



## **Bank Reforms in Nigeria: It's Impact on Bank Lending to the Manufacturing Sector**

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### ***Abstract***

*This study examines the impact of bank reforms on lending to the manufacturing sector in Nigeria from 1990 – 2017. The choice of the period was because it focuses strictly on the time of liberalization and consolidation of the banking sector. We employed the error correction technique to estimate the model of lending equation in order to suitably show the impact of the bank reform on bank lending to the manufacturing sector of the Nigerian economy. The results of the study revealed a positive but insignificant relationship between bank capital base and bank lending to the sector. Based on the findings of the study, the study recommends that, there is need for increase in bank capital base in the banking sector to enhanced allocation of credit to the private and public sectors to stimulate growth, and there should be proper channeling of resources to the real sectors of the economy.*

**Keywords:** *Reform, Bank lending, capital, Lending rate, Deposit, Manufacturing sector*

## **Introduction**

The banking sector is the most important sector of any economy, especially a market driven economy.

As short term financial lender, they accept deposit from customers and extend credit to the private individuals

and government to the extent of their excess reserves. Hammah (2008) finds that the development of financial markets has a positive impact on growth. Through an efficient intermediation process, banks improve productivity of investment by channeling funds to the most profitable investment projects, which translate into economic growth. As rational transactors, banks avoid large levels of excess reserves which could be given out as loans to investors in the production sectors. This requires a high level of prudence in risk management and corporate governance. However, if banks becomes too risk averse, they become reluctant in granting loans to potentially profitable business particularly during recession, in the process compromising their profit levels and growth in national income and employment.

The very important and strategic roles which the bank plays in both national and international economic development make the issue of protection imperative. In Nigeria, banking sector reforms is an integral part of the overall economic reforms programme undertaken by the federal government to reposition the banking industry to be able to play its critical and strategic intermediation and development roles, so that Nigeria economy can achieve its objectives of becoming one of the 20 largest economies by the year 2020. Having realized the crucial roles banks plays in boosting economic growth, the Nigeria governments over the years, have introduced several banking reforms. Starting, particularly in 1986, the Nigerian financial system began to be deregulated and by 1992, substantial changes have taken place. In July, 2004, the biggest reforms ever in Nigeria banks came with 89 banks forced to merge culminating into 25 universal banks which was further reduced to 22 banks. The justification of this reform was that compared with some banks in the world, Nigeria banks with N2 billion minimum capital base in 2003 and 2004 was relatively undercapitalized a consideration which constrained their ability to provide credit for large projects in the oil and gas, manufacturing industries, telecommunication and other high valued projects within Nigeria and other African countries.

Bank reforms and attendant policy prescriptions have been an age long occurrence. They represent the transformation and policy adjustment aimed at improving the art, practice and activities of the banking institutions for operational improvement and growth of both the institution and the general economy. Chinadu and Muoghalu (2004) opined that they could be internal or external in nature, reflecting critical and comprehensive amendments, restructuring and or addition to the existing body of laws, guidelines and policies. Kama (2006) observed that the

ability of the financial sector to play its role has been periodically punctuated by its vulnerability to systemic distress and macroeconomic volatility, and policy fine tuning inevitable.

The banking sector reforms in Nigeria rest on four pillars which are; to enhance the quality of banks in Nigeria; to enhanced financial stability, to bring about healthy financial sector that will result in the much needed financial sector inclusiveness; and to ensure that the financial sector contributes to the real sector of the economy. By the time these cardinal reforms objectives are attained, the Nigeria banking system would have been positioned to compete favorably with its counterparts globally. The question to answer is, has reform impacted on bank lending to the manufacturing sector in Nigeria? The paper is organized into introduction, literature review, financial reform and bank performance in Nigeria, model specification, analysis of unit root and cointegration which will be followed with analysis of regression. The last segment will be summary, recommendations and conclusion.

### **Literature Review**

As a result of the consolidation exercise, Nigerian bank officials were excited when Nigeria bank made the list of 1,000 most capitalized banks in the world.

Lending which may be short, medium or long term basis is one of the functions of the commercial banks rendered to their customers. In order words, bank grant loan to individual, private business and the government in order for them to be able to embark upon investment and development activities as a means of aiding their growth or contributing to the economic growth of the country in general. Olokoyo (2011), posit that no matter the sources of the generation of income or the economic policies of the country commercial banks are interested in giving out loan and advances to their customers bearing in mind the principles guiding their operations which are; profitability, liquidity and solvency. However, commercial bank loan decisions are influenced by such factors as the prevailing lending/interest rate, the volume of deposits, banks liquidity ratio and public recognition to mention but a few.

Ajayi (2005) maintains that reforms are predicated upon the need for reorientation and repositioning of existing status quo in order to attain an effective and efficient state. It is generally believe that a well developed banking sector contributes to economic growth by mobilizing savings and effectively and efficiently allocating them among the competing investment projects and other demands for funds.

Financial services are paramount in economic growth as it takes credit for production to materialize and one can be an entrepreneur by previously becoming a debtor because he continuously wants credit. The entrepreneur is a typical debtor in a capitalist society and that the bank is the key agent. Mckinnon (1973) and Shaw (1973), argued that the function of financial institutions in saving-investment process were underscored as being an effective conduit for the mobilization and allocation of capital by equilibrating the supply of loanable funds with the demand for investment funds, and the transformation and distribution of risks and maturities. They support the financial liberalization theory that government restrictions on the banking system restrain the quality and quantum of investment. In the traditional Keynesian theory, the impact of monetary policy can be transmitted to the rest of the economy through the banking system. The interest rate elasticity brings about the allocation of funds among competing uses in efficient way on the assumption of the presence of efficient money market. Interest rate coupled with price competitiveness in the banking system will stimulate the rate of savings given a level of income which will lead to the supply of domestic capital eventually.

Under ideal situation expanded financial intermediation between saver and investors create incentive to save and invest thereby raising the efficiency of investment. The banking policies which embrace openness, competition and innovation will promote economic growth. Conversely, banking policies which have the effect of restricting or slowing bank reforms by unduly protecting or favoring particular sector are likely overtime to experience unsustainable economic growth. Sustained economic growth can be narrowly defined as sustain growth in income per person and continued progress that rich nation have enjoyed since the industrial revolution.

In Nigeria, Duru and Kehinde(2012) noted that research efforts in the area of financial sector reforms and its impact on SMEs are minimal. The few ones sighted include Duru and Kehinde (2012) on Financial Sector Reforms and the Growth of SMEs in Nigeria; Ango (2011) on the Impact of Banking Sector Reforms on Growth and Development of Entrepreneurs; Lawal and Ijaiya (2010) on SMEs Access to Commercial Banks Credit and their Contribution to GDP in Nigeria; and finally Aruwa (2009) on Assessment of Small and Medium Industries Equity Investment Scheme (SMIEIS) Implementation Guideline. The studies are unanimous in their conclusion that the negative impacts of banking sector reforms on SMEs have outweigh the positive own. The reasons for this

include instability in the exchange rate of the Naira, high interest rates, inflation, and ignorance of special funding schemes for SMEs by vast majority of entrepreneurs.

### **Financial Sector Reforms and Bank Performance in Nigeria.**

The financial sector reform in Nigeria may be categorized into three: the pre-reform era, reform era and the post-reform era. The pre-reform era only focused on the development of a mixed economy, where the public sector had a predominant role in economic activities. During the 1980s, the financial sector was highly stretched. The directed and concessionary bank credits were with serious references to some sectors, which eventually resulted into distorting interest rate mechanism and the liquidity and profitability positions of banks were adversely affected. During the period, financial sector was highly repressed, with ceilings on credit expansion, thereby forcing the banks to develop an inability experience to maintain an efficient flow of funds within the financial system.

During this period, the prevailing interest rate could not keep with inflation, thereby resulting to negative real interest rates; in addition, the demand for credit soon exceeded the rate of savings and a large proportion of government borrowing had to be financed by Central Bank of Nigeria (CBN).

During the reform era, there was deregulation on interest rate and exchange rate. The regulatory government agencies such as Nigerian Deposit Insurance Corporation (NDIC) and CBN were strengthened and capital adequacy of banks were thoroughly reviewed. During the period, the regulatory, monetary and supervisory authorities had taken some measures to facilitate the financial deregulation process in the economy to bring about smooth operation in the financial system.

The liberalization of interest rate was designed to have a favorable impact on the economy by stimulating keen competition among banks for deposits with savings mobilization to be fostered by higher interest rate. It was not difficult for the government to curtail the liberal interest rate regime as announced in the 1991 in the Federal Government Budget in order to support the productive sector (i.e. agriculture and manufacturing) of the economy, as intended under SAP (Ojo, 1991).

Another measure is the progressive increase in minimum capital required for establishing banks, which now stands at N25billion since 2005 till date, because

it symbolizes the year Nigerian economy witnessed last financial reform. This derived from the desire of the monetary authorities to stabilize the banking system in view of the greater risks. It must be noted that Banks are more exposed to risks and uncertainties due to the volume of business of the banks and the gross devaluation of the naira, but some banks seek refuge through merger or acquisition (Ebhodagbe, 1991).

The post reform era started after 2005 banking reform and the recapitalization in the insurance sector in 2006. Since then, no concrete reform till date. The deliberate and systematic removal of regulatory controls, structures and efficient allocation of scarce resources in an economy promotes economic growth. The main philosophy of the financial reform of an economy is to accelerate the availability of credit to the market (Zingales, 2003).

### **Model Specification**

This study is designed to critically examine bank reforms and lending to the manufacturing sector in Nigeria. To examine this, a simple linear model is adopted, following the model specified by Okoye and Eze (2013) which assume a linear functional relationship between bank lending rate and performance of deposit money specified as  $BE = F(LR, MPR)$ . However, our model is modified to reflect our study. We Used Total bank lending to the manufacturing sector as the dependent variables while the reforms/independent variable utilized are Bank minimum capital base, bank deposit, and bank lending rate. The relationship to be estimated is specified as:

$$\text{LogBLMan} = \beta_0 + \beta_1 \log(\text{Bcap}) + \beta_2 \log(\text{Bdep}) + \beta_3 \log(\text{Blr}) + U_t$$

Where BLMan is bank lending to manufacturing, Bcap is bank capital base, Bdep is bank deposit, Blr is bank lending rate,  $U_t$  is the error term. In economic theory, there exists positive or negative relationship between the dependent and independent variables. Hence our apriori expectation is that the coefficient of the independent or explanatory variables such as bank minimum capital base and bank deposit to have a positive impact on lending as the increase in these variables is supposed to encourage bank to lend out credit to investors in the manufacturing sector. Lending rate is supposed to have a negative influence on bank lending as increase in bank lending rate will reduce willingness to borrow as cost of fund is now expensive and vice versa.

### Analysis of Unit Root Results

The study utilized the Augmented Dickey-Fuller (ADF), to test the order of integration of the variables. The test is conducted in both level and first difference and, with constant and trend in the equation. The results shows that none of the variables namely, bank lending to the manufacturing sector, minimum capital base of the banks after reforms, total bank deposits and bank lending rate could gain stationarity at level. This can be seen by comparing the observed values (in absolute terms) of the ADF test statistics at 1%, 5% and 10% levels of significance. Thus, following the Box and Jenkins (1978) methodology which has argued that non stationary time series in level may be made stationary by taking their first differences? The results indicate stationary at first difference. Therefore, all the variables were found to be integrated of order one. Hence, we would accept the hypothesis that the variables are integrated of order one.

### Augmented Dickey Fuller Test Results

Variables	First Difference ADF	Order of Integration
Ln(BLMan)	-9.462* (-3.26)	I(1)
Ln(Bcap)	-9.462* (-3.26)	I(1)
Ln(Bdep)	-8.942* (-3.265)	I(1)
Ln(Blr)	-8.942* (-3.265)	I(1)

*ADF critical value @ 95% is reported below each ADF value*

Given that the variables were made stationary by their first differences, it thus implies that the mean and the variance of the variables are independent of time and thus they have the tendency to constantly return to their mean values and to fluctuate around it in a less constant range.

### Co-integration Results

The Johansen Maximum likelihood (JML) approaches was utilized in the co-integration tests. The co-integration tests were performed given the presence of

linear trend. The results of the trace test statistics and the max-eigen value statistics are presented in Tables respectively below. The co integrating test started with the null hypothesis that there are no co-integrating vectors ( $r = 0$ ) as against the alternative that there exists a co-integrating vector.

**Johansen’s Co-integration Test Results (Trace statistics)**

Null Hypothesis	Trace statistic	5% Critical value	Eigen Value
$r = 0$	165.67	142.32	0.639
$r = 1$	128.58	123.57	0.659
$r = 2$	114.39	122.38	0.948
$r = 3$	39.72	65.35	0.694
$r = 4$	14.66	25.96	0.686
$r = 5$	3.64	5.27	0.692

Evidently, the result showed that there exist at most one co integrating relation as both the trace and maximum statistics are larger than their respective critical values. Thus, we reject the null hypothesis of no co-integrating relationship at 5 percent level of significance in favour of the alternative hypothesis with the conclusion that the variables are co integrated towards a stable long-run relationship.

**Table 4.3: Johansen’s Co-integration Test Results (Max-eigen value)**

Null Hypothesis	Max-statistic	5% Critical value	Eigen Value
$r = 0$	169.09	155.23	0.599
$r = 1$	135.39	153.25	0.698
$r = 2$	113.68	113.27	0.694
$r = 3$	36.04	36.52	0.386
$r = 4$	23.27	25.25	0.679
$r = 5$	2.70	5.34	0.663

The co-integrating relationship implied by the Johansen’s test indicates that bank lending to the manufacturing sector, minimum capital base of the banks after reforms, total bank deposits and bank lending rate share a common trend



and long-run equilibrium as suggested by economic theory. Thus, we cannot reject the hypothesis of co-integration among the variables in the analysis. This suggests that co-integration exists within the relationships and that the error correction technique can conveniently be used to estimate the relationship between bank lending to the manufacturing sector, minimum capital base of the banks after reforms, total bank deposits and bank lending rate within a short run dynamic adjustment mechanism towards the long-run equilibrium.

## **Analysis of Results**

### **Regression Results of Bank Lending to Manufacturing**

The regression results of bank lending to the manufacturing sector are presented in table below. The estimated coefficient of the minimum capital base of banks after reforms on the manufacturing sector is positive but not statistically different from zero. The coefficient estimate shows that a ten percent increase in the minimum capital base of banks after reforms increases bank lending to the manufacturing sector by 3.57%. However, such increment is not significant to positively drive the performance of the manufacturing sector of the economy. This in turn is capable of hampering the performance of the sector. The coefficient of total bank deposits impacted positively on the manufacturing sector. However, the coefficient was not statistically different from zero given a t-statistic of 0.586. The bank lending rate had the expected negative sign with a coefficient of -1.457. This shows that a ten percent increase in the bank lending rate reduces lending to the manufacturing sector by 14.57%.

The unadjusted co-efficient of determination is 0.824. This goes to show that the variation in the variables of bank reforms jointly explained about 82% of the total variation in bank lending to the manufacturing sector. The F-statistic (14.592) of the estimated equation of bank lending to the manufacturing sector is statistically significant. The estimated results thus show the existence of a linear and proportionate relationship between bank lending to the manufacturing sector and bank reforms as measured by the minimum capital base of banks after reforms, total bank deposits and bank lending rate. The Durbin Watson test statistic 2.159 indicates the absence of positive autocorrelation. This provides evidence of unbiased regression estimates which can indeed be relied upon to drive policy. The coefficient of the error correction term (-0.493) for the estimated equation of bank lending to the manufacturing sector is statistically significant and negative. Thus, it will rightly act to correct

deviation of bank lending to the manufacturing sector from long-run equilibrium but not with significant effect. Specifically, if the actual equilibrium value is too high, the error correction term will bring it down, while if it is too low, the error correction term will raise it. In effect, the value of the coefficient however implies that when bank lending to the manufacturing sector is out of its long run trend, 49.3% of the error is corrected at each level to restore equilibrium.

### Regression Results of Bank Lending to Manufacturing

Variable	Coefficient	Prob.
C	-0.547 (-2.493)	0.006
Ln(Bcap)	0.357 (1.562)	0.245
Ln(Bdep)	-3.429 (-0.586)	1.028
Ln(Blr)	-1.457 (-9.728)	0.000
ecm(t-1)	-0.493 (-1.587)	1.309
R <sup>2</sup> = 0.824, Adj. R <sup>2</sup> = 0.970		
F, (3, 27) = 14.592, DW = 2.159		

### Summary

The study examines bank reforms and its impact on lending to the manufacturing sector in Nigerian. The empirical evidence from the study suggests that higher bank lending rate discourages loan procurement to the sector of the Nigerian economy. The study also reveals uncomplimentary banking sector reforms that are not lending enhancing to the manufacturing sector of the economy. The suggested plausible reason for this observation could be the negative effect of tight monetary policy in resource mobilization, production and export, resulting to distortion in the balance of payment equilibrium. The insignificant but positive effect of the minimum capital base of the commercial banking system after reforms in Nigeria could be seen in its

relative small contribution to bank lending to the manufacturing sector of the economy.

### **Policy Recommendations**

Based on the findings of the study, we recommend that for there to be a significant growth rate in the manufacturing sector of the Nigerian economy:

- The government should vigorously implement special policies that will increase and ensure efficient allocation of credit to the manufacturing sector.
- Also, the apex bank (CBN) should be more committed to policy implementation.
- Government should maintain a stable macroeconomic policy especially in the area of stable inflation, realizable exchange rate policies and fiscal balance.
- There should be more reform in the banking sector, such that the interest and inflation rate be reduced to a digit and exchange rate volatility can be reduced, controlled and managed.

The government should continue to maintain appropriate environment including political stability for retaining inflows.

### **Conclusion**

This study empirically examined bank reform and bank lending to the manufacturing sector in Nigeria. Findings from the study show that financial sector reforms are yet to enhance the availability of credit to the manufacturing sector. The study reveals that financial reform is not a causal factor for effective performance of the manufacturing sectors in Nigeria. Hence, there is a need for strong bank credit policy to regulate short-term capital flow. Also, the Central Bank of Nigeria (CBN) should ensure the stabilization of financial markets and banks. The study further recommends continuous reforms in the financial sector so as to enhance the performance of banks.

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