BANKING SECTOR REFORMS AND PRIVATE SECTOR GROWTH IN NIGERIA

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Abstract
The study examines the effect of banking sector reforms on private sector growth in Nigeria. The specific objectives of the study were to ascertain the effect of credit to the real sector and total bank deposit liabilities on private sector growth in Nigeria. The study adopted *ex-post facto* research design. Time series data spanning 2004 to 2018 was collated and estimated using the ordinary least square technique. The results indicate that credit to the real sector has a positive and significant effect on private sector growth in Nigeria. This implies that credit to the real sector exert a significant effect on private sector growth in Nigeria. It also emerge that total deposit liabilities has a negative and insignificant effect on private sector growth in Nigeria. In this instance, the study found this to be an aberration and therefore deduce that funds mobilized were inadequate and could not stimulate real sector activity and private sector growth. The study concludes that banking sector reforms contribute significantly to private sector growth in Nigeria. The study adds further credence to the plethora of empirical studies that holds that banking sector reforms stimualte private sector growth in Nigeria. The study recommends that the Central Bank of Nigeria should strengthen the lending capacity of banksby easing legal constraints on lending operations of banks. Banks should focus on deposit mobilization from the vast majority of unbanked economic units in the country. This can be achieved by encouraging financial access driven deposit interest rates that would encourage economic agents to save.

Keywords: Banking reforms, Private sector growth, total bank deposit liabilities, Real sector.

1.0 Introduction

The banking sector is one of the integral organs in the universe of institutions that make up the financial system (Aluko & Ajayi, 2018). It is the centre piece of the financial sector; that is, the Nigerian financial sector is bank centred. The banking sector kindles the capital formation process by mobilizing deposit liabilities from surplus economic units, which are then transformed into loanable funds of diverse sizes and allocated as loans to users of fund. This credit creation role played by banks has been identified as a major stimulant to growth (Markjackson, Ekokemi , Nelson , & Okoyan, 2017). Consequently, the bridging and allocation function the banking system plays help relieve the challenges predominant in direct financing and hence spur economic activity. (Casu, Girardon, & Molyneux, 2006) opined that banks perform this role via size transformation, maturity transformation and risk minimization occasioned by diversification of their portfolios across all segments of the economy. This role played by banks helps bridge the gap between lenders and borrowers that is prevalent in direct financing. Direct financing involves no third party; it involves only the borrower and the lender. Casu *et al.* (2006) opined that a large number of lenders want to sell credit for short term with highest possible returns whereas the majority of borrowers demand loans that are cheap and has a long repayment period.

The business of banking involves the intermediation between economic units who have more than enough funds and economic agents who have use for these funds (American Bankers Association, 2014). This connotes that banks primarily link depositors and borrowers. This implies that the deposits liabilities made available by depositors are liabilities to the bank; thus, there is need to ensure safety of depositors' funds and instill confidence in the banking system. Thus,

statutes and guidelines are constantly needed to shape their operations. In Nigeria, the Central Bank of Nigeria has played a key role in this regard. For instance, among others, the prudential guidelines of 1990, the universal banking framework of 2001, cashless policy of 2012, and the institution of Deposit Insurance Scheme (DIS) in 1988 were all geared towards ensuring public confidence and a sound and stable banking system that can support the economic growth agenda of the nation.

The recapitalization drive by the apex monetary authority in 2004 and the subsequent consolidation that followed was aimed at ensuring public confidence, standard and robust banking framework devoid of bank runs and a stable financial and economic system in Nigeria. The guidelines compelled deposit money banks to increase their capital position from ₦2 billion to a minimum of ₦25 billion. Some banks were constrained to raise the proscribed amount; thus, leading to several mergers and acquisitions that led to the reduction of banks from 89 to 25 banks in 2005 (Central Bank of Nigeria, 2006). From thence, the number has further plummeted due to sharp practices, nonperforming risky assets, distresses, and corporate governance issues (Osuagwua & Nwokomab, 2017). Some scholars attribute this to undercapitalization (Matouseka & Solomonb, 2018) and lack of a robust risk assessment framework and regulatory laxity on the part of the regulatory authorities. The recapitalization and consolidation exercise was carefully designed to reposition banks and place them to be an effective vehicle for the cultivation of growth in the real sector via the provision of credit to the real sector (Osuagwua & Nwokomab, 2017). However, this assertion is questionable because just a year after the consolidation program in 2005; in 2006, the Central Bank of Nigeria reported only ten healthy banks and designated five as satisfactory, and five apiece as marginal and unhealthy (Oluitan, 2010). Records also indicate that there were 8 distress banks and the proportion of default risk portfolios to total asset portfolio as 82% (Nigeria Deposit Insurance Corporation, 2004). The chronic challenges facing the banking system; which includes, huge default loan portfolios, high loan to deposit ratio, bank distresses, weak corporate governance structure leading to insider abuse and credit mismatch/misallocation (Central Bank of Nigeria, 2010) calls for concern. Therefore, the question is whether the banking system that emerged after the recapitalization exercise is robust enough to accumulate funds and allocate it effectively to grow the real sector of the economy (Muazu & Paul, 2018) and sustain the credit creation process to meet the funding needs of the private sector of the economy.

These existing concerns have severally been interrogated in literature with different analytical methods, variables, data, and time scope. Empirical studies have not been conclusive. For instance, the following studies holds that credit to the private sector, an integral measure of banking sector activity did not have positive impact on economic growth in Nigeria (Ishioro, 2017;Mbaeri, Adioha & Nnamdi, 2015;Umjiaku & Obumneke, 2017; Omolara & John, 2014). On the other side of the aisle are studies which found that the relationship between the metrics of banking reforms and productive growth are significantly positive (see Akpansung & Gidigbi, 2014; Umejiaku & Obumneke, 2017; Akpaeti, 2015; Eta & Anabori, 2015; Okey & Iheanacho, 2017). Accordingly, it is expedient to further ascertain whether banking reforms contribute to private sector growth in Nigeria with the supposition that the results may swing either way towards lending credence to one of the schools of thought.

2.0 Review of Related Literature

2.1 Conceptual Review

2.1.1 Banking Reforms

Reforms in the banking sector are perennial actions in developing and emerging economies of the world. Nwanna and John (2017) traced the commencement of banking reforms to1952 when the first banking ordinance was enacted in Nigeria. The Nigerian banking system has undergone series of reforms till date. On the establishment of the Central Bank of Nigeria in 1959, the Nigerian banking system has undergone series of reforms (Markjackson, 2017). Recently, in a bid to prevent incessant bank failures and non-performing loan situations and properly reposition the banking system in the face of globalization, the CBN introduced the bank recapitalization exercise in July 6, 2004 (Oluitan, 2010). The policy compelled commercial banks to increase their capital position from ₦2 billion to a minimum of ₦25 billion. This exercise led to the reduction of banks from 89 to 25 sound banks in 2005.

Banking reform takes place in an economy to ensure stability and viability of the economy. Mainly, banking reforms usually set out to achieve macroeconomic goals of price stability, full employment, high economic growth, and internal and external balances (Gidigbi, 2017). The reforms in Nigeria have been directed towards financial intermediation, financial stability, and confidence in the system (Central Bank of Nigeria, 2012). In Nigeria, the apex bank has the oversight role of managing financial institutions and the dynamic role of manipulating finance related factors to boost the economy.

2.1.2 Credit to the Private Sector

Bank credit is the amount of loans and advances given by bank to various economic agents (Markjackson, 2017). Hence credit supply to deficit economic agents of the society is an integral element in the intermediation process. Intermediaries like banks create platforms for households with funds for savings to save their funds and subsequently transform these savings into loanable funds to businesses and households at a cost (Adekanye, 1986). That is, banks transform the deposit liabilities in their possession into loanable funds to meet the many commitments of businesses and other economic agents at a price.

Bank credit is therefore referred to as funds granted by a lender (usually a bank) to someone (the borrower) who promises to make payment of the agreed amount in the future (Nwanyanwu, 2010). This implies that bank credit is the borrowing capacity provided to an individual, government, firm, or organization by the banking system in the form of loans (Yakubu & Affoi, 2014). To this end, bank credit affects every area of the economy, ranging from production, commerce, and industry. Thus, access to credit in every economy is integral in stimulating the activities of economic agents.

Finance literature affirms the vital role of credit to the private sector in accelerating growth. For instance, Bencivenga and Smith (1991) recognize this role when they stated that economic agents obtain credit to meet their production and operating expenses. Nwaeze, Onydikachi and Nwabekee (2014) opined that credit helps to create and maintain a reasonable business size as it is used to establish and or expand businesses to take advantage of economies of scale. Following this view, Nwanyanwu (2010) opined that credit can be used to prevent an economic activity from total collapse in the event of natural disaster, such as flood, drought, fire, and diseases. This implies

that credit can be used to stimulate an economy towards the path of recovery. Banisile (2005) posited that the amount of loans available to deficit economic agents help accelerate the growth rate of the economy. Agbada and Osuji (2013) posit that credits facilitate buying and selling, production, construction and mining and small scale industries.

2.1.3 Private Sector Growth

Growth is the quantitative and continuous expansion of a country's output over a period of time (Jhingan, 2006). According to Jhingan, national output must grow side by side with labour, capital, consumption, and commerce. In another definition, Todaro & Smith (2006) see growth as a continuous process. According to them, private sector growth has to do with increase in output and per capita income of a country over time. These two variables of output and per capita income are major determinants of the quality of life of the people of a country and thus economic growth (private sector growth) is one of the macroeconomic objectives of every economy. Countries usually express growth as a percentage change on a quarterly and yearly basis.

2.1.4 Bank Deposit

The business of banking involves intermediating between economic units that have more than enough funds (savers) and economic agents who have use for these funds (borrowers) (American Bankers Association, 2014). This connotes that banks serve as the link between depositors and borrowers. This implies that the deposits made available by depositors are liabilities to the bank; thus, there is need to ensure safety of depositors' funds while still generating returns through their credit creation activity. The banking sector kindles the capital formation process by mobilizing deposit liabilities from surplus economic units, which are then transformed into loanable funds of diverse sizes and allocated as loans to users of fund. This credit creation role played by banks has been identified as a major stimulant to growth (Markjackson *et al.*, 2017).

2.2 Theoretical Framework

The study draws its theoretical foundation from Shaw's Financial Deepening Hypothesis of 1973. The policy thrust of the recapitalization exercise, in the long run is skewed towards ensuring that the banking system is deepened to provide products and services that meet all classes of citizens in the country, thereby enhancing the capacity of banks to accumulate more funds and hence making available loanable funds to businesses. The immediate thrust of the reforms however, was to build public confidence, a robust banking sector devoid of bank runs and a sound support system to the real sector.

The financial deepening theory suggests that economic growth can be accelerated by an efficient and competitive financial sector that is armed with volumes of suppliers of loanable funds with alternative products that are all inclusive (Shaw, 1973). Therefore, the objective of financial deepening hypothesis is to promote better resource mobilization and allocation.

According to Shaw, the robustness of the financial system accelerates access to credit and ownership of loan accounts in an economy because there are so many players in the system that are willing to offer the same service at different price and non-cost conditions. More specifically, the hypothesis states that increased provision of financial services helps raise the propensity to save and access to loanable funds. That is, incentives provided by intermediaries' increases the desire of economic agents to save and the propensity to invest. This is because "the planning horizon of the savers shifts to distant future and current consumption is reduced on account of

expected increase in income" (Idris, 2012). Financial depth also integrates local markets to overseas markets, thus creating new markets to pool savings and investment opportunities.

However, the hypothesis states that this process will be impaired when financial services are repressed and that to sustain the process, financial services should always be liberalized. Financial repression results in poor savings mobilization and credit creation due to fixed interest rates, direct credit policies that are ineffectual, high liquidity and reserve ratios that impede the credit creation capacity of banks.

On the other hand, financial liberalization has a linear relationship with higher real interest rate occasioned by market forces. This helps stimulate the desire of people to save hence increase in savings. That is, the hypothesis assumes that saving is responsive to high interest rates, investment is responsive to savings and finally, output growth is responsive to investment. Thus, Shaw stated that financial depth is an important pre-requisite for competitive and innovative savings flow and distribution (Shaw, 1973). This implies total bank deposits and credit to the real sector stimulate output growth.

2.3 Empirical Review

Plethora of empirical studies has been carried to ascertain the role of banking reforms on economic growth in Nigeria. This section presents a handful of such studies.

Eta and Anabori (2015) investigated the role of financial sector reforms on economic output growth in Nigeria. Specifically, the study set out to ascertain the impact of interest rate, deposit money bank credit, total deposit of deposit money banks on national output growth in Nigeria. Time series and cross sectional data spanning 1986 - 2012 was pooled into a panel data set. The data was analyzed using the multiple ordinary regression technique. The findings indicate that, aside interest rate which has a nonlinear relationship with output growth; all the other explanatory variables exerted a positive and significant impact on economic growth in Nigeria. The study concludes that the financial institutions that emerged after the financial sector reforms stimulated output growth in Nigeria.

Ishioro (2017) studied banking sector and economic growth in Nigeria, using Autoregressive Distributed Lags (ARDL) Bounds test. Time series data from 1970 to 2013 on the study variables; interest rate margin; banking sector credit to the private sector as a proportion of the total banking sector credit to the economy, rate of inflation, the size of the banking sector, parallel market premium and gross. The study reports that interest rate margin has a growth factor on growth. Secondly, credit to the private sector was nonlinear and played and ineffectual role towards national output growth. The third variable, inflation is exerted a nonlinear and ineffectual role towards national output growth in Nigeria. This implies that banking reforms has not played a significant role on the economic performance of the country.

Akpansung and Gidigbi (2014) examined the impact of credit to agriculture, mining and quarry, manufacturing, communication and oil and gas real output in Nigeria between the period 2004 to 2012. This period cover the post recapitalization era. Time series data was obtained from historical sources. The data was estimated using multiple regression technique. The findings indicate that credit allocation to the select sectors improved and that, this in turn spurred output growth in Nigeria. No doubt, additional funds help enhance productive activity but the study did not show the percent increase as indicated in the study.

Omolara and John (2014) set out to study the growth stimulating role the financial sector reforms has played on the manufacturing sector of Nigeria. Data for pre reform (1970 – 1985) and post reform era (1986 – 2012) which also represent economic regulation and deregulation periods were obtained simultaneously via secondary sources. Descriptive statistics and Vector Autoregressive techniques were adopted for the analyses. The study report that the indicators of financial reform; that is, credit to private sector to GDP, market capitalization to GDP, liability deposit to GDP, interest rate, and broad money supply to GDP contributed insignificantly to manufacturing output growth in the post reform era than the pre consolidation era in Nigeria. The reason for this disparity in impact may be related to the difference in time scope used for the analyses in the study.

In the same vein, the study by Umejiaku and Obumneke (2017) investigated the role financial sector reforms play in stimulating growth in Nigeria. The researchers used error correction technique and collated time series data for the variables; real gross domestic product, real deposit rate, real lending rate, CPS/GDP, M2/GDP for the time period spanning 1986 to 2015. The results indicated that there is a positive relationship between independent variables and real output in Nigeria. This relationship was found to be insignificant on all account.

Mbaeri, Adioha and Nnamdi (2015) examined the effect of banking sector reforms on economic growth in Nigeria. The measures of banking reforms used are money supply, credit to private sector and bank asset base; while the dependent indicator of the study is gross domestic product. Time series data spanning a 10 years was obtained and analyzed using the multiple regression approach. The findings revealed that banking reform has stimulated output growth in Nigeria. More specifically, the study also reports that credit to the private sector has a nonlinear relationship with output growth. This insignificant relationship could probably be as a result of the short time period used for the analyses. The data set may have lost some data points and could not have been robust enough to capture the actual nature of the nexus.

Akpaeti (2015) examined the impact of financial sector reforms on agricultural output growth in Nigeria. Historical data for the period spanning, 1970 – 2009 was collated for the analysis and the vector error correction model was used for the estimation. The findings indicate that there is a linear and significant relationship between the financial sector reforms and agricultural output growth in Nigeria. Thus, the study concludes that financial reforms are catalyst for economic growth in Nigeria.

The study by Ancha (2011) was aimed at determining if bank financial intermediation cause economic growth in developing economies. The author used evidence from Nigeria covering the period 1980-2008. The variables of the study are credit to private sector (CPS) and total bank deposit (BD) and GDP. The analytical technique employed was Granger Causality test. The results indicated that no causal relationship exist between the variables of the study. Thus, he concluded by saying that, the lack of connection is as a result of poor deposit mobilization and infrastructural decay in the country.

Gidigbi (2017) examined the impact of banking reforms on the performance of banks and economic growth in Nigeria. Bank performance was measured by bank loan growth rate Time series data was collated and ANOVA model was fitted into Stepwise Regression for the study. The analysis indicate that banking reforms enhanced the performance of banks and economic growth in Nigeria.

Okey and Iheanacho (2017) investigated banking sector reforms before and after the bank recapitalization exercise and its implication on economic growth in Nigeria. Dependent variable

is loans and advances to deposit ratio and the independent measures are money stock and liquidity ratio. Time series data was collated and was designated into two periods; that is, before reforms (1996 – 2005) and post reforms (2006 – 2015). The data was analysed using the ordinary least square technique. The findings indicate that loans and advances ratio before recapitalization was not pointedly greater than the post reforms era. This implies that the banks that emerged after the recapitalization were more effective funds mobilizers and allocators compared to the pre reform period.

Umjiaku and Obumneke (2017) investigated the reformation of the financial system on the economic performance of Nigeria. The metrics for financial system reforms are real deposit rate, real lending rate, ratio of credit to the private sector on gross domestic product, and the ratio of money stock to gross domestic product; while economic growth metrics is real gross domestic product. The error correction technique was used in estimating the data set for the study covering 1986-2015. The cointegration analysis indicated that there is a long run equilibrium relationship between financial system reforms and economic growth in Nigeria. furthermore the findings indicate that all the study elements are positively and has an insiginificant impact on economic growth in Nigeria.

Onyema, Amadi, and Jeff (2018) evaluated the of impact of reforms befor the recapitalization and after the recapitalization on economic growth in Nigeria with data spanning 1991 to 2016. The varibale of the explantory variable are bank capital, credit to the real sector, cash reserve ratio, return on equity and network expansion, while the dependent variable is measure by gross domestic product. Both the test of differnce or mean of mean and the error correction techniques were used for the estimation of the model. The findings indicate that the reforms did not contribute significant to economic growth in Nigeria. This is even as bank capital base, return on equity and network expansion were positive and significant while credit to the private sector and cash reserve ratio were nonlinear yet statistically significant.

3.0 Methodology

3.1 Research Design

The *ex-post facto* research design was employed to examine how the independent variables affect the dependent variable. The affect effect or *ex-post facto* research design is a quasi-experimental design used in examining how an independent variable affects a dependent variable in retrospect. Consequently, this research design was adopted due to the fact that the researcher had no control over the behaviour and numeric values of the variables of the study. Thus, this design enabled the researcher to collate data and use econometric techniques to observe and coagulate the time series and the direction and magnitude of the influence the independent variables exerts on the dependent variable of the study.

3.2 Model Specification

The study adopted the model used by Eta and Anabori (2015) in examining the impact of financial reforms on economic growth in Nigeria. The study relied on the multivariate model built by Crowley (2008) in examining credit growth factors in the Middle East, Mediterranean North Africa, and Southwest Former Soviet Union countries of Central Asia.

The model is expressed as follows;

$GDP = f(INR, DMBCC, TDDMB)$

Where:
GDP = gross domestic product
INR = interest rate
DMBCC = deposit money banks credit claims
TDDMBs = total deposit of deposit money banks

This model is slightly modified to introduce credit to the private sector to capture the effect of credit to the real activity sectors in the economy. Hence, the modified model is presented as follows;

PSG = *f* (CRS, TBDL, PLR)

The model is stated mathematically as follows;

$$LnPSG = q_0 + q_1 LnCRS + q2LnTBDL + q_3 LnPLR$$

The model is econometrically restated as follows;

$$LnPSG = q_0 + q_1 LnCRS_t + q_2 LnTBDL_t + q_3 LnPLR_t + K_t$$

Where;

q_0 is the constant term, $q_1 - q_2$ are the slope of the explanatory variables, $q_3$is a moderating variable and K is the error term. In is natural logarithm, which is used to check the effect of co-movement in the explanatory variables.

PGS is private sector growth (captured by the value of goods and services produced by the 46 activity sectors). PGS is the dependent variable.

CRS is credit to the real sector (that is, 46 activity sectors). CRS is an explanatory variable.

TBDL is total bank deposit liabilities mobilized from economic agents. TBDL is an explanatory variable. PLR is prime lending rate. PLR is a moderating variable.

4.0 Results and Discussion of Findings

4.1 Data Presentation

Secondary data spanning 2004 to 2018 was collated from the Central Bank of Nigeria statistical bulletin. The time series data are presented in table 1.

Table 1: **Credit to the private sector, total deposit, and private sector growth**

Year	Credit to Private Sector (CRS)	Total Deposits (TD)	Private Sector Growth (PSG)
2004	1,421.66	1,661.48	35,020.55
2005	1,838.39	2,036.09	37,474.95
2006	2,290.62	3,245.15	39,995.50
2007	3,668.66	5,001.47	42,922.41
2008	6,920.50	7,960.16	46,012.52
2009	9,102.05	9,150.04	49,856.10
2010	10,157.02	9,784.54	54,612.26
2011	10,660.07	11,452.76	57,511.04
2012	14,649.28	13,132.09	59,929.89
2013	15,751.84	13,767.46	63,218.72
2014	17,131.45	17,185.8	67,152.79
2015	18,675.47	17,276.67	69,023.93
2016	21,082.72	18,326.95	67,931.24
2017	22,092.04	72,561.32	68,490.98
2018	22,521.93	81,712.43	69,810.02

A cursory observation of the time series data in table 1 indicates that credit to the private sector and private sector growth witnessed a rapid and steady increase than bank deposit accumulation from 2004 to 2018. Specifically, the trend movement of the variables are presented in the figures below.

Figure 1: **Graph showing Credit to the Private Sector from 2004 to 2018**

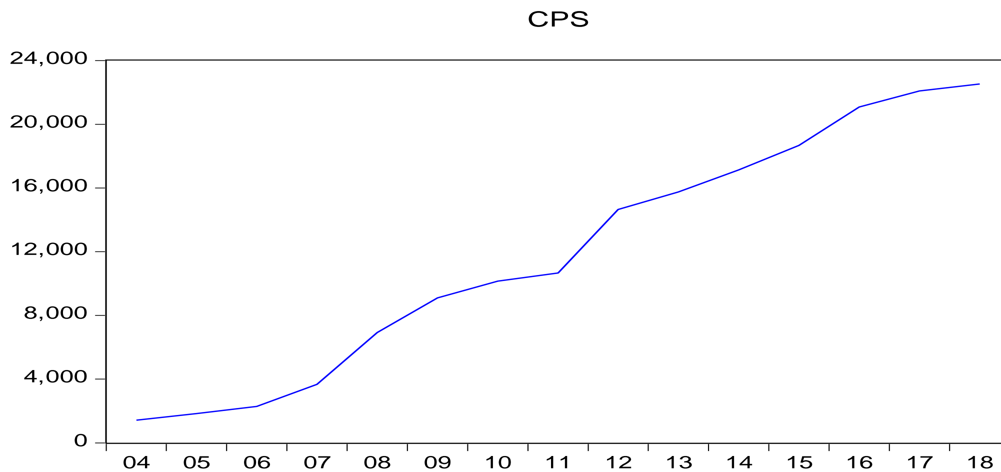

Figure 1 shows trend information on credit to the private sector. The movement of the curve indicated a steady upward movement with little oscillations in response to policy and economic situations. Specifically, credit to the private sector recorded a 15% growth rate in the review period from the value ₦1,421.66m in 2004 to a value of ₦22,521.93m in 2018.

Figure 2: **Graph showing Private Sector Growth from 2004 to 2018**

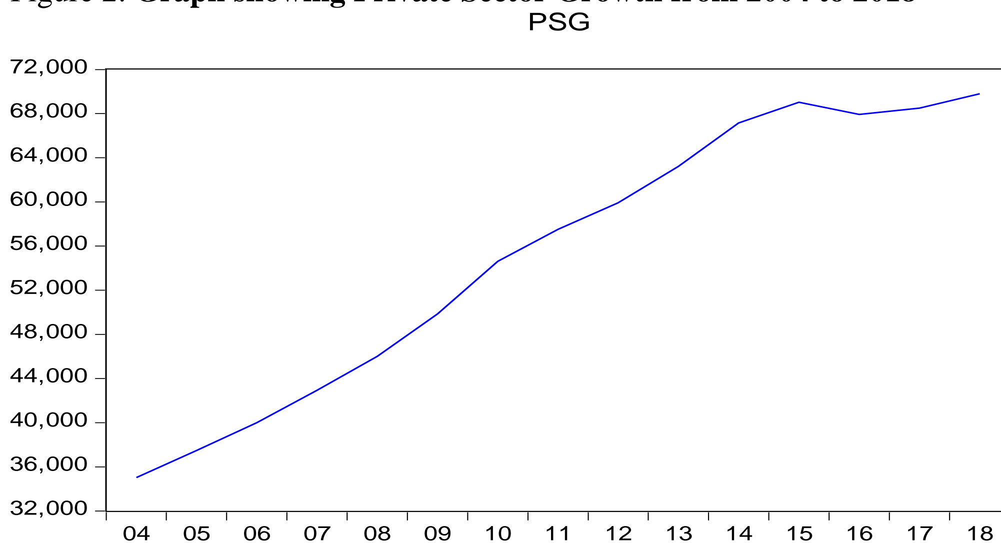

Figure 2 shows trend information on private sector growth. The graph indicates that there has been a steady growth in the Nigerian private sector. It climaxed in the year 2014 and 2015 with output values of ₦67,152.79m and ₦69,023.93m, respectively. This growth pattern was disrupted in 2016 when the nation experienced three quarters of negative economic growth, hence economic recession. Specifically, in 2016, private sector growth recorded a growth rate of -1.60%; however, a 1.93% grow rate was recorded in 2017. In 2016, the private sector posted an output value of ₦67,931.24m and slightly increased to₦68,490.98 in 2017 and ₦69,810.02m in 2018.

Figure 3: **Graph showing Total Bank Deposit Liabilities from 2004 to 2018**

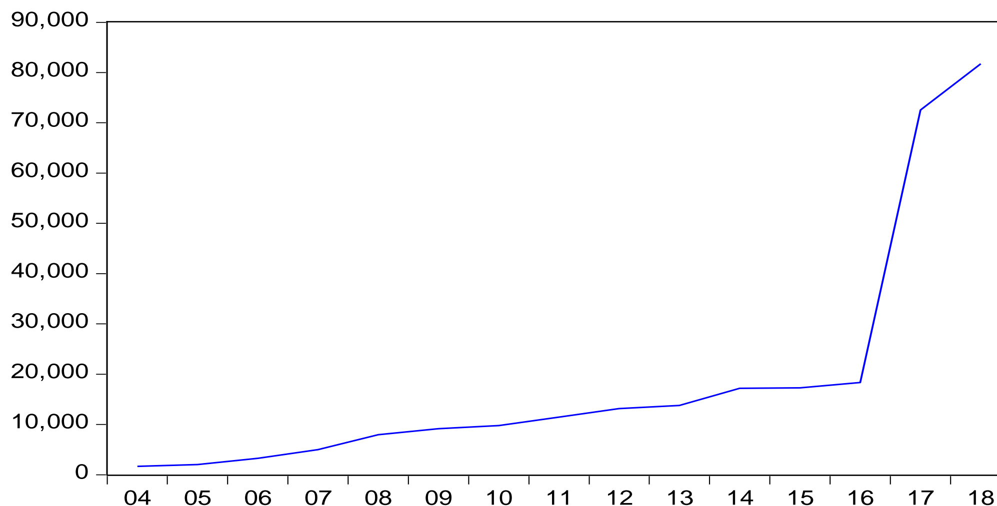

Figure 3 shows trend information on total bank deposit liabilities. The curve indicates that there has been a slow average growth rate of 7.3% in deposit accumulation by banks from 2004 to 2013. Deposit mobilization experienced a sharp growth from 2014 to 2018, as indicated by the curve. The figures shows a striking increase from ₦17,185.8m in 2014 to ₦81,712.43m in 2018.

4.2 Descriptive Statistics

The descriptive statistics indicate the unique characteristics of the dataset of the study.

Table 2: Descriptive statistics for the Variables of the Study

	PSG	TBDL	PLR	CRS
Mean	4.731105	4.027821	0.564850	3.937632
Median	4.759751	4.058910	0.528917	4.027760
Maximum	4.843918	4.912288	1.312812	4.352606
Minimum	4.544323	3.220495	0.149219	3.152796
Std. Dev.	0.105003	0.478491	0.331552	0.411466
Skewness	-0.489334	0.154728	1.407587	-0.789908
Kurtosis	1.800176	2.738163	4.223533	2.195547
Jarque-Bera	1.498357	0.102701	5.888896	1.964352
Probability	0.472755	0.949946	0.052631	0.374495
Sum	70.96657	60.41732	8.472751	59.06448
Sum Sq. Dev.	0.154357	3.205351	1.538975	2.370257
Observations	15	15	15	15

The results from table 2 indicate that the observations are equal. The mean values of the variables are; private sector growth (4.731105), credit to the real sector (3.937632), total bank deposit liabilities (4.027821), and prime lending rate (0.564850). The Jarque-Bera statistics indicate that private sector growth, total bank deposit liabilities and credit to the real sector are normally distributed, since the probability values are all higher than 0.05%, while the prime lending rate and loan to deposit ratio is not normally distributed.

The variability in the distribution is measured by the standard deviation. The results reveal as follows; private sector growth (0.105003), total bank deposit liabilities (0.478491), prime lending rate (0.331552), and credit to the real sector (0.411466). All the variables of the study are noticeably dispersed below the centre of the mean and median value, indicating that there is no large deviation of the numeric values from period to period.

4.3 Unit Root Test: Augmented Dickey-Fuller Technique

This test was used to ensure that the estimation technique is applied on series that are co-integrated. This is to ensure that the results are not spurious.

Table 3: Summary Augmented Dickey-Fuller Test Results for the Variables

Variables	ADF Statistics	t-Statistics @ 5%	Decision
TBDL	-3.755400	-3.119910	I (1)
CRS	-4.112165	-3.875302	I (1)
PLR	-3.298199	-3.119910	I (1)
PSG	-3.392902	-3.388330	I (1)

Table3 showed the summary augmented Dickey-Fuller results. The data series for all the variables are integrated at their first differencing. This implies that the series are solidified and are co-integrated. This gives the econometric credence to apply the ordinary least square technique to estimate the study components.

4.4 Multiple Regression Technique

This technique is used to ascertain the effect of banking sector reforms on private sector growth in Nigeria. The estimation is done following the ordinary least square technique. This technique is said to be simple and also regarded as a fair estimator of variables (Koutsoyainnis, 1977). In addition, the unitary order of integration at the first differencing gives a compelling credence that, the technique is not misapplied.

Table 4: Ordinary Least Square Estimates

Dependent Variable: PSG
Method: Least Squares
Sample: 2005 2018
Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.740195	0.054744	68.32122	0.0000
CRS	0.295118	0.067849	4.349646	0.0012
TBDL	-0.047968	0.068117	-0.704193	0.4960
PLR	0.039031	0.040166	0.971742	0.3521

R-squared	0.968328	Mean dependent var	4.731105
Adjusted R-squared	0.959690	S.D. dependent var	0.105003
S.E. of regression	0.021082	Akaike info criterion	-4.657630
Sum squared resid	0.004889	Schwarz criterion	-4.468817
Log likelihood	38.93223	Hannan-Quinn criter.	-4.659642
F-statistic	112.1015	Durbin-Watson stat	1.538560
Prob (F-statistic)	0.000000		

The crux of the study is addressed by the results in table 4. The estimates indicate that the adjusted coefficient of determination is 0.959690. This implies that approximately 96 percent of variation in private sector growth is collectively explained by the explanatory indicators. This indicates that the model is fitted well. Furthermore, the adjusted coefficient also indicates that the remaining 4 percent is explained by variables not captured in the model.

The Fisher's statistics is 112.1015 with a probability value of less than 0.05. This implies that the model is statistically significant. More precisely, this means that the independent indicators can collectively influence private sector growth in Nigeria.

The coefficients, t-statistics and the corresponding p values of the estimates do justice to the specific objectives of the study. Credit to the real sector met the a priori economic expectation with a positive insignia while total bank deposit liabilities did not represent the a priori expectation of a positive relationship with private sector growth.

4.5 Discussion of Findings

Credit to the real sector has positive and significant relationship with private sector growth in Nigeria. This means that loanable funds made available to the 46 activity sectors has the capacity to stimulate output growth in Nigeria. This means that credit to the real sector has a positive and significant effect on economic growth. This follow closely to Shaw's financial deepening hypothesis and Schumpeterian financial development hypothesis, which posit that availability of loanable funds and credit allocation enhance the productive capacity of a country. This implies that loanable funds were efficiently applied to real sector activity that propagated in the growth in the private sector. Summarily, this means that there is a direct and significant relationship between credit to the real sector and private sector growth. This simply means that the banks that emerged after the recapitalization exercise has played a major growth cultivating role in the private sector of Nigeria. Unlike the findings of this study, the studies by Ishioro (2017),Mbaeri, Adioha and Nnamdi (2015), Umjiaku and Obumneke (2017) andOmolara and John (2014) found that the relationship is negative and similarly found that credit to activity sectors has an insignificant influence on private sector productivity in Nigeria. However, the study by Onyema, Amadi, and Jeff (2018) found that credit to the private sector has a positive and significant impact on economic growth.

Furthermore, total bank deposit liabilities indicated a negative statistically insignificant relationship with private sector growth in Nigeria. This means that deposit liabilities mobilized from the heterogeneous branch networks does not have the capacity to grow the private sector in Nigeria. The study by Ancha (2011) found deposits to have no relationship with economic growth. The study found this to be an aberration and therfore deduce that fund mobilized were not enough to accentuate private sector growth in Nigeria. Deposit mobilization is an integral part of the business of banking which is an important aspect of the financial intermediation process. It is

regarded as the foundation of the credit creation process, as banks can only create credit out of the deposits accumulated. Unexpectedly, the result did not follow closely with economic theory, which holds that increasing propensity to save (ceteris paribus, translates into deposit liabilities) leads to availability of loanable funds, hence investment (Shaw, 1973). However, the inability of banks to come up with inclusive products to attract surplus units, the unbanked and under-banked economic units to part with their surplus funds has no doubt impaired this process.

5.0 Summary of findings, Conclusion and Recommendations

5.1 Summary of Findings

Below are the summary of findings:

1. Credit to the real sector has a positive and significant effect on private sector growth in Nigeria.
2. Total bank deposit liabilities have a negative and insignificant effect on private sector growth in Nigeria.
3. The combine effect of both credit to the real sector and total bank deposit liabilities is statistically significant.

5.2 Conclusion

The results depict that credit to the real sector has a positive and significant effect on private sector growth in Nigeria. This implies that credit to the real sector exert a significant effect on the productive capacity of the private sector. It also emerge that total deposit liabilities has a adverse and insignificant effect on private sector growth in Nigeria. In this instance, the study found this to be an aberration and therefore deduce that funds mobilized were inadequate and could not stimulate real sector activity and private sector growth. The study concludes that the banking sector that emerged after the recapitalization exercise has exerted a positive and significant effect on private sector growth in Nigeria. That is, banking sector reforms contribute significantly to private sector growth in Nigeria. The study adds further credence to the plethora of empirical studies that holds that banking sector reforms stimualte private sector growth in Nigeria.Although banks are deeply challenged in deposit accumulation and retention, their ability to stimulate growth is not in question in Nigeria. This study therefore strongly posit that for there to be sustained significant growth, financial intermediaries need to effectively bridge the gap between savers and borrowers, and by extension accumulate funds and efficiently allocate them to the real sector for their capital expenditure and production needs.

5.3 Recommendations

To improve private sector growth, the study recommends as follows:

1. The central bankshould strengthen the lending capacity of banks by easing the cash reserve requirement and other legal constraints on their lending operations. This will unencumber more loanable funds to banks and enhance their ability to meet the demand for loanable funds from the private sector. This should be done with caution to avoid adverse effect on other macroeconomic indicators.

2. The central bank should employ its policy rate (also known as anchor rate, rediscount rate, or monetary policy rate) to influence the direction of other interest rates. Thus, in order to make loanable funds attractive to real sector operators and other deficit units, the policy

rate and the lending interest rate should be attractive. Again, this should be done with caution to avoid adverse effect on the general price level.

3. Banks should focus on deposit mobilization from the vast majority of unbanked economic units in the country. This can be achieved by encouraging financial access driven interest rates that would encourage economic agents to save. This will enhance deposit accumulation and further enhance their credit creation capabilities. Further to this, banks should come up with incentives or strategies to retain deposits so as to sustain their lending capabilities.

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