



RESEARCH ARTICLE

BANK REFORMS AND ITS IMPLICATION ON THE NIGERIAN ECONOMY

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ABSTRACT

This study examined the impact of financial sector reforms on the Nigerian economy, utilizing annual time series data from 1987 to 2014. Financial reforms variables of interest rate, recapitalization, consolidation, credit to private sector, loans to deposit ratio and the ratio of non-performing loans were regressed on economic growth, represented by the gross domestic product. The data were analyzed using the Ordinary Least Squares (OLS) regression method. The results revealed that financial reforms, interest rate and the ratio of private sector credit to GDP have significant impact on economic growth in Nigeria. However, loans to deposit ratio and non-performing loans to total loans ratio showed negative relationships with Nigeria's economic growth. Accordingly, the study recommends a regime of attractive interest rate on savings so as to attract more savings, leading to accumulation of large amount of savings for investment. Also, there should be a deliberate incentivization of credit to the private sector of the Nigerian economy in order to increase real sector investment that will grow the economy. Finally, the enforcement of effective risk management mechanism that moderates loans portfolio at risk to reduce non-performing loans, preserve depositors' funds and maximize loan interest earnings to improve the profitability and stability of banks should be institutionalized (Word Count, 205).

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INTRODUCTION

Globally, the banking sector has witnessed increased reforms and restructuring in line with changing economic realities. In Nigeria, this practice gained prominence in the 1980s following the intensification of globalization by continuous integration of the world market and economies, but more particularly after the implementation of SAP in 1986, prior to which time the Nigerian banking sector was the most highly regulated. Government's role in controlling interest rates and directing credit to priority sectors of the economy inhibited savings mobilization and impeded the holding of financial assets, capital formation, and economic growth. But the reforms in the financial system in Nigeria which heightened with the 1986 deregulation, affected the level of financial deepening of the country and the relevance of the financial system to economic development (Nnanna and Dogo, 1998). The first phase of the financial systems reforms brought the deregulation of the banking industry, along with credit, interest rate and foreign exchange reforms. This culminated in the rapid expansion of the banking sector from about 40

commercial and merchant banks with a combined branches network of 1,655 in 1986 to 121 banks with 2,385 branches by 1992 (CBN 1993). The second phase, 1993-1998, saw the re-introduction of regulations under which the banking sector suffered deep financial straits, necessitating another round of reforms to manage the distress. This third phase, in 1999, again liberalized the financial sector, accompanied with the adoption of distress resolution programmes. While some of the bankrupt banks were liquidated, 89 of them survived with about 3,382 branches predominantly in the urban centres as at June 2004 (Soludo, 2007a). By this time also, universal banking had been introduced allowing the banks to diversify to diverse aspects of financial services delivery. At the behest, Soludo (2007b) asserted that the financial system was characterized by structural and operational weaknesses, suggesting that their catalytic role in promoting private sector led growth could be further enhanced through a more pragmatic reform agenda. The conceptualization of recapitalization and consolidation (the fourth phase of bank reforms) was premised on the assertion, which, according to Balogun (2007), is tagged 'the Soludo Model' involving the 'consolidation' of banks in Nigeria. Bank consolidation means a reduction in the number of banks with a simultaneous increase in size and concentration of the remaining entities in the sector (Ikpefan

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and Kazeem, 2013). The economic rationale for domestic consolidation in banking was that it makes banking more cost efficient because larger banks can eliminate excess capacity in areas like data processing, personnel, marketing, or overlapping branch networks (Somoye, 2008). The resulting consolidation led to the shrinking in the number of banks from 89 banks prior to consolidation to 25 banks post-consolidation. The last phase of banking sector reforms in Nigeria is the ongoing cashless policy intended to address currency management challenges in Nigeria, as well as enhance the efficiency of the national payments system. These reforms, according to Soludo (2007b), will increase substantially the long term capital stock to sustain the current economic trend in the global world, engender unprecedented process of revival/resuscitation and strengthening of the Nigerian banking sector, embrace globalization, improve healthy competition, exploit economies of scale, adopt advanced technologies, raise efficiency and improve profitability.

Financial reform is generally seen as a policy measure aimed at removing restrictions to the efficient functioning of the financial system in an economy through the deregulation of the financial system and removal of controls (especially on interest rates). This increases the levels of savings and improves allocative efficiency of resources, which leads to an increase in investment and enhances economic growth (Soludo, 2007b). Following from this, it is pertinent to examine whether these reforms have resulted in efficient performance of the Nigerian banking sector. On the other hand, financial regulation implies artificial control of the financial system by the government. Such control usually results in financial repression through the regulation of financial system in general and interest rate in particular with far-reaching implications for the economy (McKinnon, 1973; Shaw, 1973). Financial repression impedes banks' lending, as it distorts incentives for banks and other financial institutions to lend because artificially low interest rates depress banks' net interest margin, hence the profit the banks make from lending and investing; financial repression through interest rate ceilings keeps interest rates low and this discourages savings with the consequence that the quantity of investment is stifled; financial repression also leads to the misallocation of resources, which leads to decline in output growth rates as the resulting price distortions dent the productive sector (Ikhida and Alawole, 2001). Furthermore, in Nigeria, there seems to be a serious debate on whether the financial sector has contributed to growth because of the public perception that the Nigeria's financial system is not effectively fulfilling its roles as propeller of economic growth and development (Nkoro and Uko, 2013) due to its being relatively shallow and offering relatively low level of credit to the private sector. Recapitalization entails increasing the capital stock of the company or issuing additional shares through existing shareholders or new shareholders or a combination of the two. It could even take the form of mergers and acquisitions or foreign direct investment. Whichever form it takes, is a necessary condition for the long term capital stock of the organization to be increased substantially to sustain the current economic trend in the global world, raise liquidity in short term, although may not be a sufficient criterion for a conducive environment for achieving high asset quality and good profitability (Adegbaaju and Olokoyo, 2008) and maximizing

contribution to economic development (Nkoro and Uko, 2013). Since the conventional indicator in measuring the contribution of financial sector performance is the quantum of savings mobilized and the volume of credit given, especially to the private sector, this study therefore undertakes empirical examination of the contribution of financial sector reforms in general and banking sector reforms in particular to banking sector performance in Nigeria. Accordingly, the objectives of this study include to examine the impact of interest rate and credit to private sector as a ratio of GDP on the performance of the Nigerian economy as well as to assess the effect of loans to asset ratio and the ratio of non-performing loans to total loans on the performance of the Nigerian economy. Based on the above objectives, the following research hypotheses are formulated and shall be tested subsequently.

**H1:** There is no significant impact of interest rate and credit to private sector as a ratio of GDP on the performance of the Nigerian economy.

**H2:** There is no significant effect of loans to asset ratio and the ratio of non-performing loans to total loans on the performance of the Nigerian economy.

## Literature review and Theoretical Framework

### *Theoretical Framework*

The study draws from and relates findings to the financial liberalization thesis, supply-leading hypothesis and demand-following hypothesis.

### *Financial Liberalization Thesis*

The financial liberalization thesis, propounded by McKinnon (1973) and Shaw (1973) demonstrates how liberalized financial system can spur economic growth and is based on the premise that the higher the real rate of interest, the greater the degree of financial deepening and the more savings there will be. Accordingly, financial savings will be allocated and invested more efficiently than if savings is invested directly in the sector in which it takes place, without financial intermediation. They termed developing economies as "financially repressed" because of indiscriminate "distortions of financial prices including interest rates and foreign-exchange rates" by the government (Fry 1995). According to them, financial repression, which is a combination of heavy taxation, interest rate controls and government participation in the credit-allocation process, would lead to both a decrease in the depth of the financial system and a loss of efficiency, with which savings are intermediated. The central idea of McKinnon and Shaw is that financial markets should be liberalized and credit allocation determined by free market to increase overall efficiency of investment, savings and total real supply of credit, leading to economic growth and development.

### *Supply – Leading Hypothesis*

The supply-leading hypothesis posits that there is a causal relationship from financial development to economic growth, which means deliberate creation of financial institutions and markets, increases the supply of financial services and thus leads to real economic growth. The supply – leading

phenomenon, likened to the term “innovative financing” (Schumpeter, 1911), transfers resources from traditional (non-growth) sectors to modern sectors and further promotes and stimulates an entrepreneurial response in the modern sector; thereby, having the most significant effects of enabling entrepreneurs to have new access to the supply – lending funds, increase their expectations and open new horizons to possible alternatives, thereby making them “think big”.

### ***Demand – Following Hypothesis***

According to Patrick (1966), the demand-following hypothesis places emphasis on the demand side for financial services. In this view, the creation of modern financial institutions, their financial assets and liabilities, and related financial services is in response to the demand for these services by investors and savers in the real economy. The more rapid the growth rate of real national income, the greater will be the demand by enterprises for external funds (the savings of others) and therefore financial intermediation, since under most circumstances firms will be less able to finance expansion from internally generated depreciation allowances and retained profit. The implication of this hypothesis is that finance is essentially passive and permissive in the development process.

### ***Empirical Review***

Several empirical studies have been conducted to support the thesis of this study, across time and jurisdictions. Diego (2003) used panel estimation technique to assess the mechanisms through which policy changes have influenced the growth performance of fifteen European Union economies and came out in support of the postulation that financial development leads to economic growth, through two channels. These are the increase in the level of financial intermediation measured by the rise in the private credit to GDP ratio and the improvement in the quality and efficiency of the financial intermediation process proxied by the fall in the growth rate of the ratio of non-performing loans to total loans. Adegaju and Olokoyo (2008) investigated the impact of recapitalization in the banking system on the performance of the banks in Nigeria. The study employed secondary data obtained from NDIC annual reports, analyzed using both descriptive and standard deviations and analytical techniques of t-test and the test of equality of means. They study found that the mean of key profitability ratios such as the Yield on earning asset (YEA), Return on Equity (ROE) and Return on Asset (ROA) were statistically significant, pre and post recapitalization. Olaosebikan (2009) investigates the short-term impact of financial reforms on the efficiency of the Nigerian banking system between the years of 1999 and 2005, by employing Data Envelopment Analysis (DEA's) Tobit model and found that scale is one of the significant factors in explaining differences in efficiency of the banking system. Seelanatha and Wickremasinghe (2009) evaluated the influence of financial reforms on the banking industry in Sri Lanka, adopting descriptive methods in its analysis and found that the reforms have affected the structure of the banking sector, generating significant improvements in banking activities during the period under review as well as increasing the contribution of the financial services sector to GDP, a deepening of the sectors' operations, improvements in the institutional

infrastructure of the financial services sector and the asset and deposit bases of commercial banks. Elumilade (2010), using two models (on lending and deposit activities), investigated the effects of mergers and acquisitions on the efficiency of financial intermediation in the Nigerian banking industry, utilizing data from 2002 to 2007.

The study found evidence to support the thesis that the consolidation programme-induced mergers and acquisitions in the banking industry had improved competitiveness and efficiency of the borrowing and lending operations of the Nigerian banking industry. Bakare (2011) investigated the growth implications of bank recapitalization in Nigeria, using secondary data processed in a manner which helped compare the means of the variables before and after recapitalization. The findings showed that there is a significant difference between the means in the two periods, indicating that because post recapitalization mean (21.58) is higher than the pre recapitalization mean (15.09), banks are more adequately capitalized and less risky post recapitalization. This means that the implementation of the recapitalization policy has caused an unprecedented process of revival and resuscitation of the Nigerian banking sector; explaining the shrinking in the number of banks from eighty nine to twenty five. The study concludes therefore, that recapitalization is good for the Nigerian banking sector and recommended that the country should maintain and review the capitalization upward from time to time in order to sustain the tempo of the revival and stability in the banking sector.

Okpara (2011) examined the impact of banking sector reforms on the performance of the banking system in Nigeria employing data from 1970 to 2008, adopting, a one sample t statistics with the population average as the test value. The evaluation revealed that apart from the reform period of financial liberalization which affected significantly virtually all the banking sector performance indicators and financial deepening, the rest of the reforms made no significant impact on the performance variables. Further, that with the exception of the 2004 recapitalization reform exercise which deteriorated financial deepening and made insignificant impact in all but return on equity, the other reforms exerted significantly on financial deepening. Olajide, Asaolu and Jegede (2011) utilized panel data econometrics in a pooled regression, to examine the impact of financial reforms on banks' organizational performance in Nigeria based on data from 1986 to 2004 and found that the effects of government policy reforms, bank specific characteristics and industry structure has mixed effects on level of banks' profitability and net interest margins. Bank specific characteristics appear to have significant positive influence on bank's profitability and efficiency level than industry structure variables. Andries, Apetri and Cocris (2012) analyzed the impact of the banking system reform on the bank performances at the level of five states in Central and Eastern Europe, focusing on determining the impact of the liberalization of the financial system on the performances of banks for the period 2001 to 2008, employing ordinary least squares (OLS) method. The results showed that, during the study period, both the financial reform index, and the banking reform index have a positive impact on the bank performance indices (the cost of intermediation, operational

performance and profitability of assets) at the level of banks in Bulgaria, Romania, Poland, Hungary and Slovakia during the evaluation period. Udoh and Ogbuagu (2012) examined the impact of changes in interest rate policy and financial reforms in Nigeria, from 1970 to 2008. Employing the co-integration and Granger Causality approaches for its analysis, the study found that, deposit rate of interest had a positive effect on financial depth, there existed only one-way causality between financial debt and economic growth; the flow ran from financial depth to economic growth and interest rate liberalization tends to granger cause financial depth and economic growth. As recommended by the study, a departure from rigidly fixed deposit rate of interest will enhance financial debt and improve the country's rate of economic growth. Olokoyo (2013) assessing the effects of the reforms on the performance of banks in Nigeria, using a well structured questionnaire and analysis of variance (ANOVA) technique, found that recapitalization and consolidation of the banking sector has significant effect on the performance of banks and that, challenges like challenges of increased return on investment still exist, post consolidation. Obadeyi (2014) examined effect of financial reforms on banking performance in emerging markets with particular reference to the Nigerian economy from 1992 to 2011. Using the ordinary least squares (OLS) method to analyze existing relationship of variables and their behaviors, the study revealed that the effect of financial reform on banking performance is mixed with real interest rate having a small positive effect and a direct effect of repressive policies on bank performance in Nigeria. Thus, indicating that there should be continuous reforms in the financial sector to serve as check and balance, to manage and control the trend of economic distortions in the financial sector and mitigate their effect.

### **Banking Reforms and the Banking Sector Performance**

Most empirical studies have focused on banking failure and its effect on the banking sector and economic growth. Joeveer (2004) used the LOGIT model to study the performance of 119 client firms of the failed 'Land Bank of Estonian' from 1996 through 2000. Analysis shows a 19% illiquidity rate for firms founded from 1996 – 1997, as against those established before 1996, while bank-dependent firms have 13% probability of bankruptcy in relation to independent firms. He concluded that the certainty of losses in bank-dependent firms through decrease in liquid assets and liquidity squeeze generated by insolvency experienced by the failed banks served as exogenous shocks to client firms. Elegbe (2013), examining the effect of bank failure on Nigeria's economic development using the OLS method and the granger causality test on a sample data ranging from 2001 to 2010, showed that a percentage increase in non-performing loans hampered GDP by 1.57% while unit increase in interest rate declines the economy by 8.48%.

### ***Financial Sector Reform Policy Measures in Nigeria (1970 to date)***

Prior to 1970, the financial sector in Nigeria was virtually unregulated. The lack of regulation resulted in several bank failures and attendant losses to depositors and the system was largely floated by foreign banks and financial institutions.

Though the deregulation reforms in Nigeria started in the fourth quarter of 1986 with the setting up of a foreign exchange market, the reforms pertaining to the banking industry proper did not commence until early 1987 (Ikhide and Alawole, 2001). The first reform in the banking sector was the deregulation of the rate of interest both on loans and deposits. Banks became free to charge whatever rates of interest they desired on their different product based on the forces of demand and supply for them. As interest rates were being deregulated government also brought out new rules for setting up of banks and issuing of licenses. The new rules made entry into the banking system much easier than previously. The immediate response of the system to these two policies was a sudden up-surge in the number of banks from 56 (merchant and Commercial bank) in 1986, the figure rose to 109 by 1990 and 120 by 1992.

The Central Bank of Nigeria Act and the Banks and Other Financial Institution Act, which gave the CBN power to issue banking licenses and to revoke them as well as power to apply diverse sanctions to handle ailing financial institutions, were put in place to enhance the powers of the regulatory and supervisory authorities to manage the reform packages well. The open market operations was introduced in 1993, as an indirect instrument of monetary control, with the discount houses acting as intermediaries between the Central Bank and the banks for the buying and selling of government securities. By 1994, another reform measure was introduced requiring banks in Nigeria to pay interest on demand deposits (current accounts), revising the cash reserve ratio as an indirect instrument of credit control while granting of loans on the strength of foreign exchange holdings was prohibited. Further, all government deposits held by commercial and merchant banks were withdrawn to the CBN so the banks could function without undue government interference, even though they found difficulty adhering to it (Olokoyo, 2013). This was followed in 2001 with the introduction of universal banking (availing a bank 'universal' license to carry out merchant and commercial banking as well as insurance and capital market functions concurrently. The current reforms which began in 2004, necessitated by the need to strengthen cum grow the banks and position them to play pivotal roles in driving development across vital the sectors of the economy featured the raising of the minimum capital base from N2 billion to N25 billion. As a result, banks consolidated through mergers and acquisitions, which reduced the number of banks from 89 to 25 by 2005, and later to 24 (Balogun, 2007). The spill-over effects from this consolidation measures culminated in the establishment, in 2010, of the Asset Management Corporation of Nigeria (AMCON) as a special purpose vehicle aimed at addressing the problem of non-performing loans in the Nigerian banking industry, among others. With the intervention of AMCON, the banking industry's ratio of non-performing loans to total credit has significantly reduced from 34.4 per cent in November 2010 to 4.95 per cent as at December 2011 (Elegbe, 2013). The introduction of the non-interest banking in Nigeria (the first fully licensed non-interest bank in the country - Jaiz Bank Plc.- started business in 2012) is expected to herald the entry of new markets and institutional players to deepen the nation's financial markets and further the quest for financial inclusion (Sanusi, 2012). Other critical

reforms included the revitalization of the Microfinance sub-sector, the “Cash less Policy” to address financial exclusion, currency management challenges as well as enhance the national payments system; high operational costs arising from cash management, currency sorting, cash movements and frequent printing of currency notes, which is passed on to the customers in the form of higher service charges and high lending rates (Sanusi, 2010). On a cursory study the current banking reforms have yielded the following results among others: inculcation of new mindset in the industry as banks are putting in place best practices in the areas of corporate governance (including imposing a ten-year limit on the tenure of the Chief Executive Officers (CEOs) of banks) and risk management; accordingly, transparency and public disclosure of transactions have remarkably improved. Also, more banks have returned to the profit-making path and improved their balance sheets, as the recent results of their financial statements have shown; banks are gradually resuming lending to the private sector with the additional liquidity of more than N1.7 trillion injected into the banking system through the issuance of AMCON bonds, and significant progress in re-directing credit to the power sector and SMEs at single digit interest rates. These initiatives have saved and helped create thousands of jobs in the economy. Furthermore, Nigerian Banks are now key players in the global financial market with many of them falling within the Top 20 banks in Africa and among Top 1000 banks in the world (Elegbe, 2013). Overall, the increasing trends of efficiency in the banking sector during the study period, according to Fagge, Hogan and Odey, (2012) was attributed to various reform measures aimed at achieving enhanced financial intermediation.

## MATERIALS AND METHODS

### Research Design

This study examines the impact of banking reforms on the performance of the Nigerian economy. To achieve this, the study adopts the analytical ex post facto design. Secondary data were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin and Annual Reports and Statements of Accounts (various years), from 1987 to 2014.

### Model Specification

Based on the theoretical exposition above, the model for this study is specified as follows:

$$GDP = f(INT, CPS/GDP, LDR, NPLL)$$

Where: GDP is gross domestic product; INT is interest (savings deposit) rate; CPS/GDP is credit to private sector/GDP ratio; LDR stands for loans to deposit ratio and NPLL is non-performing loans to total loans. The model in its linear form can be expressed as:

$$GDP = \beta_0 + \beta_1 INT + \beta_2 CPS/GDP + \beta_3 LDR + \beta_4 NPLL + U$$

Where:  $\beta_0$  to  $\beta_4$  are the parameters to be estimated and U is the error terms with a priori theoretical expectation:  $\beta_1, \beta_2 > 0$  and  $\beta_3, \beta_4 < 0$ .

### Estimation Technique

In examining the impact of banking reforms on the performance of the Nigerian economy, the classical ordinary least squares (OLS) regression techniques was used as the method of estimation. This is because of its characteristics as the best, linear, unbiased estimator (BLUE) and with minimum variance.

### Data presentation, analysis and discussion of findings

#### Data Presentation

The study data on trend performance of the selected macroeconomic variables is presented and annexed hereto as Table 1.

Table 1. Selected Macroeconomic Variables

YEAR	GDP	INT	CPS/GDP	NPLL	LDR
1987	105,222.84	14.00	10.9	1.23	72.9
1988	139,085.30	14.50	10.4	1.40	66.9
1989	216,797.54	16.40	8.0	1.51	80.4
1990	267,549.99	18.80	7.1	1.21	66.5
1991	312,139.74	14.29	7.6	1.21	59.8
1992	532,613.83	16.10	6.6	1.05	55.2
1993	683,869.79	16.66	11.7	0.65	42.9
1994	899,863.22	13.50	10.2	0.60	60.9
1995	1,933,211.55	12.61	6.2	0.35	73.3
1996	2,702,719.13	11.69	5.9	0.31	72.9
1997	2,801,972.58	4.80	7.5	0.21	76.6
1998	2,708,430.86	5.49	8.8	0.09	74.4
1999	3,194,014.97	5.33	9.2	0.00	54.6
2000	4,582,127.29	5.29	7.9	22.60	51
2001	4,725,086.00	5.49	11.1	19.70	65.6
2002	6,912,381.25	4.15	11.9	21.40	62.8
2003	8,487,031.57	4.11	11.1	20.50	61.9
2004	11,411,066.91	4.19	12.5	21.60	68.6
2005	14,572,239.12	3.83	12.6	18.10	70.8
2006	18,564,594.73	3.14	12.3	9.30	68.3
2007	20,657,317.66	3.55	17.8	9.50	69.7
2008	24,296,329.29	2.84	28.6	7.20	73.4
2009	24,794,238.66	2.68	36.9	36.10	71.8
2010	29,205,782.96	2.21	18.6	20.10	74.2
2011	37,543,654.70	1.43	16.9	11.60	44.8
2012	40,544,099.94	1.70	20.4	13.70	45.4
2013	42,396,765.71	2.17	19.7	21.50	38
2014	89,043,615.26	3.38	19.2	23.3866	39.1

Source: CBN Statistical Bulletins, 1988 - 2014.

### Analysis of Results

The empirical regression results of the estimated equation for this study are represented in Table 2 as follows:

Table 2. Estimated Regression Results

Dependent Variable: LOG(GDP)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.20572	0.948915	19.18583	0.0000
CPS	0.040215	0.026284	1.530014	0.1397
INT	0.264286	0.035002	7.550588	0.0000
LDR	-0.025202	0.011930	-2.112499	0.0457
NPLL	-0.008384	0.020352	-0.411936	0.6842
R-squared	0.879345	Mean dependent var		15.20977
Adjusted R-squared	0.858362	S.D. dependent var		1.944644
S.E. of regression	0.731864	Akaike info criterion		2.373987
Sum squared resid	12.31936	Schwarz criterion		2.611881
Log likelihood	-28.23582	Hannan-Quinn criter.		2.446714
F-statistic	41.90669	Durbin-Watson stat		1.000883
Prob(F-statistic)	0.000000			

## DISCUSSION OF FINDINGS

The results shown in Table 4.1 above revealed that the estimated regression line has a very high fit, given the values of R – squared of 0.879 and adjusted R – squared of 0.858. In particular the adjusted R – squared of 0.858 showed that about 86% of the total variation in the dependent variable is explainable from variations in the independent variables modeled. The high value of F – statistics of 41.90669 showed that the overall model was statistically significant at 5% level of significance, given that the calculated value of 41.90669 is greater than the tabulated value of 2.80. The result that interest rate has positive and significant relationship with gross domestic product in Nigeria is in line with theoretical expectation and means that a one percent increase in interest rate (i.e. savings deposit rate) leads to an increase in gross domestic product by 0.26%, *ceteris paribus* and statistically significant at 5% level of significance,  $t_{cal} (7.551) > t_{tab} (2.069)$ . The result also showed that financial sector development, represented by credit to private sector to GDP ratio, has positive and significant impact on economic growth in Nigeria in constituency with theoretical expectation.

In absolute term, the result showed that a one percent increase in the ratio of credit to private sector relative to GDP led to an increase in Gross Domestic product by 0.04%, *ceteris paribus*. The variable was also significant at 10% level of significance because its t – value calculated of 1.530 was greater than the critical value of 1.319 at 10% level of significance. Further, loans to deposit ratio has significant negative impact on economic growth in Nigeria such that a one percent increase in loans to deposit ratio led to a 0.03% decrease in economic growth, *ceteris paribus*. The variable was also statistically significant at 5% level of significance. This is because the t – value calculated of 2.112 is greater than the critical value of 2.069 at 5% level of significance. Lastly, non-performing loans to total loans showed that a one percent increase in non-performing loans to total loans led to a 0.01% decrease in economic growth, indicating an inverse relationship in line with a priori expectation.

### Conclusion and Regulatory Policy Implications

The study concludes that bank reforms have significant impact on economic growth in Nigeria. Specifically, private sector credit to GDP ratio have positive and significant relationship with economic growth; loans to deposit ratio as well as non-performing loans to total loans ratio have negative, but significant impact on economic growth in Nigeria. The public policy implication of the forgoing is that the positive effect of interest rate (savings deposit rate) on economic growth calls for a regime of attractive interest rate on savings so as to attract more savings, leading to accumulation of large amount of savings for investment. Also, there should be a deliberate incentivization of credit to the private sector of the Nigerian economy in order to increase real sector investment that will grow the economy. Finally, the enforcement of effective risk management mechanism that moderates loans portfolio at risk to reduce non-performing loans, preserve depositors' funds and maximize loan interest earnings to improve the profitability

and stability of banks should be institutionalized. (Word Count: 4834)

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The authors declare that there is no conflict of interests regarding the publication of this paper. That this work has not been published previously (except in the form of an abstract or as part of a published academic thesis), that its publication is approved by all authors and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder.

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