Bank Recapitalisation in Nigeria: Resuscitating Liquidity or Forestalling Distress?

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Abstract

Banks are key players in the financial sector of any nation's economy and sound macroeconomic management must ensure the financial health of banks in order to guarantee economic stability and economic growth. The study asks whether capital regulation merely addresses the immediate and short-term problem of illiquidity or it has a far-reaching effect of forestalling distress amongst banks in Nigeria. Data collected from the Central Bank of Nigeria and the Nigeria Deposit Insurance Corporation for the period 1997-2006 was used to test the research hypotheses using correlation analysis. Results show that there exist a relationship between increase in minimum capital base of the commercial banks and their liquidity and asset quality as both liquidity levels and asset quality tend to improve with recapitalisation. Despite these findings, the period after 2006 recorded four insolvent banks as evidenced in Ndanusa (2009) and Alford (2010). The paper concludes that the post 2006 crisis were clear indications that increasing minimum capital requirement of banks alone only account for a short-term improvement in the liquidity position of banks and improvement in their asset quality but do not have the long-term effect of forestalling distress. The study suggests that a lot more need to be done in curbing financial distress among commercial banks in Nigeria than mere increase of their minimum capital requirement. Such other approaches as improving the corporate governance of banks must be adopted to forestall future occurrence of the threat of distress in the sector.

Introduction

The financial sector is one of the dominant economic sectors in Nigeria. Banks are key players in any country's financial sector, 'they occupy a delicate position in the economic equation of any country such that their (good or bad) performance invariably affects the economy of the country' (Wilson, 2006). Studies have shown that the banking sector which actually started in Nigeria in 1892 (See Nwankwo, 1980) has been largely volatile with spates of banking failure experienced in most parts of the 1990s, and in the early and mid 2000s.

A strategy often utilised to strengthen banks in Nigeria and save them from financial distress is capital regulation by the Central Bank of Nigeria (CBN). A cursory look at the history of banking in Nigeria reveals that the CBN has found reasons to shore up the capital base of Nigerian banks a number of times since 1980s. "From a modest value of N10 million naira minimum paid-up capital in 1988, Nigerian commercial banks were required to maintain capital not below N50 million in 1991. Between 1991 and 2005 subsequent increases have also been made ranging from N500 million in 1997; N1billion in 2001; N2 billion in 2002 to N25 billion in 2005" (Onaolapo, 2006).

This paper investigates the efficacy of capital regulation in saving Nigerian banks from financial distress. There are a few research outputs (Onaolapo, 2008: 114) to show whether or not, and the extent to which, capital regulation has saved Nigerian commercial banks from financial distress. This paper contributes to empirical research on the subject.

The paper is presented in five sections. After this introduction, a review of literature on the relationship amongst liquidity, recapitalisation and banking distress is presented. Section three presents the research methodology. In section four, we present the results of the data analysis and discuss them. Section five concludes the paper and proffers some recommendations.

Literature Review

The terms bank failure and bank distress have been closely interchanged in the literature. Bank failure or distress could be loosely defined as the inability of a bank to meet up with its financial obligation to its customers. In technical terms, banks are defined as financially distressed when they are technically insolvent and/or illiquid (Brownbridge, 1998). In financial terms, to be insolvent means that a business is both unable to meet its current obligations and settle its outstanding debts (Bibeault, 1982; Glaessner and Mas, 1995). The authors also posit that insolvency (as described above) and financial distress/failure are two different things. This is mainly because distress or failure occurs when insolvency is officially recognised and the organisation is closed or measures are taken towards consolidation or merger.

In Nigeria, the problem of bank distress has been observed as far back as 1930s. According to Soyibo and Adekanye (1992) between 1930 and 1958, over 21 bank failures were recorded in the Nigerian banking sector. The banking failures during that era may have been caused by the domination of foreign banks in terms of the exclusive patronage by British firms (Soyibo and Adekanye, 1992). Banks distress was also recorded in the 1990s and in the early parts of the 2000s.

Figure 1[1] shows that the total number of banks in Nigeria was 115 in 1995. The number of distressed banks grew from 15 in 1991 to about 55 in 1994; 60 banks were known to be distressed in 1995 and by 1997, the number of problem banks had reduced to 47. As at year end 2002 that number reduced significantly to 13, then 15 in 2001 before dropping again to 10 shortly before the 2004 banking consolidation. (CBN and NDIC Annual Reports, 2002-2006).

A number of reasons have been attributed to financial distress of commercial banks. According to Sanusi (2002) as cited in Musa (2010), one major cause of the distress in the sector was that the increase in the number of banks overstretched the existing human resources capacity of banks which resulted into many problems such as poor credit appraisal system, financial crimes, accumulation of poor asset quality among others. A result of the reason stated above is that most if not all of the banks that failed in Nigeria failed due to non-performing loans. Arrears affecting more than half the loan portfolio were typical of the failed banks. Many of the bad debts were attributable to moral hazard: the adverse incentives on bank owners to adopt imprudent lending strategies, in particular insider lending and lending at high interest rates to borrowers in the most risky segments of the credit markets contrary to the interests of the bank's creditors (mainly depositors or the government if it explicitly or implicitly insures deposits), which, if unsuccessful, would jeopardize the solvency of the bank (Brownbridge, 1998).

On close scrutiny, it will also be observed that the single biggest contributor to the bad loans of many of the failed banks in Nigeria was insider lending[2]. Insider loans accounted for 65 percent of the total loans of the four banks liquidated in Nigeria in 1995, virtually all of which was unrecoverable (NDIC, 1994). The threat posed by insider lending to the soundness of the banks was exacerbated because many of the insider loans were invested in speculative projects such as real estate development, breached large-loan exposure limits, and were extended to projects which could not generate short-term returns (such as hotels and shopping centres), with the result that the maturities of the bank's assets and liabilities were imprudently mismatched. The high incidence of insider lending among failed banks suggests that problems of moral hazard were especially acute in these banks. In our own speculations, several factors contributed to this.

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[1] See Appendix i
[2] See Appendix ii

First, politicians were involved as shareholders and directors of some of the banks. Political connections were used to obtain public-sector deposits: many of the failed banks obtained their deposits from the public sector (Ministries and Parastatals). And because of political pressure, the parastatals which made these deposits are unlikely to have made a purely commercial judgment as to the safety of their deposits. Moreover, the availability of parastatal deposits reduced the need to mobilize funds from the public. Hence, these banks faced little pressure from depositors to establish a reputation for safety.

Political connections also facilitated access to bank licenses and were used in some cases to pressure bank regulators not to take action against banks when violations of the banking laws were discovered. All these factors reduced the constraints on imprudent bank management. In addition, the banks' reliance on political connections meant that they were exposed to pressure to lend to the politicians themselves in return for the assistance given in obtaining deposits, licenses, etc.

It was as a response to yet another round of impending crisis on the banking sector that on July 6, 2004, the Central Bank of Nigeria announced a major reform programme that would transform the banking landscape of the country. The main thrust of the 13-point reform agenda was the prescription of a minimum shareholders' funds of N25 billion for a Nigerian deposit money bank not later than December 31, 2005. The banks were expected to shore up their capital through the injection of fresh funds where applicable, but were most importantly encouraged to enter into merger/acquisition arrangements with other relatively smaller banks thus taking the advantage of economies of scale to reduce cost of doing business and enhance their competitiveness locally and internationally (Bello, 2008).

This was not the first time that Nigerian Banks were asked to shore up their capital base. From a modest value of N10million naira minimum paid-up capital in 1988, Nigerian commercial banks were required to maintain capital not below N50 million in 1991. Between 1991 and 2005 subsequent increases have also been made ranging from N500 million in 1997; N1billion in 2001; N2billion in 2002 to N25 billion in 2005 (Onaolapo, 2006).

Recapitalisation is used as a strategy to address the insolvency of banks and forestall future possibilities of financial distress. In the 1990s crisis of the banking sector in Nigeria, policy makers thought that most of the failed banks were undercapitalized, in part because the minimum capital requirements in force when they had been set up were very low (Brownbridge, 1998). Recapitalisation is therefore thought not only to be capable of resuscitating insolvent banks but also strengthen them especially through mergers. According to Somoye (2008) the economic rationale for domestic consolidation is indisputable; it makes banking more cost efficient because larger banks can eliminate excess capacity in areas like data processing, personnel, and marketing or overlapping branch networks. Cost efficiency also could increase if more efficient banks acquired less efficient ones.

This paper investigates whether the 2005 recapitalisation resuscitated banks from their liquidity problems and forestalled distress at the same time.

Methodology

This study investigates the impact of capital regulation on banks' liquidity position and financial distress in Nigeria. The following research questions were asked to guide analysis:

i. Has the increase in the level of bank minimum paid-up capital improved liquidity ratio of Nigerian banks?
ii. Has the increase in the level of bank minimum paid-up capital improved the asset quality of Nigerian banks.
iii. Did the outcomes of 'i' and 'ii' above forestalled subsequent insolvencies and distress in the Nigerian banking sector?

The research needed to collect data on banks' minimum paid-up capital at different times during the ten year period of the study (1997-2006), determine the asset quality of the banks from their financial records, and calculate their liquidity ratio as well determine the number of distressed banks within the Nigerian financial system during the period of study. The study collected these data from the Central Bank of Nigeria and Nigeria Deposit Insurance Corporation Annual Reports and Statements of Accounts for the period of study.

Though there is more than one category of banks in Nigeria as at the time of the capital base regulation of 2005, the study collected and utilised data on 25 commercial banks in Nigeria.

A study of the commercial banks is considered sufficient because the commercial banking sector accounted for 91.21 percent of total assets of the financial services industry in 2001 (Adam, 2008). Thus, the commercial banking sub-sector is sufficient in size and capacity to be used as sample of the entire banking industry in Nigeria. The data was analysed to provide answers to the research questions using correlation analysis. Questions 'i' and 'ii' were answered from the results of a Pearson Product Moment Correlation Analysis.

The Karl Pearson Product Moment Correlation usually calculates the correlation coefficient (denoted 'r') to describe the strength of the relationship between two sets of variables. It can assume any value from -1 to +1, for example. A correlation of -1 or +1 indicates a perfect correlation, which is negative in the former and positive in the latter. If there is absolutely no relationship between the two sets of variables, Pearson 'r' will be zero. A correlation of coefficient close to zero shows that the relationship is quite weak. The formula for calculating the Pearson Product Moment Correlation Coefficient is given as follows:

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2}\ \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

To answer research question 'iii' we used secondary sources of data to determine the reoccurrence of insolvency and financial distress amongst commercial banks in the post-2006 period.

Results and Discussions

In this section, effort is made to respond to the three research questions raised in the preceding section. Results of the correlation analysis are presented which enable the determination of the research questions.

Question 1

To examine the correlation between minimum capital and liquidity ratio of Nigerian banks, the variables used are the minimum capital requirement and liquidity ratio for the ten year period under study (1997-2006). The minimum capital requirement represents the X variable while liquidity ratio represents Y variable. However, the correlation coefficient is symmetric: Corr. (X, Y) = Corr. (Y, X). The computations are shown in Appendix iii. Substituting the values computed in Appendix iii into the following equation, we compute the PPMCC:

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2}\ \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

r = 0.1522. Though there exist a relationship between the variables, the relationship is a very weak one as the value of 'r' is far less than 1 which indicates perfect correlation and close to zero which indicates perfect non-correlation. This implies that an increase in capital alone is not enough to bring about a significant change in liquidity of the commercial banks unless other key factors are put into consideration.

Hypothesis 2

To examine the correlation between minimum capital requirement and asset quality of Nigerian banks, the variables used are the minimum capital requirement and asset quality for the ten year period under study (1997-2006). The minimum capital requirement represents the X variable while asset quality represents Y variable. The correlation coefficient is symmetric: Corr. (X, Y) = Corr. (Y, X). The computations are shown in Appendix iv. Substituting the values computed in Appendix iv into the following equation, we compute the PPMCC:

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2}\ \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

The value of 'r' is found to be -0.553. This indicates a rather weak negative relationship as the value is close to negative zero. This means that bank recapitalization and asset quality are negatively related but its not perfect negative relationship since it's less than -1 which indicates perfect negative correlation. In essence, recapitalization does not alone bring about any improvement in asset quality.

Hypothesis 3

To examine the relationship between minimum capital requirement and bank distress, a simple regression model was utilised. The variables used are the minimum capital requirement and number of distressed banks with minimum capital requirement as the independent variable, 'x' while number of distressed banks is the dependent variable 'y'. Thus, the equation of the line will be $Y = b_o + b_1 X$ where b_o and b_1 are the regression coefficients. But:

$\hat{Y} = b_o + b_1 x_1 = \sum y/k = \beta$.

And $b_1 = S_{iy}/S_{ii}$ and $S_{iy} = \sum xy - (\sum y \sum x) / k$, while $S_{ii} = \sum x^2 - (\sum x)^2 /k$

The computations are shown in Appendix v. Substituting the values into the above equations, we find the equation of the line to be, $Y = 24.1 + 0.000543X$.

The coefficient of determination R^2 is 0.000543 far below 1. Therefore it means that the independent variable X (minimum capital requirement) only accounts for 0.0543% of the variation or change in the dependent variable Y (number of distressed banks). Other factors therefore also contribute to the level of failure of the banks.

Conclusions and Recommendations

This study has examined the relationship between bank recapitalisation and financial distress of banks in Nigeria. The paper was mainly interested in establishing whether or not bank capital regulation has any impact in forestalling financial distress especially amongst commercial banks in Nigeria. From the results of the study, we conclude that even though there exist a relationship between increase in minimum capital requirement and the variables liquidity ratio of banks, bank asset quality and bank distress, the relationship is so weak and insignificant as to confirm that increasing minimum capital requirement can forestall bank financial distress (enrich this conclusion please) The results no doubt serve in providing a rich insight into the issue of over-concentration of efforts by most of our Nigeria's reform programs at increasing minimum capital requirement while neglecting the other factors that would have, together with a sound capital base stem the problem of banking failure and ensure a sound financial system. This could have informed the recent effort of the Central Bank of Nigeria to strengthen commercial banks through the strengthening of corporate governance mechanisms rather than through capital base regulation alone.

It is on the basis of the foregoing, that this study recommends that capital regulation should be a component of a total reform framework to ensure effectiveness. For example, the last reform included other parameters of bank financial health like stricter enforcement of quality corporate governance principles, zero tolerance on misreporting and infractions, strengthening risk management systems in the banks, risk-based supervision, closer collaboration with the Economic and Financial Crimes Commission (E.F.C.C.) in the establishment of the Financial Intelligence Unit (F.I.U.) and enforcement of anti-money laundering measures, work towards the establishment of an Asset management Company as an important element of distress resolution, promoting the enforcement of dormant laws like the vicarious liabilities of the board members of the banks in cases of failings by the banks, e.t.c.. But attention was only given to increasing the minimum capital requirement to the detriment of other components of the reform. It is the view of this paper, arising from the review of the literature and data analysis, that equal attention and force where necessary should also be employed in enforcing the implementation of these other components of the reform.

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Appendix i: Ratio of Total Banks to Distressed Banks in Nigeria (1990-2006)
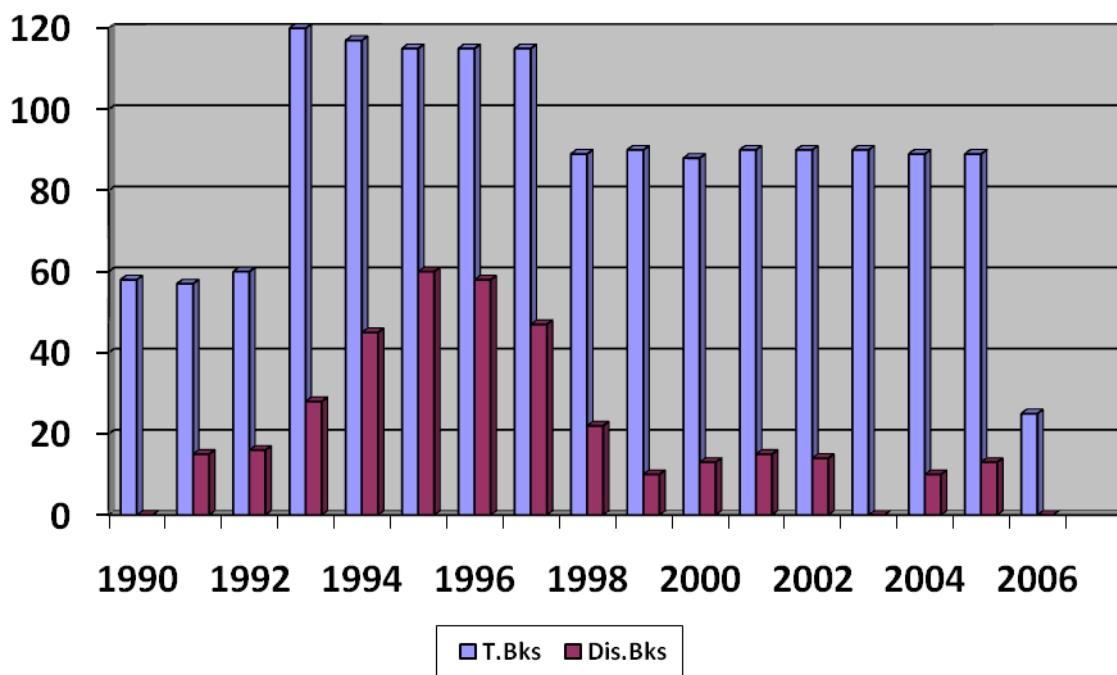
Appendix ii: Ratio of Insider Loans to Total Loans and Ratio of Non-Performing Loans to Total Loans in Selected Liquidated Banks as at Date of Closure.

S/NO	Closed Banks	Date of Closure	Ratio of Insider Loans to Total Loans (%)	Ratio of Non-Performing Loans to Total Loans (%)
1	Financial Merchant Bank	1994	66.90	99.50
2	Kapital Merchant Bank	1994	50.00	96.20
3	Alpha Merchant bank	1994	55.00	90.00
4	United Commercial Bank	1994	81.00	90.00
5	Republic Bank	1995	64.90	98.00
6	Commercial Trust Bank	1998	55.90	100.00
7	Commerce Bank	1998	52.00	86.90
8	Credite Bank	1998	76.00	98.30
9	Prime Merchant Bank	1998	80.70	100.00
10	Group Merchant Bank	1998	77.60	94.50
11	Nigeria Merchant Bank	1998	99.90	95.90
12	Royal Merchant Bank	1998	69.00	98.00

Source: NDIC Annual Report (Various Issues)

Appendix iii: Correlation Results of Minimum Capital Requirement and Liquidity Ratio of Nigerian Commercial Banks.

YEAR	MIN CAP REQ=X (₦'M)	LIQUIDITY RATIO=Y	X Y	X^2	Y^2
1997	500	40.2	20,100	250,000	1616.04
1998	500	46.8	23,400	250,000	2190.24
1999	500	61.0	30,500	250,000	3721
2000	500	64.1	32,050	250,000	4108.81
2001	1000	52.9	52,900	1,000,000	2798.41
2002	1000	52.5	52,500	1,000,000	2756.25
2003	2000	50.9	101,800	4,000,000	2590.81
2004	2000	50.5	101,000	4,000,000	2550.25
2005	2000	50.2	100,400	4,000,000	2520.04
2006	25000	55.7	1,392,500	625,000,000	3102.49
n=10	∑x=35000	∑y=524.8	∑xy=1907150	∑x^2=640,000,000	∑y^2=27954.34

Appendix iv: Computation of PPMCC: Question 1

r=   10X1,907,150-35,000X524.8

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√10X640,000,000-1,225,000,000 X √10X27,954.34-275,415.8

=   19, 071, 500-18,368,000

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71,937.47 X 64.25

=   703,500

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4,622,148.99

=   0.1522

Appendix v: Correlation Results of Minimum Capital Requirement and Asset Quality of Nigerian Commercial Banks.

YEAR	MIN CAP REQ=X (₦'M)	ASSET QUALITY=Y	X Y	X^2	Y^2
1997	500	256.810	128405	250,000	65951.38
1998	500	19.350	9675	250,000	374.42
1999	500	20.725	10362.5	250,000	429.53
2000	500	21.500	10750	250,000	462.25
2001	1000	16.900	16900	1,000,000	285.61
2002	1000	21.300	21300	1,000,000	453.69
2003	2000	21.600	43200	4,000,000	466.56
2004	2000	23.080	46160	4,000,000	532.69
2005	2000	24.600	49200	4,000,000	605.16
2006	25000	30.500	762500	625,000,000	930.25
n=10	∑x=35000	∑y=456.365	∑xy=1,098,452.5	∑x^2=640,000,000	∑y^2=70,491.54

Appendix vi: Computation of PPMCC: Question ii

r=   10X 1,098,452.5 – 35,000X456.365

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√10X640,000,000 – 1,225,000,000 X √10X70,491.54 – 208,269.01

=   10,984,525 – 15,972,775

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71,937.47 X 704.731

=   -4,988,250

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50,696,598.19

=   -0.0984