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CAPITAL ADEQUACY AND BANKS PERFORMANCE: A CASE STUDY OF SELECTED BANKS IN NIGERIA

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Abstract

Banks role in the economic growth and development of an economy cannot be underestimated. Though this role is significantly through the financial system, capital adequacy, measured by the capital - asset ratio, is a germane factor in examining the operational efficiencies of banks. This study thus, investigated the effect of capital adequacy on bank performance in Nigeria. Primary based secondary data from selected banks was used for the study. Unit Root Test and Pooled Panel Least Squares Estimation as well as the Breuch Godfrey rest were carried out in the study. The study findings, among others, showed that capital adequacy had a positive and significant effect on the banks performance while liquidity has a negative and significant

relationship with the performance of the selected banks implying that our result conforms to the trade-off principle that describes the liquidity and profitability relationship. Also, deposit has a negative and relationship with bank performance even though it is expected to be positive. The study thus suggested that the Central Bank of Nigeria (CBN) should pay attention to the cost incurred by banks on deposits maintained with them as this may have significant implications on the banks' capital and performance in general.

Keywords: Capital Adequacy, Economic Growth, Bank Performance, Liquidity, Profitability, Nigeria

INTRODUCTION

Over the years, Nigeria have experienced varying degrees of bank failure and this have had some harsh effects on the financial sector and the economy at large. One of the major reasons for this bank failures is the lack of capital adequacy as banks during this period lack adequate capital needed to meet the withdrawal needs of their clients, meet loan demands as at when requested and as well cover up for their operational expenses. Capital adequacy, determined by capital - asset ratio, is a germane factor in examining the operational efficiencies of banks. This comprises mostly of deposits and capital funds and bank customers are more concerned with the adequacy of banks' capital for the protection of their deposits. According to Bashiru (2014), capital adequacy implies the conventional assessment of the minimal level of capital which reflects the dimension of banking activity and related risks, capable to provide a correlation between the supposed obtained benefits and potential loss caused by a certain level of risks. Adequate capital enables banks meet up with any form of liabilities and other risks e.g. credit, market and operational risks which may arise in the course of carrying out the banking business.

The major role of bank capital is to ensure the survival of banks whenever they are being faced with unexpected losses. The essential role of bank capital is to provide resources to bring down future losses on assets. Thus, commercial banks are legally required to maintain adequate capital funds. Due to frequent tendencies of the possibility of bank failures, financial regulators always seem to want more capital for banks. Also, bank stockholders are in support of more bank capital as they opine that the role of capital is to generate a satisfactory rate of return (Buyuksavarci and Abdioglu, 2011). Furthermore, the role of the central bank in this regard cannot be overemphasized as the banking sector in Nigeria, has thus been effectively guided by the central banking regulations. However, in the present scenario of low growth,

persistent inflation, asset quality concerns and increasing rate of interests, there have been variations in the investments cycle which has generally weakened the financial system.

According to Sanusi (2010), some factors brought the entire Nigerian financial system to the brink of collapse and these factors he summarized as: Macro-economic instability caused by large and sudden capital inflows; Major failures in corporate governance at banks; Lack of investor and consumer sophistication; Inadequate disclosure and transparency about financial position of banks; Critical gaps in regulatory framework and regulations; Uneven supervision and enforcement; Unstructured governance & management processes at the CBN/Weaknesses within the CBN; Weaknesses in the business environment. He stated that each of these factors is serious on its own right. As a result, CBN introduced a Four (4) Pillar Reform Program in 2010. This according to Ezike and Oke, (2013) and Pasiouras and Kosmidou, (2007) is to help enhance the quality of banks, establishing financial stability, enabling healthy financial sector evolution and ensuring that the financial sector contributes to the real economy. The four pillars are summarized as follows: Pillar 1: Enhancing the quality of banks; Pillar 2: Establishing financial stability 8 BIS Review 49/2010; Pillar 3: Enabling healthy financial sector evolution; And Pillar 4: Ensuring the financial sector contributes to the real economy. In many areas, CBN needs to take the lead in implementing reforms; in other areas, CBN needs to play a key advocacy role.

The above also had an impact in the CBN's regulatory capital requirements for banks. For instance, according to the Central Bank of Nigeria Guidance Notes on Regulatory Capital (nd), banks are required to maintain a minimum regulatory capital adequacy ratio (CAR) of 10% - 15% on an on-going basis. A minimum regulatory capital adequacy ratio (CAR) of 15% will be applicable to banks with international authorization and Systemically Important Banks (SIBs) while a CAR of 10% will be applicable to other banks. The Central Bank of Nigeria (CBN) will take into account the relevant risk factors and the internal capital adequacy assessments of each bank to ensure that the capital held by a bank is commensurate with the bank's overall risk profile. This would include, among others, the effectiveness of the bank's risk management systems in identifying, assessing / measuring, monitoring and managing various risks including interest rate risk in the banking book, liquidity risk, concentration risk and residual risk. There are situations where banks have the responsibility to exercise the best ways to manage the risk specific to that bank. This part of the Pillar 2 requirements and in this scenario, CBN will consider prescribing a higher level of minimum capital ratio for each bank under this Pillar 2 framework on the basis of their respective risk profiles and their risk management systems. More specifically, Pillar 2 seeks to ensure that internal risk management process in banks is robust enough. It emphasizes the regulatory response to the Pillar 1, which focuses on three

basic risks namely credit risk, market risk and operational risk. Pillar 2 involves a framework for dealing with the other risks a bank may face like systemic risk, strategic risk, reputation risk, liquidity risk and legal risk. With respect to Pillar 2 requirements of the capital adequacy framework, banks are expected to operate at a level well above the minimum requirement.

One basic conclusion from these reforms and regulations is that the regulators of capital requirements in Nigeria aim to ensure that the risk exposures of banks and other financial institutions are reinforced by an adequate amount of capital which will at least guarantee effective bank performance. Though there have been many studies on capital adequacy and bank performance in Nigeria, but these studies have come out with some conflicting results. All these makes it apposite to investigate the effect that capital adequacy will have on bank performance in Nigeria. Additionally, while previous studies have focused on fundamental issues common to all operating banks, this study will further look at the CBN classification of systematically important banks with the aim of justifying the position of these set of banks as having a strong capital base and the implication for the entire financial system.

LITERATURE REVIEW

The bank capital also referred to as equities, is the difference between a bank's assets and its liabilities. It is the portion of a bank's fund that the shareholders own a claim to. The shareholder's equity is mostly made up of the profits the bank has retained and not paid as dividends to the shareholders. The difference between equities and other form of bank funding is that equity is loss absorbing. Depositors and creditors have a contractual right to be paid back in full. If the value of a bank's assets drops below its liabilities to creditors (debt holders) and depositors, the bank is insolvent. Equity on the other hand is not a debt contract, but rather the shareholders stake in the value of the bank. In other words, unlike creditors and depositors, shareholders do not have a contractual right to be paid back their initial investment. Bank capital helps to boost the confidence of the public in the bank. It gives an assurance that depositors' funds are safe and that the bank can house the credit needs of the community. Bank capital also assures the regulatory bodies that the financial system is not threatened or hampered by any unstable situation in a single bank or group of banks. It helps the bank avoid running into liquidation or bankruptcy. A Bank's capital resources help the supervisory authority in examining the sufficiency of capital in relation to its loans and investments Ndifon, (2014).

Banks make money by getting interest payments on the loans and investments they undertake in addition to the fees for services rendered. Their profits are what is left after subtracting interest on liabilities and the cost of deposit maintenance. The bank can either pay their profit interest to shareholders as dividends or can keep them on their statement of financial

position as retained earnings. If a Bank takes losses on its assets, they can come to out of equities with shareholders taking the hit. The bank can remain solvent and continue operation afterwards. Regulators want a portion of their liabilities to be equities so that banks can experience losses on their assets without becoming insolvent. The equities are mostly made up of the profits that the bank has retained and not paid out to shareholders as dividends in addition to the proceeds the bank has received from selling its shares to investors. Equity is not held on the asset side of the statement of financial position like a pile of cash that can't be used. Equities fund assets in same way that debts and deposits fund assets, that is, part of it could be extended to the public as loans and other investments. Therefore, the equity is on the liability side of the statement of financial position even though it is not technically a liability.

A bank's capital is adequate if it can cover the bank's operational expenses, satisfy customers with dual needs and protect depositors against total or partial loss of deposits in the event of liquidation or loss sustained by the bank, Onoh (2002). A Bank's capital is also considered to be adequate if the bank can meet up with the loan demands of depositors, operationally viable, the asset quality has a perfect score and ultimately outweighs the portion of its risk weighted assets. Capital adequacy is seen as an essential instrument in Business and its root is seen from the business of using other peoples' monies such as banking services. Sufficient capitalization can perfunctorily affect the amount of funds to be made available for credit which invariably have an effect on the level and rate of risk absorption (John & Oke, 2013). Capital adequacy is a situation whereby the adjusted capital of the bank can serve as a cushion against all losses and able to shield fixed assets of the bank leaving a comfortable surplus for the current operational activities and future advancements Ebhodaghe, (1991).

Chinonye *et al*. (2004) studied the effect of Capital adequacy on banks' performances. The study aimed at investigating the relationship between capital adequacy and banks' performances in the Nigerian banking industry in line with the new capitalization policy and a sample of 20 quoted banks were selected from the Nigerian stock exchange factbook 2004. The technique used was the Regression analysis. The findings revealed that capital adequacy and total assets in which a bank possesses is not a significant measure of performance for weak banks and strong banks in Nigeria. It revealed that the level of liquidity is a significant determinant of performance of weak banks. This relationship though positive has not been significant for strong banks. The study recommended that it is not enough for banks to have adequate capital, they must be ready to identify and assume risky activities commensurate with such capital, and this will help to enhance their performances. Banks should also monitor their management processes and internal control processes and not only focus on capital adequacy alone.

John and Oke (2013) studied capital adequacy standards, Basle accord and banks 'performances in Nigeria. The technique used was the ordinary least square. The objective of the study was to investigate the effect of the position of capital adequacy standards on the performances of banks. The scope of the study was 1989-2007. The sources of Data were from the CBN statistical bulletin, NDIC and the financial statements of some selected banks. It was found out that capital adequacy exerts a major influence on bank performances because it has a direct relationship with other key variables that affects performances although not all were statistically significant. It was recommended that the CBN should not only lay emphasis on bank's capitalization as a major determinant of bank performances but should rather concentrate on efficient and effective bank management supervision and evolve strategies for effective examination and control of the banks.

Ikpefan (2013) examined capital adequacy, management and performance in the Nigerian commercial bank. The objective of the study was to examine the relationship between the capital adequacy ratios and the return on asset used as independent variable and to investigate the extent to which operational expenses have impact on Return on capital. The efficiency of management measured by operating expenses indices had a negative impact on Return on capital. The finding of the study revealed that the capital adequacy ratio which is the shareholders fund to total assets has a negative relationship on Return on assets. The scope of the study was 1986 to 2006. The technique used was the OLS Regression model. The macro economic variables which were also used had a negative association with Return on Capital. Among his recommendations, he recommended that regulatory authorities should put in place, measures to raise the level of this ratio to avoid future bank collapse. The bank management should also lobby government to provide a conducive environment for banks to strive, as this shall help minimize the operational expenses of banks. Micro economic policies including exchange rate, inflation and interest rate should also be put in place.

Ndifon (2014) examined the impact of capital adequacy on deposit money banks' profitability in Nigeria using some selected Nigerian banks within the period (1981-2011). The technique used was the Engle and Granger two steps procedure in co-integration. The result of this findings showed that banks capital adequacy has a significant and positive impact on banks profitability in Nigeria. The study recommended that there should be a review of minimum capital requirement of deposit money banks in Nigeria at the optimal level and more also, Nigerian banks should be well capitalized to enable them enjoy access to cheaper sources of funds with subsequent improvements in profit levels. Thogh et al., (2015) examined the impact of minimum capital requirements on the performances of commercial banks in Zimbabwe. The study used triangulation of qualitative and quantitative research design where both primary and

secondary data were used. The population under study was drawn from the entire commercial banking sector in Zimbabwe. The study also was based on the research question whether the minimum requirement increases the competitive ability of banks in Zimbabwe. The findings showed a positive relationship between the minimum capital and competition because an adequately capitalized bank shall have the ability to offer more products than its peers and this will result in a larger market share. The researchers recommended that the Central Bank should focus more and more on the supervision of banks. They also recommended that other studies should be carried out on the analysis of the effectiveness of using CAMEL rating as a supervisory tool for banks.

David and Joy (2016) studied capital adequacy and financial performance of Banks in Nigeria. The technique used was the feasible generalized least Square. The theory used was the commercial loan theory which states that bank funds should be invested in short term loans otherwise known as self-liquidating loans in order to boost working capital. 8 banks were selected to be worked upon. The source of data was from the twelve-monthly reports and financial statements of the selected banks and the CBN statistical bulletin. The scope of their study was from 2007-2015. They found out that the coefficient of Asset quality had a negative impact on the deeds of the Nigerian banks. They also found out that the variation due to management efficiency and inflation do not account positively for bank performances in Nigeria. Furthermore, the empirical evidence supported the overriding effect of capital adequacy ratio and liquidity in enhancing the deeds of Nigerian banks. But the impact of estimated capital adequacy ratio was below 30%. It was recommended that the regulatory authority should regularly re-assess the least capital that is required of banks in order to enhance their financial deeds in the country.

Torbira and Zaagha (2016) examined capital adequacy measures and bank financial performances in Nigeria. The study tends to determine whether it could be said with consistency that getting enough capital can impact positively and significantly on the financial performance of banks in Nigeria. The method used was the augmented Dickson fuller unit root test. The Johnson co integration test was also employed which revealed the existence of the significant long run relationship between bank performance variables and capital adequacy indicators in the Nigerian banking industry. The granger causality tests also revealed that there was a unidirectional causality flowing from the ratio of shareholders' funds to bank assets, causality also trickled from the ratio of shareholders fund to return on assets in the Nigerian banks. The theory used was the earning theory of capitalization, Dynamic theory of profits and wages theory of profit. The study sampled 19 commercial banks whose stocks were quoted on the floor of the Nigerian stock exchange. The study period was 2008-2012. The findings from this study

indicates that capital adequacy strongly have an impact on the financial performances of Banks in Nigeria. It was however recommended that bank managers should improve on the management of the objective of the firm. Adequate short-term investment should also be introduced into the bank investment portfolios to improve the financial performance in the short run.

Odunayo and Joseph (2016) studied the empirical analysis of capital adequacy determinants in the Nigerian banking sector. The study examined the determinants of capital adequacy in the Nigeria quoted deposit banks for the years (2005-2014). The technique used was the descriptive analysis and fixed panel regression to examine both the cross-sectional and periodic impact of bank's capital adequacy determinants in the Nigerian context. The theories used were the capital structure theory and the trade-off theory. They sourced data from the annual reports and accounts of these banks while the macro economic data were sourced from the CBN statistical Bulletin. Based on their findings, capital adequacy of deposit money banks is significantly determined by the return on assets, quantity of deposits, liquidity and credit risks. The credit risk introduced had a negative and significant impact on bank's capital adequacy. The study recommended that loan terms and repayment should be strictly monitored and scrutinized by the manager in charge of loans, the value of the collateral should be checked so as the credit worthiness of the borrowers. Also, all affected banks must gear up and invest more in those significant factors that can lead to improvements in the capital adequacy.

METHODOLOGY

This study adopted the model used in the study of Umoru and Osemwegie (2016). Thus, we estimated a multi-regression model stated as follows;

ROA $= f(CAR, DEP, INF, GDP, LIQ) \ldots\ldots\ldots\ldots\ldots\ldots (1)$

The general form will be:

$$Y_{it} = \beta_o + \sum \beta_i X_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots (2)$$

Explicitly,

$$ROA_{it} = \beta_o + \beta_1 CAR_{it} + \beta_2 DEP_{it} + \beta_3 INF_t + \beta_4 GDP_t + \beta_5 LIQ_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots (3)$$

Where;

ROA = Return on Assets, CAR = Capital Adequacy Ratio,

DEP = Bank Deposits, INF = Inflation Rate,

GDP = Gross Domestic Product, LIQ= Liquidity,

ε = Error Term Apriori Expectation - $\beta_1, \beta_2, \beta_4 > 0$ but $\beta_3, \beta_5 < 0$

The study utilized secondary data from selected banks. From the banking sector in Nigeria, ten (10) quoted banks on the Nigerian stock exchange and having elements of systematically important banks as given by the Central Bank of Nigeria, were selected. These banks were randomly selected from the pool of banks (cluster) that we have in Nigeria. Data on return on assets, capital adequacy, deposits, inflation, economic growth and liquidity of which were sourced from the annual reports and statement of accounts of these banks while the macro-economic data were sourced from the Central Bank of Nigeria Statistical Bulletin and National Bureau of statistics publication.

ANALYSIS AND RESULTS

Descriptive Analysis

A descriptive analysis of the data was done, and the result is presented on Table 1. This included some statistical computations on the data's characteristics.

Table 1: Descriptive Analysis of the Data

	ROA	CAR	LDEP	LRGDP	INF	LIQ
Mean	1.427991	25.45335	27.08625	10.73868	9.866327	59.90408
Median	1.800000	25.59927	27.20151	11.05058	9.000000	57.50000
Maximum	8.000000	27.02762	28.57521	11.45259	13.70000	97.80000
Minimum	-23.40000	20.96881	24.97599	9.829011	5.400000	14.20000
Std. Dev.	3.108645	1.061434	0.904474	0.622326	2.372173	17.17062
Skewness	-5.271274	-1.069278	-0.400751	-0.336567	-0.185937	0.167946
Kurtosis	43.09780	4.967817	2.329593	1.370675	2.237945	2.583075
Jarque-Bera	7019.163	34.48670	4.458399	12.69022	2.935990	1.170485
Probability	0.000000	0.000000	0.107615	0.001755	0.230387	0.556971
Sum	139.9431	2494.428	2654.453	1052.391	966.9000	5870.600
Sum Sq. Dev.	937.3762	109.2843	79.35308	37.56708	545.8389	28598.54
Observations	98	98	98	98	98	98

From the above, it can be clearly shown that, pushing LIQ, DEP and INF aside, the hypothesis of a normal distribution is rejected, and the series cannot be conclusively driven at to a state of normality. This is given the result from the Jarque-Bera computation, which showed that the probability value is lower than 5%. The LIQ, DEP and INF having been pushed aside, indicated that their Jarque-Bera probability values are greater than 5% and thus, by implication, this suggests that the hypothesis of normal distribution cannot be rejected thereby showing that the evidence of a normal distribution is ascertained. We also did a graphical representation of the

data for each variable and these are shown below. The result from these graphs showed fluctuating levels of variations.

Figure 1: Trends in Return on Asset (ROA) of the Sampled Banks

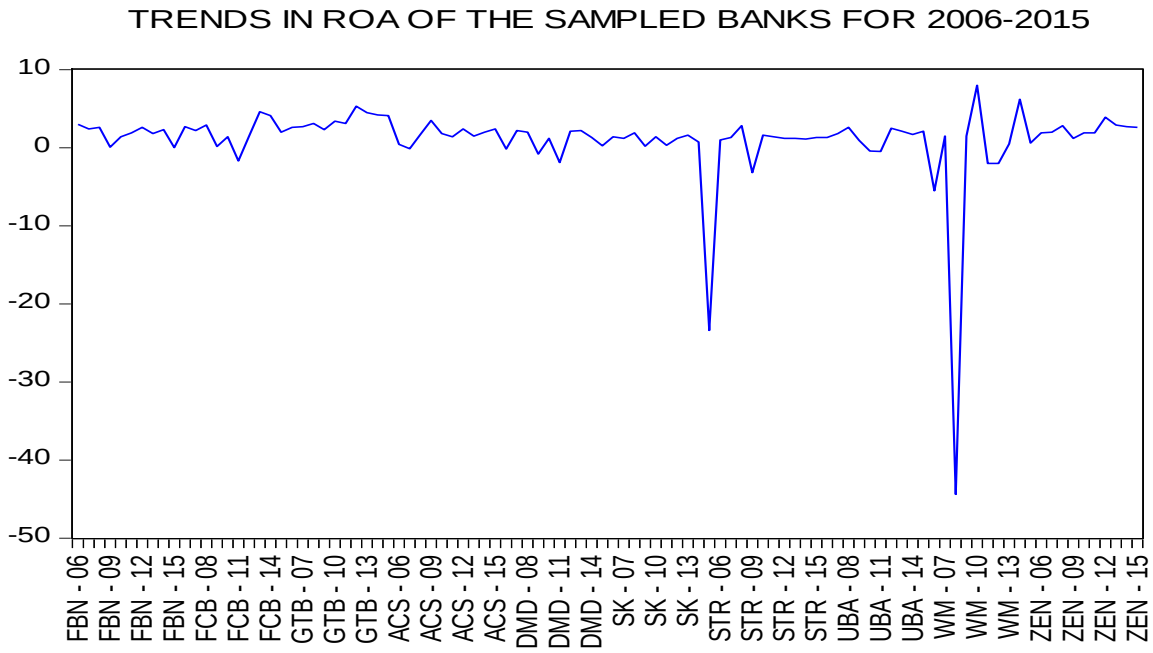


Figure 2: Trends in Capital Adequacy Ratio of the Sampled Banks

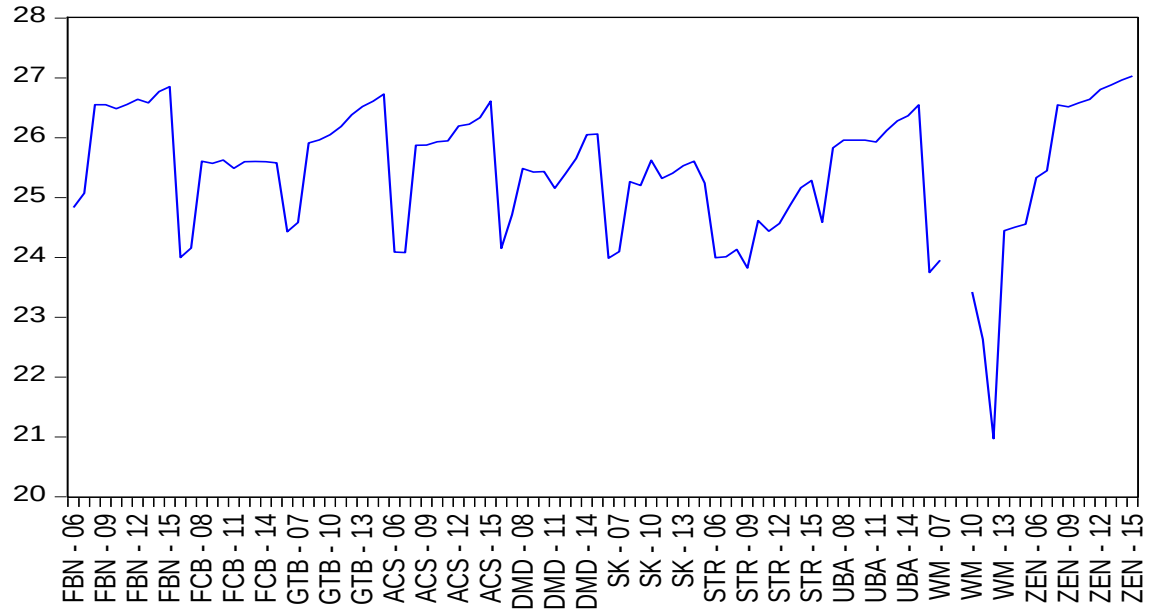


Figure 3: Trends in Bank Deposits of the Sampled Banks

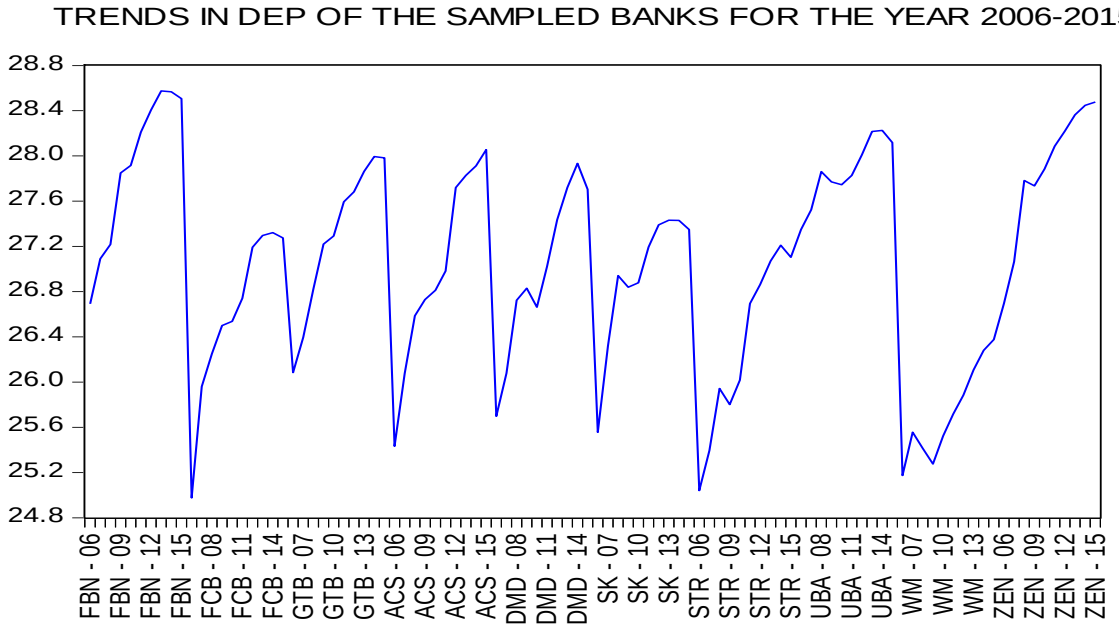
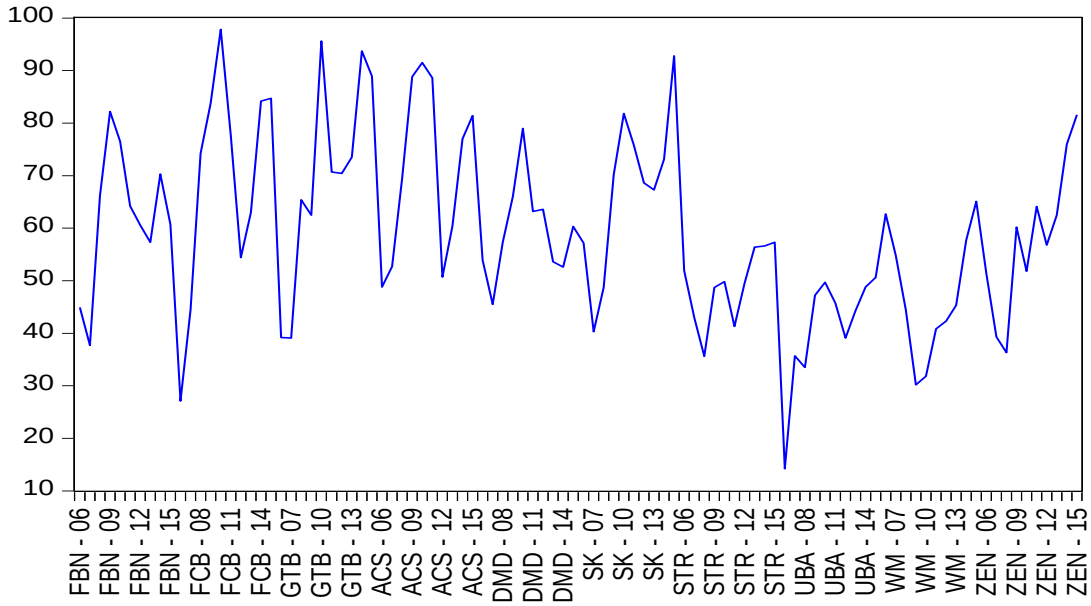


Figure 4: Trends in Liquidity of the Sampled Banks



Unit Root Test and Pooled Panel Least Squares Estimation

Furthermore, the study did a unit test analysis as well as a Pooled Panel Least Squares estimation. The results are contained in tables 2 and 3.

Table 2 Unit Root Test (Levin, Lin and Chu)

VARIABLES	LEVEL			FIRST DIFFERENCE			
	MODEL A	MODEL B	MODEL C	MODEL A	MODEL B	MODEL C	I(d)
ROA	-2.098**	-6.853***	-6.071***	----	----	----	I(0)
LDEP	7.580	-9.518***	-7.575***	----	----	----	I(0)
CAR	4.762	-12.224***	-53.139***	-----	----	----	I(0)
LRGDP	7.161	-1.661**	-0.515	----	-----	----	I(0)
INF	-1.061	-2.850***	0.784	----	----	----	I(0)
LIQ	1.525	-6.628***	-7.828***	----	----	----	I(0)

NB: asterisks ***, **, * represent 1%, 5%, and 10% levels of significance respectively

The unit root result presented in table 2 above reveals that all the variables are significant at levels indicating the existence of a long run relationship. We therefore move on to test their long run relationship using the pooled panel least squares estimation.

Table 3 Long Run Regression

Dependent Variable: ROA

Method: Pooled Panel Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAR	2.641357	0.721356	3.661653	0.0004
LDEP	-2.297651	0.901142	-2.549709	0.0124
LRGDP	1.039578	0.713490	1.457033	0.1485
INF	0.042230	0.130728	0.323039	0.7474
LIQ	-0.079741	0.023453	-3.400020	0.0010
C	-10.37221	9.004735	-1.151862	0.2524

R-squared	0.166753	**Mean dependent var**	1.427991
Adjusted R-squared	0.121468	**S.D. dependent var**	3.108645
S.E. of regression	2.913734	**Akaike info criterion**	5.036018
Sum squared resid	781.0656	**Schwarz criterion**	5.194281
Log likelihood	-240.7649	**Hannan-Quinn criter.**	5.100032
F-statistic	3.682298	**Durbin-Watson stat**	1.276352
Prob(F-statistic)	0.004404		

The result above reveals that of the three core explanatory variables, only the capital adequacy ratio is positively related to return on asset. Liquidity and deposit are both negatively signed. The control variables, inflation and Gross Domestic product both have insignificant effects. Coefficient of determination (R^2) of 0.17 and adjusted (R^2) of 0.12 shows that the regression has a low explanatory power. However, the values indicated that over 17% of the variations in the dependent variable (Return on Assets) is attributable to the explanatory variables (CAR, DEP, RGDP, INF and LIQ) leaving the remaining percentage to be explained by external factors not included in the model. The unexplained variations may include management efficiency, asset quality, and unemployment rate amongst others (which may be areas for further research). Although, the R^2 appears very low, judgment can be significantly based on the F-statistics. This inevitably implies that the result from the model can be relied upon in making useful deductions especially with reference to the Return on Assets and that there is no form of non-credence in terms of the model specification. Additionally, it can be well said that the individual or over-all significance of the variable can be effectively relied upon owing to the heterogeneity of cross sections in the panel data. If the data is more time-dominant, the R^2 shall be higher compared to the case of the panel data which is more cross-sectional dominant. Thus, R^2 is not very informative in terms of panel data analysis. The result of the F-distribution test which is a determinant of the goodness of fit of a model at 1% level of significance revealed that the estimated pooled model could actually stand the test of time in explaining the variations in return on assets by the explanatory variables while the Durbin-Watson statistics result shall be relied upon via the Breuch Godfrey test, which was also done. The results are presented in Table 4 and table 5 below.

The Breuch Godfrey Test

This test was carried out to account for the presence or absence of serial or autocorrelation

Table 4 Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.877374	Prob. F (2,90)	0.4194
Obs*R-squared	1.874184	Prob. Chi-Square (2)	0.3918

The F-statistic and its corresponding probability value is greater than 5% and thus, the null hypothesis cannot be rejected indicating that the variance-covariance estimates are consistent and consequently the residual variances are serially independent. Ultimately, it can be reliably said that there exists no autocorrelation.

Table 5: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.049174	Prob. F (5,92)	0.0790
Obs*R-squared	9.820399	Prob. Chi-Square (5)	0.0805
Scaled explained SS	154.2169	Prob. Chi-Square (5)	0.0000

From the table, the F-statistics and its corresponding probability value is greater than 5%. Hence, the null hypothesis shall not be rejected, and we can comfortably imply that the data are homoscedastic in nature.

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Our findings conflict with some of the previous works on capital adequacy and bank performance in Nigeria. For instance, while Ikpefan (2013)'s findings revealed that capital adequacy had a negative and significant relationship with return on asset, our findings show that capital adequacy had a positive and significant effect on the banks performance. Three factors could be responsible for the varied result; first, his study period 1986-2006 covers about three reform periods in the Nigerian banking sector which has resulted in increases in capital requirements. The capital adequacy of past periods was statutorily perceived to be inadequate thus the need for increase. Second, the samples of banks were randomly selected. Also, the findings of Chinonye et al. (2004) reveals that is it important to separate weak banks from strong banks as their capital adequacy could have different effects on their performance. Third, the estimation technique used; OLS may not be adequate to capture the periodic and intermediate characteristics of the variables along the long run horizon. Finding from our study also bears some similarity with those of Chinonye et al. (2004) except that the criteria for the selection of the strong banks are not explained. They also made use of quoted banks, and had their samples categorized. Their findings which reveals that capital adequacy and total assets is not a significant determinant of performance for both weak and strong banks in Nigeria may have also captured the 'previous effects' of capital adequacy considering that their study was carried in the year a major capital reform took place in the banking sector. A more recent study Ndifon (2014) agrees that capital adequacy has a positive and significant relationship with bank profitability in Nigeria. Like the studies mentioned above, he also used a study period; 1981-2011 that covers multiple reform periods. However, the use of the Engle and Granger co-integration which must have been preceded by a unit root test enabled him to account for the short run and long run periods thereby deriving the appropriate effects for the variables for the respective periods.

Our findings showed that liquidity has a negative and significant relationship with the performance of the banks the panel of banks used. This contrasts with the findings of Chinonye et al. (2004) which shows that liquidity has a positive but not significant relationship with the performance of strong banks. Liquidity and profitability are natural trade-offs variables in a company's finance. Therefore, our result conforms to the trade-off principle that describes the liquidity and profitability relationship. Deposit has a negative and relationship with bank performance even though it is expected to be positive. As stated earlier, our panel of bank maintains over 70 percent of the total deposit in the banking sector. In the year CBN introduced charges for keeping excess deposits for banks the reason many of these banks had to fast-track their cashless technology system. The cashless system didn't take effect until the year 2009 even after which the banks were still incurring heavy cost on cash lodgment with CBN.

In conclusion, banks will always need good capital coupled with other managerial factors to survive. The ten banks classified as systemically important essentially fit to fall under that category. With parameters that almost matches all the expectations, the conditions of these banks can actually predict the wellness or not of the entire financial system. We therefore recommend CBN pay attention to the cost incurred by banks on deposits maintained with them as this may have significant implications on the banks' capital and performance in general.

SCOPE FOR FURTHER STUDIES

Access to credit from banks is a major role the banks play in an economy and this tend to have a huge effect on banks' capital and performance. This implies that the ways banks handle their credit risk management is vital to their capital and survival. Furthermore, BASEL II, which is an international business standard that requires financial institutions to maintain enough cash reserves to cover risks incurred by operations, accentuated on the importance of credit risk management in the financial sector of any economy. The Basel accords which was put together by the Basel Committee on Banking Supervision (BSBS) has emphasized the role of credit risk management as it affects capital adequacy and bank performance. Thus, an area for further studies will be to investigate the implications that the Basel II requirement will have on capital adequacy and banks performance in Nigeria. It will also be important if further studies can be carried out on the effectiveness the Central bank supervision on banks' operations.

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