

# **Public Financial Management and Fiscal Outcomes in Nigeria: Empirical Evidence**

*Kanayo Ogujiuba  
Harrison Okafor*

A Publication of the  
The Research Department  
African Heritage Institution (AfriHeritage)<sup>1</sup>  
54 Nza Street, Independence Layout,  
P. O. Box 2147,  
Enugu, Nigeria.



*June 2013*

---

<sup>1</sup> Formerly African Institute for Applied Economics (AIAE)

## Abstract

*The Nigeria public financial management system and its fiscal outcomes have received the attention of economists and public affair analysts. Most observers have argued that despite the increasing reforms in the sector, fiscal outcomes of the nation have been very weak and poor. Furthermore, the institutional pillars of public finance management in Nigeria have been described at best very weak, and the quality of these pillars determines to a large extent, the outcome of fiscal policy in any nation or country. Available literature indicate that studies have been carried out in the US, some European nations, Latin America and some Sub-Saharan African countries, to examine the link between public financial management and fiscal outcomes. However, evidence in the literature suggests that empirical research on the subject matter in Nigeria is scanty hence the need for this study to examine the linkages between public finance management and fiscal outcomes in Nigeria within a macroeconometric modeling framework. Key institutional variables were used to measure the impact of public financial management systems and fiscal outcomes. The results indicate that corruption and literacy rate are the key institutional factors that influence fiscal outcomes in Nigeria. Therefore, the need to critically improve the budget institutions and the coordination of the Ministries, Departments and Agencies (MDA's) of government capital budgeting system through integrated and systematic accounting system cannot be overemphasized.*

This paper received funding from the Think Tank Initiative (IDRC) extended to the African Heritage Institution (AfriHeritage). The Think Tank Initiative is a multi-donor program dedicated to strengthening independent policy research institutions—or “think tanks” —in developing countries with the goal of enabling think tanks to better provide sound research that informs and influences policy.

*The AfriHeritage Policy Research Working Paper Series disseminates the findings of work in progress to encourage exchange of ideas about development issues. This series is aimed at getting the findings out quickly even if the presentations are less than fully polished. The papers carry the name(s) of the author(s) and should be cited accordingly. The findings, interpretations as well as conclusions expressed in the paper(s) are entirely those of the author(s). They do not necessarily represent the view and opinion of the African Heritage Institution, its Executive Director, and the Board members.*

# Public Financial Management and Fiscal Outcomes in Nigeria: Empirical Evidence

*Kanayo Ogujiuba<sup>2</sup>*

*Harrison Okafor<sup>3</sup>*

Research Division;  
National Institute for Legislative Studies (NILS),  
National Assembly, Abuja, Nigeria

*June 2013*

**JEL: E62, H61**

Keywords: Financial Management, Fiscal Outcomes, Nigeria

---

<sup>2</sup> [kannyog@gmail.com](mailto:kannyog@gmail.com)

<sup>3</sup> [agiboy2000@yahoo.com](mailto:agiboy2000@yahoo.com)

## LIST OF ACRONYMS

<b>Acronyms</b>	<b>Meaning</b>
AfDB	African Development Bank
BOF	Budget Office of the Federation
BPP	Bureau of Public Procurement
DFID	UK Department for International Development
DMO	Debt Management Office
DPO	Due Process Office
ESAF	Enhanced Structural Adjustment Facilities
FRA	Fiscal Responsibility Act
FRC	Fiscal Responsibility Commission
FSP	Fiscal Strategy Paper
IMF	International Monetary Fund
MDAs	Ministries Department and Agencies
MTEF	Medium Term Expenditure Framework
PSI	Policy Support Instrument
PFM	Public Financial Management
SAP	Structural Adjustment Programme
SSA	Sub-Saharan Africa

## 1.0 INTRODUCTION

A major macroeconomic objective of every nation is to achieve efficient allocation of resources as well as stabilization of the business cycles. In the last two decades, Nigeria has initiated and implemented series of economic policies to assist in the better management of her economy. Parts of these reforms were aimed at improving the quality of the nation's Public Financial Management (PFM) systems. PFM is a critical instrument in the implementation of economic policy, and it works by influencing the allocation and use of public resources through the budget and overall fiscal policy (Prakash and Cabezon, 2008). A well-functioning PFM system would provide the assurance that the funds released through revenue generation and appropriation processes as well as from debt forgiveness (cancelation) mechanism would be productively used in a transparent and effective manner. A well-functioning PFM system would also improve the use of aid as well as overall budget performance, and thus contribute to macroeconomic stability and growth. In addition, it would contribute towards improving overall governance through protection of public resources against the risk of expropriation and corruption (ibid).

On the other hand, there are key indicators of a well-functioning PFM. The idea is that if the public financial management system of a nation is well managed and coordinated, certain outcomes of fiscal policy are evident. These outcomes include (i) manageable level of public debt, (ii) positive primary and overall balance levels, and (iii) less allocation to the servicing or payment of debts. Available data from the Central Bank of Nigeria reveals that primary balance<sup>4</sup> has been mostly on the surplus while the overall balance remains largely in deficit. This has continued to manifest in growing external debt and payments in the servicing of loans.

Evidence from the literature indicates that the relationship between public financial management system and the fiscal outcomes of the nation derives largely from various institutional factors Alesina and Peroti, (1996); Acemoglu and Jonhson, (2003); Acemoglu, Johnson, and Robinson (2004); Brautigam and Knack (2004); Birdsall (2007), Prakash and Cabezon (2008) and Okafor (2013). Thus, several institutions such as the World Bank, the International Monetary Fund (IMF) and the African Development Bank (ADB) have pushed for institutional reforms through a number of initiatives to improve their public financial management systems particularly, for developing countries. The World Bank Structural Adjustment Programme (SAP), the Enhanced Structural Adjustment Facility (ESAF) as well

---

<sup>4</sup> Current government revenue less current government spending

as the IMF Policy Support Instrument (PSI) are some of these policy initiatives. Although most developing countries including Nigeria adopted and implemented these initiatives, the impacts of these reforms on the public financial management systems are still contentious. The optimality of the policy initiatives could depend largely on the need, policy outcome and the capacity and ability to sustain these programmes initiatives. It has become imperative to provide robust investigation on the nature of these initiatives and their consequences on the Nigeria public financial management system.

This paper examines the relationship between public financial management systems and fiscal outcome in Nigeria. Understanding the institutional constraints associated with the nation's public financial management systems would provide the basis for informed economic policy. Following this introduction, the rest of this paper is structured into five. Section 2 provides some stylized evidence on the policy initiatives about public financial management in Nigeria. In section 3, the literature on the subject matter was explored while sector 4 deals with the methodological issues. Section 5 covers the empirical analysis and concludes with some policy implications.

## 2.0 SOME STYLIZED FACTS

In terms of economic management, Nigeria has adopted two different regimes that influenced her economic policies. The pre-structural adjustment programme and the post structural adjustment programme period. During the pre-SAP, government pursued tight policies such as the regulation of liquidity, interest rate ceiling and exchange rate over valuation. At the same time, fiscal actions of the government were highly unregulated. After a plunge into a deep economic woe, the government initiated the structural adjustment programme through liberalized framework but aimed at curtailing and rationalizing government expenditures through the privatization and commercialization of public corporations. Under this arrangement, government sold most of her shares and reduced her involvement<sup>5</sup> in public utilities administration and management. This programme, however, was counter-productive due to the adverse effects of SAP on the productive sector of the economy.

Due to misrule under the military administration (1966-1999), there was no clear cut fiscal policy rule that guided fiscal actions throughout the 1990s. Thus, a visible and damaging debt overhang manifested for the nation. Following the advent of democratic governance in 1999, more coordinated fiscal policy measures were put in place through a number of initiatives. The government established the Due Process Office now the Bureau for Public Procurement (BPP), Debt Management Office (DMO) as well as Oil Based Fiscal Rule under the Medium Term Expenditure Framework (MTEF) and the Fiscal Strategy Paper (FSP) and the establishment of the excess crude account for stabilization of the government fiscal actions. The BPP manages the conduct of contract award to ensure that contracts are awarded in a transparent manner. The office carries out market surveys and develops templates on how tenders are to be conducted in the process of doing government business. This mechanism has reduced to some extent, bureaucracies and wastage of funds appropriated to MDAs which have been weak in the implementation of programmes. However, given the restriction on the BPP's mandate regarding contract award only, the office has not been able to carefully monitor abandoned projects which at certain times are often reviewed upward.

In 2000, the federal government also established the DMO to develop a framework for managing the debilitating nation's debt overhang. This agency had other mandates such as managing and reporting from time to time, the government debt portfolios and providing a strategic framework for managing it. After securing a debt relief (cancellation) package of

---

<sup>5</sup>To lessen financial burdens and arrears

about US\$ 18 billion in 2005 from the Paris and London Clubs, the nation's debt profile particularly the domestic debt component has risen again to an alarming level<sup>6</sup>. This puts debt management strategies and debt sustainability as well as the sovereign risk level of the nation in another bad light.

Similarly, in 2007, the Federal Government of Nigeria passed the Fiscal Responsibility Act<sup>7</sup>, which among other things was designed to compel any person or government institution to disclose information relating to public revenues and expenditures; and cause investigation into whether any person has violated any provisions of this act. However, the policy actions of the Commission seem advisory rather than being a key player in the management of the nation's resources. Thus, fiscal outcomes in Nigeria have been less efficient, particularly given the consistent government borrowing amidst the huge accumulation in the excess crude account.

More so, the creation of Excess Crude Account (ECA) as an oil based fiscal rule in 2004 was meant to set a benchmark for predicting/projecting oil revenue and aligning government expenditures in line with the international and domestic macroeconomic environment. This has also not yielded the much expected benefits. Recently, the government commissioned a committee to manage the sovereign wealth fund such as those accruing from the excess crude account. The overall idea is to efficiently manage the proceeds from the ECA as well as utilize them as stabilization instrument<sup>8</sup> or window in tough times. Nevertheless, these policy initiatives seem not to have made any meaningful impact, given the myriad of issues facing public finance management systems in Nigeria.

---

<sup>6</sup> Domestic and external debt stock in Nigeria stands at N6.3trillion as at April, 2013 (DMO, 2013).

<sup>7</sup> This Act gave birth to the Fiscal Responsibility Commission.

<sup>8</sup> The proceeds are to be invested in three windows; (i) Future Generation Fund (ii) Infrastructure Development Fund, and (iii) Stabilization Fund.

### 3.0 BRIEF REVIEW OF RELATED LITERATURE

Public Financial Management (PFM) refers to the procedures, established by law or regulation, for the management of public monies through the budget process, which includes formulation, execution, reporting and analysis (Potter and Diamond, 1999). As conventionally applied in the literature, most authors tend to focus on the expenditure side not minding that government expenditure ought to be derived from the revenue forecast and projections. Nonetheless, the management of public finance hinges generally on the expenditure and revenue sides, thus, this paper considers both considerations.

Budget remains the organic instrument of public finance management of any nation. The process of budget design, formulation and implementation to a large extent determines how the public financial system of a country is organized. First, the budget is guided by laws of the land which stipulate the internal mechanisms of how agents must behave in the collection and spending of public revenue. Second, public finance management requires setting regulatory framework for those who are responsible for the management of budget to follow as a matter of principle. The implication of this is that fiscal outcomes of public finance management would be a function of some variables. Our empirical analysis evaluated the consequences of PFM systems.

Nonetheless, there is a systematic relationship between PFM and the institutional environment in which it operates. According to North (1990), institutions are the rules of the game, formal and non-formal which affect incentives and behaviour. In this regard, budget is one of those activities that require robust institution to achieve its desired goals. Thus, the institutional concept here covers two dimensions: (a) the ability to initiate the process and (b) effectively design and implement a budget in a transparent manner. The budget process starts by the submission of call-papers by MDA's to the Budget Office of the Federation where collation is done and subsequently submitted by the President to the joint session of the National Assembly for consideration, approval and final assent. The process of implementing the approved budget begins with authorization by the legislature to the executives to appropriate funds to incur spending. The interaction between these two agents of government in this regard, is one major element of institutional qualities. Against this background, if the two organs of government interact very efficiently, budget implementation process could be facilitated. On the other hand, if they do not interact efficiently, it could adversely affect the budget process hence, the public financial management system of nations.

Several studies such as Acemoglu and Johnson (2003), Acemoglu, Johnson, and Robinson (2004), Brautigam and Knack (2004), Birdsall (2007) and Prakash and Cabezón

(2008) noted that institutional constraints has been the challenge of effective PFM system in SSA countries. Acemoglu, Jonhson and Robinson (2004) argued that a strong link exist between political power, political institutions, economic institutions, and economic performance. Brautigam and Knack (2004) and Birdsall (2007) point that poor institutional governance has been the bane of proper management of aid in SSA countries. All these are indicators of weak institutions associated with budget and public finance management systems.

In economic parlance, there are key pillars of institution that specifically influence public finance management system. These are (i) governance structure, (ii) accountability, (iii) transparency and (iv) predictability. According to Prakash and Cabezon (2008), budget process varies from place to place depending on the governance structure. In the case of Nigeria and other developing countries that requires budget to be prepared and presented to the legislature for approval by certain date, institutional weaknesses due to poor governance structure affect debates, passage and assent to the appropriation Bill. The consequences could be late passage and spending funds that are not appropriated to MDA's which could have implications for macroeconomic stability.

Another core pillar of public finance management is accountability. This provides for the measurement of the implementation and impact of budget and economic policy (Prakash and Cabezon, 2008). A good public finance management would ensure that the books of account are correct for proper planning. In the absence of a sound budget and a reliable accounting system, it will be difficult to formulate sound fiscal policies. Accounting systems in SSA have been generally weak (Prakash and Cabezon, 2008). In this case, it is very difficult to carryout sound financial and development planning. In Nigeria, the NNPC, the Central Bank and the Federal Ministry of Finance often times quote conflicting figures about the state of the nation's finances. This indicates that the nations' PFM needs to be reinvigorated to enhance accountability in the management of the public fund.

Budget systems that lack the above core elements of PFM would find it difficult to carry out development planning in predictable manner. Although expenditure component of the budget is drawn upon proposed estimates of revenue, it is usually based on certain underlying fundamentals such as crude oil price benchmarks and oil production targets, and internally generated revenues. Thus, if such a plan strategy is adopted, the tendency for a system with this kind of PFM to fail is not imaginable. Therefore, given that public financial management system is like a layer covering different segments, it ought to be carried out in

manner that would enhance predictability, and promote transparency and accuracy in budgeting and reported.

Against this background, several studies have identified indicators and consequences of a good public financial management or otherwise. The first salvo was fired by Alesina and Perotti (1996) who examined how budget process affects fiscal deficits and borrowing. They categories budget rules and regulations into three kinds: procedural rules; rules on transparency, and numerical targets such as balanced budget laws. As argued by Prakash and Cabezon (1999), they focused on the numerical targets and argued that such targets encourage creative accounting, and are not optimal and flexible from an economic point of view. With regard to procedural rules, they distinguish between hierarchical and collegial procedures. In the case of the hierarchical procedures, the minister of finance is seen as more powerful which further entrench fiscal discipline. This is the case of Nigeria. However, in the collegial procedures, the line ministries have equal power, and checks and balances and compromises are important. This arrangement delivers more flexibility but less discipline which in turn makes agents to manipulate the budget system. An economic intuition derivable from this analogy is that budget process is significantly influenced by the institution which in turn determines the outcome of the PFM system.

Alesina, Hausmann, Hommes, and Stein (1996) constructed an index of budget process through a questionnaire and concluded that budget procedures- formulation, approval and implementation of the budget strongly influence fiscal outcomes. They defined budgetary institutions as all the rules and regulations according to which budgets are drafted, approved and implemented. They further argue that other variables such as social, cultural and political variables should be incorporated as institution is an endogenous variable. They show that in Latin America, countries with the best budget processes had fiscal surpluses of 1.8 percent of GDP between 1989-1993, while the three weakest had average deficit of 2.2 percent during the period.

Furthermore, Eichengreen, Hausmaan & Hagen (1999) and Alesina, Hausman, Hommes & Stein (1999) show that budget processes and rules have a significant impact on budget deficit and debt in Latin America. They argued that budget rules include formal and informal rules aid political bargain in budgeting and reduce and resolve conflict. Assigning roles and responsibilities to different budget agents, procedures ensure better flow of information, and transparency, and thus, prevent collusion among budget participants. They recommend that procedural reforms that include increasing the budgetary power of the minister of finance over line ministers, limiting off budget spending and earmarking, and

preventing line agencies from making commitments without a budget, strongly improve fiscal outcomes (see Prakash and Cabezon, 1999).

Similarly, in their studies of the EU countries, Von Hagen and Harden (1995) show that in the 1980s, the three countries with the weakest budgetary processes had a budget deficit of 11 percent of GDP, while the three countries with the strongest processes had a budget deficit of 2 percent. In the case of the US states, Poterba (1994) shows that budget rules potentially determine expenditure outcomes, although use of creative accounting is not uncommon.

Generally, recent practical works on PFM has been carried out by multilateral agencies such as the World Bank, IMF, OECD and DFID. However, most of these studies centers on the techniques of preparing, executing, and monitoring budgets. The World Bank model lays out a step-by-step approach from how to establish aggregate spending envelopes to measuring the end results of PFM. For instance, Potter and Diamond (1999) and DFID (2001) work cover a large range of issues, from institutional roles and responsibilities to all the stages in the in the budget process. While Potter and Diamond (1999) provide guidelines on public expenditure management in developing economies (including SSA), and emphasize the role of PFM in bringing fiscal discipline by restraining expenditure, DFID highlights that PFM can bring political engagement, clarity of policy, affordability, predictability, transparency, comprehensiveness and accountability to the budgetary process.

Further evidence on the fiscal outcome of PFM in Africa has focused mainly in the SSA region and particularly in the WEAMU zone. The study carried out by Lienert and Sarraf (2001) on Anglophone African PFM systems and the Moussa (2004) work on the Francophone PFM systems suggest significant systemic weaknesses unlike the case of the Latin America and Europe. They however, reported that the Francophone model is more of the “hierarchical” which is more conducive to fiscal discipline than the Anglophone model which is more collegial and flexible in nature. Nonetheless, the study by Prakash and Cabezon (1999) which focused generally on the SSA countries omitted Nigeria. They however, argued that paucity of data of PFM makes it difficult to assess the relationship and report that the qualities of a PFM system affect fiscal outcomes.

In general, there is a dearth of empirical studies on the fiscal impact of public financial management in Nigeria. Available material only tends to provide the design and

procedures for managing PFM (DFID 2001 and IMF, 2006), thus, ignoring the consequences of these on the PFM systems. This study intends to make modest contribution in this regard by examining the relationship between PFM and fiscal outcomes in Nigeria.

#### 4.0 METHODOLOGY

Our analytical method derives closely from the work of Prakash and Cabezon (2008), but differs in a little way due to the inadequacy of data for Nigeria<sup>9</sup>. However, we relied on the model structure developed for SSA countries to estimate the impact of PFM<sup>10</sup> on fiscal outcomes for Nigeria.

##### *The Model*

$$Y = F(X's) \quad (1)$$

Where, Y captures fiscal outcomes and X's are the explanatory variables used to capture the quality of PFM which determines the outcomes of fiscal policy management. Further specification of equation 1 gives the equation 2 below.

$$Y_i = \alpha_0 + \alpha_1 GDP_{PC} + \alpha_2 GDP + \alpha_3 POP + \alpha_4 LIT + \alpha_5 CORP + \varepsilon_i \quad (2)$$

Where  $Y_i$  are the three dependent variables namely; overall fiscal balance, primary balance and external debt. On the other hand, the regressors/explanatory variables are defined below.

$GDP_{PC}$  = GDP per capita

$GDP$  = Gross Domestic Product

$POP$  = Population

$LIT$  = Adult Literacy

$CORP$  = Corruption

#### 4.2 Definition of Key Variables

**Overall Fiscal Balance:** This is defined as the total government receipts/revenue (tax and non-tax) and proceeds of assets sold less government expenditure on goods and services including interest payment on debts. It is used to assess the fiscal health of a nation. The idea is that a well-functioning PFM would experience positive overall fiscal balance.

**Primary Balance:** This is the known as the overall balance less interest payments which captures the difference between current government spending on goods and service and total current revenue from all types of taxes net of transfer payment. It is also an index of fiscal outcome in PFM analysis. A positive primary fiscal balance is an indication of sound fiscal policy outcome.

<sup>9</sup> Prakash and Cabezon (2008) developed an institutional data based on the World Bank Countries Policy and Institutional Assessment for SSA countries without Nigeria.

<sup>10</sup> A full literature on the quality of PFM and indicators is contained in the World Bank Country Policy and Institutional Assessment, 2011.

**External Debt:** This is obligation owed by a country to other nations and institutions denominated in foreign currencies. It is largely denominated in US Dollar. Low level of external debt is a sound measure of fiscal outcome.

**Interest Payments:** This is the amount charged on monetary obligation owed to an individual or institution. It is assumed that that the poorer the institution, the higher the level of lending and expected interest payment.

**Corruption:** This is based on the definition offered by the Corruption Perception Index of the Transparency International as the citizens' perception of ease of doing business and contract management. However, we developed benchmarks<sup>11</sup> for the years before the CPI was introduced. The level of corruption was used to control for the quality of institution.

**Literacy rate:** This is as defined by the World Bank. It is an institutional quality data used to measure the level of capacity a nation has in managing its economy.

**GDP per capita:** This is a development indicator used to measure the share of the citizen from the national output. It is the total gross national product divided by the country's population.

**Population:** This is the total number of people (human resources) of a nation. It is a key measure of resource availability in a nation.

#### **4.3 Estimation Techniques**

We employed two methods to analyze the relationship between PFM and fiscal outcomes in Nigeria. Firstly, we carried out a non-parametric analysis (correlation and trend analysis) to examine the link between the variables. Secondly, regression analysis based on the OLS method was used to determine the impact of each of the selected indications on the specific outcomes.

#### **4.4 Data and Sources of Data**

Data for the study were obtained from specialized agencies such as the World Bank, International Monetary Fund, Central Bank of Nigeria, and Institutions such as Transparency International Initiatives and Mo Ibrahim Foundation databases. The data include overall balance, primary balance, external debt, population, GDP growth rate, growth rate of GDP per capita, adult literacy and corruption.

---

<sup>11</sup> Based on our perception on the quality of institution and naira exchange rate against the dollar we assigned index for the years. The country's institution was better in the 1980's and early 1990's.

## 5.0 EMPIRICAL ANALYSIS<sup>12</sup>

### 5.1 *Trend Analysis and Correlation Analysis*

The relationship between public financial management and fiscal outcomes was first explored using correlation analysis. The purpose is to determine the nature and degree of relationship. We decided to measure the correlation coefficient between PFM and fiscal outcomes with the interaction between corruption and indicators of fiscal outcomes. In simple correlation analysis, the correlation coefficient can either be positive or negative. The result of the correlation analysis is presented in Table 1 in the annex. The result shows a negative relationship between overall fiscal balance and corruption. Nonetheless, corruption is also negatively correlated with primary balance and external debt in Nigeria. This implies that a relationship exist between corruption and fiscal outcomes.

Consequently, the relationship is further revealed in the trend analysis. Figures 1 confirms the relationship between overall fiscal balance and corruption. In other words, as the quality of institution improves, positive and surplus overall fiscal balance is achievable. As shown in figure 4, corruption perception index of the nation was fairly better during the period 1980 and 1996 than between 1998 and 2011. Intuitively, overall fiscal balance during these periods maintained same trajectory. Overall balance witnessed positive/ surplus balance before the 1996 period. However, overall balance plunged into deficit since the nation's corruption perception index declined substantially throughout the 2000 decades. However, figure 2 and 3 also show that corruption does not have significant impact on the primary fiscal balance and external debt.

### 5.2 *Empirical Analysis*

#### 5.2.1 Unit Root and Cointegration Tests Results

Prior to estimating equation (2), the time series properties of the data are examined. The purpose of this investigation is to determine the stationarity of the data and their order of integration. The Augmented Dickey-Fuller (ADF) test statistics is utilised. The results for the test are presented in Table 2. The tests statistics show that all the variables are integrated of order zero except corruption and literacy level. Both variables were stationary at first difference. A major implication of this is that the variables that were transformed are stationary at levels while other variables that were not transformed are stationary after their first difference. This keeps all the variables on the same magnitude and better for the application of Ordinary Least Square (OLS) method.

---

<sup>12</sup> All results in the form of figures and tables are presented in the annexes

Given this scenario, we proceed to investigate whether these variables are integrated, that is whether a long run relationship exists among the variables. The Johanson procedure for multivariate cointegration test is adopted for this purpose. Based on the focus of the model, vis-à-vis the link between the various fiscal indicators and their determinants, cointegration analysis was carried out and the results base on the Trace Eigen likelihood ratios are presented in Table 3.

The results in Tables, 3, 4 and 5 indicate that long run relationship exists among the variables. The Johnsen likelihood result shows that there is at least one cointegrating equation among the variable when the overall primary balance and external debt were used while the result of the primary balance show evidence of two cointegrating vectors. This suggests that there is a long run relationship among the variables. Thus, we proceed to estimate the three variants of equation 2 examining the impact of public financial management systems on different fiscal outcomes.

### **5.2.2 Regression Result**

The results show that a strong link exists between public financial management systems and fiscal outcome in Nigeria. The variables used to control for the institutional pillars of PFM in Nigeria bears some relationships with fiscal policy outcomes. Although we used three different fiscal outcomes, the impacts of the institutional variables differ on the various elements of fiscal outcomes. There is a negative and significant relationship between corruption and overall budget balance used as an indicator of fiscal outcome. The result further shows a negative statistically significant relationship exist between corruption and external debt in Nigeria. Literacy rate had the expected positive sign but it is not statistically significant with overall fiscal balance. The result also revealed a statistically significant relationship exists between literacy rate and external debt. However, primary balance did not reveal statistically significant evidence with the institutional control variables even though the variables satisfied their a-priori expectations. Other variables such as growth, GDP per capita and population do not sufficiently influence fiscal outcomes in Nigeria even though they possess appropriate theoretical signs with fiscal policy outcomes.

Accordingly, high level of corruption results in deficit overall fiscal balance and increase in external debt. This implies that the higher the level of corruption, the more the possibilities of deficit fiscal balances. Furthermore, lack of capacity to manage fiscal policy also leads to deficit primary and overall fiscal balance as well as high debt profile. Efficient and effective public financial management outcomes derive largely from the capacity and

credibility of policymakers. Nigeria has most often than not ruled by military dictators during the period of this analysis. This affected adversely fiscal policy management and outcomes as rules and procedures were not diligently followed. Further evidence suggests that the regressors adequately capture the influences on the dependent variable(s). Using overall fiscal balance as indicator of fiscal outcome, it is revealed that about 68 percent of the variations in the exogenous variables influence the fiscal indicator while the regressors influenced external debt by about 64 percent as suggested by the coefficient of determination. The results of the regression analysis are presented in Table 6.

### **5.3 Discussion of Findings**

As indicated by the results above, corruption and literacy level are the key institutional factors undermining the efficiency and effectiveness of fiscal policy outcomes. While corruption affects the institutions implementing the budget through poor governance, the level of adult literacy which is a measure of the capacity to efficiently manage national economy affects budget policy designs and implementations strategies. Nigeria has over the years been scored low by the Corruption Perception Index of the Transparency Initiative based on the weak and poor manner in which public policies are implemented. Budgets are in most cases not properly executed, and contracts are often times awarded in manner that violates procurement acts. Arrears are being owed to pensioners while public funds are misappropriated. The political class earns outrageous salaries and emoluments with some measure of poorly developed public service. There has been serious feud in the recent times between the executive and the legislature on the fiscal and budget performance. Meanwhile, a classical evidence of these is the increasing level of abandoned capital projects across the country. All these point to the kind of institutional apparatus that negatively affects our fiscal outcome.

More also, the impact of literacy on fiscal outcome calls to question the quality of education in Nigeria. Nigeria has array of economic managers in different parts of the world but their impact on fiscal operations shows a negative link with fiscal outcomes. This suggests that emphasis need to be paid to the kind of education and capacity required in this area. The need to develop specific programmes tailored towards improving the capacity of those involved in the management of the economy cannot be overemphasized. The possible causes of these include poor budget coordinating institution, lack of respect for the rule of law, weak fundamentals of appropriation templates, poor fiscal discipline and poor accounting systems.

Nevertheless, the relationship between literacy rate and external debt in Nigeria seem related with the kind of institutional arrangement associated with debt management. Nigeria in 2000 established a specialized institution to manage her external and domestic debt portfolios through specialized institution of staff and material resources. Thus, the clear difference with overall fiscal balance may be due to the inability to develop a strategic and specialized institution that could deal with public financial management in Nigeria. This is understandable from the inadequate coordination mechanism and collaborations between the Ministry of Finance and other financial management agencies such as the Office of the Accountant General of the Federation and Central bank of Nigeria. There is therefore, the need to critically develop the nation's PFM through the improvement of the fiscal policy institutions.

#### **5.4 Key Findings and Policy Implications**

Generally, as a fiscal rule, the quality of the PFM in any system largely impact on the outcomes of fiscal policy. If the institutional quality of a system is weak, its fiscal outcome will also be weak but a strong institution is capable of engendering better fiscal outcomes. The World Bank and the IMF have indicated that Nigeria is among the developing countries with poor fiscal records. Furthermore, the report of the Heavily Indebted Poor Countries (HIPC) which covers the public financial management assessment of countries indicates that developing countries of the Sub-Saharan Africa have poor institutions that manage its' public finances. This classification derives largely from the quality of the public finance management system of these nations.

A strong PFM system results in better information for the government on the total amount of liabilities incurred. Improved PFM leads to better control and coverage of government guarantees and debts contracts by other entities within the general government. A good PFM systems captures better information on contingent liabilities, third party contracted sovereign debts such as debts contracted by the government enterprises and by the lower levels of the government. In Nigeria, most activities in the sub-national government's finances do not follow the general templates which further complicate and undermine the institutional quality. Timely accounting and fiscal data which could help government to control contracting of sovereign debt as well as contingent liabilities such as guarantees are not properly handled.

Most times, the decision to borrow in Nigeria does not follow fiscal rules, rather it follows mere discretion. Interests are often on the expected outcome rather than the

consequences of these on PFM systems. General weaknesses in the PFM systems make it more likely that a government will incur liabilities, both internal and external. If rule and procedures to control expenditure and borrowing exist but are not enforced<sup>13</sup>, fiscal outcomes are likely to impact negatively. Although fiscal rules in Nigeria such as MTEF/FSP is expected to guide revenue and spending forecasts in Nigeria, the template of the Bureau for Public Procurement has not impacted significantly on the Nigerian public financial management system.

Therefore, in order to address some of these fiscal challenges, the following recommendations can be deduced.

- Improve critical institutions such the Fiscal Responsibility Commission and other fiscal jurisdictions through respect for laws and order as well as close the leakages for looting government funds through better legislation.
- Develop specialized institutions and critical training programmes targeted at improving the technical capacity of economic managers.
- Fast track fiscal rules such as process of project design, contract award and mode of payments.
- Develop a systematic and integrated accounting system for coordinating MDA's capital expenditures.
- Adopt roll over of capital budget mechanism.

### **5.5 Conclusion**

Public Financial Management is a key instrument of economic management. This study has endeavored to analyze the relationship between public financial management systems and fiscal outcomes in Nigeria. The findings indicate that institutional factors such as corruption and literacy rate affect the institutional pillars of PFM in Nigeria. The pillars include governance structure, accountability, transparency and predictability. Poor budget coordinating institutions, lack of respect for the rule of law, weak fundamentals of appropriation templates and contract management and poor accounting systems are the critical factors undermining the ability of these pillars to positively influence fiscal outcomes in Nigeria. Thus, the need to critically improve the index of capture, budget institutions and the coordination of the MDA's capital budgeting system through integrated and systematic accounting system cannot be overemphasized.

---

<sup>13</sup>For instance line ministries/agencies may incur liabilities such as wage and suppliers arrears, when the approval or virement are not fully funded.

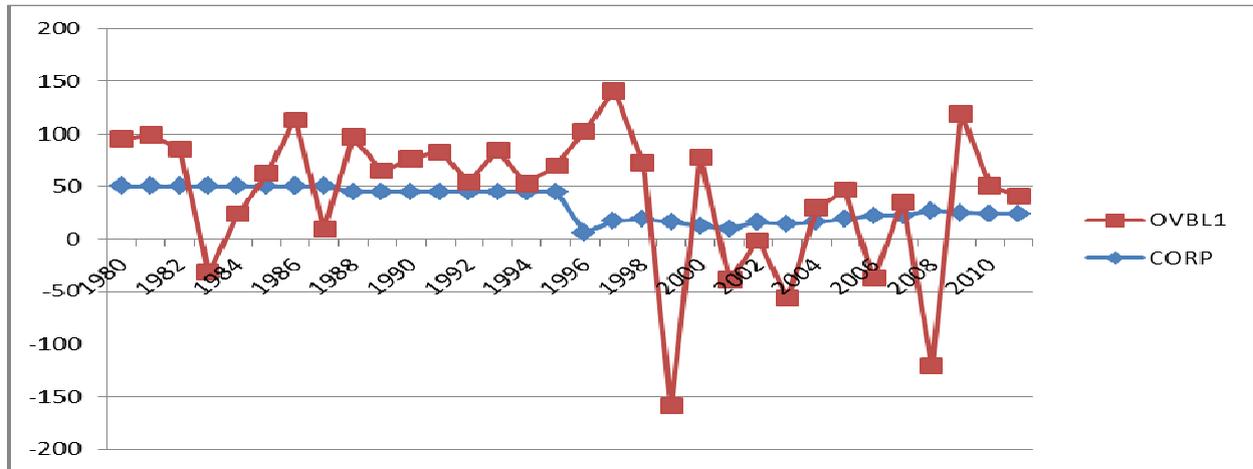
## REFERENCES

- Acemoglu, D. and S. Johnson, 2003. Unbundling Institutions. *National Bureau of Economic Research, NBER Working Paper No. 9934*.
- Acemoglu, D., S. Johnson and J.A. Robinson, 2004. Institutions as a Fundamental Cause of Long-run Growth. *National Bureau of Economic Research, NBER Working Paper No. 10481*
- Alesina, Alberto and Roberto Perotti, 1996. Fiscal Discipline and the Budget Process. *American Economic Review, Papers and Proceedings, Vol. 86, pp.401-07*.
- Alesina, A., R. Hausman, R. Hommes, and E. Stein, 1996. Budget Institutions and Fiscal Performance in Latin America. *National Bureau of Economic Research, NBER Working Paper No. 5586*.
- Alesina, A., R. Hausman, R. Hommes, and E. Stein, 1999. Budget Institutions and Fiscal Performance in Latin America. *Journal of Development Economics, Vol.59, pp. 253-73*.
- Alt, James, and D. D. Lassen, 2006. Fiscal Transparency, Political Parties and Debt in the OECD Countries. *European Economic Review, Vol. 50, pp. 1403-39*.
- Birdsall, Nancy, 2007. Do no Harm: Aid, Weak Institutions and the Missing Middle in Africa. *Development Policy Review, Vol. 25, pp.575-98*.
- Brautigam, D. A. and S. Knack, 2004. Foreign Aid, Institutions and Governance in sub-Saharan Africa. *Economic Development and Cultural Change 52: 255-85*.
- Central Bank of Nigeria, 2011a. Economic and Financial Statistics Bulletin.
- Central Bank of Nigeria. Annual Statement of Account, Various Issues.
- DFID, 2001. Understanding and Reforming Public Financial Management, Guidelines for DFID, version 1, London, United Kingdom.
- Eichengreen, B., R. Hausmann, and Jurgen von Hagen, 1999. Reforming Budgetary Institutions in Latin America. The Case for a National Fiscal Council. *Open Economic Review, Vol. 10, 415-42*.
- IMF, 2006. Critical Issues and Guidelines in Public Financial Management.
- Lienert, Ian and Feridoun Saraf, 2001. Systemic Weaknesses of Budgetary Management in Anglophone Africa. *IMF Working Paper No. 01/211*.
- Moussa, Yaya 2004. Public Expenditure Management in Francophone Africa: A Cross-Country Analysis, *IMF Working Paper No. 04/42*.
- North, D. C. 1990. Institutions, Institutional Change and Economic Performance, Cambridge University Press, UK.

- Obadan, M. I. 2012. Perspectives on the Nigerian Economy: Management Strategies and Development Outcomes. A paper Presented at the Retreat for Special Advisers and Assistants to the Senate President organized by the National Institute for Legislative Studies held in Lafia, Nasarawa State. June 2<sup>nd</sup>.
- Okafor, O.H. 2013. Modeling Fiscal-Monetary Interactions in Nigeria. *International Journal of Economics and Finance*. Vol. 5, No. 1.pp. 86-92.
- Potter, B. and J. Diamond (1999). Guidelines for Public Expenditure Management. *International Monetary Fund*.
- Poterber, J. M. (1994). State Responses to Financial Crises: The Effects of Budgetary Institutions and Politics. *Journal of Political Economy* 102: 799-82.
- Prakash, T. and E. Cabezon, (2008). Public Financial Management and Fiscal Outcomes in Sub-Saharan African Heavily-Indebted Poor Countries. *IMF Working Paper* No. 08/217.
- World Bank (2011). Development Indicators.
- World Bank (2011). Country Policy and Institutional Assessment.

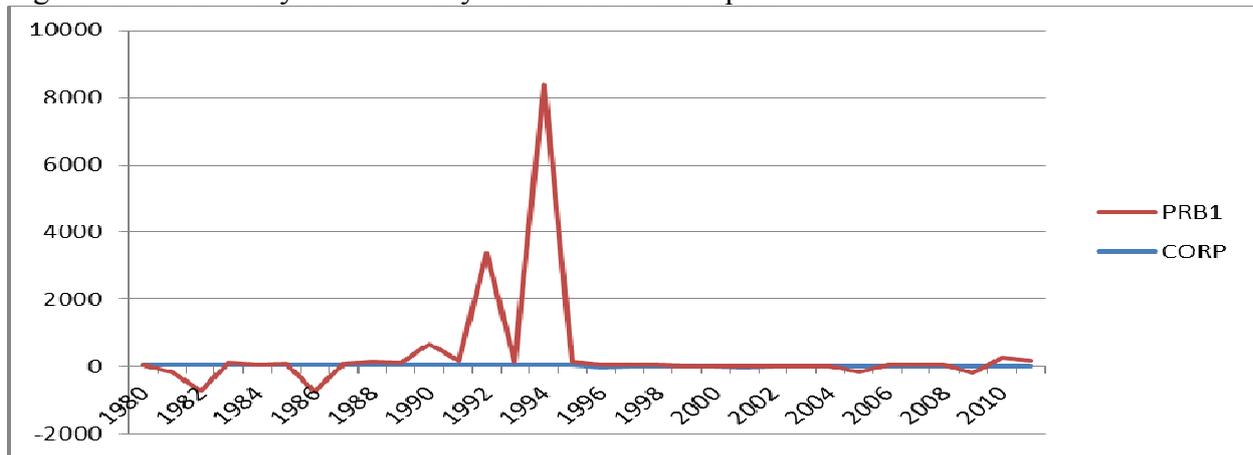
ANNEXES

Figure 1: Trend Analysis of Overall Balance and Corruption



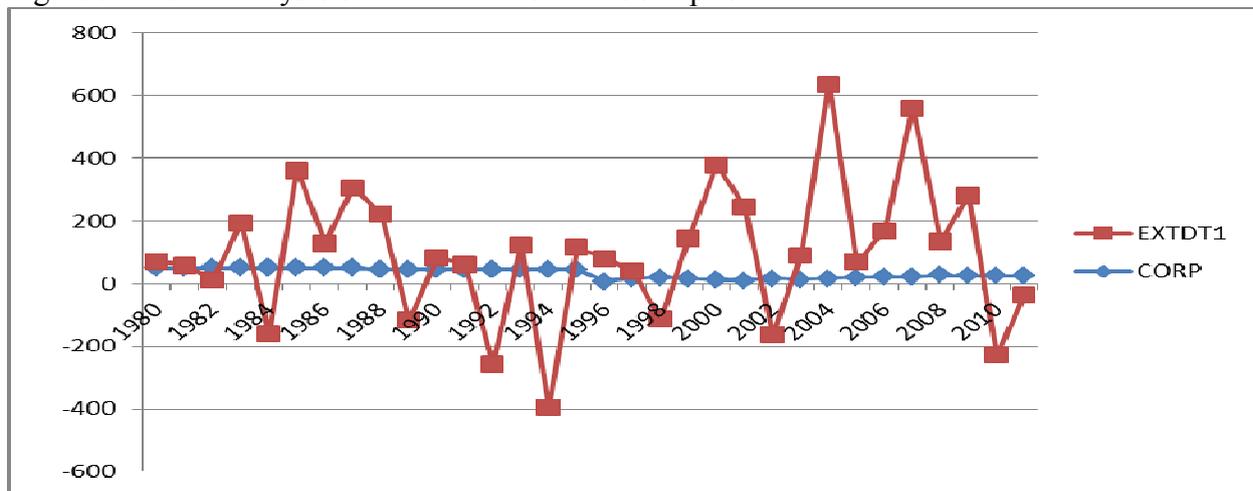
Source: Author's

Figure 2: Trend Analysis of Primary Balance and Corruption



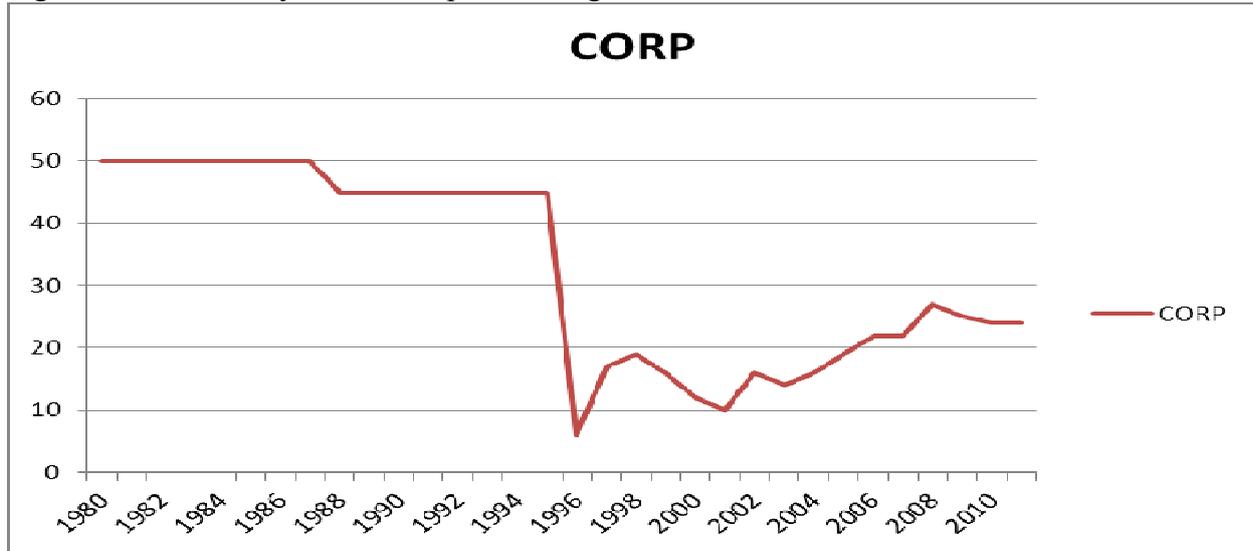
Source: Author's

Figure 3: Trend Analysis of External Debt and Corruption



Source: Author's

Figure 4: Trend Analysis of Corruption in Nigeria



Source: Author's

Table 1: Correlation Matrix Result of the Variables

	CORP	EXTDT	GDP	GDPPC	LIT	OVBL	POP	PRB
CORP	1.000000	-0.682343	-0.588562	0.368011	-0.424752	-0.348482	-0.772294	-0.764412
EXTDT	-0.682343**	1.000000	0.298392	-0.196245	0.215147	-0.083480	0.476956	0.786626
GDP	-0.588562	0.298392	1.000000	-0.383404	0.775104	-0.736235	0.950188	0.475238
GDPPC	0.368011	-0.196245	-0.383404	1.000000	-0.083154	0.345238	-0.378965	-0.381472
LIT	-0.424752	0.215147	0.775104	-0.083154	1.000000	-0.340910	0.778127	0.430921
OVBL	-0.348482**	-0.083480	-0.736235	0.345238	-0.340910	1.000000	-0.657738	-0.037565
POP	-0.772294	0.476956	0.950188	-0.378965	0.778127	-0.657738	1.000000	0.635113
PRB	-0.764412**	0.786626	0.475238	-0.381472	0.430921	-0.037565	0.635113	1.000000

Source: Author's Computation

\*\* relationship between corruption and fiscal outcomes

Table 2: Results of the Augmented Dickey-Fuller Tests

Variable	Augmented Levels	Dickey Fuller CTV	First Diff.	CTV	Order of Integration
OVBL	-5.3147	-2.9677	-8.8841	-2.9718	I(0)
PRB	-5.3344	-2.9677	-11.5781	-2.6891	I(0)
EXTDT	-3.4237	-2.9677	-7.5950	-2.9718	I(0)
GDPPC	-3.2186	-2.9639	-6.7244	-2.9718	I(0)
GDP	-12.9079	-1.9529	-6.1578	-2.9718	I(0)
LIT	-1.6037	-2.9639	-4.0957	-2.9677	I(1)
POP	-6.3462	-2.9677	-8.0159	-2.9762	I(0)
CORP	-1.5084	-2.9639	-6.6857	-2.9677	I(1)

Source: Author's

Table 3: Cointegration Test Results, Overall Balance

H0	Eigenvalue	Trace Statistic	5 Percent Critical value	Hypothesis No. of CE(s)
r=0	0.81	110.12	95.75	None*
r=1	0.58	62.17	69.81	At most 1
r=2	0.44	37.78	47.85	At most 2
r=3	0.37	21.49	29.79	At most 3
r=4	0.20	8.37	15.49	At most 4
r=5	0.06	1.84	3.84	At most 5

Source: Author's

Table 4: Cointegration Test Results, Primary Balance

H0	Eigenvalue	Trace Statistic	5 Percent Critical value	Hypothesis No. of CE(s)
r=0	0.86	133.17	95.75	None*
r=1	0.68	77.39	69.81	At most 1
r=2	0.57	45.21	47.85	At most 2
r=3	0.35	21.14	29.79	At most 3
r=4	0.21	9.02	15.49	At most 4
r=5	0.07	2.16	3.84	At most 5

Source: Author's

Table 5: Cointegration Test Results, External Debt

H0	Eigenvalue	Trace Statistic	5 Percent Critical value	Hypothesis No. of CE(s)
r=0	0.82	98.63	95.75	None*
r=1	0.52	51.27	69.81	At most 1
r=2	0.37	30.49	47.85	At most 2
r=3	0.27	17.23	29.79	At most 3
r=4	0.21	8.30	15.49	At most 4
r=5	0.05	1.55	3.84	At most 5

Source: Author's

Table 6: Fiscal Outcomes in Nigeria

	Overall Balance	Primary Balance	External Debt
GDPPC	18.02123 (1.027310)	22.51299 (1.129997)	-3697.074 (-0.414138)
Growth	2.093034 (0.135131)	8.627974 (0.489254)	-2920.575 (-0.347571)
Pop	-47.86005 (-0.171473)	328.3906 (0.703256)	70178.37 (0.338868)
Literacy	49.25661 (0.722457)	49.01149 (1.184108)	-39284.04 (-2.150812)**
Corruption	-155.6404 (-4.374939)**	21.17984 77 (0.939204)	97.932 (0.769067)**
Constant	150.3874 (0.553712)	-4417.312 (-1.317601)	2433990 (1.643481)
Observation	31	39	39
R-squared	0.68	0.47	0.64

robust t-Statistics in parenthesis.

\*\* Significant @ 5%; \* significant @ 10%.

Source: Author's