corrects for equilibrium.

Equation (4) above is the outcome of differencing the non – stationary series DORt and the regressors before using them for regression but adding an error correction term which is simply the lagged ECM. In Applied Econometrics the coefficient of the ECM must be negative in order to effectively play the role of error correction. Equation (4) posits that the change in deposit output ratio (ΔDORt) where DORt is the pertinent variable, Vt is a random disturbance term.

The ADF test to be carried out in respect of equation (4) above requires examining the null hypothesis that the series is integrated of order one. That is,

Ho : $a_1=a_2=a_3=1$ or > 1……(5)
Ha : $a_1=a_2=a_3=1$ or < 1……(6)

Equation (5) is the null hypothesis which states that regressors are non – stationary in levels but statonary in first difference if the value of the coefficient is either one or greater than one. Equation (6) is the alternative hypothesis which implies that the regressors are stationary if the value of the coefficient is less than one.

Results and Interpretation of Data

Table 1: Results of Test for Stationarity of Variables

DOR	1st Diff	T-Stats C-value	-0.8617 -3.5468	I(1)	N. Stationary
DRI	1st Diff	T-Stats C-value	-1.1910 -3.5468	I(1)	N. Stationary
TBR	1st Diff	T-Stats C-value	-1.8059 -3.5468	I(1)	N. Stationary
FER	1st Diff	T-Stats C-value	-0.9292 -3.5468	I(1)	N. Stationary

Source: Author's result using Microfit 4.1 for Windows.

The outcome of the results in the above table is the test for stationarity which indicates a unit root in each series in levels but rejects null of unit root in first differences. The variables DOR, TBR and FER were considered as integrated of order one or I(1). They are non stationary after the first difference. Accordingly, we cannot expect that the future behaviour of these variables would be the same as their current behaviour. This necessitated that we checked for the cointegration because a long – run equilibrium relationship could still exist in spite of a non – stationary problem.

Table 2: Estimated long – run deposit equation with DOR as dependent variable

Regressor	Coefficient	Standard Error	T- ratio	(Pro Value)
CONST	-0.040316	0.18756	-0.21886	(0.814)
DRI	0.057271	0.076291	0.69528	(0.567)
TBR	-0.13342	0.088588	-1.5061	(0.144)
FER	0.11531	0.021466	5.3717	(0.000)
R-Squared	0.84312		R-Bar-Squared	0.7062
Akaike Info. Criterion	-44.8591	F-Stat.	F(5, 27) 15.28	(0.000)
DW-statistic	2.0121			

Source: Author's result using Microfit 4.1 for Windows.

The results in Table 2 suggest that an increase in FER increases deposit output ratio by about =N= 0.10 million per annum. Similarly, an increase in deposit rate of interest increases output by =N= 0.06 million per annum.

Table 3: Estimated short – run deposit equation with dDDOR as dependent variable

Regressor	Coefficient	Standard Error	T- ratio	(Pro Value)
dCONST	-0.039215	0.17762	-0.22078	(0.827)
dDDRI	0.064152	0.084802	0.75649	(0.456)
dDTBR	-0.13342	0.088588	-1.5061	(0.144)
dDFER	0.11531	0.021466	5.3717	(0.000)
Ecm(-1)	-1.1727	0.24826	-4.7239	(0.000)
R-Squared	0.73896		R-Bar-Squared	0.69062
Akaike Info. Criterion	-44.8591		F-Stat.	F(5, 27) 15.28 (0.000)
DW-statistic	1.8627			

Source: Author's result using Microfit 4.1 for Windows.

The results in Table 3 confirm the results in Table 2. These are the short – run results of the deposit model. From the table, deposit rate of interest and treasury bill rate do not exert significant effect on DOR in the short – run. However, the short – run impact of foreign exchange rate is statistically significant. The coefficient of error correction term (ECM) suggests that if we insert a shock into the model through one of the regressors, approximately 117 per cent of the deviation is corrected within the first year. The ECM provides information about the speed of adjustment in response to a deviation from long – run equilibrium which can be very useful for policy analysis. All the regressors, except the error correction term, are expressed in the first difference form. Error correction term is nothing more than one – year lag residual obtained from the cointegrating equation.

Interpretation of data

For the error correction representation for the selected Autoregressive Distributed Lag Model (ARDL Model) the dependent variable is dDDOR and the period covered is 1995 to 2005. In the regression output, presented in Tale 2, the change in deposit rate of interest (dDDRI) and the change in treasury bill rate (dDTBR) and the change in foreign exchange rate (dDFER) capture the short–run disturbances in DDOR whereas the coefficient of the ECM term captures the adjustment towards the long-run equilibrium. The coefficient of ECM also tells us the proportion of the disequilibrium in the differenced dependent variables in one period that is corrected in the next period. The results for DDOR in Table 2 above indicate that 1.17(117%) of the errors is corrected. The adjusted R-square of 0.69 indicates that the model fits well and it explains 69 per cent of the change in DDOR by the joint variations of the variables in the model. The D.W. of 1.86 is an indication of the absence of serial correlation.

Summary, Conclusion and Recommendations

In the foregoing analysis we modeled the deposit functions of the commercial banks in Nigeria using the error correction approach. In our findings we noted that there was a long run relationship between the first difference of the deposit output ratio and the first difference of the foreign exchange rate. In the context of the hypothesis we confirmed that first difference of the foreign exchange rate is the most significant determinant of deposit mobilization in Nigeria with the coefficient having the right

signs as postulated by theory. The study estimated an Error Correction Model for deposit mobilization in order to capture the short–run dynamics. From the evidence of the estimated model, deposit output ratio exhibits positive functions of foreign exchange rate. In the foreign exchange market, the behaviour generally seems to be consistent with profit maximization. The bulk of their funds goes to the foreign exchange market for windfall super-profits.

In the light of these results and identified behaviours, the following remarks are made: High funds generation potentials associate strongly with high exchange rates and treasury bills rate. This implies that favourable price conditions in the foreign exchange market would be an attraction to embark upon aggressive marketing and sourcing of funds. The policy actions in these respects are two folds. First, the banks can jointly lead regular delegations through the Bankers' Committee to the Central Bank of Nigeria and the government to ensure that their interests in these and other markets are taken care of before any monetary policy is made or changed. By so doing, they would ensure that the market conditions remain favourable. Having guaranteed this, the other side of their action is to unrelentlessly embark upon aggressive marketing of customers for funds. To ensure success, a number of attractive services can be attached to deposits such as online cash management services of the bank. The banks in the country are currently wary of the risks associated with open internet access to their operations. As an incentive, however, the few valued high net worth customers can be allowed this access. Transactions through the telephones can equally be allowed for the customers' maximum convenience. Customers appreciate speed of delivery and accuracy of accounts management so well that they would stick with and happily reward any bank that will guarantee them.

In the interest of the macro economy, the policy of abandoning the traditional banking operation which is lending, in preference to trading in the foreign exchange market should be reviewed and moderated. Being banks, they are expected to play key roles in funding economic growth and development. Thus, more and more funds should be allocated for preferred economic lending to relevant sectors of the economy. To help in causing this to happen as expected, the CBN may have to revisit the mandatory credit guidelines again. Goal-driven guidelines with a commercial face can be beneficial to both the banks and the economy.

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