The Effect of Banks Profitability on Economic Growth in Nigeria

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Abstract: Profitability and survival of banks is key to economic growth, the health of most industries relies on the availability of finance provided by the banks within the economy to facilitate transaction. It is on this premise that this research is carried on to determine how profitability in the banking industry affect economic growth in Nigeria. The study adopted survey design using ex-post facto. The population of the study is represented by the Nigerian banking industry, the study covered a period of ten years from 2005 to 2014 based on the annual report of five selected banks within the Nigerian banking industry. E-view statistical package was adopted for the regression analysis with the result accepting $H_1$ and rejecting $H_0$, the study find that increasing proportion of banks profitability will significantly change the gross domestic product in Nigeria. The study concluded that profitability of banks has a significant effect on economic growth in Nigeria, this was confirmed by the prob (F-statistic) showing that there is a negative significant relationship between banks’ profitability and the gross domestic product in Nigeria. The result specifically leads to the conclusion that a direct relationship existed between banks profitability and the growth of the economy (GDP), based on the result of our study it is recommended that the regulatory authority should ensure that the gains of the banking reforms processes are sustained, the CBN should take more decisive measures aimed at tightening the risk management framework of the Nigerian banking sector as this will have a positive effect on the their profitability.

Key Words: Profitability, Economic Growth, Development Recapitalization, Human Development index

I. Background Of The Study

There has been a growing concern on banking industry for survival in Nigeria economy in recent times, despite the fact that the government embarked on several strategies aimed at improving capital base and capacity utilization of the sector to safeguard depositors money. Furthermore, there are many literatures that debated on the intermediary role of banks in the economic growth. But, there seem to be a general consensus that the role of intermediation of banks help in boosting economic growth. Yakubu and Affoi (2014) identified banks’ traditional roles to include financing of agriculture, manufacturing and syndicating of credit to productive sectors of the economy, in which profit is also realized by the banks within the economy.

The banking sector of the economy helps to make fund available by mobilizing surplus funds from depository who have no immediate needs of such funds and thus channel such funds in form of credit to investors who have brilliant ideas on how to create additional wealth in the economy but lack the necessary capital to execute the ideas (Nwanyanwu, 2010), thereby creating income for the banks to ensure profitability. It is instructive to note that the banking sector has stood out in the financial sector as of prime importance, because in many developing countries of the world, the sector is virtually the only financial means of attracting private savings on a large scale (Adeniyi, 2006). Profitability in banks remain the main essence of investment to shareholders as seen in the case of Zenith bank declaring a high profit in 2014 as against all other problems, this show the importance of profit to stakeholders. Banks’ performance in Nigeria over the last ten years remained unimpressive. Profit before tax (PBT) of the banks fluctuated, especially between year 2002 and 2005, and has declined progressively since 2008. The profit before tax which was 80.8% in 2000 fell dramatically and recorded a loss of 13.95%. Although PBT peaked at 287.62% in 2007, it groped to 49.14% in 2008 (Obamuyi, 2012). This implies that the opportunities for banks in Nigeria to make profits are gradually reducing. The declining profits could have been caused by the global economic crises, the festering crises in the banking sector and the fact that some of the criteria usually employed to measure the performance of the banks have been compromised by the Central Bank of Nigeria (Obamuyi, 2011). Olokoyo (2011) argues, that the current trend in Nigerian banking suggests that the days of cheap profits are now over and only banks with well conceptualized lending and credit administration policies and procedures can survive the emerging competition. The implication of these is that consistent reduction in profit before tax will erode the shareholders goal of profit making as well as the growth and extension plan of the banks (Obamuyi, 2013). This is likely to lead to a further drop in the share price as shareholders might choose to sell off their investment.Nwanyanwu (2010) argued that profitability and survival is key to economic growth, the health of most industries relies on the availability of finance provided by the banks within the economy to facilitate transaction. It is on this premise that this research is carried on.
II. Statement of the Problem

The financial sector reform of the Structural Adjustment Programme (SAP) in 1986, which was meant to correct the structural imbalance in the economy and liberalize the financial systems did not achieve the expected results. As Edirisuriya (2008) reported, financial sector reforms are expected to promote a more efficient allocation of resources and ensure that financial intermediation occurs as efficiently as possible. This also implies that financial sector liberalization brings competition in the financial markets, raises interest rate to encourage savings, thereby making funds available for investment and increasing profitability in banks, and hence lead to economic growth (Asamoah, 2008). Therefore, it is logical to assume that financial liberalization enhances funds mobilization and accessibility, which are required for firms’ performance and economic growth. Also with the bank recapitalization in 2004 by Soludo with the fluctuations in the gross domestic product, this study to find the relationship between profitability in banks and economic growth in the Nigerian economy. Profit in the banking industry fluctuates overtime having its ripple effect on economic growth, this calls attention to profitability variables (return on capital employed, return on asset, and return on equity) in banks and their effect on economic growth.

Objectives of the study

The main objective of this study is to evaluate and determine the effect of profitability in the banking industry on growth in Nigerian economy. Specifically, this research work stands to achieve the following objectives:
1. To determine the relationship between bank return on capital employed on gross domestic product in Nigeria.
2. To evaluate the relationship between banks return on equity on gross domestic product in Nigeria.

Research Questions
1. To what extent does bank return on capital employed generate an effect on gross domestic product in Nigeria?
2. What is the relationship between banks return on equity and gross domestic product in Nigeria?

Relevance and Scope of Study

The study will increase awareness on the effect of profitability in banks on gross domestic product, thereby creating awareness on profit made by the banks and its expectant result on GDP. It will also reveal the problems of GDP relating to the banks and be useful to researchers, scholars, and other third parties as it shall open new area of further research work and at same time advance challenges to up-coming researchers. The study will focus on the effect of profitability in the banks on GDP in Nigeria economy and due to the logical point that not every bank can be studied as a result of time and resources available, this research is therefore limited to 10 percent of the population as sample size of the banking sector of the Nigerian economy. This is in line with (Smith, 2004) The sample representative will be based on selected banks (Zenith bank plc.; UBA plc; First bank Nig. plc.; and Eco bank Nig.) using a simple random sampling technique representing a minimum of 10 percent of the entire banks in Nigeria within a study period of five years. The study will cover the period within 2005 to 2014.

III. Review of Literature

The concept of economic growth is viewed as an increase in the net national product in a given period of time (Dewett, 2005). He explained that economic growth is generally referred to as a quantitative change in economic variables, normally persisting over successive periods. Todaro and Smith (2006) defined economic growth as a steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national output and income. Jhingan (2006) viewed economic growth as an increase in output. He explained further that it is related to a quantitative sustained increase in the country’s per capita income or output accompanied by expansion in its labour force, consumption, capital and volume of trade. The main characteristics of economic growth are high rate of growth of per capita income or output, high rate of productivity, high rate of structural transformation, international flows of labour, goods and capital (Ochejele, 2007). Economic growth can also be measured in terms of Gross Domestic Product (GDP) and Human Development Index (HDI), which is an index that measures national growth based on measures of life expectancy at birth, education attainment, literacy and adjusted real per capita income. Looking at the above definition we can conclude that economic growth is went there is a sustained increase in the actual output of goods and services per head. Below are the ranking of Nigeria banks based on some yardstick.
By applying Granger Causality Test provided the evidence in support of the fact that credit development on Turkish economy, it was found that when bank deposits, private sector credit or domestic credit ratios are alternatively used as proxies for financial development; causality runs from economic growth to financial development. Their conclusion was that financial development can affect growth in three ways, which are: raising the efficiency of loan intermediation, increasing the social marginal productivity of capital and influencing the private savings rate. This means that a financial institution can effect economic growth by efficiently carrying out its functions, among which is the provision of financial services which leads to bank profitability.

2. **Empirical Review**

Levine (1997) proposed that financial development promotes economic growth through two “channels” of capital accumulation and technological innovation, while King and Levine (1993b) identified innovation as the main channel of transmission between finance and growth. Dey & Flaherty (2005) used a two-stage regression model to examine the impact of bank credit and stock market liquidity on GDP growth. They found that bank credit and stock market liquidity are not consistent determinants of GDP growth. Banking development is a significant determinant of GDP growth, while turnover is not. Cappiello, Kadareja, Sørensen, and Protopapa (2010) in their study of European Area found that in contrast to recent findings for the US, the supply of credit, both in terms of volumes and in terms of credit standards applied on loans to enterprises, have significant effects on real economic activity. In other words, a change in loan growth has a positive and statistically significant effect on GDP.

In a study carried on by Mulhsin and Eric (2000) on Turkish economy, it was found that when bank deposit, private sector credit or domestic credit ratios are alternatively used as proxies for financial development; causality runs from economic growth to financial development. Their conclusion was that growth seems to lead financial sector development. Mishra et al (2009) examined the direction of causality that runs between credit market development and the economic growth in India for the period 1980 to 2008. In the VAR framework the application of Granger Causality Test provided the evidence in support of the fact that credit market development spurs economic growth. The empirical investigation indicated a positive effect of economic growth on credit market development of the country. Mukhopadhyay and Pradhan (2010) recently examined the causal relationship between financial development and economic growth of 7 Asian developing countries (Thailand, Indonesia, Malaysia, the Philippines, China, India and Singapore) during the last 30 years, using...
multivariate VAR model. The study concluded that no general consensus can be made about the finance-growth relationship in the context of developing countries. Odedokun (1989), for instance, tested the causality between financial variables and economic development. Among other findings, he found a rather weak unidirectional causation from the GDP to the broader money when Sim’s procedures were used and contrary estimates for Granger causality. Olomola (1999) applied co-integration and Granger causality to Nigerian quarterly series data for 1962-1992 in order to test if the relationship between financial deepening-grow this either “demand following” or “supply leading”. Among other results, his study showed that the Nigerian economy exhibits a mixture of “supply-leading” and demand-following patterns whereby causation runs from the financial sector of the economy to the real sector and vice-versa. His study also supports the case of unidirectional causality from the real sector to the financial sector as in Odedokun (1989). His conclusion among others was that money is causally prior to income, in the sense of Granger, for Nigeria, and that the reverse causation holds.

Generally, the above review of related studies supposes that the causal relation between credit market development and economic growth is still debatable in the literature. Apart from being scanty, the empirical literature is weakened by not covering the period of recent global financial crisis in the Nigerian economy. This paper is an attempt to fill such gaps in the finance-growth nexus literature. Gull, Iqshad, and Zaman (2011) examined the relationship between bank-specific and macro-economic characteristics over bank profitability by using data of top fifteen Pakistani commercial banks over the period 2005 to 2009. The paper used the pooled ordinary least square (POLS) method to investigate the impact of assets, loans, equity, deposits, economic growth, inflation and market capitalization on major profitability indicators that is, return on asset (ROA), return on equity (ROE), return on capital employed (ROCE) and net interest margin (NIM) separately. The empirical results showed strong evidence that both internal and external factors have a strong influence on the profitability.

Seven years earlier, Goddard et al. (2004) had investigated the profitability of European banks during the 1990s using cross-sectional, pooled cross-sectional time series and dynamic panel models. Models for the determinants of profitability incorporate size, diversification, risk and ownership type, as well as dynamic effects. They found that despite intensifying competition there was significant persistence of abnormal profit from year to year. Their results suggest that evidence for any consistent or systematic size–profitability relationship is relatively weak; the relationship between the importance of off-balance-sheet business in a bank’s portfolio and profitability is positive for the UK, but either neutral or negative elsewhere. Furthermore the relationship between the capital/assets ratio and profitability was positive.

In a study on the determinants of the Tunisian banking industry profitability for 10 banks in Tunisia for the period 1980 to 2000, Naceur (2003) observed that high net interest margin and profitability are likely to be associated with banks with high amount of capital and large overheads. Further the paper also noted that other determinants such as loans has positive and bank size has negative impact on profitability. Naceur and Goaied (2001) investigated the impact of banks’ characteristics, financial structure and macroeconomic indicators on banks’ net interest margins and profitability in the Tunisian banking industry from 1980 to 2000. Individual bank characteristics explain a substantial part of the within-country variation in bank interest margins and net profitability. High net interest margin and profitability tend to be associated with banks that hold a relatively high amount of capital, and with large overheads. Size is found to impact negatively on profitability which implies that Tunisian banks are operating above their optimum level. Ani, Ugwuanta, Ezeudu, and Ugwuanyi (2012) carried on a survey, an empirical assessment of the determinants of bank profitability in Nigeria: Bank characteristics panel evidence, using pooled OLS. The major outcome of this study is that higher total assets may not necessarily lead to higher profits. The negative coefficient of size indicates that this relation might be negative due to diseconomies of scale suffered by banks due to uncontrollable increased size. Higher loans and advances contribute towards profitability. This reveals that more dependence on one major asset, may lead to profitability but with less significant impact on overall profitability. They recommend that Banks in Nigeria should endeavor to manage adequately the liquidity and profitability trade-off while diversifying their asset in a way to remain profitable and sustainable.

Sabo (2007) carried on a study on Assessment of the Determinants of the Nigerian Banking Industry Profitability Using Panel Evidence from Nigerian Commercial Banks, which focused on the determinants of bank’s interest margin and profitability focusing on whether banks in a particular country or panel have tended to exhibit different profit determinants and deposit behaviours. Using the panel of respondents drawn randomly from 10 sampled banks based on their total deposit position at the entry point of the period of study 1996-2005, the study established that in Nigeria, the volume of operations more than any other factor determined the operating profits of commercial banks. The other factors include the level of market capitalisation, peer group ranking and combination of other important factors as determined by the tempo of the macro-economic environment. This finding posed serious challenge to bank executives to identify important explanatory variables or determinants affecting their annual earnings to their forecast and build them into their chosen forecasting and profit planning models to improve forecast accuracy. The study calls for more commitment to

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trainings and model development based on the internal peculiarities of banks under study.

Research Hypotheses

\( H_0 \)  
Return on capital employed in banks has no significant effect on GDP.

\( H_0 \)  
Return on asset in banks has no significant effect on the GDP.

V. Methodology

Research design

According to Odugbemi and Oyesika (2000), research design is the structuring of investigation aimed at identifying variables and their relationship to one another. Asika (2005), postulate that research design is a scientific plan, drawing or scheme indicating the functioning or workings of the research process before it is engaged in. This research is a survey research using ex-post factor research design. Secondary data will be used to obtain the required information.

Population of the Study

The research target all quoted banks in Nigeria as population of this study. This research is aimed at determining the effect of profitability in banks on GDP in Nigeria economy, and it is based on financial statement of the five selected quoted banks based on profitability level over the last ten years, (Zenith bank plc.; UBA plc; First bank Nig. plc.; Diamond bank plc.; and GTB bank Nig.).

Sample Representative

The population for the study, is represented by the all banks in Nigeria from which selection is based on their profitability using simple random selection method is used in determining the study sample, (Zenith bank plc.; UBA plc; First bank Nig. plc.; and Eco bank Nig.) representing 10 percent of the entire population, this in line with Smith (2004) who argued that ten percent of the population is sufficient generalize on the population.

Sampling techniques

The technique adopted in this study is the simple random sampling method. It involves the random selection of sample from the entire population using the ballot system or based on a specified yardstick and administration of the research instruments on the selected samples.

Model specification

The regression analysis that will be adopted for the study with a pooled OLS (POLS) equation estimated/expressed mathematically as: 
\[ y = a + bx + \mu \]
Where;  
\( y \) = Dependent variables (GDP)  
\( a \) = Intercept or Autonomous Variable.  
\( b \) = Co-efficient of the independent variable or the slope  
\( x \) = Independent Variable (Banks profitability)  
\( \mu \) = Stochastic variable. (This represents other variables that can cause changes in the dependent variables, which are not represented in the stated model).

Model

\[ Y = F(X) \]
\[ GDP=f(ROE) \]
\[ GDP=f(ROCE) \]
The econometric model of this functional relationship is given as:
\[ GDP = a + \beta x + \beta y + \mu \] ………….(1)
Where:
\( GDP \) = Gross domestic product  
\( X \) = Return on capital employed  
\( Y \) = Return on equity  
\( a \) = Autonomous GDP when Commercial bank ROCE, and ROE is held constant  
\( \beta \) = Coefficient of commercial bank ROCE, and ROE  
\( \mu \) = Error term
## VI. Empirical Test

Data in this study is analyzed using E-views statistical tool for regressing the variables. That is, GDP on ROCE and ROE.

### Model One

<table>
<thead>
<tr>
<th>Dependent Variable: GDP</th>
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</thead>
<tbody>
<tr>
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<td><strong>Date:</strong> 05/01/15 <strong>Time:</strong> 05:31</td>
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<tr>
<td><strong>Sample:</strong> 2005-2014</td>
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<tr>
<td><strong>Periods included:</strong> 10</td>
</tr>
<tr>
<td><strong>Cross-sections included:</strong> 10</td>
</tr>
<tr>
<td><strong>Total panel (balanced) observations:</strong> 100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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</thead>
<tbody>
<tr>
<td>C</td>
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<td>8.25E-17</td>
<td>9.04E+16</td>
<td>0.000000</td>
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<tr>
<td>ROCE</td>
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<td>1.04E-16</td>
<td>-9.064331</td>
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### Effects Specification

<table>
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<tr>
<th>Cross-section fixed (dummy variables)</th>
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<tr>
<td>R-squared</td>
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<tr>
<td>Adjusted R-squared</td>
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<tr>
<td>S.E. of regression</td>
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<tr>
<td>Sum squared resid</td>
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<tr>
<td>Log likelihood</td>
</tr>
<tr>
<td>F-statistic</td>
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<tr>
<td>Prob(F-statistic)</td>
</tr>
</tbody>
</table>

### Interpretation

The coefficient of the independent is -9.46 which is negative. This shows that there is a negative relationship between the independent variable and dependent variable which is highly negatively significant. This implies that banks return on capital employed has a negative significant effect on the economic growth in Nigeria. The overall coefficient of determination R² is 1.00, that is R² = 1.000 this implies that 100% of the variations in economic growth is explained by the independent variable. 

The remaining 0% of changes is explained by other variables that are not considered in the model but can cause variation on the independent variable which is represented in the model as stochastic error term. The F test at 95 percent level of significance shows that probability (F stat) calculated of 1.00 is more than the error term of 5 percent, in this wise, we reject the \( H_1 \) and accept \( H_0 \). This means that the significant level of 1.00 on the statistical table explains the improvement in the economic growth in Nigeria. Therefore, accept \( H_0 \) (banks profitability has no significant effect on economic growth in Nigeria).

### Model Two

\[ \text{GDP} = f(\text{ROE}) \]

<table>
<thead>
<tr>
<th>Dependent Variable: GDP</th>
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</thead>
<tbody>
<tr>
<td><strong>Method:</strong> Panel Least Squares</td>
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<table>
<thead>
<tr>
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<th>Std. Error</th>
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### Effects Specification

<table>
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<tr>
<th>Cross-section fixed (dummy variables)</th>
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<tr>
<td>R-squared</td>
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The coefficient of the independent is -6.09 which is negative. This shows that there is a negative relationship between the independent variable and dependent variable which is highly negatively significant. This implies that return on equity has a negative significant effect on the economic growth in Nigeria. The overall coefficient of determination $R^2$, which is the explanatory power of the model, is 1.000, that is $R^2 = 1.00$ this implies that 100% of the variations in economic growth is explained by the independent variable. The remaining 0% of changes is explained by other variables that are not considered in the model but can cause variation on the dependent variable which is represented in the model as stochastic error term. Since the Prob (F-statistic) is 0.00, which is below the error term of 0.05. This implies that the alternative hypothesis explains the hypothesis. The F test at 95 percent level of significance shows that probability (F stat) calculated of 0.00 is less than the error term of 5 percent, in this wise, we reject the $H_0$ and accept $H_1$. This means that the significant level of 1.00 on the statistical table explains the improvement in the economic growth in Nigeria. Therefore, accept $H_1$ (return on equity has a significant effect on economic growth in Nigeria).

VII. Summary of Findings

1. The overall R-squared of hypothesis one and two showed that about 100% variation in gross domestic product in Nigeria can be attributed to profitability of banks. The F-statistic p-value showed 0.00%. This shows that the panel regression result is statistically significant at the 5% level.
2. The coefficients showed that one unit change in bank profitability will cause a negative unit change in gross domestic product. This negative effect is statistically significant for the period covered in this study.
3. The overall R-squared showed that about 100% change in gross domestic product can be attributed to banks’ profitability.
4. The study also revealed that increasing proportion of banks profitability will significantly change the gross domestic product in Nigeria.

VIII. Conclusion

The study was carried on to determine the effect of banks’ profitability on the gross domestic product of Nigeria, the findings posit that any change in banks’ profitability represented by return on capital employed and return on equity will significantly cause a change in the economic growth which is represented by gross domestic product. This was confirmed by the prob(F-statistic) showing that there is a negative significant relationship between banks’ profitability and the gross domestic in Nigeria. The result specifically leads to the conclusion that a direct relationship existed between interest rate and the growth of the economy (GDP), meaning that increase in interest rate will certainly increase savers.

IX. Recommendations

1. Government policies should be channel towards increasing profitability of money deposit banks’ in other to increase aggregate output through increase in interest rate as this enhances economic growth.
2. A strong monetary policy for Nigeria should not be based on interest rate regulation, except our financial sector is improved and the awareness of the activities of the financial institutions taken to ordinary Nigerians.
3. The regulatory authority should ensure that the gains of the banking reforms processes are sustained, the CBN should take more decisive measures aimed at tightening the risk management framework of the Nigerian banking sector as this will have a positive effect on the their profitability. Based on the area and findings of the study, money deposit banks’ profitability has a significant effect on economic growth in Nigeria. However, economic growth also has its effect on banks’ profitability, which other researchers can embark upon to find out the relationship if any that exist between economic growth and banks profitability.

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