

## Effect of Financial Sector Deregulation on Economic Growth of Nigeria

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### Abstract

The study investigated the effects of financial sector deregulation on economic growth of Nigeria using annual data spanning from 1970 to 2015. Real Gross Domestic Product (RGDP) were made as a function of Credit to Private Sector (CPS), Financial Sector Deepening (FDP), Real Interest Rate (RINTR), Real Exchange Rate (REXGR) and Financial Policy Shift (FPS). Data for the study were sourced from various issues of Central Bank of Nigeria Statistical Bulletin, National Bureau of Statistics. The data were analyzed using Co-integration for the existent of long-run relationship and Vector Error Correction Mechanism (VECM) for short-run dynamic of the model. Results derived from the Ordinary Least Square (OLS) indicated that real interest rate and real exchange rate are positive and insignificant, credit to private sector exhibit significant (prob < 0.05) relationship while financial sector deepening and financial policy shift are negatively related to gross domestic product. The long run model derived from the co-integration test revealed that there exists a long-run relationship between the variables. CPS, FDP and RINTR are negatively related to RGDP while REXGR and FPS are positively related to RGDP. The study concluded that the gain from financial sector deregulation in Nigeria has remained low in spite of the various reforms and institutional changes put in place by the monetary authorities. The study thus recommended an enhancement of private sector investment through financial sector credits and through a combination of macroeconomic stabilization policies which would surely enhance the performance of economic growth in Nigeria.

**Keywords:** Financial Sector Deregulation, Economic Growth, Vector Error, Correction Mechanism

### Introduction

The search for ways of improving the living standard of citizens through enhanced sustainable development has created a new corridor for the deregulation of financial sector. This sustainable development entails development which meets the needs of the present without

compromising the ability of future generations to meet their own needs (Onwumere, Onudugo & Ibe, 2013). The significant contributions of financial sector to the growth of Nigerian economy cannot be over-emphasized. Jalloh (2011) contended that a well-designed financial system provides incentives for investment that fosters trade and business linkages thereby facilitating improved resource and technological innovation. Given the benefits associated with having well-functioning financial systems, a number of African countries, Nigeria inclusive have attempted to put in place various measures to develop their financial sector with a view to enhancing economic growth. Financial deregulations have therefore been widely used as a policy measure to encourage the development of domestic financial systems as well as the dismantling of barriers to international capital flows (Omankhanlen, 2012).

The Nigerian financial sector, like those of many other less developed countries was highly regulated leading to financial disintermediation which had retarded the growth of the economy (Orji, Anthony-Orji & Mba, 2015). Most third world countries (Nigeria inclusive) had in the past used governmental interventions as a tool in allocation of resources. These interventions have been described as not only repressive but a major factor retarding the process of the growth of the economy. Indeed, the Nigerian growth performance has become worrisome over the last few years. During this period, growth was sluggish and dismal to the extent that the efficacy of the various dosages of different reforms remains an open-ended question. Hicks (1969) noted that the financial system plays a crucial role in the mobilization of capital for industrialization while Robinson (1952) argued that economic development creates demand for certain financial instrument, Honohan (2000) contended that deregulation and its overall effects are to induce competition within the financial services industry. Despite all these positive views, the Nigerian financial sector has not achieved the expected objective.

More importantly, the existence of a relationship between financial deregulation and economic growth has been conducted extensively through cross-country regressions (Stiglitz & Weiss, 1981; Durmus & Can, 2008; Imene & Schalck, 2010). This study used time series approach to account for Nigerian situation as well as offer the opportunity to analyse the long run relationship that subsists between the financial sector deregulation and the Nigerian growth process. This study therefore improves upon the existing literatures by focusing on a single country rather than cross-country analysis by most existing literatures. In addition to this, most empirical studies conducted in Nigeria have shown evidence of mixed results. Consequent upon the unsettled empirical evidence on the finance-growth relationship, this study considered it necessary to investigate the effect of financial sector deregulation on economic growth of Nigeria.

## **Literature Review**

### **Financial Sector Deregulation and Economic Growth**

The financial sector of any economy in the world plays a vital role in the development and growth of the economy. The development of this sector determines the ability of a nation to effectively and efficiently discharge its major role of mobilizing fund from the surplus sector to the deficit sector of the economy. This sector has helped in facilitating the business transactions and economic development. If a financial sector is well developed, it will enhance investment by identifying and funding good business opportunities, mobilize savings, enable trading, hedge and diversify risk and facilitate the exchange of goods and services. All these

result in a more efficient allocation of resources, rapid accumulation of physical and human capital, and faster technological progress, which in turn results in economic growth (Orji, Anthony-Orji & Mba, 2015). Economic growth is a gradual and steady change in the long-run which comes about by a general increase in the rate of savings (Jhingan, 2005). An economy is said to be growing when it increases its productive capacity which later yields in production of more goods and services. It is the yardstick for raising the standard of living of the people. This is made possible through a well developed financial sector (Jhingan, 2003; Akingunola, Adekunle & Badejo, 2013).

Financial sector deregulation encompasses an act by which the government regulation of a particular industry is reduced or eliminated in order to create and foster a more efficient market place. Deregulation of the financial sector aims at stabilizing and fundamentally restructuring the economy and places it on a durable and suitable growth path (Ifeanyi & Chukwu, 2014; James, Richard & Victor, 2013; Ahmed, 1993; Jalloh, 2011). Those in favour of deregulation argue that financial institutions, as intermediaries, affect the level of savings and the distribution of investment funds positively, thereby encouraging economic growth. The premise upon which this conclusion is based is competition. Increased competition between financial institutions leads to an increase in interest rates on investment, which reduces the spread between rates on investment and lending. This ensures optimal credit allocation by channeling funds to the most feasible investment projects. The overall impact on economic development and welfare is positive (Mc Grath, 2005; Akingunola, Adekunle & Badejo, 2013).

### **Empirical Review**

Jalloh (2011) assessed the extent to which economic growth has been affected by policies of financial deregulation in ECOWAS member states. Secondary data on key financial variables were collected from the World Bank, IMF and ADB Publications. A panel estimation approach guided by the Hausman specification test was used to quantify the relative impact of finance on growth. The findings revealed that whilst policies of financial deregulation promote growth in the ECOWAS sub-region, their impact is more effective in the WAMZ member States compared to the WAEMU countries. In terms of relative effects, the results showed that policies that raised financial markets deregulation by 10% induce growth in income per capita margins of 0.5% and 0.9% in WAEMU and WAMZ countries respectively. For the overall sample of ECOWAS countries, the results show that raising policies of financial markets deregulation by a margin of 10% induce growth in per capita income by approximately 0.6%. In conclusion, the study found that policies of financial deregulation were not uniformly growth-inducing across ECOWAS member states. To enhance the potency of such policies in terms of expediting economic growth in the sub-region, Policymakers should improve on the timing and sequencing of major policy reforms.

Okoye, Nwakoby and Okorie (2016) examined the extent to which the economic deregulation policy impacted on the performance of the real sector in Nigeria. Specifically, it examined the extent to which changes in key indicators of economic performance like exchange rate, private sector credit, trade openness and inflation rate explain industrial output performance in Nigeria. Annual data on the variables, sourced from the publications of the Central Bank of Nigeria, were analyzed using Vector Error Correction Model. Evidence from the study indicated that exchange rate and trade openness exerts significant positive impact on industrial output in Nigeria. The study also shows non-significant negative impact of financial

deepening and inflation on Nigeria's industrial output. Thus, government should stabilize the foreign exchange earning capacity of the economy through effective diversification of its revenue sources in order to enhance the performance of the sector.

Obamuyi and Demehin (2012) examined the effect of interest rate reforms on financial deepening in Nigeria. The study used Co-integration and Vector Error Correction Models (VECM) to determine the long and short run dynamics of the model. The results indicated that there exists a long run relationship between financial deepening and interest rates. The study also found that interest rate reform has a positive and significant effect on financial deepening in Nigeria. The results here suggested that policy makers enact measures that positively influence financial development, economic growth, liquidity reserve ratio, domestic savings/GDP ratio as well as reforms to ensure the efficiency and development of the financial system.

Ifeanyi and Chukwu (2014) examined the nexus of interest rate deregulation and economic growth in Nigeria. The study used secondary data generated from the Central Bank of Nigeria (CBN) statistical bulletins from 1986-2010 and employed the ordinary least square regression. The results showed that the coefficients of interest rate, investment, trade openness, real exchange rate and inflation contributed positively to the level of growth in Nigeria during the period under review. Statistically, the t-statistic of the variable under consideration showed that all the variables under consideration but for one were significant, while the variable inflation was not significant statistically. The F-statistic interpreted showed that the overall estimate of the regression has a good fit and was statistically significant. The study therefore recommended that market driven or flexible interest rates that will not only boost productive capacities and encourage export activities but will also improve the overall performance of the Nigerian economy should be enhanced.

Emeka, Agoke and Josephine (2015) examined the effect of interest rates deregulation on the performance of deposit money banks in Nigeria between 1986 and 2014 using OLS regression method. Unit root test was employed to ascertain the stationary levels of the variables before conducting the regression analysis. Findings from the study revealed that deregulated interest rates have positive and significant impact on the ROA of deposit money banks. It showed that as interest rates increase, the ROA also appreciates. The study further revealed that deregulated interest rates have positive and significant relationship with the loans and advances of deposit money banks. It shows that the higher the rates of interests, the higher the performance of deposit money banks. It was therefore recommended that the banking sector regulatory authority should ensure that specific policy tools such as the minimum re-discount rate, maximum lending rate, liquidity ratio, monetary policy rate are effectively managed to induce higher savings, increase credit supply, stimulate investment and hence positively impact on the performance of the banking sector and enhance economic growth in general.

Adofu, Abula, and Audu (2010) investigated an assessment of the effects of interest rates deregulation in enhancing agricultural productivity in Nigeria using Ordinary Least Square (OLS) method, data from 1986 to 2005 were examined. The empirical analysis carried out showed that interest rate deregulation has significant and positive impact on agricultural productivity in Nigeria within the period under review. The empirical analysis also suggested

that interest rate played a significant role in enhancing economic activities and as such, monetary authorities should ensure appropriate determination of interest rate level that would break the double - edge effect of interest rate on savers and local investors.

Orji, Anthony-Orji and Mba (2015) examined the impact of financial liberalization on output growth in Nigeria over the period of 1986-2011. The study employed Ordinary Least Square method of estimation in its analysis, the empirical findings showed that financial liberalization policy (proxied by credit to private sector/GDP) is negatively related to output growth in Nigeria within the period under review. The results also showed that there is unidirectional causality running from output growth (LRGDP) to financial liberalization. The co-integration test revealed that there is a long run relationship among the variables in the model. The study recommended that government should encourage banks to increase their lending to the private sector, especially small and medium enterprises that are ready to invest in the real sector of the economy.

**Materials and Methods**

To examine the time series properties of the effect of financial sector deregulation on economic growth of Nigeria, the estimation and analysis of the research involved the use of Johansen co-integration test for the existence of long-run relationship and vector error correction mechanism to capture the dynamic of the model. This study used annual data covering the period 1970-2015. These periods were when Nigerian financial sector was regulated and deregulated. Data for the study were sourced from various issues of Central Bank of Nigeria Statistical Bulletin and the National Bureau of Statistics.

**Model Specification**

The model for this study assumes an underlying relationship between financial deregulation and economic growth of Nigeria. The study follows a similar research method used by Ifeanyi and Chukwu (2014), Okoye, Nwakoby and Okorie (2016) and Obamuyi and Demehin (2012). In specifying the model for estimation, Real Gross Domestic Product (RGDP) was made as a function of Credit to Private Sector (CPS), Financial Sector Deepening (FDP), Real Interest Rate (RINTR), Real Exchange Rate (REXGR) and Financial Policy Shift (FPS) represented by shift in financial policy from regulation to deregulation captured by dummy variable to indicate the financial situation, in which 0 indicates a period of financial regulation and 1 for financial deregulation. Therefore the empirical model aimed at determining the effect of financial sector deregulation on economic growth of Nigeria can be expressed as:

$$RGDP = f(CPS, FDP, RINTR, REXGR, FPS) \dots\dots\dots 1$$

This model, for the purpose of simplicity can be stated in equation terms depicted as: -

$$RGDP = \delta + \beta CPS + \alpha FDP + \chi RINTR + \lambda REXGR + \infty FPS + \mu \dots\dots\dots 2$$

Where: -

- RGDP = Real Gross Domestic Product
- CPS = Credit to private Sector
- FDP = Financial Sector Deepening
- RINTR = Real Interest Rate
- REXGR = Real Exchange Rate
- FPS = Financial Policy Shift
- F = Functional Notation
- μ = Error Term

$\delta, \beta, \alpha, \chi, \lambda,$  and  $\infty$  = Coefficients of Estimates

### **A Priori Expectation**

The following are the expected relationship between the dependent and explanatory variables in the model.  $\delta_0 > 0, \beta_1 > 0, \alpha_2 > 0, \chi_3 > 0, \lambda > 4, \infty_5 > 0$

## **Data Analysis and Interpretation of Results**

### **Presentation of Ordinary Least Square (OLS) Results**

The table 1 presents the Ordinary Least Square (OLS) results conducted on the specified model. The OLS results revealed the short run relationship that exists between the dependent variable and each of the independent variable.

Table 1

#### *Ordinary Least Square (OLS) Result*

DEPENDENT VARIABLE	COEFFICIENT ESTIMATES	OF	T- STATISTICS	PROBABILITY VALUE
C	5.029424		2.172899	0.0259
CPS	0.592095		0.147651	0.0003
FDP	-0.041558		0.749720	0.9561
RINTR	0.067574		0.064068	0.2979
REXGR	0.005563		0.007079	0.4366
FPS	-0.078591		1.021333	0.9390

$R^2 = 0.736595$  Adjusted  $R^2 = 0.703669$  F-STAT = 22.37149

Source: Authors' Computation, 2017

### **Unit Root Test**

Before analyzing the econometric model specified and in order to avoid the occurrence of spurious results, it is imperative to find the properties of the data employed. Thus, the Augmented Dickey Fuller procedure of unit root was adopted. The null hypothesis of the augmented Dickey Fuller test states that variables have unit root. If the null hypothesis is rejected at the conventional levels, notably 1%, 5% and 10%, it implies that variables are stationary. The results of Augumented Dickey-Fuller for unit root are presented in Table 2

Table 2

#### *Augmented Dickey Fuller (ADF) Unit Root Test*

Variables	ADF Test at Level	Critical Values at 5%	Critical Values at 10%	ADF Test at FD	Critical Values at 5%	Critical Values at 10%	Decision
RGDP	-1.707678	-2.928142	-2.602225	-6.260392	-2.929734	-2.603064	1(1)
CPS	-1.826370	-2.928142	-2.602225	-6.258881	-2.929734	-2.603064	1(1)
FDP	-2.563843	-2.928142	-2.602225	-6.773466	-2.929734	-2.603064	1(1)
RINTR	-1.622005	-2.929734	-2.603064	-10.21666	-2.929734	-2.603064	1(1)
REXGR	-0.283880	-3.540328	-3.202445	-8.035055	-3.540328	-3.202445	1(1)

FPS	-1.359194	-2.928142	-2.602225	-6.633250	-2.929734	- 2.603064	1(1)
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Source: Authors' Computation, 2017

Table 2 revealed the results of the test for stationarity of data at level i.e. before differencing and after first difference. It was deduced that all the variables have their ADF test statistics value lesser than the Mackinnon critical value (at absolute term) and at 5% and 10%. Therefore, we accept  $H_0$  and reject  $H_1$  for RGDP, CRGDP, FDP, RINTR, REXGR and FPS. To ensure the stationarity of data for variables found to be non-stationary at level, there is need to proceed to test for stationarity at first difference. The first difference ADF unit root test revealed that all the variables (RGDP, CPS, FDP, RINTR, REXGR and FPS) were stationary at first difference. This is because their respective ADF test statistics value is greater than Mackinnon critical value at 5% and 10% at absolute term. Hence, the study accepts  $H_1$  for all the variables and rejects  $H_0$ .

### Johansen Co-integration Test

Having established that the variables are characterized by a unit root process and integrated of order one i.e.  $1(1)$ , the study seeks to determine whether there exists long-run equilibrium relationship among the variables of study. In doing so, the Johansen co-integration test using Johansen (1988) and Johnsen and Juselius (1990) co-integration framework was adopted. This technique was employed to test for the presence of co-integration between the series of the same order of integration through forming a co-integration. The basic idea behind co-integration is that if, in the long-run two or more series move closely together, it is possible to regard these series as defining a long-run equilibrium relationship, as the difference between them is stationary. Lack of co-integration implies that such variables have no long-run relationship. The results of the Johansen co-integration test are shown in table 3.

Table 3

#### *Co-integration Test Result*

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.989539	260.0897	95.75366	0.0000
At most 1	0.526605	59.44594	69.81889	0.2528
At most 2	0.222052	26.54168	47.85613	0.8710
At most 3	0.158260	15.49348	29.79707	0.7473
At most 4	0.121043	7.912969	15.49471	0.4747
At most 5	0.049551	2.236120	3.841466	0.1348

Sources: Authors' Computation, 2017

\* denotes rejection of the hypothesis at the 0.05 level

Under the Johansen Co-integrated Test, there is one co-integration equation in Johansen's method, the trace statistic determines whether co-integration variables exist. Table 3 shows that long-run relationship (co-integration) exists among Real Gross Domestic Product (RGDP) and Credit to Private Sector (CPS), Financial Sector Deepening (FDP), Real Interest Rate (RINTR), Real Exchange Rate (REXGR), and Financial Policy Shift (FPS). This is reflected in the trace statistics of the first rows of the second column of the table that shows a value greater than that of the 5% critical value in the first rows of the second column respectively. Hence,

the hypothesis of no co-integration ( $H_0$ ) is rejected and that of presence of co-integration ( $H_1$ ) is accepted.

Table 4

*Normalized Co-integration and Diagnostic Result*

RGDP	CPS	FDP	RINTR	REXGR	FPS
1.000000	-1.044117	-0.998639	-0.008899	0.001677	0.559653
	(0.01677)	(0.08303)	(0.00865)	(0.00069)	(0.13290)

Source: Authors' Computation, 2017

Note: Standard error statistics are given in parenthesis

Table 5

*Breusch-Godfrey Serial Correlation LM Test*

F-statistic	1.320312	Prob. F(2,34)	0.2804
Obs*R-squared	3.171001	Prob. Chi-Square(2)	0.2048

Source: Authors' Computation, (2017)

Table 6

*Heteroskedasticity Test: Breusch-Pagan-Godfrey*

F-statistic	0.682134	Prob. F(12,31)	0.7552
Obs*R-squared	9.191306	Prob. Chi-Square(12)	0.6865
Scaled explained SS	106.2852	Prob. Chi-Square(12)	0.0000

Source: Authors' Computation, (2017)

Table 4 indicated that Real Exchange Rate (REXGR) and Financial Policy Shift (FPS) all showed a positive relationship with Gross Domestic Product (GDP) on the long-run while, Financial Sector Deepening (FDP), Credit to Private Sector (CPS) and Real Interest Rate (RINTR) depicts a negative relationship with gross domestic product. The coefficient of credit to private sector is -1.044117. The coefficient is negatively signed showing that in the long run, a unit increase in CPS will lead to 1.044117 unit decrease in gross domestic product. Also financial sector deepening has a coefficient of -0.998639 unit, which implies that a unit increase in financial sector deepening will lead to 0.998639 unit decrease in gross domestic product

The coefficient of RINTR is -0.008899. The coefficient is negatively signed showing that in the long run, RINTR and RGDP are negatively related. The result indicated that a unit increase in interest rate would lead to -0.008899 unit decrease in RGDP. The coefficient of REXGR is 0.001677. The coefficient is positively signed showing that in the long run, REXGR and GDP are positively related. RGDP will increase in the long run by 0.001677 units if REXGR increases by a unit. The coefficient of FPS is 0.559653. The coefficient is positively signed showing that in the long run, FPS and RGDP are positively related. RGDP will increase in the long run by 0.559653 units if FPS increases by a unit. The post estimation diagnostic test result in Table 5 and 6 revealed that the Breusch- Godfrey serial correlation LM test shows no evidence of serial correlation, Heteroskedasticity test reveals homoskedasticity of the residuals at 5% level of significance, that is, the variance of the error terms were consistent. The absence of serial correlation provides statistical support for the appropriateness of the short- run model as capturing the underlying dynamic structure of the variables in the VAR. The result for the parsimonious dynamic gross domestic product specifications are reported in Table 7

Table 7

*Parsimonious Short-run Dynamics, Vector Error Correction Mechanism*

Variables	Coefficient	Std. Error	t-Statistic	Prob.
ECM(-1)	-0.515360	0.061600	-8.366195	0.0000
D(RGDP(-1))	0.055106	0.232965	0.236541	0.8144
D(CPS(-1))	0.008344	0.152501	-0.054716	0.9567
D(FDP(-1))	-0.851908	0.856154	-0.995041	0.3264
D(RINTR(-1))	0.046732	0.043373	1.077431	0.2885
D(REXGR(-1))	-0.001078	0.012913	-0.083452	0.9340
D(FPS(-1))	0.423696	1.049664	0.403649	0.6889
C	0.064151	0.160517	0.399655	0.6918

R-squared = 0.744293, F-statistic = 14.96941, Prob. (F-statistic) = 0.000000

Sources: Authors' Computation, 2017

The coefficient of error correction mechanism is the speed or degree of adjustment i.e. the rate at which the dependent variable adjusts to changes in the independent variables and it is negative and significant at 1% level. Theoretically, the estimated coefficient of the error correction term should be negative, thus the larger the value of the coefficient the faster the speed of adjustment towards the long-run equilibrium. The -0.515360 value of the coefficient implies that about 52% of the short-run disequilibrium and inconsistencies are being corrected and incorporated into the long-run equilibrium relationship. The implication is that the present value of RGDP adjust fairly to changes in the independent variables.

Also, from table 7, if all independent variables are held constant, RGDP will increase by 0.064151 units in the long run. The coefficient of CPS is 0.008344, implying a positive relationship between CPS and RGDP on the long run. A unit increase in CPS will cause a rise in RGDP by 0.008344 units. The coefficient of FDP is -0.851908. The coefficient is negatively signed showing that in the long-run estimate from the vector error correction FDP and RGDP are negatively related. RGDP will decrease in the long run by -0.851908 units if FDP increases by a unit. RINTR has a positive relationship with RGDP. The results in Table 7 suggested that a unit increase in RINTR increases RGDP by 0.046732 units. The coefficient of REXGR is -0.001078. The negative signed coefficient signifies that REXGR and RGDP have a negative long run relationship. A unit increase in REXGR means that RGDP will decrease by -0.001078 units. The coefficient of FPS is 0.423696 unit. The coefficient is positively signed showing that in the long run, FPS and RGDP are positively related. RGDP will increase in the long-run estimate from the vector error correction by 0.423696 units if FPS increases by a unit.

### Discussion on Findings and Implication

The study examines the effect of financial sector deregulation on economic growth of Nigeria. From the analysis, in the short-run credit to private sector is positively related to gross domestic product while the result drifts apart in the long-run as it depicts a negative value with the dependent variable. This variable did not conform to economic *a priori* expectation, but the reason is not farfetched. In Nigeria, over the years; the banking sector serves only the government and influential borrowers hence, private sector borrowers are left with little or no credit. It also implies that credits to private sector are used for commerce (buying and selling), or diverted to some unproductive ventures, rather than production activities, which would have increased economic growth. Moreover, the amount of credit to the private sector, as a proportion of the total credit to the economy, is too negligible to contribute

positively to economic growth. This negative result is consistent with the work of Okoye, Nwakoby and Okorie (2016), Orji, Anthony-Orji and Mba (2015) earlier reviewed.

The econometric results further revealed that financial deepening has a negative effect on economic growth in Nigeria. This result negates the *a priori* expectation stated in this study. The implication of this negative relationship is that financial system in Nigeria is weak and can best be described as an inhibitor and that banks are only in business to reap “wind fall” profit. It also implies that the supply of these financial assets is not enough to raise the economy to the desired level. As Taylor (2004) observed, if financial markets are weak, the effectiveness of transmitting policy through money supply will be limited. Thus, necessitating the development of financial sector so as to efficiently and effectively mobilize and allocate funds within the system to guarantee reasonable returns for savers and investment needs of the borrowers in order to contribute to economic growth. The result negates the work of Ndebbio (2004) who holds the view that financial deepening plays positive and significant role in the growth of per capita output in the 34 selected Sub-Saharan African countries including Nigeria but the findings support the work of Obamuyi (2009), Sulaiman, Oke and Azeez (2012). The analysis also indicated that real interest rate of borrowing is indirectly linked with the economic progress of Nigeria in the long-run with a negative coefficient. This suggests that the government has engaged so much contractionary monetary policy (a situation whereby the money supply policy was not able to address the investment opportunity trend of the economy) to the detriment of the Nigerian economy.

The positive relationship of exchange rate supports the work of Okoye, Nwakoby and Okorie (2016) but negates the work of Sulaiman, Oke and Azeez (2012). The financial policy shift depicts a negative relationship in the short-run on economic growth, suggesting that the totality of the reform has not achieved the optimal growth rate in Nigeria within this short period but in the long-run exhibits a positive relationship with the dependent variable. This long-run effect negates the findings of Obamuyi and Olorunfemi (2011) and Obamuyi, (2009). The Breusch – Godfrey serial correlation test shows that we cannot reject the null hypothesis of no serial correlation of any order. Heteroskedasticity test reveals homoskedasticity of the residuals at 5% level of significance, that is, the variance of the error terms were consistent. Therefore, the study can conclude that the model is free from any order of serial correlation. The error correction model which captures the speed of adjustment of the model to short-run disequilibrium conditions has a negatively signed co-efficient. This depicts the presence of a feedback mechanism for the model in the incidence of external shocks. The result shows a moderate speed of adjustment to short-run shocks of approximately 52 per cent. Hence short-run deviations from equilibrium position are re-adjusted per time in order to maintain balance in the system in the long-run.

### **Conclusion and Recommendations**

From the analysis conducted, the study concluded that the gain from financial sector deregulation in Nigeria has remained relatively low in spite of the various reforms and institutional changes put in place by the monetary authorities. It is also evident that the low level of monetization of the economy and the level of private sector credits have negatively affected the level of financial deepening on economic growth of Nigeria. This implies that financial sector deregulation has not really increased the depth of the financial system which would consequently impact positively on the economy. The study recommended an enhancement of private sector investment through financial sector credits and through a combination of macroeconomic stabilization which would surely enhance the performance of

economic growth in Nigeria. Also, in order to consolidate the gains from financial sector deregulation, government should avoid drastic policy reversal but rather, concentrate efforts in fine-tuning the existing policy measures which will not only compel prudence on the part of major operators in the financial market but also stimulate saving behaviour of all economic agents. This will go a long way at enhancing mobilization of funds in the country.

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