

12-2017

## An Assessment of the Impact of Banking Reforms on Economic Growth and Bank Performance in Nigeria

Matthew O. Gidigbi

*Modibbo Adama University of Technology, Yola*

Follow this and additional works at: <https://dc.cbn.gov.ng/jas>



Part of the [Business Commons](#), and the [Economics Commons](#)

---

### Recommended Citation

Gidigbi, Matthew O. (2017) "An Assessment of the Impact of Banking Reforms on Economic Growth and Bank Performance in Nigeria," *CBN Journal of Applied Statistics (JAS)*: Vol. 8 : No. 2 , Article 7.

Available at: <https://dc.cbn.gov.ng/jas/vol8/iss2/7>

This Article is brought to you for free and open access by CBN Institutional Repository. It has been accepted for inclusion in CBN Journal of Applied Statistics (JAS) by an authorized editor of CBN Institutional Repository. For more information, please contact [jelongshak@cbn.gov.ng](mailto:jelongshak@cbn.gov.ng).

## **An Assessment of the Impact of Banking Reforms on Economic Growth and Bank Performance in Nigeria**

**Matthew O. Gidigbi<sup>1</sup>**

*This study assesses the impact of banking reforms on banks' performance and economic growth for the period 1981 to 2015 by fitting an ANOVA model into Stepwise Regression. Using dummy variables to isolate reform periods, results show that banking reforms contribute positively to economic growth, especially in the period 1999 to 2004. Also, banking reforms are found to contribute negatively to banks' performance, following the 1993 reforms. The study confirms that banking system reforms in Nigeria have dual impact on the economy and banks' performance. The banking reforms are capable of promoting growth in the economy. Thus, the study recommends pre-crisis reforms testing by the apex bank.*

---

**Keywords:** ANOVA, Banking System, Economic Growth, Time Series Models

**JEL Classification:** C22, C25, C32, E58, G21, O23

### **1.0 Introduction**

Reforms in the banking sector have become perennial actions in developing and emerging economies of the world, in which Nigeria as a country is not left out. Banking reform takes place in an economy to ensure stability and viability of the economy. Mainly, banking reforms usually set to achieve macroeconomic goals of price stability, full employment, high economic growth and internal and external balances. 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 dynamic role of manipulating financial related factors in boosting the economy.

A number of studies have linked functions of the banking sector to economic growth (Akpansung & Gidigbi, 2014; Akpansung & Babalola, 2012; Bayoumi & Melander, 2008; King & Levine, 1993; Bencivenga & Smith, 1991). The roles played by the apex financial institution are very crucial because an abnormality in its policy could put the whole economy into severe and unbecoming situation. More so, a lot of studies

---

<sup>1</sup> Department of Economics, Modibbo Adama University of Technology, P. M. B. 2076, Yola 640001, Adamawa State, Nigeria. Email: [gidigbimd@mautech.edu.ng](mailto:gidigbimd@mautech.edu.ng); [gidigbimdres@gmail.com](mailto:gidigbimdres@gmail.com); Tel: +234(0)8074758386; +2348039222756

argued that the structure of Nigeria's economy is bank based (Ujunwa, Salami, Nwakoby, & Umar, 2012), which means, anything wrong with the bank might spell doom for the whole economy.

Beginning from the 1960's, extensive government intervention characterised financial sector policies. In the 1970's, the intervention was further intensified towards influencing resource allocation, credit and promotion of indigenisation policy. In 1987, during the introduction of Structural Adjustment Programme (SAP), the interventions came in forms of financial liberalisation, as a measure towards the enhancement of prudential regulations and tackling of bank distress. Post SAP era witnessed neglect of prudential regulation such as, quality of banks' loan portfolios, efficiency and competition, the efficiency of intermediation, public ownership of banks, government controls on financial markets among others. A series of studies such as Sanusi (2012), Anyanwu (2010) and Balogun (2007) had investigated the impact of banking reforms on economic growth and the financial institution. Some of these studies had qualitative, stage by stage (piece) and desk-review analysis. Meanwhile, it is imperative to have pure quantitative and time-series data analysis of the reforms, since the economy cannot experience absolute break in an instance of a continuous policy. Thus, this paper investigates the major banking reforms that had taken place so far in Nigeria and their effects on performance of banks and the economy. It is believed that having a broad view of these effects will aid policy and further researches. It is believed that this study would pave way for comparison of the major banking reforms so far conducted in Nigeria. The findings of this study could also further inspire interest towards having outstanding financial institutions in the country.

The rest of this paper is categorised into four sections. Section 2 captures reviews of relevant extant literature (covering theoretical and empirical concepts), section 3 involves methodology and model specifications for the study, section 4 includes results and discussion, and section 5 gives the conclusion of the study.

## **2.0 Literature Review**

### **2.1 Theoretical Framework**

In recent times, it has been proved that financial development plays a significant role in economic growth and development. Meier and Seers

(1984) observed this development, by asserting that “the pioneers of development economics” have totally excluded the discussion of financial development in the growth process. Schumpeter (1911) argued that a well-functioning financial system will spur technological innovations through the efficiency of resource allocation from unproductive sector to productive sector.

Conversely, Robison (1952) argues that the kind of relationship that exists between finance and growth is growth-led. All the same, McKinnon (1973), Shaw (1973) and Goldsmith’s (1969) have all favoured financial development as a relevant means of economic growth and development in their work. Growth and development depend on the efficient use of the capital stock, and financial institution performs the allocation function. The sector strategically provides all that is needed towards the attainment of efficient financial resource allocation for onward optimum outputs and productivity (Greenwood & Jovanovic, 1990; Bencivenga & Smith, 1991; Boyd & Smith, 1997; Levine, 1997). Some growth theories made it clear that main feeder of outputs comes from the financial sector, because it is the sector that mobilises savings from wherever it is, and deploy it to production process (Solow, 1956; Romer, 1996; Todaro & Smith, 2011). If the sector is weak, no doubt, productivity and outputs will surely be weak. As a point of emphasis, Schumpeter’s position about the financial development has been the situation in the developing countries of the world.

Conclusively, from Solow model, the accumulation of physical capital cannot account for either the vast growth over time in output per person or the vast geographic differences in output per person (Romer, 1996). Specifically, the mechanism through which capital accumulation affects output is through a conventional channel that capital makes a direct contribution to production (Romer, 1996).

Solow production function:  $Y(t) = F(K(t), A(t)L(t))$  where t denotes time.

$Y/AL$  (Output per unit of effective labour) is given by  $f(K)$ , thus;

$$\dot{K}(t) = sf(K(t)) - (n + g + \delta)K(t)$$

From the immediate equation above, which is the key equation of the Solow model. It implies that the rate of change of the capital stock per

unit of effective labour is the difference between two terms (Romer, 1996). The first,  $Sf(K)$ , is actual investment per unit of effective labour; output per unit of effective labour is  $f(K)$ , and the fraction of that output that is invested is  $s$  (savings). The second term,  $(n + g + \delta)K$ , is break-even investment, the amount of investment that must be done just to keep  $K$  at its existing level. There are two reasons that some investment is needed to prevent  $K$  from falling. First, existing capital is depreciating; this capital must be replaced to keep the capital stock from falling. This is the  $\delta K$  term. Second, the quantity of effective labour is growing. Concisely, Solow model asserts that increase in the saving rate boosts output level through investment. (Romer, 1996).

The importance of Banking reforms in Nigeria cannot be overemphasized, as it has helped in market liberalisation towards efficiency in resource allocation, savings mobilisation, promotion of investment and growth in returns. It further enhances the quality of regulatory and surveillance framework towards healthy competition, effective inflation control and economic growth (Anyanwu, 2010; Central Bank of Nigeria, 2012; Muniraju & Kumar, 2012). In a nutshell, to ensure the achievement of macroeconomic goals banking reform is expected to effectively play a significant role in the stability of international financial markets (Central Bank of Nigeria, 2012). Figure 1 below shows the Phases of Banking Reform in Nigeria.

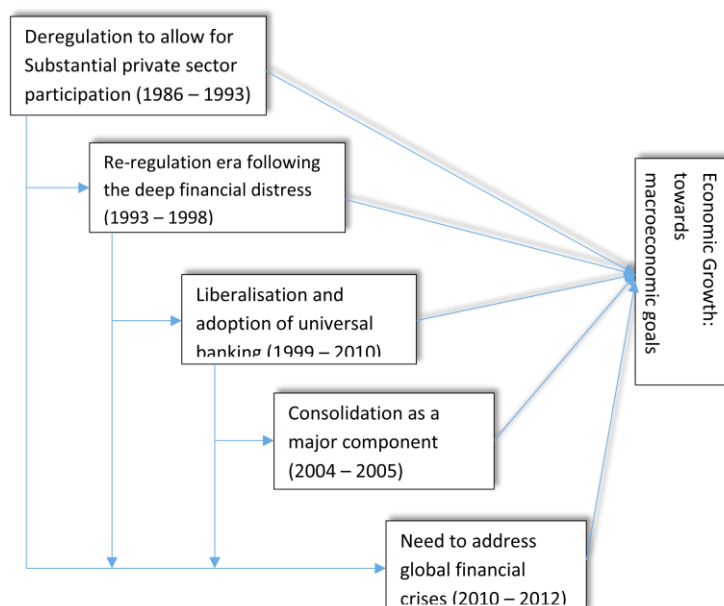


Figure 1: Phases of Banking Reform in Nigeria

## **2.2 Empirical Review**

Since, the establishment of the link between finance and economic growth, several studies had been conducted in the area. The outcome showed how the banking reforms benefitted the populace by reverting the unbecoming economic indices. Few among the extant empirical literature are reviewed in this work.

Ranciere and Tornell (2016) investigate the financial liberation, debt mismatch, allocative efficiency, and growth in the United States (US) using a two-sector model. The model comprises Schneider and Tornell (2004) elements<sup>2</sup> of credit market game with a two-sector endogenous growth model. The study found that financial liberalisation increases growth, but leads to more crises and costly bailouts. The study further asserts that liberalisation preserves financial discipline and may increase allocative efficiency, growth, and consumption possibilities.

Aruomoaghe and Olugbenga (2014) investigates the capital investments financing in Nigeria using annualised data of 32 years from 1981. The study employed regression model as the analysis tool. It found that banks

have contributed much in financing capital investment and stock market development in Nigeria. It recommends that financial institutions should be encouraged to mobilise more deposit for lending that will aid capital investment and that the apex bank should reduce its minimum rediscounting rate (Aruomoaghe & Olugbenga, 2014).

Andries and Capraru (2013) investigates the impact of financial liberalisation on banking sectors performance from Central and Eastern European countries using a two-stage empirical model with data covering the period of 2004 – 2008. The study used Ordinary Least Square (OLS) as a feeder model. It measures banks performance using cost efficiency and total productivity growth index –through the Malmquist index. The Chinn- Ito index was used to assess the level of financial openness. It made use of return on assets and ratio of equity to assets to compute bank stability using Z-score as a popular method in the financial literature. The study found that the financial liberalisation improves cost efficiency of banks and openness is able to increase cost efficiency and finally, the institutions will be able to offer cheaper services to clients. It concludes that the level of banking reform and

---

<sup>2</sup> For proper understanding of elements in concern as concern the model, there is need to review Schneider and Tornell (2004).

interest liberalisation indicator has a positive impact on the total productivity growth of banks (Andries & Capraru, 2013). Further, it asserts that the important factors shaping the total productivity are merely the banking system characteristics and bank-specific variables, and the only macroeconomic variable with impact is the GDP growth rate (Andries & Capraru, 2013).

Samargandi, Fidrmuc, and Ghosh (2013) study the relationship between financial development and economic growth in a panel of 52 middle-income countries over the period of 1980 – 2008. The study used pooled mean group estimator in a dynamic heterogeneous panel setting. The study found that financial development does not have a linear positive long-run impact on economic growth, and in a non-linear relationship between financial development and economic growth, it found an inverted U-shaped relationship between finance and growth in the long run but an insignificant relationship between the two in the short run. The study concludes that middle-income countries face a threshold point after which financial development no longer contributes to economic growth (Samargandi, Fidrmuc, & Ghosh, 2013).

Shittu (2012) studies financial intermediation and economic growth in Nigeria using annual data from 1970 to 2010. The study adopted Ordinary Least Square and Error Correction Model using Engle-Granger technique for data analysis. The study found that only broad money supply significantly impact economic growth, and concludes that financial intermediation positively impacts economic growth in the country. Thus, it recommends component analysis for the real sector because between the year 2004 to 2007, the sector received more loans but recorded the worst average annual growth rate in the manufacturing capacity utilisation rate.

Choong and Chan (2011) carry out an extensive review of the empirical studies as it relates to financial development and economic growth at global level. A larger percentage of the empirical works buttress the existence of a positive relationship between financial development and economic growth. Even though, some argue that the relationship is finance-led growth, while some argue otherwise, that is growth-led finance. The study concludes that the development of the domestic financial sector is significant in affecting the pattern of economic growth

by promoting economic growth through the efficient allocation of resources (Choong & Chan, 2011).

Fadare (2010) investigates the effect of banking sector reforms on economic growth in Nigeria using annualised data over the period of 1999 – 2009. The study adopted OLS regression technique. The study found that interest rate margins, parallel market premiums, total banking sector credit to the private sector, inflation rate, size of the banking sector, capital and cash reserve ratios account for a very high proportion of the variation in economic growth in the country.

Badun (2009) reviewed empirical studies on financial intermediation by banks on economic growth. The study gives attention to the issues of causality, non-linearity, time perspective, financial intermediation proxies, and interaction terms. The study concludes that there are still quite a few unresolved issues in the link between financial intermediation by banks and economic growth. However, the study recommends a careful study on the relationship between government and banks, to actually unravel why finance spurs growth in one country and not in others.

### **3.0 Methodology**

This study investigates the impact of the five main banking reforms on economic growth and banking performance. Two models were specified to carry out the necessary empirical analysis. Analysis of Variance (ANOVA) is adopted since all the regressors in both models are dichotomous variables. The specified ANOVA models were fitted into the stepwise regression analysis. Data for the only two quantitative variables, one in each model, were sourced from the Central Bank of Nigeria Statistical Bulletin, 2015 edition. Bank performance was proxy by loan growth rate in line with some studies such as Ongore and Kusa (2013). The data used covered the period 1981 to 2015. In calculating bank performance variable, commercial banks’ claims (credit) on private sector were extracted and its growth rate was used.

#### **3.1 Banking Reforms and Economic Growth Model:**

$$GDPGR_t = \sum_{i=1}^5 (DUM_i)\beta_i + \vartheta_t$$

where  $DUM_1 = DUM86, DUM_2 = DUM93, DUM_3 = DUM99, DUM_4 = DUM04, \text{ and } DUM_5 = DUM10.$



$\beta_i$  are the coefficients and  $\vartheta_t$  is the error term.

*GDPGR = Gross Domestic Products Growth Rate, which serve as proxy for economic growth*

$$Dum86 = \begin{cases} 1 & \text{1986 and beyond for banking reform in the year 1986} \\ 0 & \text{Otherwise} \end{cases}$$

$$Dum93 = \begin{cases} 1 & \text{1993 and beyond for banking reform in the year 1993} \\ 0 & \text{Otherwise} \end{cases}$$

$$Dum99 = \begin{cases} 1 & \text{1999 and beyond for banking reform in the year 1999} \\ 0 & \text{Otherwise} \end{cases}$$

$$Dum04 = \begin{cases} 1 & \text{2004 and beyond for banking reform in the year 2004} \\ 0 & \text{Otherwise} \end{cases}$$

$$Dum10 = \begin{cases} 1 & \text{2010 and beyond for banking reform in the year 2010} \\ 0 & \text{Otherwise} \end{cases}$$

*A priori*: it is expected the slope of all the dummy variables should be greater than zero ( $\beta_i > 0$ ).

### 3.2 Banking Reforms and Bank Performance Model:

$$BNK_t = \sum_{i=1}^5 (DUM_i)\beta_i + \vartheta_t$$

where  $DUM_1 = DUM86, DUM_2 = DUM93, DUM_3 = DUM99, DUM_4 = DUM04, DUM_5 = DUM10$ .  $\beta_i$  are the coefficients and  $\vartheta_t$  is the error term.

*BNK = Bank Performance proxied by the growth rate of loans to the private sector*

$$Dum86 = \begin{cases} 1 & \text{1986 and beyond for banking reform in the year 1986} \\ 0 & \text{Otherwise} \end{cases}$$

$$Dum93 = \begin{cases} 1 & \text{1993 and beyond for banking reform in the year 1993} \\ 0 & \text{Otherwise} \end{cases}$$

$$Dum99 = \begin{cases} 1 & \text{1999 and beyond for banking reform in the year 1999} \\ 0 & \text{Otherwise} \end{cases}$$

$$Dum04 = \begin{cases} 1 & \text{2004 and beyond for banking reform in the year 2004} \\ 0 & \text{Otherwise} \end{cases}$$

$$Dum10 = \begin{cases} 1 & \text{2010 and beyond for banking reform in the year 2010} \\ 0 & \text{Otherwise} \end{cases}$$

*A priori*: it is expected the slope of all the dummy variables should be greater than zero ( $\beta_i > 0$ ).

It becomes imperative to test for stationarity of the variables of concern, in order to rule out the presence of serial autocorrelation from the study analysis, which may result in spurious statistical outputs. Testing for the unit root tests in the model, especially for the dependent variable in the two specified model is a necessity. Augmented Dickey-Fuller unit root test was preferred because the data of interest are time-series in nature.  $x$  in the model implies any variable of interest to be tested as shown below.

Augmented Dickey-Fuller unit root test specification is given as:

$$\Delta x_t = \rho_t + \rho x_{t-1} + \sum_{i=1}^n \delta_i \Delta x_{t-1}$$

The expectation about the variables to be used prior to the estimation as stated in the models above is that it should be  $-1 \leq \rho \leq 1$ . After the test for unit root tests, the cointegration test may not be necessary, as this study used dichotomous variables as the regressors (ANOVA).

#### **4.0 Results and Discussions**

Table 1 shows descriptive statistics of all the variable of interest in order to have a good statistical view of the variables and avoid probably a latent error. The descriptive statistics for economic growth rate –proxied by gross domestic products growth rate (GDPGR) shows the mean of the variable to be 5.0808, which actually represent the average of the data as max and min values are 11.3600 and -0.6900. Jargue-Bera statistic of 0.1920 and probability value of 0.9084 implies normality of the variable. The Skewness value close to zero (0) and Kurtosis value close to 3 further buttressed the normality of the GDPGR.

Also, from the same table, bank performance proxy by the growth rate of the ratio of credit to the private sector to gross domestic products (BNKP) exhibits a moderate average (mean value of 1.8218) between the max and min values of 4.7618 and -0.5994; this suggest normal distribution of the data set. The normality in the data is further reinforced by the Jargue-Bera Statistic of 3.1102 with the probability value of 0.2111. As for all the dichotomous variables specified, their average values are within the range and close to one another. The max and min

values are either 1 or 0, so the pattern is actually uniform. Even though, their Jarque-Bera values and probability values suggest non-normality. However, that would not lead to a generation of unreliable statistics in the estimations, since, the number of observation is above 30 according to the Central Limit Theorem (CLT) proposition, and there is no cause for concern about their normality.

**Table 1:** Descriptive Statistics

	<b>GDPGR</b>	<b>BNKP</b>	<b>DUM86</b>	<b>DUM93</b>	<b>DUM99</b>	<b>DUM04</b>	<b>DUM10</b>
Mean	5.080894	1.821876	0.571429	0.657143	0.342857	0.342857	0.171429
Median	5.339326	1.568828	1.000000	1.000000	0.000000	0.000000	0.000000
Maximum	11.36000	4.761811	1.000000	1.000000	1.000000	1.000000	1.000000
Minimum	-0.690000	-0.599419	0.000000	0.000000	0.000000	0.000000	0.000000
Std. Dev.	2.930689	1.234838	0.502096	0.481594	0.481594	0.481594	0.382385
Skewness	0.088394	0.721573	-0.288675	-0.662122	0.662122	0.662122	1.743626
Kurtosis	2.683029	3.223692	1.083333	1.438406	1.438406	1.438406	4.040230
Jarque-Bera	0.192099	3.110201	5.843461	6.113624	6.113624	6.113624	19.31271
Probability	0.908419	0.211168	0.053840	0.047037	0.047037	0.047037	0.000064
Sum	177.8313	63.76565	20.00000	23.00000	12.00000	12.00000	6.000000
Sum Sq. Dev.	292.0238	51.84404	8.571429	7.885714	7.885714	7.885714	4.971429
Observations	35	35	35	35	35	35	35

Table 2 shows the results of the unit root tests. It is found that both the Gross Domestic Products Growth Rate (GDPGR) and the Bank Performance (BNKP) were stationary at level. Using Augmented Dickey-Fuller (ADF) test statistic, the t-statistics for the GDPGR variable stands at -4.4123, which is greater than the critical value at 1% level, implying stationarity at level and at 1 percent significance level as the probability value stands at 0.0068. Also, using ADF test statistics for BNKP, the t-statistics value of -3.3476 is only greater than the 10% level of critical value, which stands at -3.2070 and implies stationarity at level, and statistically significant at 10 percent significance level. Unit root tests for the dichotomous variables were not reported, since, it is not the usual practice to test for unit root in dichotomous variable except when it is used to control for the effect of outliers in the variable of interest.

In the regression analysis, the order of integration of the dependent variable in each of the two models is assumed for the independent variables; since the model is ANOVA, all the regressors are dichotomous variables which fits into the stepwise regression analysis.

**Table 2: Unit Root Tests**

Variable	Test statistics	t-statistics	CRITICAL VALUES			Prob.	Significance Level	Order of integration
			1% Level	5% Level	10% Level			
GDPGR	ADF	-4.4123	-4.2528	-3.5484	-3.207	0.0068	1 percent	I(0)
BNKP	ADF	-3.3476	-4.2528	-3.5484	-3.207	0.0758	10 percent	I(0)
DUM86								
DUM93								
DUM99								
DUM04								
DUM10								

Note: We do not need to test for stationarity of dummy variables but we do when applying it as a regulatory variable in correcting I(2) variable to I(1) or I(0) as the case may be (Sjo, 2008)

**4.1 Banking Reforms and Economic Growth Model**

The outputs of the estimated banking reforms and economic growth model in Table 3 shows a stepwise regression analysis. The regressand is Gross Domestic Products Growth Rate (GDPGR) and 35 observations were used in the analysis. The number of included regressors is 1 at a time and 5 such regressors were available. The selection method was Stepwise forwards and the stopping criterion probability value was 0.5 forwards and 0.5 backwards.

The Banking reforms between 1986 to 1992 (Dum86) shows negative coefficient (-2.8353), which is statistically significant at 5%. The results imply that the reforms negatively impacted on economic growth by about 2.83%. Furthermore, the 1993 reforms also negatively impacted on economic growth by about 4.38% and this finding is statistically significant at 1%.

The 1999 reforms contributed 1.98% to economic growth while that of 2004 (consolidation and recapitalisation) contributed 4.62% to the economic growth. The findings are statistically significant at 10% and 1% respectively.

The constant (c) is positively signed and statistically significant, which shows that a continuum of reforms in the banking sector has a place in contributing positively to the economic growth in Nigeria. Further, the R<sup>2</sup> statistic of 0.3243 implies that the model accounts for 32.43% of total variation in the economic growth; and that the model is jointly significant at 5% level, as shown by both the F-statistic and the probability of F-statistic values of 3.6003 and 0.0163 respectively. The

DW-statistics of 2.2442 suggests the absence of serial correlation in the dataset used in estimating the model, by implication the past error term in the series does not influence the present error term. This entrenches confidence in applying the results of the model, especially, in policy formulation. Dum10 which captures the reforms that started in 2009 could not appear in the model because the stepwise selection procedure showed it was not significant.

**Table 3:** Estimation of Banking Reforms and Economic Growth Model

<b>Dependent variable: GDPGR</b>			
	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>
Dum86	-2.8353**	1.3174	-2.1521
Dum93	-4.3890***	1.3218	-3.3203
Dum99	1.9845*	1.0846	0.0773
Dum04	4.6220***	1.6225	2.8486
C	7.3202***	1.0670	6.8599
R-squared	0.3243	F-statistic	3.6003
DW-statistics	2.2442	Prob(F-stat)	0.0163

\*\*\*, \*\* and \* implies 1%, 5% and 10% significance level respectively

The reform in the year 1986 which was targeted towards deregulation of the banking industry in order to allow for substantial private sector participation had a negative impact on the economic growth. This may not be distanced from the abuse experienced under the reforms and this finding is in line with the finding of Central Bank of Nigeria, (2011). The reform that started in the year 1993 (regulation era), equally impacted economic growth negatively because there was no certainty as per what measures to adopt. The development led the apex bank to remove and re-impose ceiling of credit and guidelines two different times. Among others, this finding tallies with the findings of Obienusi and Obienusi, (2015) and Central Bank of Nigeria (2011).

The 1999 and 2004 reforms contributed positively to the economic growth. The reforms improved banking capacities in intermediation process and widen business bases of the sector, thereby providing more opportunities in the country. This finding is in tandem with the finding of Shittu (2012), who asserted that financial intermediation positively impacts economic growth in the country.

Furthermore, the year 2004 banking reform targeted towards consolidation and the minimum capital base had a positive impact on economic growth. This finding is in consonance with the finding of Berrospide and Edge (2010).

## **4.2 Banking Reforms and Bank Performance Model**

The outputs of the estimated banking reforms and banking performance model in Table 4 shows a stepwise regression analysis. The regressand is Bank Performance (BNKP) proxy by the growth rate of the ratio of credit to the private sector to gross domestic products.

The 1986 banking reforms (Dum86) exhibited a positive relationship with the banking performance, the coefficient stood at 0.2511 implying that the reform benefited banking performance up to the tune of 0.25%, even though, this is not statistically significant. The 1993 Reforms show that it contributed positively to the banking performance up to the tune of 1.37% and this was statistically significant at 1% level. Also, the analysis showed that the 2010 reforms contributed negatively to the banking performance. The result showed that 2010 reforms reduce bank performance by 2.26% and this was statistically significant at 1%.

The constant (c) was positively signed and statistically significant implying continual effect of reforms at enhancing banking performance in Nigeria. Further, the  $R^2$  statistic of 0.4844 implied that the model accounts for 48.44% of the total variation in the bank performance; and that the model is jointly significant at 1%, as shown by both the F-statistic and the probability of F-statistic values of 9.7106 and 0.0001 respectively. The DW-statistics of 2.1222 suggests the absence of serial correlation in the data set used in estimating the model, by implication the past error term in the series does not affect the present error term. This confirms model's suitability. Dum99 and Dum04 that captures the reforms of 1999 and 2004 were not included in the model because the stepwise selection procedure showed it was not significant.

The reform of 1986 which targeted deregulation of the banking industry in order to allow for substantial private sector participation had a positive impact on the banking sector, which was in line with Andries and Capraru (2013). Deregulation of the industry is impactful because it improves cost efficiency of banks and openness in offering cheaper services to clients (Andries & Capraru, 2013). The 1993 reform equally

impacted banking performance positively, because it actually increased the availability of financial resources to the productive sector.

**Table 4:** Estimation of Banking Reforms and Bank Performance Model

<b>Dependent variable: BNKP</b>			
	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistics</b>
Dum86	0.2511	0.35	0.7174
Dum93	1.3770***	0.3552	3.8766
Dum10	-2.2634***	0.4866	-4.6511
C	1.1614***	0.3369	3.4467
R-squared	0.4844	F-stat	9.7106
DW-statistics	2.1222	Prob (F-stat)	0.0001

\*\*\*, \*\* and \* implies 1%, 5% and 10% significance level respectively

However, it was found that the year 2010 reform was negatively signed and thus impacted bank performance negatively. This implied that the reform decreases credit facilities to the private sector. The year 2010 reform which targeted financial deepening in all its nomenclature had a negative impact on economic growth. This finding is contrary to Badun (2009), who reviewed empirical findings that financial deepening is contributing more to the causal relationship (between finance and growth) in developing countries than industrial countries. Since the reform was targeted towards getting rid of unearned income effects on banks, the reform has been positive in its aim. Furthermore, Badun (2009) notes that financial deepening propels economic growth through a more rapid capital accumulation and productivity growth (but much better through productivity growth).

## 5.0 Conclusion and Policy Implications

The 2004 reform was the most impactful on growth, followed by the 1999 reform. The 1986 reform contributed the least to the economic growth in Nigeria. The 1986 reform was more favourable to the banks than the economic growth, that is, there is better transmission effect to some people who have stakes or claims in the financial institution than the transmission effect on the economy as a whole. The 1993 reform followed the same pattern as 1986.

Also, it is noted that the year 1993 reform enhanced bank performance than any other ones. The impactful level of 1993 reform was followed by the 1986 reform, though not statistically relevant. The 2010 reform actually decrease bank performance especially in form of credit

provision to the private sector. If not for the four pillars under the long-term reforms measures, it would have been a disaster to the private business sector, but thanks to the included 4 pillar agenda of enhancing the quality of banks; establishing financial stability; enabling healthy financial sector evolution; and ensuring that financial sector contributes to the real economy. In conclusion, banking reforms increase bank's performance in enhancing resources diffusion to the private sectors, which are prime movers of economic growth in any capitalist economy. The impacts of banking system reforms in Nigeria seem to have two dimensions. On one side, it favours economic growth as it could generate more employment opportunities and provide abundant resources for industrialisation. On the other, it strengthens the wealth of shareholders and directors and narrows the ability of the national inclusive growth. Reforms should be premeditated, mapped out and even implemented before the crystallization of the negative consequences of reforms, in order to avoid its negative impact. Also, some of the extant reforms can be re-examined and lessons should be drawn from them towards practising speculative reforms in having a maximal control of the policies supporting the reforms such as monetary policy and foreign exchange policy among others.

## **References**

- Akpanung, A. O., & Babalola, S. J. (2012). Banking Sector Credit and Economic Growth in Nigeria: An Empirical Investigation. *CBN Journal of Applied Statistics*, 2(2), 51 - 62.
- Akpanung, A. O., & Gidigbi, M. O. (2014). Recent Banking Reforms in Nigeria: Implications on Sectoral Credit Allocation and Economic Growth. *International Journal of Business and Social Science*, 5(13), 91 - 104. Retrieved from <http://www.ijbssnet.com>
- Andries, A. M., & Capraru, B. (2013, March). Impact of Financial Liberalization on Banking Sectors Performance from Central and Eastern European Countries. *Plos One*, 8(3), 1 - 9. Retrieved from <http://www.plosone.org>
- Anyanwu, C. M. (2010). An Overview of Current Banking Sector Reforms and the Real Sector of the Nigerian Economy. *Central Bank of Nigeria Economic and Financial Review*, 48(4), 31- 56.
- Aruomoaghe, J. A. and Olugbenga, E. (2014). Financing Capital Investment In Nigeria: The Role of the Banking Industry. *Asian*



- 158     *An Assessment of the Impact of Banking Reforms on Economic Growth and Bank Performance in Nigeria*     Gidigbi
- 
- Economic and Financial Review*, 4(8), 1123 - 1130. Retrieved from <http://aessweb.com/journal-detail.php?id=5002>
- Aurangzeb, D. (2012, August). Contributions of Banking Sector in Economic Growth: A Case of Pakistan. *Economics and Finance Review*, 2(6), 45 - 54. Retrieved from <http://www.businessjournalz.org/efr>
- Badun, M. (2009). Financial Intermediation by Banks and Economic Growth: A Review of Empirical Evidence. *Financial Theory and Practice*, 33(2), 121 - 152.
- Bakir, C., & Onis, Z. (2010). The Regulatory State and Turkish Banking Reforms in the Age of Post-Washington Consensus. *Development and Change*, 41(1), 77 - 106.
- Balogun, E. D. (2007, July 3). Banking Sector Reforms and the Nigerian Economy: Performance, Pitfalls and Future Policy Options. Retrieved from Munich Personal RePEc Archive: <http://mpira.ub.uni-muenchen.de/3804/>
- Bastian, J. (2003, January). Banking on Southeast Europe; Financial Sector Reform Amidst Regional Economic Volatility. *Southeast European and Black Sea Studies*, 3(1), 81 - 107.
- Bayoumi, T. and Melander, O. (2008). Credit Matters: Empirical Evidence on US Macro Financial Linkages. New York: International Monetary Fund.
- Bencivenga, V. and Smith, B. (1991). Financial Intermediation and Endogenous Growth. *The Review of Economic Studies*, 58, 195 - 209.
- Berrospe, J. M. and Edge, R. M. (2010, August 17). The Effects of Bank Capital on Lending: What Do We Know, and What Does It Mean? *Finance and Economics Discussion Series*, pp. 1 - 50.
- Boyd, J. H., & Smith, B. D. (1997). Capital Market Imperfections, International Credit Markets, and Nonconvergence. *Journal of Economic Theory*, 73, 335 - 364.
- Brownbridge, M. (1996). The Impact of Public Policy on the Banking System in Nigeria (Vol. 31). Brighton (GB): Institute of Development Studies.
- Central Bank of Nigeria. (2011). Understanding Monetary Policy: Banking Sector Reforms in Nigeria (Vol. Series 7). Abuja: Central Bank of Nigeria. Retrieved February 8, 2018, from

<https://www.cbn.gov.ng/out/2015/mpd/understanding%20monetary%20policy%20series%207.pdf>

- Central Bank of Nigeria. (2012). Banking Reform and its Impact on the Nigerian Economy: Being a Lecture Delivered By Sanusi Lamido Sanusi, Governor, Central Bank of Nigeria at University of Warwick's Economic Summit, United Kingdom.
- Central Bank of Nigeria. (2015). Consolidated Banking Supervision Annual Reports (2009 - 2014).
- Central Bank of Nigeria. (2016). Statistical Bulletin.
- Choong, C. K. and Chan, S.-G. (2011, March 18). Financial Development and Economic Growth: A Review. *African Journal of Business Management*, 5(6), 2017 - 2027. doi:10.5897/AJBM10.772
- Ejembi, S. (2015, January 16). Foreign Investors Withdraw N793bn from Stock Market. *Business*. Lagos, Nigeria: The Punch Newspaper.
- European Commission. (2004). The Western Balkans in Transition (Vol. 23). Brussels: EC.
- Fadare, S. O. (2010). Recent Banking Sector Reforms and Economic Growth in Nigeria. *Middle Eastern Finance and Economics*, 8, 146 - 160.
- FinIntell. (2013). The Cost of Banking Reforms in Nigeria. Retrieved from myfinancialintelligence: <http://www.myfinancialintelligence.com/banking-and-finance/cost-banking-reforms-nigeria#sthash.18TmajwQ.dpuf>
- Fink, G., Haiss, P., & Varendorff, M. v. (2007, December). Serbia's Banking Sector Reform: Implications for Economic Growth and Financial Development. *Southeast European and Black Sea Studies*, 7(4), 609 - 636. doi:10.1080/14683850701726096
- Greenwood, J., & Jovanovic, B. (1990). Financial Development, Growth and Income Distribution. *Journal of Political Economy*, 98, 1076 - 1107.
- Gujarati, D. N. (2003). Basic Econometrics. New York, United State of America: McGraw-Hill/Irwin.
- Hoch, S. L. (1991). The Banking Crisis, Peasant Reform, and Economic Development in Russia, 1857 - 1861. *American Historical Review*, 795 - 820.

- Kenen, P. B. (1976). Capital Mobility and Financial Integration: A Survey. *Princeton Studies in International Finance*, 39, 1-92.
- King, R. G. and Levine, R. (1993). Finance, Entrepreneurship and Growth: Theory and Evidence. *Journal of Monetary Economics*, 32, 513 - 542.
- Levine, R. (1997). Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature*, 35, 688 - 726.
- Majone, G. (1997). From the Positive to the Regulatory State: Causes and Consequences Oof Changes In The Mode Of Governance. *Journal of Public Policy*, 17(2), 139 - 167.
- Matthew, A. O. and Olowe, O. (2011). The Impact of Liberalised Financial System on Savings, Investment and Growth in Nigeria. *Manager*(14), 109 - 122. Retrieved February 8, 2018, from <http://eprints.covenantuniversity.edu.ng/1682/1/The%20impact%20of%20liberalized%20financial%20system%20on%20Savings%20Investment%20and%20Growth%20in%20Nigeria.pdf>
- Meier, G. M. and Seers, D. (1984). *Pioneers in Development*. New York: Oxford University Press.
- Muniraju, M. and Kumar, B. (2012, February). Banking Sector Reforms in India: The Rationale and Efficacy. *Indian Streams Research Journal*, 2(1), 1 - 7.
- Obienusi, I. and Obienusi, E. A. (2015). Banking Reforms and the Nigerian Econommy, 1990 - 2007. *Historical Research Letter*, 21, 17 - 43. Retrieved February 8, 2018, from <http://www.iiste.org/Journals/index.php/HRL/article/viewFile/23131/23636>
- Okonjo-Iweala, N. (2012). *Reforming the Unreformable: Lessons from Nigeria*. Cambridge, Mass: MIT Press.
- Ongore, V. O. and Kusa, G. B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237 - 252. Retrieved from [www.econjournals.com](http://www.econjournals.com)
- Ranciere, R. and Tornell, A. (2016). Financial Liberalization, Debt Mismatch, Allocative Efficiency, And Growth. *American Economic Journal*, 8(2), 1 - 44.  
doi:<http://dx.doi.org/10.1257/mac.20130190>

- Romer, D. (1996). *Advanced Macroeconomics*. United States of America: McGraw-Hill.
- Samargandi, N., Fidrmuc, J. and Ghosh, S. (2013, July). Is the Relationship between Financial Development and Economic Growth Monotonic for Middle Income Countries? *Economics and Finance Working Paper Series, Working Paper No. 13 - 21*, 1 - 52. Retrieved from <http://www.brunel.ac.uk/economics>
- Sanusi, S. L. (2012). Global Financial Meltdown and the Reforms in the Nigerian Banking Sector. *CBN Journal of Applied Statistics*, 2(1), 93.
- Schneider, M. and Tornell, A. (2004). Balance Sheet Effects, Bailout Guarantees and Financial Crises. *Review of Economic Studies*, 71(3), 883 - 913.
- Shittu, A. I. (2012). Financial Intermediation and Economic Growth in Nigeria. *British Journal of Arts and Social Sciences*, 4(2), 164 - 179. Retrieved from <http://www.bjournal.co.uk/BJASS.aspx>
- Sjo, B. (2008). Testing for Unit Roots and Cointegration. *Memo*. Retrieved February 9, 2018, from <https://www.iei.liu.se/nek/730A16/filarkiv/1.307105/Dfdistab8.pdf>
- Solow, R. M. (1956, February). A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics*, 70(1), 65-94. Retrieved March 22, 2010, from <http://www.jstor.org/stable/1884513>
- Todaro, M. P. and Smith, S. C. (2011). *Economic Development*. Harlow-Essex, England: Pearson Education Limited.
- Uche, C. U. (2001). The Adoption of Universal Banking in Nigeria. *Butterworths Journal of International Banking and Financial Law*, 16(9), 397 - 444. Retrieved February 8, 2018, from <http://www.unn.edu.ng/publications/files/The%20Adoption%20of%20Universal%20Banking%20in.pdf>
- Ujunwa, A., Salami, O. P., Nwakoby, I. and Umar, A. H. (2012). Financial Structure and Economic Growth in Nigeria: Theory and Evidence. *International Journal of Economics and Finance*, 4(4), 227 - 238. doi:10.5539/ijef.v4n4p227
- Vogel, S. K. (1996). *Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries*. New York: Cornell University Press.

