Effect of Deposit Insurance Fund on the Safety of Bank Deposit in Nigeria

Ani U. Wilson (PhD)
Department of Banking and Finance
Michael Okpara University of Agriculture.
Umudike
wilsonani2007@yahoo.com

Ogar, Anthony
Department of Banking and Finance
University of Calabar.
Calabar
anthonyogar@yahoo.com

Abstract
This study is intended to examine the impact of deposit insurance fund partially covered on the safety of bank deposit in Nigeria. The study sourced secondary time series data from the Nigeria deposit insurance corporation annual reports and banking supervisory and stability reports. The study adopted the ex-post facto and exploratory designs used ordinary least squared technique to estimate the study's model. The analysis of the study revealed a significant positive effect of deposit insurance fund on bank deposit in Nigeria. The study recommends that Nigeria deposit insurance corporation should monitor the fully coverage levels in compliance with international best practices in association with increased market drive for low value account customers in order improve the total deposit partially covered.

Key Words: *Deposit Insurance Fund, Commercial Bank Deposit Mobilization*

Introduction

The basic economic activity of the financial sector is intermediation which involves acting as a conduit for the efficient transfer of financial resources from net savers to net borrowers. This process enhances capital accumulation through the institutionalization of savings as well as investment. The gains to real sector of the economy depend on how efficiently the financial sector performs this basic function of financial intermediation. In the financial sector, the major channel for mobilizing saving is the banking system which mobilizes financial resources from the surplus spending economic agents and allocates same to the deficit spending units. In addition, banks serve as channels, for implementing monetary policies. However, banks unlike other businesses carry the risk of bankruptcy with depositors' losses capable of undermining public confidence in the banking system. The macroeconomic setbacks that such loss of public confidence could precipitate included disintermediation, depletion of money stock, etc. (Angkinand, 2009).

In recent years, there has been great concern on the management of banks' assets and liabilities because of large scale financial distress. The experience of many countries indicates that regulation and supervision are essential for stable and healthy financial system and that the need becomes greater as the number and variety of financial institutions increase. The banking sector has been singled out for this special protection because of the vital role banks play in preventing financial sector failures (Nwokoji, 2011).

McCoy (2007) opined that regulation generally suggest some form of intervention in any activity and ranges from explicitly legal control to informal peer group control by government or some such authoritative body. Sometimes it stems from market failure which usually occurs when market transactions give rise to spillover effects (or externalities) on third parties, or when there is information inefficiency in the market. In Nigeria, the rising cases of bank distress have also become a major source of concern to policy makers. It is not surprising to find banks to have nonperforming loans and advances that exceed 50 per cent of the bank's total loan portfolio. The menace of financial distress in banks leads to very many reactions and actions taken by the federal government and its agents in financial matters. Still on its attempt to provide a cushion against further bank failures, the Nigerian Deposit Insurance Corporation (NDIC) was established under the NDIC decree No.22 of 1988 by the federal government and also, the introduction of the prudential guideline in 1990 (Demirguc-Kunt & Detragiache, 2002).

Deposit insurance is a financial guarantee instituted as a measure of safety for the banking system to protect depositors. Deposit insurance promotes the stability of the banking system. It assures the saver that his funds are safe and that the failure of one bank does not mean that all banks are in danger of failing (Demirguc-Kunt & Detragiache, 2002).

Furthermore, as part of efforts to ensure the stability of the banking industry and in response to the lingering problem of distress in the sub-sector, the regulatory/supervision authorities have been applying various failure measures since the late 1990s. Hence depending on the severity and peculiarity of the distress, Nigerian Deposit Insurance Corporation NDIC in collaboration with the CBN, has over the years, successfully adopted such measures as the provision of liquidity support through accommodation bill, imposition of prompt corrective actions, assumption control and management, restructuring and sale of some distressed banks as well as liquidation of the terminally distressed banks as a last but unavoidable option (Sanusi, 2010). The appropriate method to determine the adequacy of a given deposit insurance fund (DIF) according to internationally accepted best practice, is the target fund ratio (or reserve ratio).
Due to these developments, the Nigerian Deposit Insurance Corporation has been under pressure to perform its responsibility of restoring stability to the banking sector. The question whether or not Nigerian deposit insurance practices have been effective enough to adequately protect banks' depositors and restore the stability of the banking sector in Nigeria has remained a subject of debate among scholars without any consensus in recent times. These measures are mutually reinforcing and are designed to timely identify and diagnose emerging problems in individual banks with a view to presenting most efficient resolution directed towards ensuring continued public confidence in the banking system. This study seeks to evaluate the role of the Nigeria Deposit Insurance Corporation in the protection of banks' deposit in Nigeria. The objective of this study is to examine the effect of deposit insurance funds on commercial bank deposit in Nigeria.

Theoretical framework
The study is anchored on the deposit insurance theory. The deposit insurance theory was postulated by Flannery (1989) but was later developed by Cham, Greenbaum and Thakor (1992). According to the theory, banks are viewed as portfolio of risky claims. As insured banks increase their risk of failure without limit, there is an expected value transfer of wealth from government Deposit Insurance Corporation to bank owners. Regulators are concerned about bank's soundness, particularly with respect to solvency or the probability of bank failure. Therefore, regulation of bank risk is necessary to reduce the expected losses incurred by the deposit insurance corporation.

Deposits solicited from customers are not as dependable and reliable as the bank capital requirement. It cannot be used for long term planning. However, more deposit means banks can grant more loans and will not obviate the need for excessive capital. When bank loans and advances are given out to customers without due process, it might affect capital and liquidity position of a bank in the long term.

Literature review

Regulation of banks has been defined by Blair, Carns and Kushmeider (2007) as a body of specific rules or agreed behavior either imposed by government or other external, agency or self-imposed by explicit or implicit agreement within the industry that limits the activities and business operations of banks. In a nutshell, it is the codification of public policy towards banks to achieve a defined objective and/or act prudently. Banking regulation has two major components: The rules or agreed behaviors; and the monitoring and scrutiny to determine safety and soundness and ensure compliance.

Supervision on the other hand, is the process of monitoring banks to ensure that they are carrying out their activities in a safe and sound manner and in accordance with laws, rules and regulations. It is a means of determining the financial condition and of ensuring compliance with laid down rules and regulations at any given time. Angkinand (2009) asserts that effective supervision of banks leads to a healthy banking industry. Calomiris (1999) also believes that good regulation and supervision will minimize the negative impact of moral hazard and price shocks on the banking system, thereby leading to a reduction in bank failures and banking system distress.

Traditionally, the role of banks whether in a developed or developing economy, consists of financial intermediation, provision of an efficient payments system and serving as a conduit for the implementation of monetary policies. It has been postulated that if these functions are efficiently carried out, the economy would be able to mobilize meaningful level of savings and channel these funds in an efficient and effective manner to ensure that no viable project is frustrated due to lack of funds.

In view of the importance of the banking sector in economic development and the imperfection of the market mechanism to mobilize and allocate financial resources to socially desirable economic activities of any nation, governments the world over, do regulate them more than any other sector in an economy. This underscores the need for banking sector regulation. However, in addition, the nature of banking business (being highly geared and conducted with greater secrecy when compared with other real sector businesses) provides added reason for strict supervision. This is to constantly beam a search-light on the sector's activities with a view to ensuring that operators play by the rules of the game and imbibe sound and safe banking practices.

Furthermore, such an oversight is intended to assist supervisory authorities in timely identification of deterioration in banks' financial conditions before it degenerates to threaten the stability of the banking system or even the economy. This was the view of Calomiris (1990) Radical reforms to the system of prudential regulation and supervision has been implemented since the late 1980s. These reforms are essential because the prudential system has proved] ineffective in ensuring sound bank management, as the scale of financial distress among the state government and local banks indicates.

The vulnerability of the merchant banks to the liquidity squeeze was exacerbated by the

impact of CBN regulations which stipulated that minimum shares of their loan portfolios had to be allocated to long term loans, leading to a mismatch in the maturity structure of their assets and liabilities (Kane, 2000).). Their ability to mobilize deposits was also impeded because regulations prevented them from accepting deposits below a specified minimum amount.
Despite the deficiencies of prudential regulation there were very few overt bank failures between 1960 and the early 1990s. It is unlikely that this was because all banks were soundly managed in this period. Although fragility in the banking system clearly worsened during the 1990s, the imprudent lending policies which were the major cause of the distress probably began soon after most of the distressed banks were set up. Bank failures were probably averted in this period, despite the mounting bad loans afflicting, in particular, many of the state government banks, by a number of factors.

The Federal Government appears to have had an implicit policy not to allow banks to fail, and as a result, banks facing liquidity shortages because of nonperforming loans probably had recourse to support from the Federal budget, CBN loans, or public sector deposits, although there is little evidence to substantiate this. The lack of competition due to regulatory restrictions on lending, interest rates, and new entry is also likely to have assisted some of the badly managed banks to survive, while insolvency was concealed by accounting practices which failed to reveal the true state of asset quality and income. There was a change in the attitude of the authorities towards prudential regulation in 1988/89.

The reforms outlined above have addressed many of the regulatory defects prevailing in the 1980s and put mechanisms in place for improved prudential regulation and for dealing with bank distress. Nevertheless, the practical difficulties involved in both tackling the prevailing distress and in ensuring that banks are prudently managed are enormous, probably greater than anywhere else in Africa. The political and economic environment is very difficult for bankers and regulators because of the persuasiveness of corruption in both public and private sectors, excessive political interference in public administration from which the CBN and NDIC are not immune, and the severe crisis in the real sector of the economy which has created an unstable and difficult business environment for the banks' debtors.

Effective prudential supervision is likely to be impeded by the large number of banks and other financial institutions to be supervised which limits the frequency with which banks can be examined on site. Given the level of fraud in banks, the efficacy of off-site supervision in revealing potential distress may also be limited. Moreover the allocative regulations imposed on banks compromise prudent management as well as encourage bank executives to violate the spirit of CBN guidelines. The magnitude of bank distress in the banking system is especially problematic for the regulatory authorities: the net worth of the 45 distressed banks at the end of 1994 amounted to negative N19 billion (2 per cent of GDP). Restructuring and/or liquidating (and therefore reimbursing insured depositors) all the distressed banks will impose substantial financial and administrative demands on the CBN and NDIC.

Empirical literature review

Empirical investigations on deposit insurance and banks performance and risk assets have generated mixed results. Nwokoji (2011) use ordinary least square regression (OLS) to estimate the relationship between deposit insurance and the quality of risk assets. Using monthly data obtained from the Turkish Central Bank, they provide empirical evidence that although deposit insurance has reduced the incidence of bank runs, and banks had taken to an excessive acquisition of risk assets beyond what could be considered reasonable. They

conclude by noting the increase in the volume of non-performing loans following the adoption of deposit insurance in Turkey.

Schooner and Taylor (2010) using 1919 observations from 453 banks in Switzerland included the yearly growth in deposits in the independent variables that they used to investigate the determinants of commercial banks profitability in Switzerland. Their results showed that the yearly growth in deposits did not affect profitability significantly. They found no empirical evidence that commercial banks in Switzerland were able to convert at an increasing amount of deposit liabilities into significantly higher income earning assets.

Schich, (2008) applied data envelopment analysis to bank-level data on some transition economies between 1995-1998. Their results suggested that well capitalized banks ranked higher in terms of their ability to collect deposits than their poorly capitalized counterparts. This they attributed to the possibility of implicit deposit insurance which in turn encourages more deposits. They however, found less evidence linking capitalization to revenues. On the other hand, their investigations found some evidence that foreign banks were able to attract more deposits by paying lower rates. This they attributed to implicit deposit insurance. The ability to attract deposits at lower rates would mean higher net interest margins and hence higher profitability.

Nijskens and Wagner (2011) using data on top fifteen Pakistani commercial banks over a period 2005-2009, investigated the impact of assets, loans, equity, deposits, economic growth, inflation and market capitalization on profitability indicators i.e. ROA, ROE, ROCE and NIM. The study applies the OLS technique and the results showed that deposits, among other had positive correlation with ROA. Deposits however, had negative relationship with ROCE. Similarly total deposits to total assets had negative correlation with ROCE, which shows that banks that rely on deposits for their funding are less profitable.

Maysami, & Sakellariou, (2008) investigated the determinants of the Tunisian banks' performances during the period 1980-1995. Empirical evidence indicated that the best performing banks are those who maintained a high level of deposit accounts relative to their assets. Increasing the ratio of total deposits to total assets means increasing the funds available to use by the bank in different profitable ways such as investments and lending activities.
Matthews & Thompson (2008) found that that banks with a high percentage of time and savings deposits incurred high funding cost and thus had less profit. Using the ratio of net income after taxes to total assets as a proxy for profitability and average ratio of time and savings deposits to total deposits as a proxy for balance sheet management, He apply the least square method. His findings indicated that the ratio of time and savings deposits had a significant negative impact on commercial bank profitability. This supported his claim that banks which were heavily committed to time and savings deposit earned considerably lower returns.

DeLong and Saunders (2011) found out that Canadian banks compared to other large commercial banks in OECD countries were more resilient during the 2008 economic turmoil since they relied more on depository funding as compared to the other banks that relied more on wholesale funding. A related study in Kenya conducted by Ochung (1999) established that there was a very strong correlation between deposits of commercial banks and Financial Institutions and their individual performances.

Nijskens and Wagner (2011) conducted a study on the asset liability management and profitability of commercial banks in Kenya. The study drew out the importance minimizing the

opportunity costs of holding deposit reserves and the incidence of nonperforming loan portfolio. The study adopted the panel least square technique and the findings of the study suggested that effective credit risk management practices such as credit assessments, information gathering and aggressive debt collection practices many be used as part of the management of the quality of assets and the minimization of exposures from liabilities. However, the study failed to isolate the effect of deposit levels on the financial performance of commercial banks.

Nwokoji (2011) empirically analyzed the determinants of the liquidity of the commercial banks in Kenya using a multiple linear regression model. The motivation was to establish whether the determinants of liquidity are empirically robust. The focus was exclusively on a cross section of 30 commercial banks in Kenya. This was because earlier cross-country studies recommended country-specific empirical investigation as an area warranting further research. Employing the linear regression model uncovered an economically meaningful relationship between bank's liquidity and its determinants. The findings from a cross sectional analyses indicate that significant factors that determine the liquidity of the commercial banks in Kenya are liquid liabilities, growth and maturity. Liquid liabilities and maturity have a positive impact on liquidity whereas growth has a negative impact. The other factors such as liquid assets and cash flows have a positive but insignificant effect on the liquidity of commercial banks. Similarly, leverage, size, profitability and loan commitments have an insignificant negative effect on banks' liquidity.

Research Methodology

This study adopts the exploratory and ex-post facto designs. The exploratory design was used to access the relevant theories and literatures needed to provide the empirical and theoretical basis for the study. Both the study literature review and hypotheses testing were based on the secondary sources of data. They were extracted from the published CBN statistical bulletins. Annual time series data were collected for the period 1989 to 2016 on total bank deposit and deposit insurance fund. The ordinary least square multiple regression analytical technique and its interpretation was employed. The adoption of this technique is justified by its feature as the best linear unbiased estimate.

The functional relationship between deposit insurance and the protection of deposits has been predicted by the deposit insurance theory of Cham, Greenbaum and Thakor (1992). This theory assumes that deposit insurance promotes depositors' confidence in the banking sector thus promoting deposit mobilization. Based on this theory, the following functional model has been developed for this study thus:

BDEP = F (DIF)

Re-stating the econometric version of this function relationship as:

$BDEP = b_o + b_1 DIF + e_t$

Where:

BDEP = Bank Deposit

DIF = Deposit Insurance Fund

a_0 = Regression Constant.

b_1 = Regression Parameter

e_t =Stochastic Error Term

Data Analysis and Discussion

Table 1

Regression result of the relationship deposit insurance fund and commercial bank deposit

Dependent Variable: LBDEP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.675690	1.054209	-2.538102	0.0175
LDIF	1.978448	0.195096	10.14087	0.0000
R-squared	0.798195			
Adjusted R-squared	0.790433			
F-statistic	102.8373		Durbin-Watson stat	0.178095
Prob(F-statistic)	0.000000			

Source: E-views 9.5 Computation, 2018.

A view of Table 1 revealed that deposits insurance fund had a positive impact on bank deposit mobilization in Nigeria. This implies that increases in deposits insurance fund result in an increase in bank deposit in Nigeria and vice versa. Started differently, one percent increases in deposits insurance fund lead to 1.97 percent increases in bank deposit mobilization in Nigeria. Furthermore, the t-statistics of 10.14 and it corresponding probability means that deposits insurance fund has a significant impact on bank deposit mobilization. Thus, there is a positive and significant impact of deposits insurance fund on bank deposit mobilization. A further view of the R-squared and R-squared adjusted values of 0.7982 and 0.7904 revealed that about 79.04 percent of the variations in bank deposit in Nigeria has been explained by the variation in deposits insurance fund. The F-statistics value of 102.83 and it corresponding probability shows that the model is significant at 5 percent. In other words, the model has a good fit. Viewing the Durbin Watson statistics value of 0.178 as found in the result, it was clear that the model is not free from autocorrelation problem.

Lastly, the long run impact of DIF on BDEP was positive and significant. This shows that deposit insurance fund if improved is capable of increase bank deposit in Nigeria in the long run and is also found to be consistence with theoretical expectations. However, the short run effects of deposit insurance fund on bank deposit at both lag one and lag two had a negative effect. The implication is that, a percentage increase in deposit insurance in the short run had a negative effect on bank deposits at both lags. This finding at both lags in the short run was not in agreement with Nwokoji (2011) who reported that the amount of deposit insurance fund maintained by the NDIC was capable of addressing panic and ensuring stability in the system over depositors' fund in Nigeria.

Summary of findings

This study examined the effect of Nigeria Deposit Insurance Corporation in the protection of depositors in Nigeria. The study adopted the Ordinary Least Square (OLS) multiple regression technique to assess the relationship between deposit insurance fund and bank deposit. The major finding was that, there existed a significant positive relationship between deposit insurance fund and bank deposit in Nigeria

Conclusion and Recommendation

The central focus of this study was to examine Nigeria Deposit Insurance Corporation

and the protection of bank deposits in Nigeria. Empirical and statistical evidences revealed that the overall effect of Nigeria Deposit Insurance Corporation measures in the protection of bank deposits in Nigeria had a significant improvement of bank deposit in the short run. Notwithstanding, deposit insurance fund in the short run had a negative and dampening effect on bank deposits in Nigeria. As a result of the finding and conclusion of this study, the recommended in order to address the negative effect of deposit insurance fund on bank deposit in the short run, Nigeria Deposit Insurance Corporation has the option to adopt the more sophisticated differential premium assessment system (DPAS), where risk is explicitly considered in assessing premium payable by insured institutions. The DPAS should be the basis for calculating the premium payable by banks in Nigeria.

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