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## **RISK ADJUSTED LEVERAGE CAPITAL AND THE PERFORMANCE OF NIGERIAN BANK ASSETS**

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### **ABSTRACT**

**Purpose:** This research work seeks to empirically study Risk adjusted leverage capital and the performance of Nigeria bank assets particularly studying three (3) banks recommended by Fitch rating and Bankers magazine as top most three using secondary data for the period 2005 to 2015.

**Methodology:** The Ordinary Least Squares Methodology and cointegration analysis and variables such as debt equity ratio (DER), Returns on assets (ROA), Capital adequacy ratio (CAPR), Returns on equity (ROE), Profit after tax (PAT) will be used

**Results:** The result of the analysis shows that of the three banks being analyzed based on the regression result obtained, measures the performance in the selected banks, having Returns on Equity (ROE) as its dependent variable and debt equity ratio (DER), capital adequacy ratio (CAPR), Returns on asset (ROA), profit after tax (PAT) as its explanatory variables is jointly statistically significant in all the banks. The result shows that financial leverage has a significant impact on performance of bank assets and the impact happens to be positive. Suffice it to say that, as the rate of financial leverage measured by debt equity ratio increases, bank performance measured by return on equity also increases and as risk adjusted capital measured by capital adequacy increases, bank asset performance also increases. This denotes a positive relationship on both variables on bank performance. Nigerian banks should identify a more prudent and sustaining means of improving return on equity. A very low return on equity of 4% as revealed by this study may not be accepted by existing shareholders' and may not attract a potential investor. This trend will have to be reversed if further investment in equity is to be attracted.

**Keywords:** *Return to Assets, Return on Equity, Debt equity ratio, Capital adequacy ratio*

## 1.0 INTRODUCTION

### 1.1 Background of the Study

Banks are germane to economic development through the financial services they provide. Their intermediation role can be said to be a catalyst for economic growth. The efficient and effective performance of the banking industry over time is an index of financial stability in any nation. The extent to which a bank extends credit to the public for productive activities accelerates the pace of a nation's economic growth and its long-term sustainability. The credit function of banks enhances the ability of investors to exploit desired profitable ventures. According to (Kargi, 2011) Credit creation is the main income generating activity of banks. However, it exposes the banks to credit risk. Credit risk is an internal determinant of bank performance. The higher the exposure of bank's credit risk, the higher the tendency of such banks to experience financial crisis and vice-versa.

The Nigerian banking industry has been strained by the deteriorating quality of its credit assets as a result of the significant dip in equity market indices, global oil prices and sudden depreciation of the naira against global currencies (BGL Banking Report, 2010). The poor quality of the banks' loan assets hindered banks to extend more credit to the domestic economy, thereby adversely affecting economic performance. This prompted the Federal Government of Nigeria through the instrumentality of an Act of the National Assembly to establish the Asset Management Corporation of Nigeria (AMCON) in July, 2010 to provide a lasting solution to the recurring problems of non-performing loans that bedeviled Nigerian banks.

A total of twenty commercial banks operate presently in Nigeria, out of which cluster sample of three was drawn. The banks in no particular order include First Bank Plc., United Bank for Africa Plc., Zenith bank plc. The basis for the selection rests on the fact that these banks have been rated as the topmost five Nigerian banks by Fitch rating and Bankers magazine as at January 2012 and they account for over fifty percent of deposit liabilities in the Nigerian banking sector.

But unarguably, financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counter parties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counter parties. This experience is common in both G-10 and non G-10 countries. Credit risk is one of great concern to most authorities and banking regulators. This is because credit risk is those risks that can easily and most likely prompts bank failure.

Many studies have been carried out on financial leverage and firms' performance; however, these studies have failed to reach an agreement that is applicable to firms in all circumstance (Al-Tally, 2013). Myers (2001) argued that that there is no complete theory of the debt-equity choice and no reason to expect one. Additionally, Brealey and Myers (1991) identified financial leverage as one of the ten unresolved problems in corporate finance.

Surveys of empirical studies revealed that consensus have not been reached on the relationship between financial leverage and financial performance. Many researchers found a significant negative relationship between leverage and firms' performance (Felix & Claudine, 2008); Al-tally, 2014; Arowoshegbe & Emeni, 2014; Chinaemerem & Anthony, 2012; Majumdar & Chhibber, 1999).

Despite the negative relationship revealed, many researchers also found a significant positive relationship between financial leverage and financial performance (Akhtar, Fosu, 2013; Parvesh & Afroze (2014); Rehman, 2013). It can be seen from the above reviews of empirical literature that results gotten from the investigations into the relationship between financial leverage and financial performance are inconclusive and requires more empirical studies.

Given these lapses facing severe liquidity problems and majorities are unable to meet the demands of their clients for loans and withdrawal of savings, despite their loyalty and getting anxious about the future of their investments. If this situation is not rectified, we may witness a collapse of the loan system.

The major problem areas facing financial institution include the following; Inadequate Legal and Regulatory frame work that is financial leverage have not been adequately covered in the financial service modernization act 1999, Low adoption of International Performance Standards, Lack of Disclosure requirement standards, Lack of a Development Strategy framework for financial institutions, Low adoption of Information and computer technologies, Poor Human Resource Management leading to high staff-turn over, Capital deficiency and wanting capital structuring models. The situation is made worse by unstable Macro-economic environment coupled with stringent requirement on capital adequacy and liquidity standards. (Ongore *et al.*, 2013) This study therefore, sought to find out the effect of financial leverage on financial performance of bank assets. An important financing decision that firms must take is to decide the proportion of debt and equity that will constitute their capital structure. Moreover, despite the widespread interest in the way firms make their financing decisions, most of the research on financial leverage has been conducted in the advanced countries' using non-financial quoted companies. It is against this background that this study wants to address the following questions: i). what is the impact of financial leverage on performance of bank assets in Nigeria? ii). what is the impact of risk adjusted capital on the performance of bank asset in Nigeria? iii) what is the relationship between financial leverage and risk adjusted capital on the performance of Nigeria banks assets? The main objective of this study is to examine the relationship between risk adjusted capital, financial leverage and performance of bank assets using three (3) banks (first bank, UBA, zenith bank) between the periods 2005 and 2015 using the ordinary least square (OLS) test. The specific objectives of the study are:

- i) To investigate the impact of financial leverage on performance of bank assets in Nigeria
- ii) To examine the impact of risk adjusted capital on the performance of bank assets in Nigeria
- iii) To determine the relationship between financial leverage and risk adjusted capital on the performance of Nigeria banks assets.

The hypotheses of the study are:

- (i) Financial leverage has no significant impact on performance of bank assets in Nigeria
- (ii) Risk adjusted capital has no significant impact on performance of bank assets in Nigeria (iii) There is no significant impact of financial leverage and risk adjusted capital on the performance of Nigeria banks assets

## 2.0 LITERATURE REVIEW

### 2.1 Theoretical Framework

**Trade off theory** argues for the existence of an optimal capital structure, by incorporating various imperfections to capital markets ignored by the Modigliani and Miller (1958) hypotheses, but retaining the assumptions of market efficiency and symmetric information. Thus, although increasing financial leverage might enable a firm to increase its value by profiting from tax shields on debt (Modigliani and Miller, 1963), higher financial leverage might lead to higher expected direct and indirect financial distress costs, which decrease the firm's value (Ross *et al.*, 2002). The theory recognizes that (tax benefit) debt interest is tax deductible. This reduces the tax liability thus increasing tax shield. A high proportion of debt in a company makes it very risky for investors to invest in it. This make to demand investors a high premium on stock or high dividend. The theory assumes that a firm has an optimum capital structure based on trade-off between costs and benefits of using debt. This theory does not explain the conservative nature of firms when using debt finance, why leverage is consistence in most countries yet they have divergent taxation systems

**Pecking theory** is based on information asymmetry. The second school of thought explaining firms' capital structure choice is the pecking order hypothesis. The theory, signaling hypothesis and information asymmetry, the pecking order hypothesis argues that firms have a preference order for different types of finance, reflecting their ease of availability or relative costs (Myers and Majluf, 1984). The pecking order hypothesis does not emphasize target leverage; rather, current leverage reflects firm's historical profitability and the need for additional investment funds at some point in time. This theory explains why internal finance is more popular than external finance and why debt is considered the best option for firms. Debt finance is considered attractive, cheap and more profitable as it is considered flexible.

**Irrelevancy theory:** The theory was put forward by Modigliani and Miller in 1958. It is based on the following assumptions: No transactions cost, no taxes, no bankruptcy cost, equity in borrowing cost for investors, equity in access to information and no effect of debt on earnings before interest and tax. The theory indicates that in a perfect market, it does not matter the capital structure mix used by the firm the value of the firm remain constant. If a firm uses cheaper debt then this increases the risk of the firm consequently the stock holders will demand higher dividend to compensate them for the high risk in their investments Modigliani and Miller theorized that market value of a firm is determined its ability to earn and the risk of its underlying assets. Thus the weighted average cost of capital should remain constant.

**Market timing theory:** Baker and Wurgler (2002) article relating to capital structure to past market to book ratio. According to this theory firms prefer equity when they perceive that its relative cost is low otherwise debt finance would be appropriate. Firms time their equity issues, they issue new stock when the stock price is perceived to be overvalued and buy back own shares when they are undervalued.

**Free cash flow theory:** This postulates that managers are forced to pay excess cash to investors as dividend to equity holders and interest to debt holders. High debt ratio discipline managers and prohibits them not to invest in projects with negative Net present value making the firm profitable. Jensen (1976) argues that increasing leverage instills discipline in managers as they will be cautious not to make the firm insolvent.



**The Modigliani-Miller theorem:** If financial markets are assumed to be complete and depositors are perfectly informed about the failure risk of banks, the **Modigliani and Miller (1958)** indeterminacy principle applies. This, however, requires that shareholders do not have a possibility to exploit depositors. To illustrate this problem in a banking context, let us assume that managers act in the shareholders' interest, who seek to maximize the share value. As banks are corporations, the owners' liability is limited to their investment. This means that the shareholders' loss is limited, but a gain greater than the fixed amount owed to depositors fully falls to them.

**The Moral hazard theory:** This theory argues that banks have something to lose since bankruptcy leads to a loss of future profits. Two further possible characterizations of the relationship between bank capital and risk thus exist. In contrast to the predictions of the moral hazard theory, banks therefore no longer hold the minimum allowable amount of capital, rather, they have their own preferred (target) level of capitalization. If this level is exceeded by regulatory requirements, then there is no longer a relationship between capital and risk taking

**The Buffer Theory:** This theory predicts that banks will maintain a level of capital above the required minimum (a buffer of capital). The costs of falling below the minimum required level of capital are both explicit and implicit. Buser et al. (1981) argue that implicit costs of regulation may arise from regulatory interference designed to control excess demand for insurance (eg. expanding risk taking). Explicit costs relate to penalties and/or restrictions imposed by the supervisor triggered by a breach of the regulation, possibly even leading to bank closure. The novel contributions of the capital buffer theory are to distinguish the long from the short run relationships between capital and risk taking and the impact of regulatory capital from observed bank capital.

## 2.2 Empirical Literature

Applying the Ordinary Least Square (OLS) regression analysis on panel data collected from financial statements of 10 Nigeria banks over 20 years from 1991-2010. Returns on asset, Returns on equity, Earnings per share, and DPS on one hand and DC (total debt to capital employed) on the other hand, were surrogated for firms performance and debt financing respectively, Akande (2013) concluded that financial leverage will considerably impact on firm performance.

Gweyi, Mino and Luyali (2013) studied the "determinant of leverage of savings and credit cooperative societies in Kenya". Using regression model  $t$ , the result showed that for Sacco; there were statistical significant relationships. The result from the study revealed that firm size has significant relationship with leverage at 99% confidence level, whereas liquidity and tangibility have significant relationship with leverage at 95% confidence interval. By taking financial leverage and market to book value ratio as variable and to analyze data and test hypothesis of the present research, descriptive and inferential analyzing methods and SPSS statistical software were applied. Hasanzadeh et al (2013) indicates non-response of capital market against levered nature of the firm. Lack of relationship between leverage and firm value approves net operational income (NOI) theory and Miller and Modigliani (M.M) theory.

Kargi (2011) evaluated the impact of credit risk on the profitability of Nigerian Banks. The findings revealed that credit risk management has a significant impact on the profitability of Nigerian banks. It concluded that banks profitability is inversely influenced by the level of loans

and advances, non-performing loans and deposits thereby exposing them to great risk of illiquidity and distress. Laurent (2002) studied the relationship between leverage and corporate performance in France, Germany and Italy. The multiple regression technique was adopted on the study variables (leverage, tangibility, short-term liabilities). The study found mixed evidence depending on the country; while negative relationship was reported in Italy, the relationship between leverage and corporate performance is significantly positive in France and Germany. Ezike and Oke (2013) investigated the impact of the adoption of the Capital Adequacy Standards on the performance of Nigerian banks using ordinary least squares (OLS) estimation concluding with the recommendation that the CBN should not rely solely on the capitalization of banks as a determinant of bank performance but also should concentrate on efficient and effective bank supervision and risk management.

Micheal and Jann (2015) addressed exactly the trade-off between additional loss-absorbing capacity and higher bank risk-taking associated with a leverage ratio requirement in both a theoretical and empirical setting. Using a theoretical micro model, we show that a leverage ratio requirement indeed incentivizes bound banks to slightly increase their risk-taking, but this increase in risk-taking is more than outweighed by the increase in loss-absorbing capacity from higher capital, thus leading to more stable banks.

Jensen and Meckling (1976) show that, if information is not equally distributed (or alternatively, if debt holders cannot later interfere into the firm's actions and/or they cannot sign perfect contracts with the firm managers), equity holders have an incentive to pretend to invest in a low-risk asset, but after having sold bonds at a high price, to increase the portfolio risk or to issue additional debt. In a banking context, this means that if depositors cannot interfere into the bank's activity and/or cannot observe the bank's actions, interest rates fail to fully reflect the risk of bankruptcy.

Kane (1989) pointed at an extreme case of moral hazard due to deposit insurance in which zombie banks bet for their resurrection. Insured depositors have lost the incentive to force actually insolvent banks into bankruptcy which can, thus, keep in business. Depositors will even be willing to provide further funding as they do not incur any risk.

Giammarino, Lewis, and Sappington (1993) explicitly treat this problem in the light of information asymmetries between banks and supervisors. They develop a model where bank managers know more about the innate quality of the bank's investment opportunities than the depositors does. Flannery (1991), the financial leverage is assumed to manage the tradeoff between the social losses from default and the social costs of avoiding default. For regulators to achieve an optimum, risk-based capital requirements and banks have to be additionally accompanied by restrictions on lending.

Furlong and Keeley (1989) contradict the view that flat minimum capital requirements do not have a moderating effect on bank risk-taking. They point out that under deposit insurance and within both state-preference models and option models, the magnitude of the incentive to increase leverage and risk depends on the level of leverage and risk. Terhi and Alistair (2009) Building an unbalanced panel of United States (US) bank holding company (BHC) and commercial bank balance sheet data from 1986 to 2006, they examined the relationship between short-term capital buffer and portfolio risk adjustments. Their estimations indicated that the relationship over the sample period is a positive two-way relationship. Moreover, there

conclusion was that the management of such adjustments is dependent on the degree of bank capitalization. Felix and Claudine (2008) investigated the relationship between bank performance and credit risk management. It could be inferred from their findings that return on equity (ROE) and return on asset (ROA) both measuring profitability were inversely related to the ratio of non-performing loan to a total loan of financial institutions thereby leading to a decline in profitability.

Al-Khouri (2011) assessed the impact of bank's specific risk characteristics, and the overall banking environment on the performance of 43 commercial banks operating in 6 of the Gulf Corporation (GCC) countries over the period 1998-2008. Using fixed effect regression analysis, results showed that credit risk, liquidity risk, capital risk are the major factors that affect bank performance when profitability is measured by return on assets while the only risk that affects profitability when measured by return on equity is liquidity risk.

Ben-Naceur and Oman (2008) in attempt to examine the influence of bank regulation, concentration, financial and institutional development on commercial banks margin and profitability in Middle East and North Africa (NEMA) countries from 1989-2005 found that bank capitalization and credit risk have position and significant impact on bank's net interest margin, cost efficiency and profitability.

Akinmulegun (2012) examines the effect of financial leverage on selected indicators of corporate performance in Nigeria. In an attempt to juxtapose the earlier findings that were specific of developed nations, econometric technique of Vector Auto Regression (VAR) model was employed. The finding revealed that leverage shocks exert substantially on corporate performance in Nigeria. Leverage therefore significantly affects corporate performance in Nigeria. On assets performance, Adeusi et al (2014) studied explains risk management issues in the banking sector do not only have greater impact on bank performance but also on national economic growth and general business development. The result implies an inverse relationship between financial performance of banks and doubt loans, and capital asset ratio was found to be positive and significant. Similarly it suggests the higher the managed funds by banks the higher the performance.

Abata (2014) examined and evaluates banks asset quality and performance in Nigeria using secondary data obtained from the annual reports and accounts of the six largest banks listed on the Nigeria Stock Exchange based on market capitalization, the findings recommends policies that would encourage revenue diversification, minimize credit risk, and encourage banks to minimize their liquidity holdings. Further research on factors influencing the liquidity of commercial banks in the country could add value to the profitability of banks and academic literature.

Mamun (2013) conducted a study on evaluating performance of prime bank. Data of the bank is analyzed using capital adequacy ratio, debt equity ratio and advance to asset ratio for the period 2008 to 2012. The study finds, though high debt equity ratio bank maintains capital above regulatory requirement. This will help the bank to further improve capital adequacy to meet regulatory requirement and enhance bank performance.

DeYoung (1997) opined that a bank's ranking is significantly affected by asset quality which is always an essential factor in rating and management evaluation a conclusion was drawn: asset quality will not only influence the operating costs of banks, but will also affect the interest costs



of the banks as well as their operation. Robert (2015) investigated the relationship between financial leverage and the financial performance of banks in Kenya. We use annual data report for the period 2007 – 2011. The study concludes that financial leverage is an important negative predictor of financial performance measured in terms of ROA and Tobin’s Q. Given the literature above, there is lack of consensus in the empirical literature regarding the risk financial leverage thesis. Thus the need for this research was needed.

### 3.0 MODEL, DATA AND METHODOLOGY

The empirical analysis of bank assets performance in a banking environment is often accomplished using regression analysis which can be explicitly or implicitly stated based on a theoretical framework of endogenous models (King and Levine, 2004). Thus, the level of performance of bank assets in a banking environment is assumed to be influenced by several variables as ‘y’ which represents the bank asset performance proxied by Return on Equity (ROE) and ‘x’ which include among others, the Return on Assets (ROA), Profit after tax(PAT), Debt equity Ratio (DER), Capital adequacy (CAPR).

The model is Specified as thus;

$$Y = F(X) \dots \dots \dots (1)$$

Where; Y is the dependent variable and is represented as the proxy for the bank assets performance (Return on equity); and X is the independent variable, and a vector of factors arising from the risk prone banking environment to its leverage. Modeling the impact of financial leverage and risk adjusted capital on performance of bank assets in Nigeria taking critical look at 3 Nigerian banks (Zenith bank, First bank, UBA)

$$ROE = f(ROA, DER, LOGPAT, CAPR)$$

$$ROE_t = \alpha_0 + \alpha_1 ROA_t + \alpha_2 DER_t + \alpha_3 LOGPAT_t + \alpha_4 CAPR_t \dots \dots (2)$$

$$ROE_t = \alpha_0 + \alpha_1 ROA_t + \alpha_2 DER_t + \alpha_3 LOGPAT_t + \alpha_4 CAPR_t + \mu_{1t} \dots \dots (3)$$

Where:

ROE= Return on Equity a proxy for Bank Asset Performance

ROA= Return on Asset

DER= Debt Equity Ratio a proxy for Financial Leverage Ratio

CAPR= Capital Adequacy Ratio

PAT= Profit after Tax

$\mu_{1t}$ = Stochastic Error Term

$\alpha_0, \dots, \alpha_5$ = Parameter

This study uses secondary data obtained from annual reports and financial statements of sampled deposit banks (First Bank plc, Zenith Bank, United bank for Africa) for various years. Data on debt-equity ratio, Profit after Tax, Returns on Assets and Return on Equity, Capital adequacy Ratio were computed for the period 2005- 2015 using the annual reports of selected banks.

#### 4.0 RESULTS

Test for Unit Root: This study made use of the Augmented-Dickey Fuller (ADF) Test to find out if the variables have unit root. The result is summarized in the table below.

**Table 1: Result for Unit Root**

VARIABLE	ADF-STATISTIC	5%CRITICAL VALUE	LEVEL OF INTERGRATION	DECISION
ROE	-4.447836	-2.935001	1(1)	STATIONARY
ROA	-4.447836	-2.935001	1(1)	STATIONARY
DER	-4.363073	-2.935001	1(1)	STATIONARY
LOGPAT	-4.645391	-2.935001	1(1)	STATIONARY
CAPR	-7.449832	-2.936942	1(1)	STATIONARY

**Table 2: UNITED BANK FOR AFRICA (UBA PLC)**

VARIABLES	ADF-STATISTIC	5%CRITICAL VALUE	LEVEL OF INTERGRATION	DECISION
ROE	-4360172	-2.9335001	1(1)	STATIONARY
ROA	-7.449832	-2.936942	1(1)	STATIONARY
DER	-4.418042	-2.935001	1(1)	STATIONARY
LOGPAT	-5.84620	-2.945842	1(1)	STATIONARY
CAPR	-4.381532	-2.935001	1(1)	STATIONARY

**Table 3: ZENITH BANK PLC**

VARIABLE	ADF-STATISTICS	5%CRITICAL LEVEL	LEVEL INTERGRATION	OF DECISION
ROE	-4.359024	-2.935001	1(1)	STATIONARY
ROA	-4.363016	-2.935001	1(1)	STATIONARY
DER	-4.364507	-2.935001	1(1)	STATIONARY
LOGPAT	-4.397210	-2.935001	1(1)	STATIONARY
CAPR	-4.359319	-2.9359319	1(1)	STATIONARY

Where:  $H_0: \delta = 0$  (i.e. the variables are non-stationary)

$H_1: \delta < 0$  (i.e. the variables are stationary)

**b) COINTEGRATION TEST RESULT:** This was carried out to determine the existence of long-run relationship between the variables. The result is summarized in table II

**Table 4: Result for Cointegration**

	VARIABLE	ADF-STATISTIC	5%CRITICAL VALUE	LEVEL INTERGRATION	OF DECISION	CONCLUSION
FIRSTBANK	RESIDUAL	-6.349163	-2.933158	1(1)	STATIONARY	Co-integration
U.B.A	RESIDUAL	-5.857322	-2.945842	1(1)	STATIONARY	Co-integration
ZENITHBANK	RESIDUAL	-6.509169	-2.604867	1(1)	STATIONARY	Co-integration

### C) REGRESSION RESULT

#### FIRST BANK

**Dependent Variable: ROE**

**Table 5: Regression**

VARIABLE	COEFFICIENT	t-STATISTIC	STD-ERROR	PROBABILITY
ROA	7.406254	29.24706	0.253231	0.0000
DER	2.436600	31.93137	0.656168	0.0000
LOGPAT	0.162832	0.248156	0.076307	0.8053
CAPR	3.661158	3.40966	0.068409	0.7201
CONSTANT	0.030356	0.084096	0.360966	0.7201

$R^2 = 0.980120$       F-STAT = 468.36      DW = 2.00  
 ADJ  $R^2 = 0.980120$       PROB F(STAT)=0.000000

$$ROE_t = 0.030356 + 7.406254ROA_t + 2.4366DER_t + 0.162832LOGPAT_t + 3.661158CAPR_t.$$

From the above results, we can see the direct impact of the various variables (Return on Assets, Debt equity ratio, LOG Profit after tax and Capital adequacy ratio) on Return on equity in first bank Nigeria. The intercept or constant is 0.030356 implying that given all other variables remaining constant, Returns on equity will increase by 0.030356 units.

The coefficient of Return on Assets is 7.406254, implying that a unit increase in Return on Assets will lead to a 7.406254 increase in Return on equity in the long run. Thus conforming with the a priori expectation that an increase in Return on assets will lead to an increase in Return on equity. The coefficient of (Debt equity ratio) is 2.4566, showing that (Debt equity ratio) has a positive impact on Return on equity and an increase in Debt equity ratio will increase Return on equity by 2.4566. Thus conforming with the a priori expectation that an increase in Debt equity ratio will lead to an increase in Return on equity. LOG Profit after tax is expected to have a positive relationship with Return on equity, that is, A percentage increase in LOG Profit after tax increases in Return on equity by 16% in the long run. The coefficient of the Capital

adequacy ratio is 3.661158. This implies that the Capital adequacy ratio has a positive impact on Returns on equity in Nigeria in the long run. The Capital adequacy ratio caused Returns on equity to increase by 3.661158 which does conform to the a priori expectation.

**UNITED BANK FOR AFRICA (UBA)**

**Table 6: DEPENDENT VARIABLE- ROE**

VARIABLE	COEFFICIENT	STD-ERROR	t-STATISTIC	PROBABILITY
ROA	5.547094	0.926429	5.987611	0.0000
LOGPAT	0.553480	0.543179	1.018963	0.3156
DER	2.086765	0.167679	12.44503	0.0000
CAPR	-36.55777	8.496786	-4.302541	0.0001
CONSTANT	0.045752	0.126459	0.361791	0.7198

$R^2 = 0.960998$	F-STAT=203.27	DW= 2.062833
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$$ROE_t = 0.045752 + 5.547094ROA_t + 2.086765DER_t + 0.55348LOGPAT_t - 36.55777CAPR_t.$$

From the above results, we can see the direct impact of the various variables (Returns on assets, Debt equity ratio, LOG profit after tax and Capital adequacy ratio) on Returns on assets in Nigeria.

The intercept or constant is 0.045752 implying that given all other variables remaining constant, Return on equity will increase by 0.045752 units. The coefficient of Returns on assets is 5.547094, implying that a unit increase in Returns on assets will lead to a 5.547094 increase in Returns on equity in the long run. Thus conforming with the a priori expectation that an increase in Returns on assets will lead to an increase in Returns on equity.

The coefficient of (Debt equity ratio) is 2.086765. showing that (Debt equity ratio) has a positive impact on Returns on equity and an increase in Debt equity ratio will increase savings by 2.086765. Thus conforming with the a priori expectation that an increase in Debt equity ratio will lead to an increase in Return on equity. LOG Profit after tax is expected to have a positive relationship with Return on equity, that is, A percentage increase in LOG Profit after tax increases in Returns on equity by 55% in the long run. The coefficient of the Capital adequacy ratio is -36.55777. This implies that the Capital adequacy ratio has a negative impact on Return on equity of first bank in the long run. The Capital adequacy ratio caused Returns on equity to decrease by 36.5577. It does not conform to a priori expectation and it may be due to Nigerian data irregularities which conforms with the a priori expectation.

**Table 7: Impact of variables**



VARIABLE	COEFFICIENT	STD-ERROR	t-STATISTIC	PROBABILITY
ROA	4.391852	0.286072	15.35228	0.0000
LOGPAT	0.561126	0.165662	3.387177	0.0017
DER	0.502998	0.050852	9.891468	0.0000
CAPR	2.164062	0.316875	6.829392	0.0000
CONSTANT	-0.077688	0.075537	-1.028483	0.3102

$$ROEt = -0.077688 + 4.391852ROAt + 0.502998DERt + 0.561126LOGPATt + 2.164062CAPRt.$$

From the above results, we can see the direct impact of the various variables (Returns on assets, Debt equity ratio, LOG Profit after tax and Capital adequacy ratio) on Returns on equity in Nigeria.

The intercept or constant is -0.077688 implying that given all other variables remaining constant, Returns on equity will decrease by 0.077688 units.

The coefficient of Returns on assets is 4.391852, implying that a unit increase in Returns on assets will lead to a 4.391852 increase in Returns on equity. in the long run. Thus conforming with the a priori expectation that an increase in Returns on assets will lead to an increase in Returns on equity. The coefficient of (Debt on equity) is 0.502998, showing that (Debt on equity) has a positive impact on Returns on equity and an increase in Debt on equity will increase Returns on equity. by 0.502998. Thus conforming with the a priori expectation that an increase in Debt on equity will lead to an increase in Returns on equity. LOG Profit after tax is expected to have a positive relationship with Returns on equity, that is, a percentage increase in LOG Profit after tax increases in Returns on equity. by 56% in the long run. The coefficient of the Capital adequacy ratio is 2.164062. This implies that the Capital adequacy ratio has a positive impact on Returns on equity in Nigeria in the long run. The Capital adequacy ratio caused Returns on equity to increase by 2.164062 which does conform to the a priori expectation. The  $R^2$  for first bank is 0.980120 meaning that the explanatory variables account for 98.01% of the variation occurring in the dependent variable. For UBA, it is 0.960998 implying that the explanatory variables explain 96.09% of the total variations in the explained variable while in ZENITH BANK, the  $R^2$  is 0.970903 i.e. the explanatory variables account for 97.09% of the variations in the dependent variable. In conclusion, the models possess a very good fit.

## 5.0 CONCLUSION AND POLICY RECOMMENDATION

The result of the analysis shows that Of the three banks being analyzed based on the regression result obtained, measures the performance in the selected banks, having Returns on Equity (ROE) as its dependent variable and debt equity ratio (DER), capital adequacy ratio(CAPR), Returns on asset (ROA), profit after tax (PAT) as its explanatory variables is jointly statistically significant in all the banks. The result shows that financial leverage has a significant impact on performance of bank assets and the impact happens to be positive. Suffice it to say that, as the

rate of financial leverage measured by debt equity ratio increases, bank performance measured by return on equity also increases and as risk adjusted capital measured by capital adequacy increases, bank asset performance also increases. This denotes a positive relationship on both variables on bank performance.

### **5.1 Policy Prescriptions and Conclusion**

Based on the major findings as enumerated above, the following conclusions are drawn: Nigerian deposit banks are highly leveraged financial institutions. This is confirmed by both high debt-equity ratio and capital adequacy ratios. Banks in Nigeria used less equity in their capital structure composition. In addition, Nigerian deposit banks are generating very low return on equity for their shareholders based on findings gotten from the regressed profit after tax (PAT).

It was also concluded that a significant positive relationship exists between debt- equity ratio and return on equity, and also a positive significant relationship between profit after tax (PAT) and Returns on equity (ROE) during the period of study.

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