THE IMPACT OF BUDGETARY ALLOCATIONS ON AGRICULTURE SECTOR REFORM AGENDA: EVIDENCE FROM NIGERIAN PUBLIC SECTOR

ABADA UCHECHUKWU DANIEL (ACIB, ANIM)
Department of Banking and Finance
Madonna University, Okija Campus
Nigeria
ucheabada@yahoo.com, +2348023862353

&

OKUMA NWACHUKWU CAMILLUS
Department of Banking and Finance
Madonna University, Okija Campus
Nigeria
Okumanc73@gmail.com, +2348034076419

ABSTRACT
This study examined the impact of budgetary allocations on public sector reform agenda in Nigeria. In particular, allocations to the agricultural sector were reviewed so as to determine its contribution to the Nigerian economy. Agricultural sector has always been a major contributor to the Gross Domestic Product of Nigerian economy. In view of this, Government has always allocated a sizeable portion of its budget to agriculture. Towards this backdrop, this study looked at Nigeria budgetary allocations to the agricultural sector and evaluated its contribution to the nation’s gross domestic product (GDP). The relevant literature to the study was reviewed to identify and fill the existing gap. The data were presented and analyzed using trend analysis to show the increases and decreases in data trend as well as interactions between variables. The findings revealed that the Federal Government budgetary allocations to the agricultural sector do not have a positive and significant impact on Nigeria’s gross domestic product. Conclusion was drawn and it was recommended based on the findings of the study among others that the federal government of Nigeria must ensure that its budgetary allocations to the agricultural sector must translate into a positive relationship between gross domestic product and economic growth.

Key words: Agricultural sector, budgetary allocations, reforms, GDP.

Introduction
Public sector Reforms is an umbrella term that includes several sub-streams, notably public financial management reforms, Civil service reform, decentralization, revenue management etc, (World Bank 2012). It is about deliberately changing the interlocking structures and processes within the public sector that define how financial and physical resources and people are deployed and accounted for. Essentially, the reform involves inducing and managing change and is seen and used as a strategy for achieving improved performance within the public sector.

The economic management reforms which is an integrated package of various economic reforms was kick started in 2004 of which include agriculture reform.

Under the public sector reform, there was a restructuring of some government agencies and an increased focus on service delivery. The public sector refers to all organizations that exists as part of government machinery for implementing policy decisions and delivering services that are of value to citizens. It is a mandatory institution under the Nigerian Constitution of 1999.

The importance of budgetary allocations to agriculture in any economy, especially, developing ones cannot be over emphasized since it acts as a catalyst for rural developments and poverty reduction. While the budgetary allocations represent one of the key inputs, the overall contribution to the nation’s gross domestic product represent its outcome (Ugwu and Kanu, 2012).
The issues of accountability, transparency, probity, and efficiency are at the heart of budget developmental problems in Nigeria. As opined by Soludo(2003), the management of public finances in Nigeria is a major constraint on its development.

The public sector reforms was embarked upon to improve efficiency, fiscal accountability and transparency in the public sector and these, in turn, should translate to improved economic and development indicators such as per capita, fiscal balance, rate of inflation, GDP, Citizen Welfare in terms of life expectancy, poverty reduction and other social services, as well as good business climate needed to improve the economy.

Despite the tremendous efforts and resources allocated to reforms, little progress has been made and the country has not come close to her goal of developing and transforming the society to the same standard as developed countries (Okonjo-Iweal and Osafo-Kwaako, 2007). Basic foodstuffs and housing still remain out of the reach for many communities.

Though inflation rate is now down from double digit of between 11% -15% over the years to 7.7%, poverty, unemployment, inequality are still prevalent in the country. This may therefore be referred to as evidences that the increases in budgetary allocation have not translated to any appreciable improvement in the economic indices. Something therefore needs to be done so that the objectives of the reforms can be achieved.

Specifically, this research aims to achieve the following objectives:

1. To determine the impact of budgetary allocations to the agricultural sector on GDP growth in Nigeria.
2. To evaluate the relationship between total government expenditure and per capita GDP.

This study is guided by the following questions:

1. To what extent does the current budgetary allocation to the agricultural sector impact growth of the GDP in Nigeria?
2. What is the relationship between total government expenditure and per capita GDP?

STATEMENT OF RESEARCH HYPOTHESES
- Budgetary allocations to the agricultural sector do not have a positive impact on growth of the GDP in Nigeria.
- There is no positive relationship between total Government expenditure and per capita GDP in Nigeria.

This study seeks to establish how increase in budgetary allocation could achieve the economic objective of fiscal transparency, accountability, poverty reduction and economic growth in Nigeria. The research also seeks to evaluate the relationship between total government expenditure and per capita GDP. The study is intended to be useful as a guide to policy makers in implementation of public sector reform. The success or otherwise of fiscal and economic policies are gauged or determined by their impact on the economy as expressed by macro-economic and social/development indicators. Therefore, in line with the objectives set out in this study, the macro-economic indices used for this study are the GDP, Federal government expenditure, and budgetary allocations to the relevant sector. The period of the study is from 1999 to date which so far has remained the longest democratic dispensation in the history of Nigeria. This study therefore, will focus on the effect of budgetary allocations to agricultural sector.

REVIEW OF RELATED LITERATURE

Theoretical Framework
Several theories have provided the theoretical underpinnings of public sector reforms and have helped shape its ideas. One of such theories adopted for this study is the “principal – agent theory”.

Principal-agent theory argues that the public (as principals), on whose behalf politicians and bureaucrats (as agents) are supposed to govern, is unable to hold the latter accountable because of insufficient information (information asymmetry), the incompleteness of the contracts of employment, and the problems of monitoring behavior (Walsh, 1995).

The public sector underperforms because state officials pursue their own narrow interest rather than the public interest (Lane, 2000). It is difficult to extract accountability and good performance from the public servants (agents) because of the monopoly characteristics of public services, imperfect information about the services, and about the abilities and interests of public employees. The result of the above drivers for change is that the role and institutional character of the state have been under increasing pressure to be more management-oriented with emphasis on ‘doing more with less’.
Theoretical/Conceptual Review

The Idea of Reform

To reform, in simple terms, implies the readjustment or repositioning of an organization in order to be able to effectively and efficiently meet the dynamism and challenges of its universe of operation. Reforming an organization in this sense could mean attempting to restructure it either to meet an original concept and to prepare it for future challenges. In either case, the point is that the organization as it is, is going through a present phase of decay and dysfunction. To reform such an organization therefore implies putting in deliberate efforts aimed at changing the structures and processes of the organization in order to make it perform its designated function better and effectively (NEEDS, 2004). Public sector reform involves the idea of improvement in the ways and manners in which government is managed and public goods and services are delivered effectively, efficiently, economically and with value for money. It involves the ‘processes and practices which are concerned with improving the capacity of institutions to make policy and deliver in an efficient, effective and accountable manner’ (Olaopa, 2013).

Public Sector Reforms in Nigeria

At the inception of the democratic government in 1999, the morale of Nigerians were at the lowest ebb as a result of total decay of infrastructure, malfunctioning public utilities, a high level of corruption, general waste, inefficient state enterprises, soaring inflation and a high unemployment level (NEEDS, 2004). Recognizing these failures, the government took a drastic step and embarked on fundamental changes encapsulated in its reform programmes. This reform involves changes in socio-economic and political spheres of national life. Thus, among the major areas of that were identified and prioritized for reform were the restructuring of the public sector, governance and institutional strengthening and the promotion of transparency and accountability (Lawanson and Adeoye, 2013).

According to Okonjo-Iweala and Osafo-Kwako (2007), the reform programme was based on the National Economic Empowerment and Development Strategy (NNED) which is a ‘home –grown’ economic development strategy which focused on four main areas: improving the macro-economic environment, pursuing structural reforms, strengthening public expenditure management, and implementing institutional and governance reforms.

The implementation of the comprehensive economic reform programme is in four areas: Macro-economic reform; structural reforms; government and institutional reforms and public sector reforms (Ikokwu, 2009). Under the Macro-economic Reform Programme, government adopted prudent oil price based fiscal rule; introduced Medium Term Expenditure Framework (MTEF) and Medium Term Sector Strategies (MTSS); improved implementation of monetary policy by Central Bank; undertook a bank consolidated exercise to strengthen financial sector; adopted trade liberalization policies and undertook the privatization of some government enterprises. One of the major challenges was to introduce an appropriate fiscal rule to cut the link between public expenditures and oil revenue earnings (Soludo, 2003). Under the Structural Reforms Programmes, there have been Civil Service reforms, deregulation of government activities, bank consolidation exercise to strengthen the financial sector; trade policy reform and privatization of some government enterprises. Under institutional and governance reforms, government introduced the due process mechanism in public procurement; reformed public expenditure management; adopted the Extractive Industries Transparency Initiative (EITI) in Nigeria; and established the Economic and Financial Crimes Commission (EFCC) as well as the Independent Corrupt Practices Commission (ICPC) to address Corruption in Public Offices. Under the public sector reform, there has been restructuring of some government agencies and an increased focus on service delivery (Adio, 2014). In addition, some other reform frameworks were premised on UN Millennium Development Goals.

Agricultural sector reforms:

Agriculture is fundamental to the sustenance of life and is the bedrock of economic development as it entails reduction in poverty level and enhancement the overall wellbeing of the citizenry. Nigeria’s agricultural sector reforms therefore are action plans of Government designed to achieve overall agricultural growth and development (Akpaeti, 2015). According to Ita, Ukpong and Ekpebu (2013), reforms aim at the attainment of self sustaining growth in all the sub-sectors of agriculture and the structural transformation necessary for the overall socio-economic development of the country as well as the improvement in the quality of life of Nigerians.

The reform objectives include:

- Attainment of self-sufficiency in basic food commodities.
• Increase in production of agricultural raw materials to meet the growth of an expanding industrial sector.
• Increase in production and processing of exportable commodities.
• Modernization of agricultural production, processing, storage and distribution through improved technologies and management.
• Creation of more agricultural and rural employment opportunities.
• Protection and improvement of agricultural land resources.

RESEARCH METHODOLOGY
This section deals with the research design and the procedure adopted in carrying out this study. Research design refers to the structure and constructional plan of a research work. It is the strategy or approach adopted in carrying out a scientific research. It is the framework upon which a research work is built, aimed at identifying variables and their relationships to one another. This work is aimed at evaluating the effects of budgetary allocations in achieving the objectives of the public sector reforms in Nigeria. It therefore stands to reason that it is interested in finding out if the public sector reform, with its attendant fiscal management reforms has led or can lead to improved wellbeing of the citizenry.

Therefore, the design adopted in this study is the Ex-post facto research design. This design is appropriate because it seeks to determine the extent of the association between the variables and to draw inferences. Such inferences concerning the relationship between the variables involved can then be used for purposes of prediction, in this case, the impact of budgetary allocation to the agricultural sector on gross domestic product in Nigeria.

The area of the study is the geographical area or boundaries where the study is carried out. The study was carried out among the MDA’s of the Federal government of Nigeria. Since the fiscal responsibility act 2007 is not binding on the states and local governments, the researcher concentrated his research program on the federal agencies within Nigeria.

The data for this research work were sourced from Central Bank of Nigeria and National Bureau of Statistical yearbooks and Journal articles. The population of the study therefore is the federal republic of Nigeria as the study covers the entire economy of the country.

The sample size of the study is the health sector of the economy. The sample used here was drawn from raw data extracted from the sources listed below and were used in constructing tables for data presentation and analysis as well as testing of the hypotheses in this study:

i. Central Bank of Nigeria Annual Report and statement of Accounts (covering financial years 1997 - 2015);
ii. The Nigerian Statistical Fact sheets on Economic and Social Development (2015)
iii. Central Bank of Nigeria Statistical Bulletin;

Analytical Methods/Techniques
To achieve the objectives of this study, the frameworks and objectives of the public sector reforms and the fiscal strategy designed to achieve them are examined. In particular, the Fiscal Responsibility Act 2007, being a major framework for carrying out the public sector reforms in Nigeria was examined in order to determine the impact of budgetary allocations on the agricultural sector reform agenda. To this end, the data collected in the course of the study were subjected to analysis and used to test the hypotheses using appropriate statistical tools of analyses. The application of correlation co-efficient statistical formulae was considered suitable.

Analysis for Agriculture
Budgetary Allocation to Agriculture & Share of Agriculture in GDP for Selected Years

<table>
<thead>
<tr>
<th>Years</th>
<th>Budgetary Allocation Agriculture (Billions)</th>
<th>Changes Budgetary Allocation Agriculture in (%)</th>
<th>Share of Agriculture to GDP (Billions)</th>
<th>Changes in Share of Agriculture in GDP (%)</th>
</tr>
</thead>
</table>
Table 1 presents the percentage changes in gross domestic product against the percentage changes in their respective budgetary allocations to agriculture from 1997 – 2015. The table above is represented graphically in figure 1 below to vividly illustrate the increases or decreases in gross domestic product and annual budgetary allocations to agriculture.

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP Change</th>
<th>Budget Change</th>
<th>GDP Value</th>
<th>Budget Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>7.93</td>
<td>0</td>
<td>12190343.2</td>
<td>0</td>
</tr>
<tr>
<td>1998</td>
<td>11.84</td>
<td>49.30643</td>
<td>12481799.4</td>
<td>2.390877</td>
</tr>
<tr>
<td>1999</td>
<td>10.05</td>
<td>-15.1182</td>
<td>12662389.9</td>
<td>1.446831</td>
</tr>
<tr>
<td>2000</td>
<td>10.6</td>
<td>5.472637</td>
<td>12060359</td>
<td>-4.75448</td>
</tr>
<tr>
<td>2001</td>
<td>64.94</td>
<td>512.6415</td>
<td>14918648.8</td>
<td>23.69987</td>
</tr>
<tr>
<td>2002</td>
<td>44.8</td>
<td>-31.0132</td>
<td>28730798</td>
<td>92.58311</td>
</tr>
<tr>
<td>2003</td>
<td>16.05</td>
<td>-64.1741</td>
<td>28889043.7</td>
<td>0.550788</td>
</tr>
<tr>
<td>2004</td>
<td>49.93</td>
<td>211.0903</td>
<td>30043128.2</td>
<td>3.994886</td>
</tr>
<tr>
<td>2005</td>
<td>76.64</td>
<td>53.49489</td>
<td>36817450.5</td>
<td>22.54866</td>
</tr>
<tr>
<td>2006</td>
<td>107.46</td>
<td>40.21399</td>
<td>46537524.7</td>
<td>26.40073</td>
</tr>
<tr>
<td>2007</td>
<td>126.6</td>
<td>17.81128</td>
<td>54429546.8</td>
<td>16.95841</td>
</tr>
<tr>
<td>2008</td>
<td>171.4</td>
<td>35.38705</td>
<td>68453304</td>
<td>25.76497</td>
</tr>
<tr>
<td>2009</td>
<td>184.5</td>
<td>7.64294</td>
<td>62877568.8</td>
<td>-8.14531</td>
</tr>
<tr>
<td>2010</td>
<td>148.7</td>
<td>-19.4038</td>
<td>88205929</td>
<td>40.28203</td>
</tr>
<tr>
<td>2011</td>
<td>139</td>
<td>-6.5232</td>
<td>91818867.8</td>
<td>4.096027</td>
</tr>
<tr>
<td>2012</td>
<td>78.98</td>
<td>-43.1799</td>
<td>101870798</td>
<td>10.94756</td>
</tr>
<tr>
<td>2013</td>
<td>81.41</td>
<td>3.076728</td>
<td>108142920</td>
<td>6.156939</td>
</tr>
<tr>
<td>2014</td>
<td>39.1</td>
<td>-51.9715</td>
<td>114836786</td>
<td>6.189832</td>
</tr>
<tr>
<td>2015</td>
<td>53.01</td>
<td>35.57545</td>
<td>100542826</td>
<td>-12.4472</td>
</tr>
</tbody>
</table>

Source: CBN Annual Reports and Statistical bulletins.
National Bureau of Statistics year books
Nigerian Statistical Fact sheets on Economic and Social Development (2015)
Fig. 1: Graphical Representation of Changes in share of agriculture to GDP and Budgetary Allocation to Agriculture

Source: Table 1.

Fig. 1 shows that there are changes in share of agriculture to GDP in years 2002, 2004 and 2014. In 2002, share of agriculture to GDP increased by 92.58%. In 2004, the share of agriculture to GDP dropped by 3.99% but increased by 6.18% in 2014. For budgetary allocations to agriculture, budgetary allocations to the Nigerian agricultural sector decreased in years 2010, 2011, 2012, 2014 and 2015 by -19.40%, -6.52%, -43.17%, and -51.97% respectively and increased by 35.57% in 2015.

Table 2 below presents the summary statistics of the raw data.

Descriptive Statistics for Budgetary Allocation to Agriculture and Share of Agriculture to GDP

<table>
<thead>
<tr>
<th></th>
<th>BUDGET AGRICULTURE</th>
<th>SHARE OF AGRICULTURE TO GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>74.89158</td>
<td>54026844</td>
</tr>
<tr>
<td>Median</td>
<td>64.94000</td>
<td>46537525</td>
</tr>
<tr>
<td>Maximum</td>
<td>184.5000</td>
<td>1.15E+08</td>
</tr>
<tr>
<td>Minimum</td>
<td>7.930000</td>
<td>12060359</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>56.92547</td>
<td>36998090</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.514040</td>
<td>0.327168</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.075620</td>
<td>1.604482</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>1.513213</td>
<td>1.880706</td>
</tr>
<tr>
<td>Probability</td>
<td>0.469256</td>
<td>0.390490</td>
</tr>
<tr>
<td>Sum</td>
<td>1422.940</td>
<td>1.03E+09</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>58329.16</td>
<td>2.46E+16</td>
</tr>
<tr>
<td>Observations</td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: Author’s Eviews 7.2 Output
Test of Hypothesis

The hypotheses test was carried out in four steps as follows:

**Step One:** Re-Statement of the hypothesis in null and alternate

**Step Two:** Statement of decision criteria

**Step Three:** Presentation of the test result.

**Step Four:** Decision.

The hypothesis seeks to determine the impact of increased budgetary allocation to the agricultural sector by the Nigerian Federal Government on growth of the gross domestic product in Nigeria.

**Step One: Statement of Hypothesis**

H₀: Budgetary allocations to the agricultural sector do not have a positive and significant impact on the growth of gross domestic product in Nigeria.

H₁: Budgetary allocations to the agricultural sector have a positive and significant impact on gross domestic product growth in Nigeria.

**Step Two: Statement of Decision criteria:**

Accept H₀ if the sign of the correlation coefficient is negative, t-Statistic of the regression result is < 2 and the probability of the t-statistics > 0.05 otherwise reject the H₀.

**Step Three:** Presentation of the Regression Analysis Result for Test of Hypothesis.

Dependent Variable: DGDP

Method: Least Squares

Date: 10/13/16   Time: 11:43

Sample (adjusted): 1998 2015

Included observations: 18 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBUDGETAGRICULTU</td>
<td>-0.009603</td>
<td>0.014632</td>
<td>-0.656313</td>
<td>0.5210</td>
</tr>
<tr>
<td>C</td>
<td>0.031444</td>
<td>0.004069</td>
<td>7.727877</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared 0.026216 Mean dependent var 0.031004

Adjusted R-squared -0.034646 S.D. dependent var 0.016739

S.E. of regression 0.017027 Akaike info criterion -5.203642

Sum squared resid 0.004638 Schwarz criterion -5.104712

Log likelihood 48.63278 Hannan-Quinn criter. -5.190001

F-statistic 0.430747 Durbin-Watson stat 1.151995

Prob(F-statistic) 0.520950

Source: Author’s Eviews 7.2 Output

Given the decision rule to accept H₀ if the sign of the correlation coefficient is negative, t-Statistic of the regression result is < 2, and the probability of the t-statistics > 0.05 otherwise reject the H₀. From table 3 above, the correlation coefficient is -0.009603, the t-Statistic is -0.656313 < 2 and not been significant at 0.5210 > 0.05, we therefore, accept H₀ and conclude that Federal Government budgetary allocations to the agricultural sector does not have a positive and significant impact on the growth of gross domestic product in Nigeria.

**Relationship between Government Expenditure and GDP Per Capita**

Covariance Analysis: Spearman rank-order

Date: 10/13/16   Time: 11:40

Sample (adjusted): 1998 2015
Correlation

<table>
<thead>
<tr>
<th>Observations</th>
<th>DPERCAPITAGDP</th>
<th>DGOVTEXPENDITURE</th>
<th>GDP</th>
<th>NDITURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPERCAPITAGDP</td>
<td>1.000000</td>
<td></td>
<td>------</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>DGOVTEXPENDITURE</td>
<td>-0.230134</td>
<td>1.000000</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.945926</td>
<td></td>
<td>------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.3583</td>
<td></td>
<td>------</td>
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</tr>
</tbody>
</table>

From the table 4 above, it can be deduced that there is a negative relationship between Government expenditure and per capita GDP in Nigeria.

**SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

This section summarizes findings arising from the study, concludes the study and made possible recommendations based on the research findings.

Findings from the study were summarized as follows:

1. That Federal Government budgetary allocation to the agricultural sector does not have a positive and significant impact on the growth of gross domestic product in Nigeria.

2. That the relationship between government expenditure and per capita GDP in Nigeria is negative.

Traditionally, the importance of budget relates to the allocation of money to each sector or program. To ensure operational accountability, poverty reduction, citizens’ wellbeing and the achievement of sustained economic growth, a Federal Fiscal Responsibility bill and a Public Procurement bill were passed into law in 2007. Achieving the above objectives of these acts depend on the existence of enabling structures and environment to translate the provisions into workable solutions.

For budgetary allocations to have a positive effect on the agricultural sector, each budgeting method adopted must have a relevant accounting system that is consistent with its nature. This will enhance fiscal transparency and improve efficiency which is the essence of the reform.

The findings of this study have demonstrated that the Federal Government budgetary allocation to the agricultural sector does not have a positive and significant impact on the growth of gross domestic product in Nigeria. Also, the findings showed that the relationship between government expenditure and per capita GDP is negative. Based on the findings of this study, the following are recommended:

1. The federal government must ensure that its budgetary allocations to the agricultural sector translate into a positive relationship between growth of the gross domestic product and economic growth in Nigeria.

2. There should be proper coordination between fiscal policies and accounting regimes in order to achieve the economic objectives of fiscal transparency, accountability, efficiency, and economic growth in Nigeria.
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