Research Journal of Finance and Accounting
ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online)
Vol.4, No.17, 2013

Capital Adequacy Ratio and Banking Risks in the Nigeria Money Deposit Banks

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Abstract
Capital adequacy ratio is an important measure of "safety and soundness" for banks and depository institutions because it serves as a buffer or cushion for absorbing losses. Thus, it has become one of the major benchmarks for financial institutions. This study is an attempt to empirically examine the relationship between capital adequacy and banking risks. Three independent variables were used. These variables are risk-weighted asset ratio, deposit ratio and inflation rate. Twelve banks were sampled from the population of twenty-two banks in the Nigerian banking industry as at December, 2013. Secondary data were collected from the financial statements of the banks for a period of five years, from 2007 to 2011. Value at risk theory was adopted to estimate capital adequacy ratio of the banks. The hypothesis was tested using the results of the multiple regression analysis carried out. The model is fitted as there is absence of serial correlation and multicollinearity based on the Durbin Watson result of approximately 2, tolerance values of less than 1 and VIF values of less than 10 for the coefficients of the model. Changes in capital adequacy ratio are explained by changes in the independent variables, up to 35%. It was therefore, observed that there is a significant negative relationship between risk and capital adequacy ratio of banks, which means when risk level rises, capital adequacy ratio falls in the Nigerian banking industry. In line with these findings, the study recommends that Nigerian banks should adopt a risk-based approach in managing capital instead of the present practice of focusing on the paid-up capital and retained earnings as there is significant relationship between capital adequacy ratio and banking risks. Since the research has also provided evidence of negative relationship between deposits and capital adequacy ratio, we also recommend that Nigerian banks should adopt pragmatic approaches to guarantee the safety of depositors money since increase in deposits does not necessarily result to increase in capital adequacy ratio.
Keywords: Capital Adequacy, Banking Risks, Risk Weighted Assets and Deposit-Asset Ratio

INTRODUCTION

Capital adequacy ratio is one of the important concepts in banking which measures the amount of a bank's capital in relation to the amount of its risk weighted credit exposures. The Basel Capital Accord is an international standard for the calculation of capital adequacy ratios. The Accord recommends minimum capital adequacy ratios that banks should meet. Applying minimum capital adequacy ratios serves to promote the stability and efficiency of the financial system by reducing the likelihood of banks becoming insolvent. When a bank becomes insolvent, this may lead to loss of confidence in the financial system, causing financial problems for other banks and perhaps threatening the smooth functioning of financial markets. In the aftermath of the financial crisis, there have been efforts by regulatory authorities to make banks stronger. To accomplish this, governments across the developed world are compelling banks to raise fresh capital and strengthen their balance sheets, and if banks cannot raise more capital, they are told to shrink the amount of risk assets (loans) on their books. In 2010, the world's central bankers, represented collectively by the Bank of International Settlements (BIS) handed down Basel III-a global regulatory framework that, among other things, hikes capital requirements from 4% to at least 7% of a bank's risk-weighted assets (Hanke 2013).

In a bid to strengthen the banking sub-sector and deepen the financial sector as a whole, the Central Bank of Nigeria increased the minimum required capital base of Nigerian banks to twenty-five billion naira, beginning from 2005. Prior to this period, the banking sub-sector was characterised by a large group of mainly anaemic eighty-nine banks. As a result, the banks were not fully discharging their function of financing the real sector of the economy which is the driver of economic growth and development. The real sector was starved of the requisite funding for its operation, as a result of inadequate capital in the banking sector. Capital adequacy as a concept has been in existence prior to the era of capital regulation in the banking sub-sector and there exist several literatures on the determination of capital adequacy ratio (CAR) as well as its determinants. The concept appeared in the middle of the 1970's because of the expansion of lending activities in banks without any parallel

increase in its capital, since capital ratio was measured by total capital divided by total assets (Al-Sabbagh 2004). This led to the evolution of international debt crisis and the failure of one of the biggest American banks, Franklin National Bank (Koehn & Santomero 1980). These events forced regulatory authorities to stress more control procedures and to improve new criteria and methods to avoid bank's insolvency (Al-Sabbagh 2004).

Capital adequacy generally affects all corporate entities. But as a term, it is most often used in discussing the position of firms in the financial sector of the economy, and in particular, whether firms have adequate capital to guard against the risks that they face. A balance needs to be struck between the often conflicting perspectives of the various stake-holders; lenders require capital to ensure that there is a cushion against possible losses at the borrowing firm, while shareholders often focus upon return on capital. For firms operating in the financial sector, the general public also has a stake in the firm as failure may have implications for the financial stability of the system as a whole (Dean and Douglas 1998).

The focus of financial stability is primarily upon banks because of the functions that they perform. Banks not only provide a significant proportion of the financing required by the economy, but they also act as a conduit for payments. Further, the financial sector is used by central banks as a mechanism for transmitting changes in monetary policy through to the real sector of the economy. The focus of financial stability is the financial system itself, rather than an individual institution, but the means by which financial stability is achieved is through the review of individual institutions (George, 1994).

Capital adequacy is intended to aid financial stability and, as a result, the role of an individual institution in the system is the overriding concern, rather than individual institutions *per se.* As the relationship between banking activities and other parts of the financial sector is increasing in breadth and depth, there is the possibility of financial stability being disrupted by non-banking activities. It is also the case that some sources of disruption could originate from international activities. These developments have encouraged greater discussion among supervisors of different financial sectors, both domestically and internationally since it increases the level of risks in the activities of banks.

There is therefore no gainsaying the fact that there are several researches that have provided evidences of relationship between risks and capital adequacy in other countries. However, there has been little research in this area in Nigeria. Therefore the problem here is to use the multiple regression model to determine whether there is significant linear relationship between capital adequacy ratio and risk indicators and other macro-economic variables in the Nigerian banking industry. And if there is, whether the degree of linearity is such that capital adequacy could be largely a matter of operational effectiveness and movements of macro-economic indicators, as opposed to the current flex of legal muscles by the regulatory authorities. Furthermore, it has been observed that there have not been significant researches on the relationship between capital adequacy and risk since the wake of the banking sector consolidation in Nigeria. Thus, this study is an attempt to fill the identified gaps. Against this backdrop, the objectives of the study are: to empirically investigate the relationship between risks and capital adequacy ratio; to analyse and examine the determinants of capital adequacy ratio; to examine the components of banks' qualifying capital and to establish a capital adequacy forecasting pattern which will be useful to both policy makers and the banking sector in general for formulating informed courses of action.

In line with the above, the following statements of hypotheses have been provided for this study:

H_{01}: There is no significant relationship between banking risks and capital adequacy ratio.

H_{02}: There is no significant relationship between deposit-asset ratio and capital adequacy.

H_{03}: There is no significant relationship between inflation rate in the economy and capital adequacy ratio.

The motivation for this study stems out from the fact that emphasis is laid more in Nigeria, on regulation of capital adequacy ratio rather than the extent to which capital adequacy ratio and banking risks are related as well as the determinants of capital adequacy ratio. This view is in agreement with Williams (2011), who was of the opinion that, "in spite of the importance of banks as financial intermediaries, capital adequacy modelling has not been in the mainstream of econometric research in the financial sector in Nigeria. Analyses of the banking sector have so far focused on qualitative assessment of growth trends and sectoral behaviour patterns in the industry. Discussion in those studies has, for instance, suggested a number of factors that may influence the failure pattern of banks, bank products and management. There has been no model designed to determine the relative impact of banks capital and macroeconomic variables and their possible linkages between the banking sector and the real sector of the economy. Since independence, no consensus has been reached by different Scholars as regards the determinants of capital adequacy with macroeconomics variables in Nigeria". A good understanding of the relationship between the variables will aid good policy formulation as well as capital regulation in the financial sector of the economy. Thus, this study will be of great importance to the Central Bank of Nigeria (CBN) in its policy formulation on minimum capital requirement for Money Deposit Banks (MDBs); the Nigerian Deposit Insurance Corporation (NDIC) in safeguarding the interest of depositors; commercial banks in capital planning and maintenance; other researchers, academicians, financial analysts, economists as well as accountants in

practice.

REVIEW OF RELATED LITERATURE

Capital adequacy ratio for banking organizations is an important issue that has received a considerable attention in finance literature. According to Al-Sabbagh (2004), capital adequacy is defined as a measure of bank's risk exposure. Banks risk is classified into credit risk, market risk, interest rate risk and exchange rate risk that are included in the calculation of capital adequacy ratio. Therefore regulatory authorities used capital adequacy ratio as an important measure of "safety and soundness" for banks and depository institutions because they view capital as a buffer or cushion for absorbing losses (Abdel-Karim 1964).

Capital Adequacy Ratio (CAR) and Banking Risks (RWA)

It has become impossible to discuss the concept of capital adequacy ratio in the banking industry without referring to value at risk (VaR). The 'capital adequacy' principle states that bank's capital should match risks. Since capital is the most scarce and costly resource, the focus of risk monitoring and risk measurement follows. The central role of risk-based capital in regulations is a major incentive to the development of new tools and management techniques. Undoubtedly a most important innovation of recent years in terms of the modelling 'toolbox' is the VaR concept for assessing capital requirements. The VaR concept is a foundation of risk-based capital or, equivalently, 'economic capital' (Bessis 2002). The VaR methodology aims at valuing potential losses resulting from current risks and relies on simple facts and principles. VaR recognizes that the loss over a portfolio of transactions could extend to the entire portfolio, but this is an event that has a zero probability given the effective portfolio diversification of banks. Therefore, measuring potential losses requires some rule for defining their magnitude for a diversified portfolio. VaR is the upper bound of losses that should not be exceeded in more than a small fraction of all future outcomes. Management and regulators define benchmarks for this small preset fraction, called the 'confidence level', measuring the appetite for risk of banks. Economic capital is VaRbased and crystallizes the quantified present value of potential future losses for making sure that banks have enough capital to sustain worst-case losses. Such risk valuation potentially extends to all main risks.

Koehn and Santomero (1980) examined a portfolio reaction to capital requirements by investigating the effect of capital ratio regulation on portfolio behavior of commercial banks. They examined the effects on bank portfolio risk of regulatory increases in a minimum capital asset ratio that is acceptable to the supervisory agency. They assumed that the central purpose of bank regulation is to reduce the riskiness of banks' portfolio so as to reduce the probability of failure and to increase stability and viability. They found that an increase in variance of returns increases the probability of failure, while an increase in returns or capital ratio decreases failure risk. Their findings are consistent with Madura and Zarruk (1993).

Capital Adequacy Ratio and Deposit-Asset Ratio

Yu Min-Teh (1996) defined adequate capital for banks as the level at which the deposit insuring agency would just breakeven in guaranteeing the deposits of individual banks with the premium the bank pays. An option theoretical framework was employed in his study for measuring fair capital adequacy holdings for a sample of depository institutions in Taiwan, during 1985-1992. Sharpe (1977) defined capital as a difference between assets and deposits, so the larger the ratio of capital to assets (or the ratio of capital to deposit) the safer the deposits. As capital was adequate, deposits were "safe enough". His idea was that if the value of an institution's assets may decline in the future, its' deposits will generally be safer, the larger the current value of assets in relation to the value of deposits.

Dowd (1999) found in his study that the imposition by regulators of minimum capital standards on financial institutions can be seen as a means of strengthening the safety of deposits and soundness of the banking system. He also suggested that an information asymmetry between bank managers and depositors could produce market failure that provides a rationale for government intervention in the financial system. This intervention would take the form of capital adequacy regulation to force banks to maintain a stronger capital position. Also, Harold (1999) found the same result as Dowd, in that many regulators and consumers were concerned about the safety of deposit insurance system. His study applied existing bank risk-based capital requirements to current credit union data to measure credit union's risk-based capital strength.

Furthermore, users of the products of financial sector of the economy benefit from the competition within this sector, and in response banks, and other firms, seek to optimize their business mix. In order to allow competition within the financial sector those agents responsible for monitoring capital adequacy need to give firms the freedom to take risks. On occasions, this means that firms in the financial sector will fail. If this never happened either the costs to the users of banking services would be prohibitive (and/or the range of services themselves extremely limited) or the lender of last resort would effectively be taking all of the risks, but have no influence over which risks it acquired. Permitting banks to fail indicates a possible conflict between capital adequacy, deposit protection (Stone and Zissu 1994), and the perspective of other stakeholders such as shareholders. Deposit protection schemes are operational in many countries, but most do not protect the full value of every

depositor's claim. The intention is usually to ensure that depositors bear some responsibility for their actions when a bank is liquidated. If the deposits were entirely risk free then a significant group of stakeholders would have no interest in the risks being taken and banks might be tempted into acquiring inappropriate types and levels of risk.

Capital Adequacy Ratio and Inflation Rate

According to Adegbite (2010), macroeconomic stability as an ingredient of financial stability requires that macroeconomic policies must be antitypical, dousing excessive trend in any direction, maintaining stable prices, ensuring that public sector deficits are minimal and external debt is sustainable. A stable macroeconomic framework is one where the level of national saving is high enough to prevent undue reliance on foreign borrowing. For macroeconomic stability needed to maintain financial stability, macroeconomic policy instruments must be adequate and consistent with the exchange rate regime if not inflation will erode banks capital. The framework for maintaining financial stability requires that if the financial institutions are stable and macroeconomic is stable then nature of regulatory and supervisory policies should be preventive. If however the institutions are at the brink or border of stability and many any moment plunges into instability, then the nature of regulatory/supervisory policies should be remedial. If however the institutions have become unstable already then the policies should be Resolution policies.

Theoretical Framework

The theoretical framework for the study is the Value at Risk (VaR) theory in line with Bessis (2002). The VaR concept is a foundation of risk-based capital or, equivalently, 'economic capital'. The VaR methodology aims at valuing potential losses resulting from current risks and relies on simple facts and principles. VaR recognizes that the loss over a portfolio of transactions could extend to the entire portfolio, but this is an event that has a zero probability given the effective portfolio diversification of banks.

METHODOLOGY

Correlational and descriptive research designs were employed in the study using panel data for a period of five years i.e. 2007-2011. The justification for adopting correlational design is based on the purpose of the study which is to study the relationship between banking risks and capital adequacy ratio. This design is consistent with that adopted in similar studies conducted by Williams (2011), Al-Sabbagh (2004), Bokhari & Ali (2006) and Romdhane (2012). Descriptive design was also adopted with a view to clearly describing the historical trends and matrices of the dependent and independent variables.

The population of this study is all the commercial banks who have operated in the Nigerian banking industry between 2007 and 2011. The population therefore, is the twenty-two banks in the industry that have carried out operations and published annual accounts during this period. However, ten banks were filtered out, and a sample of twelve banks were selected on the basis of availability of data, compliance with the disclosure guidelines of the Central Bank of Nigeria, ownership structure and distress experience since 2007.

The data for this study were gleaned purely from published financial statements of the sampled banks, thus making the data source completely secondary in nature. The financial statements were obtained via the internet. The tool of analysis for the study is the multiple regression model. The three hypotheses of the study are tested using the result of the multiple regression analysis.

Variables Measurement

Ratios and percentages have been used to measure the proxies used for the variables of the study. Below are the details of the measurement indices for the variables used in the study.

Capital Adequacy Ratio (CAR)

Capital adequacy ratio is measured by the ratio of total capital to total risk-weighted assets of a bank. As stated in the introductory section, the higher the capital adequacy ratio, the higher the level of soundness of bank. A high capital adequacy ratio means a bank could absorb losses without becoming insolvent (Mpuga 2002).

Mathematically, the capital adequacy ratio is expressed as:

$$CAR = \frac{\text{Total Qualifying Capital}}{\text{Total Risk-weighted Asset}}$$

This measurement criterion was provided by the Central Bank of Nigeria in 2009. According to the circular, total capital is classified into 1st Tier Capital and 2nd Tier Capital. 1st Tie Capital comprises ordinary share capital, statutory reserves, share premium, general reserves, reserves for SSI, other reserves, retained profit and loss and interim (half year) audited profit approved by the Central Bank of Nigeria. 2nd Tier Capital consists of fixed assets revaluation reserves, Forex revaluation reserves, general provisions, non-controlling interest and hybrid capital instruments. Risk-weighted assets in the denominator of the capital adequacy ratio represent the assets in the bank's balance sheet weighted by their risk.

Measurement of Independent Variables

Table 3.1: Measurement of Independent Variables

S/N	Variables	Measurements
1	RWA_{it}	Ratio of Risk-weighted Asset to total asset of bank i at time t.
2	DAR_{it}	Ratio of total deposits to total assets of bank i at time t.
3	INF	Annual inflation rate as reported by the Central Bank of Nigeria for the five years.

Source; researchers' model

The model of the study which will be used in testing the hypotheses is presented below:

CAR = F(RWA, DAR, INF)

Transforming the above function to linear equation gives:

$CARit = \alpha 0 + \beta 1\ RWAit + \beta 2\ DARit + \beta 3\ INFit + Eit$

Where:

CAR = Capital Adequacy Ratio and is measured in line with Maisel (1980) and Al-Sabbagh (2004);

RWA = Risk-weighted assets ratio which is measured in line Al-Sabbagh (2004);

DAR = Deposit to asset ratio and

INF = Inflation rate

RESULTS AND DISCUSSIONS

The results of the data analysis carried out for this study are presented in this section alongside their interpretations. The findings are also critically discussed to serve as the basis for the conclusion reached as well as the recommendations made in the study. The results are presented in three tables. The first table shows the summary statistics for the dependent and independent variables in terms of the mean, standard deviation values; the second table presents the results of the correlation coefficient while the third table presents the results of the summary of coefficients, t-statistics and their significances and cumulative results including R, R^2, R^2 change and Durbin Wartson.

Table 4.1: Descriptive Statistics of Dependent and Independent Variables

Variables	Mean	Standard Deviation
CAR	0.27	0.104
RWA	0.66	0.157
DAR	0.67	0.121
INF	0.11	0.031

Source: Result of Descriptive Statistics using SPSS 17.

From table 4.1, capital adequacy ratio for the sampled banks averaged 27% during the period of the study. This figure is high compared with the regulators requirement of 17.4% in 2011. This therefore means that the Nigerian banking industry remained strong despite the challenges that bedevilled the sub-sector as a result of the global economic meltdown. However, the standard deviation of capital adequacy ratio is 10.4% which shows high disparity between the capital adequacy ratios of the various banks. RWA which is the ratio of risk weighted assets to total assets had a mean value of 66% and a standard deviation of 15.7%. It therefore means that substantial proportion of the total assets of Nigerian banks is risky assets. This is because of the trade-off between risk and return and banks will always combine their asset portfolios in sufficient proportion that will guarantee reasonable return at any level of risk.

The deposit to asset ratio on the other hand is 67% with an average dispersion of 12.1% represented by the standard deviation. This means that depositors money are secured as only an average of 67% percent of banks total asset will be required to pay back depositors in the event of liquidation. This position is further supported by the low standard deviation of DAR during the period of the study. Inflation rate which measures the variability of the price level in the economy and the market risk averaged 11% with a standard deviation of 3.1%. The level of dispersion from the watershed is low as shown by the standard deviation. The average rate of inflation is one of the important determinants of capital adequacy as shown by the study carried out by Williams (2011).

Table 4.2: Correlation Matrix of the Dependent and Independent Variables

Variables	CAR	RWA	DAR	INF
CAR	1.00			
RWA	-0.355	1.00		
DAR	-0.412	0.054	1.00	
INF	0.146	0.359	-0.053	1.00

Source: Pearson Product Moment Correlation Result Using SPSS 17.

Table 4.2 above shows the correlation coefficients between the dependent and independent variables and between the independent variables themselves. The correlation matrix is used to determine the relationship between the dependent and independent variables of the study (Chandrasekharan 2009). The Pearson's correlation matrix was utilized to determine the strength and direction of the relationship between the different variables being investigated. The correlation coefficients between the independent variables can be used to determine the extent of multicollinearity between the independent variables in addition to the results of the VIF and tolerance values.

From the correlation matrix table above, it can be seen that there is a negative relationship between RWA, DAR and CAR. The table shows correlation coefficients of -0.355 and -0.412 for CAR and RWA, as well as CAR and DAR respectively. This finding is in line with Al-Sabbagh (2004) whose study produced a similar result. Negative correlation between CAR and DAR means that capital adequacy ratio of banks reduces with increase in deposits by customers. Furthermore, there is a positive correlation between inflation rate and CAR of 0.146 as shown by the table. However, our result shows that this relationship is not significant.

The coefficient of correlation for the independent variables also reveals absence of multicolinearity between the independent variables of the study. Results of the descriptive statistics and correlation coefficients do not on their own give sufficient evidence on the extent of relationship between the dependent and independent variables of the study. The next table shows the coefficients of the models, the model summary and the degree of significance of the coefficients.

Table 4.4: Regression Results

Variables	Coefficients	t-Statistics	Significance	Tolerance	VIF
Constant	0.568	6.988	0.000		
RWA	-0.288	-3.769	0.000	0.866	1.155
DAR	-0.320	-3.449	0.001	0.866	1.155
INF	0.952	2.448	0.018	0.991	1.009
R	0.592				
R-Square	0.350				
Adjusted R-Square	0.315				
F Statistics		10.059	0.000		
Durbin Watson	1.969				

Source: Regression result Using SPSS 17

The model is therefore estimated as follows:

$CAR=0.568 - 0.288RWA_{it} - 0.320DAR_{it} + 0.952INF + \varepsilon_{,}$

The regression result shown in table 4.4 above reveals that while the coefficients of RWA and DAR, representing risk-weighted assets ratio and deposit-asset ratio are significant at 1%, the coefficient of INF, which represents inflation rate, is significant at 5%. This supports the correlation result in table 4.2 above where the correlation coefficient of INF and CAR is not significant.

Furthermore, the result reveals negative and significant relationship between risk-weighted assets ratio and capital adequacy with a coefficient of -0.288 for risk-weighted assets. This means that, for every 1% increase in risk-weighted assets ratio of a bank (holding other variables constant), capital adequacy ratio will decrease by 0.288%. This result provides the basis for us to fail to accept the first statement of hypothesis which states that there is no significant relationship between banking risks and capital adequacy. The result of this analysis supports the findings of Al-Sabbagh (2004) who hypothesised a significant negative relationship between capital adequacy ratio and risk-weighted assets. He further pointed out that most literatures argue that a bank should increase its capital adequacy ratio by shifting its portfolio into less risky assets as any increase in risky assets in a bank's asset portfolio will lead to a reduction in capital adequacy ratio. This result is also in line with the findings of Mpuga (2002).

The result also shows a negative relationship between capital adequacy ratio and deposit-asset ratio with a coefficient of -0.320 for DAR. This result is contrary to Al-Sabbagh (2004) and Mpuga (2002). As deposits increase, capital adequacy ratio reduces. This negative relationship means that deposits in banks are not necessarily guaranteed by increase in capital adequacy ratio. Based on this result, we also reject the second hypothesis since the results provide evidences of relationship between capital adequacy ratio and deposit-asset ratio. Similarly, there is a significant relationship between INF and CAR in that every 1% increase in inflation rate increases capital adequacy ratio by 0.952%. We therefore reject the third hypothesis. Although the result of the regression analysis is positive and significant, the correlation coefficient of INF and CAR is also positive but not significant.

The regression result also reveals an overall correlation coefficient of 0.592 which means that the variables are related. However, R^2, which measures the percentage of the change in the dependent variable that is explained by changes in the independent variables, is 35%. This therefore suggests that the model is fitted. The fitness of

the model is further supported by the F-statistics value of 10.059 with a significance of 0.000. The Durbin-Watson statistics which is approximately 2 indicates the absence of serial correlation within the period of the study.

CONCLUSION AND RECOMMENDATIONS

In conclusion, the study has provided both empirical and statistical evidence on the relationship between capital adequacy ratio and banking risks in the Nigerian banking industry using three independent variables. The findings of the study are supported by the findings of other researchers on the subject in other jurisdictions. The research therefore is a contribution to solving the dearth of studies on the subject in Nigeria.

In line with the findings, the study recommends that

- Nigerian banks should adopt a risk-based approach in managing capital instead of the present practice of focusing on the paid-up capital and retained earnings as there is significant relationship between capital adequacy ratio and banking risks.
- Since the research has also provided evidence of negative relationship between deposits and capital adequacy ratio, the study also recommends that Nigerian banks should adopt pragmatic approaches to guarantee the safety of depositors money since increase in deposits does not necessarily result to increase in capital adequacy ratio.
- Finally, the apex regulatory financial institution should be guided by the level of deposits in addition to other macro-economic indices in fixing the minimum required capital adequacy ratio for banks.

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APPENDIX

Appendix 1: SPSS Results

Descriptive Statistics

	Mean	Std. Deviation	N
Capital Adequacy Ratio	.27	.104	60
Risk-weighted Asset Ratio	.66	.157	60
Deposit to Asset Ratio	.67	.121	60
Inflation Rate	.11	.031	60

Correlations

		Capital Adequacy Ratio	Risk-weighted Asset Ratio	Deposit to Asset Ratio	Inflation Rate
Capital Adequacy Ratio	Pearson Correlation	1	-.355**	-.412**	.146
	Sig. (2-tailed)		.005	.001	.264
	N	60	60	60	60
Risk-weighted Asset Ratio	Pearson Correlation	-.355**	1	.054	.359**
	Sig. (2-tailed)	.005		.679	.005
	N	60	60	60	60
Deposit to Asset Ratio	Pearson Correlation	-.412**	.054	1	-.053
	Sig. (2-tailed)	.001	.679		.689
	N	60	60	60	60
Inflation Rate	Pearson Correlation	.146	.359**	-.053	1
	Sig. (2-tailed)	.264	.005	.689	
	N	60	60	60	60

**. Correlation is significant at the 0.01 level (2-tailed).

Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.592[a]	.350	.315	.086	.350	10.059	3	56	.000	1.969

a. Predictors: (Constant), Inflation Rate, Deposit to Asset Ratio, Risk-weighted Asset Ratio

b. Dependent Variable: Capital Adequacy Ratio

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.568	.081		6.988	.000
	Risk-weighted Asset Ratio	-.288	.076	-.436	-3.769	.000
	Deposit to Asset Ratio	-.320	.093	-.373	-3.449	.001
	Inflation Rate	.952	.389	.283	2.448	.018

a. Dependent Variable: Capital Adequacy Ratio

Appendix 2:
List of Selected Banks Used for the study
1. Diamond Bank Nigeria Plc
2. Guarantee Trust Bank Plc
3. Access Bank Plc
4. Zenith Bank Plc
5. United Bank for Africa Plc
6. First Bank Nigeria Plc
7. First City Monument Bank Plc
8. Skye Bank Plc
9. Stanbic IBTC
10. Sterling Bank Plc
11. ECO Bank Plc
12. Fidelity Bank Plc