

PUBLIC FINANCE AND ECONOMIC GROWTH IN NIGERIA

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Abstract

The paper evaluated the public finance in the military and civilian regime. It also examined the effects of recurrent expenditure, capital expenditure and revenue on Gross Domestic Product (GDP). The methodology used for this paper was mixed method. ARDL (Auto-Regression Distributed Lag) bounds test approach was used to estimate the result of this study. The finding of the study revealed that recurrent expenditure was more prevalent under civilian governments than the military governments. The ARDL (Auto-Regression Distributed Lag) indicated that revenue is significant in reducing the Gross Domestic Product. This finding suggests what is currently happening with the Federal Government where revenue adversely affect the Gross Domestic Product. The study recommends that the Federal Government should find more sources of revenue and the government spending should pass through proper accountability and transparent process.

Keywords: Revenue, recurrent, expenditure, capital expenditure and economic growth

INTRODUCTION

The current global economic and financial crisis has shown significant effects on public finance resulting in increases in government deficit and debt (Gjedrem, 2010; Staehr, 2010; Dalena and Magazzino, 2012). Kolluri et.al (2000) revealed that public expenditure and its effect on economic growth have caused serious debate in the finance literature. Kolluri et.al (2000) argued that there are attentions of this effect on the general flow of government services, productivity of private sector and more effect of public sector investment on private decision making. There are a number of studies that provide evidence to show the principal causes of growth in the public finance and Wagner's Law is one of the theories that studied economic growth as the main determinant of public sector growth (Kolluri et.al 2000).

In the developed countries Kolluri et.al (2000) revealed the relationship between government expenditure and national income using the seven major OECD countries. Across countries in the emerging economy, Srinivasan (2013) studied the relationship between public expenditure and economy and the author claimed that there is strong significant relationship between public expenditure and economic growth.

In Sub-Saharan Africa, most government responded to the Structural Adjustment Programme (SAP) supported by the World Bank and International Monetary Fund (IMF). The aim of the SAP was to improve economic growth (Skido and Teke, 2012); however, the author believed that this Structural Adjustment Programme (SAP) has not produced the intended results. This finding indicates that the economy had deteriorated significantly such that continuous falling revenues were not matched by expenditure cuts (Skido and Teke, 2012).

In the Sub-Saharan Africa region, there are quite a number of papers on public finance and economic growth. For example, Sahn (1992) studied the relationship between public expenditure and economy during the period of economic reforms. However, this present paper focuses on public finance and growth in Nigeria. This study used Nigeria as case study because of the following; Nigeria is one of the developing countries with strong economy in the sub-Saharan Africa region with the highest population, large markets, and abundant natural resources such crude oil and fertile land for agriculture.

There are a few studies on public expenditure and economic growth in Nigeria. These include Fasanya and Egbetunde (2013), Adewara and Oloni (2012), Nworjiet.al (2012) and Kilishi et.al (2011). Consequently, this paper focuses on the gap in the previous studies by compared the public finance during the military and civilian regimes with trend analysis and examined the effect of recurrent expenditure, capital expenditure and revenue on economic growth.

The motivation for this study arises from the fact that in every year, the Federal Government budgets appropriate fund for capital and recurrent expenditure to various Ministries, Departments, and Agencies but there is nothing to show significantly for this and the public is still complaining. Pertinent research questions are that to what extent is the effect of recurrent expenditure, capital expenditure and revenue on economic growth, and what were the trends of public finance during the military and civilian regimes? The remaining part of this paper consists of section two which provides the literature review, section three which describes the methodology used for the study, section four which discusses the results of the data analysis and finally, section five which details the conclusion and recommendations of the study.

LITERATURE REVIEW

This section provides the conceptual framework on the main construct of this study such as public expenditure, revenue and economic growth and current issue of public finance in Nigeria.

The Nexus between Public Expenditure, Revenue and Economic growth

Public expenditure refers to the expenses which government incurs in the performance of its operational activities. Public expenditure is divided into capital expenditure which involves short term and long-term projects and recurrent expenditure which includes overhead cost and personnel cost (Adamu and Rasheed, 2016). Revenues comprise incomes that are sourced from taxes and non-taxes, mostly from oil and gas. Some scholars in the field of finance and economics argued that increase in revenue will definitely lead to more expenditure (Friedman, 1972, 1978). Barro (1974) also opined that increased revenue through taxes and public borrowing resulted to more public expenditure. Other scholar believed that high public deficit results to more expenditure (Buchanan and Wagner, 1977).

In developed countries such as the US, studies such as Baghestani and MCNown (1994) claimed that there is a strong significant relationship between revenue and expenditure in the US federal government. In the UK, Hasan and Lincoln (1997) argued that revenue through taxes and public expenditure are co-integral. Sequential testing procedure results to bidirectional causality relationship between tax revenue and public expenditure which is consistent with Owoye (1995). In emergent economies such as China, Li (2001) studied the relationship between revenue and expenditure where the author found a bidirectional relationship. In Korea, Park (1998) claimed that there are unidirectional causal relationship between revenue and expenditure.

In the developing economies such as Sub-Saharan Africa, Sahn (1992) studied the public expenditure in the region during the economic reform. The author revealed that there was increase in total central government and social services spending; and that growth in population contributed to overall reduction in per capital expenditure, increase in total spending, and decrease in net interest repayment. In addition, Fielding (1997), modeling the determinant of government expenditure in Sub-Saharan Africa, found that current expenditure depends on current fiscal revenue. Moreover, Wolde-Rufael (2008) used most Sub-Saharan African countries to examine the relationship between revenue and public expenditure. The results indicate unidirectional causality relationship for most countries in the region. In Nigeria, Kilish et.al (2011) used Vector Error Correction (VEC) to show that there is a long run relationship

between public spending and economic growth. Moreover, Nworji et.al (2012) claimed that recurrent expenditure on social, community services and transfer have significant positive relation on economic growth. Fasanya and Egbetunde (2013) argued that recurrent expenditure has a positive significant on economic growth. However total government spending is negatively significant on economic growth. Contrarily, Adewara and Oloni (2012) revealed that expenditure failed to improved economic growth. This may likely be due to unemployment.

Current Issues of Public finance in Nigeria

Recently the Budget Office of the Federation, BOF (2017) revealed that the Federal Government has committed to allocating at least thirty percent of the budget to capital expenditure up from sixteen percent allocated in year 2015. The Budget Office claimed that the ratio of capital spending in total budget increased from sixteen percent in year 2015 to thirty percent in year 2016 and thirty-one percent in year 2017 (BOF, 2017). Total Federal Government revenue for year 2017 exceeded year 2016 projection by thirty percent. Contribution of oil revenue projections was forty-two percent compared to nineteen percent in year 2016; eleven percent of projected revenue was expected from recoveries of looted or misappropriated funds and fines. Companies Income Tax was sixteen percent, Value Added Tax (VAT) appropriated as five percent, Independent revenue sixteen percent, customs duties six percent, and others source revenue such as mining and LNG dividends indicated as five percent (BOF, 2017).

Moreover, Fafowora (2016) believed that cost of running governance in Nigeria is too high and unsustainable; consequently, the author believed there is need to bring public expenditure down and under greater control. Anya (2019) posited that the Federal Government was spending over 70 per cent of its total revenue on public administration expenses: 30 per cent on capital projects. Out of this thirty percent, at least 15 per cent is lost through policy slippages and widespread public corruption. Thus, large bureaucracies tend to provide more opportunity for graft and public corruption as a result this constrained economic growth.

In addition, Anya (2019) further explained that Nigeria runs thirty-seven separate governments, consisting of the federal and state governments. At the federal level, the president is constitutionally obliged to appoint a minister from each of the thirty-six states plus the Federal Capital Territory (FCT), with minster of state (Deputy Minister) for each ministry. This results to more ministers. The author recommended that this provision should be reviewed. At the state level, the situation is much the same; the governors are constitutionally obliged to appoint not fewer than twelve commissioners. Moreover, Anya (2019) claimed that at the Federal and State level, the president and governors have more special advisers and idle aides, while at the local government level there is evidence of overstaffing as that of the federal and state governments. When all these are factored with the huge expenditure of the National Assembly, this result to economic and financial disaster at all levels of government.

Theoretical Framework

This sub-section explains the public interest theory and Wagner's law of public expenditure growth theory which are used in this study.

Public Interest Theory

In the public-interest view, government is seen to be made up of individuals whose desire it is to serve the public by doing what is right. In this context, the government becomes an instrument that will or should improve the welfare of society. The society does not expect any unintended and unexpected consequences

of government actions to arise in the course of the discharge of responsibilities. It is in this connection that, under Section 16 (1) of the 1999 Nigerian Constitution, the states are required to (a) utilize the resources of the country to advance the prosperity of the country; (b) secure the economy such that the welfare, freedom and happiness of every citizen will be maximized while ensuring social justice and equal opportunities for all citizens; and (c) provide shelter, food and other amenities for all citizens. From these provisions, it is clear that governance entails ensuring just and egalitarian society which the public interest theory exemplifies (Iyoha et.al, 2015).

Wagner's Law of Public Expenditure Growth theory

This theory believed that economic growth is the fundamental determinant of public sector growth; the postulates of this theory emphasized that public expenditure growth increases rapidly than the national income. This theory posited that a growing economy allowed tax revenue thus bringing opportunities for lawmakers increase public sector expenditure, government subsidies and more activities in the public sector even during recession period (Kolluri et.al 2000).

METHODOLOGY

Research Design

The research design used in this study is mixed methods which comprises of empirical and trend analysis; this methodology was used in order reveal a robust and transparent finding from the study. The data was analyzed using Auto-Regression Distributed Lag (ARDL), Stationary Test (unit root test), and co-integration relationship at the short and long of the variables. The source of the data was from Central Bank of Nigeria (CBN Bulletin from year 1981 up to 2018 on Recurrent Expenditure, Capital Expenditure, Total Revenue and Gross Domestic Product (GDP) that represent economic growth.

Model Specification

This paper specifies the model by assuming that public expenditure does not match the desired level in the short run; stability occurred at the long run at its desired or equilibrium level for public expenditure and any desired level of public expenditure in a certain period are based on expected income (Kolluri et.al 2000). Consequently, this study adapting Auto-regression Distributed Lag (ARDL) in the regression in the analysis of data and this indicated below:

$$\text{Log GDP}_t = \beta_0 + \beta_1 \text{Log RE}_t + \beta_2 \text{Log CE}_t + \beta_3 \text{Log TFR}_t + u_t$$

Dependent Variable: the economic growth is proxy as dependent variable this include Gross Domestic Product (GPD).

Independent variables: Public Finance comprises recurrent expenditure, capital expenditure and total revenue these are the independent variables.

Where

LogGDP_t= Gross Domestic Product

Where the Public Finance represent the following;

LogTFR_t= Total Federally Collected Revenue

LogRE_t = Recurrent Expenditure

LogCE_t= Capital Expenditure.

RESULTS AND DISCUSSION

This section provides the results of the data analysis showing unit root test, bound test, post estimation test, and normality serial correlation heteroskedasticity test, graphical trend analysis of the variables and opinions from some prominent Nigerians on issue of public finance and economic growth.

Table 1: The Result of ADF Unit Root Test

Variable	Oder of Integration	ADF Statistics
LogGDP	I(1)	-5.9935
LogFTR	I(1)	-4.0111
LogREP	I(1)	5.7429
LogCEP	I(1)	-3.9241

Table 2: Bound Test of Auto-regression Distributed Lag (ARDL)

ARDL Bounds Test

Date: 12/03/20 Time: 20:57

Sample: 1981- 2018

Included observations: 37

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	5.220464	3

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Table 3: Showing the Short Run relationship between the Dependent and independent variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOGGDP(-1))	0.556287	0.359627	1.546846	0.1356
D(LOGCAPEX)	0.304214	0.192374	1.581365	0.1275
D(LOGREC)	0.102345	0.282320	0.362513	0.7203
D(LOGREC(-1))	-0.008552	0.392794	-0.021772	0.9828
D(LOGREC(-2))	-1.191076	0.408700	-2.914305	0.0078
D(LOGREV)	-0.385136	0.318322	-1.209894	0.2386
CointEq(-1)	-0.662289	0.327289	-2.023558	0.0548

Table 4: Table 4.4 Provides Estimated Long Run Coefficient using the ARDL Approach

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGCAPEX	0.459337	0.224860	2.042774	0.0527
LOGREC	2.661152	0.591579	4.498390	0.0002
LOGREV	-1.920886	0.617480	-3.110847	0.0049
C	0.368513	1.678643	0.219530	0.8282
R-squared	0.985720	Mean dependent var		29.03377
Adjusted R-squared	0.980132	Durbin-Watson stat		1.743243
F-statistic	176.4018			
Prob(F-statistic)	0.000000			

Table 5: Illustrates Breusch-Godfrey Serial Correlation LM Test and Heteroskedasticity Test
Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.496575	Prob. F (2,21)	0.6156
Obs*R-squared	1.490189	Prob. Chi-Square (2)	0.4747
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	2.110968	Prob. F (9,23)	0.0717
Obs*R-squared	14.92802	Prob. Chi-Square (9)	0.0929
Scaled explained SS	22.04444	Prob. Chi-Square (9)	0.0087

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The ADF unit root test results is presented in Table 1. The result shows that GDP, Total revenue, Recurrent expenditure and Capital Expenditure are stationary at first order of integration (1). This suggests that there is need to test for long relationship (that is, co-integration test).

The Autoregressive Distributed Lag (ARDL) Bound Test in Table 2 provides evidence that there is co-integration, meaning long run relationship, since the F-statistics is greater than the upper bound at 5%. This finding suggests that there is a long run relationship between Gross Domestic Product (GDP) and the independent variables such as recurrent, capital expenditure and revenues.

The short-run regression result is presented in Table 3. The result indicates that the error correction term (ECT) is negative and significant which confirms the presence of co-integration. This shows that the model will converge to long-run equilibrium after the short-run disequilibrium. The coefficient of the ECT suggests that about 66% of the error corrected annually. Thus, it takes the model less than two years to adjust to equilibrium from short run disequilibrium. However, only one variable in the second lag of recurrent expenditure is statistically significant thus, the rest of the variables are not significant. It means that in the short-run, capital expenditure and total revenue do not significantly influence economic performance.

Table 4 displays long-run coefficients. All the variables are statistically significant in the long-run. Recurrent and Capital Expenditure show positive significant relationship with Gross Domestic Product (GDP), however revenue has a negative significant relationship with Gross Domestic Product (GDP). The

result shows that one percent increase in capital expenditure would lead to about 0.46 percent increase in GDP, and one percent increase in recurrent expenditure would bring about 2.66 percent increase in GDP. On the other hand, one percent increase in total revenue would reduce GDP by about 1.9 percent. This finding suggests that if revenue is increased particularly from tax, it will affect production and investment and hence GDP will fall. This result provides evidence that it takes long term before capital experience can have effect on GDP also the more you spend on recurrent expenditure the higher the GDP. The Durbin-Watson statistics 1.74 indicates absence of serial correlation since the value is close to 2.

4.2 Trend Analysis of the Gross Domestic Product (GDP), Total revenue, Capital Expenditure and Recurrent expenditure

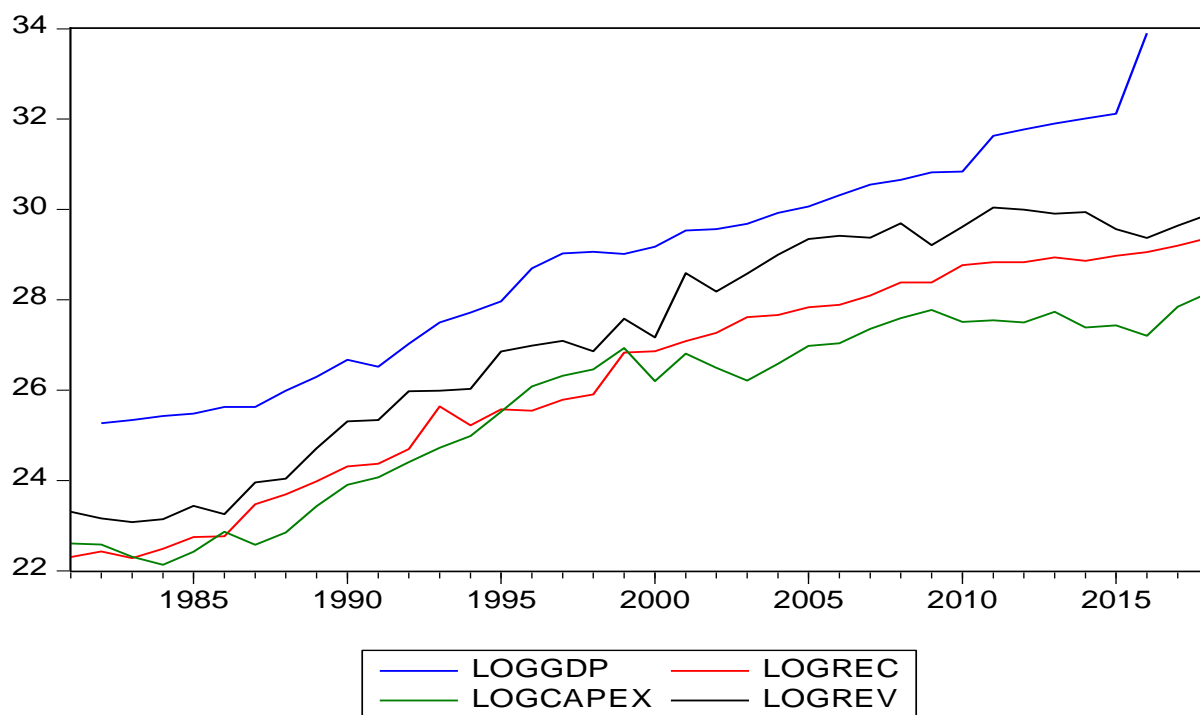


Fig 1 Source: Computed by Researcher

Figure 1 shows the trends for GDP, total federally collected revenue, recurrent expenditure and capital expenditure. In general, there was a steady rise in the trends over the period under review. From the figure also, it is clear that recurrent expenditure and capital expenditure tend to move in the same direction with total federally collected revenue. This implies that total federally collected revenue has greater influence on recurrent expenditure and capital expenditure.

4.2.1 Trend of Public Finance from 1985 to 1999 during the Military Regime

The results show the following: from 1985 to 1993 during General Ibrahim Babangida's regime, the Gross Domestic Product (GDP) increased, recurrent expenditure was higher than capital expenditure and total revenue also increased. Between the period of 1993 to 1998 during the regime of President Ernest Shonekan and General Sani Abacha, the GDP increased and the total revenue to the government was also higher than the previous years; however the regimes spent more on capital expenditure than recurrent expenditure. Between 1998 and 1999 during General Abdulsalami Abubakar's regime, the recurrent expenditure was less than capital expenditure also the GDP and total revenue increased respectively.

4.2.2 Trend of Public Finance from 2000 to 2018 during the Democratic Regime.

From year 2000 to 2007 during President Obasanjo's civilian rule, the total revenue increased tremendously. GDP was also higher, thus recurrent expenditure was higher than capital expenditure. From 2007 to 2010 during President Umaru Musa Yar'Adua's civilian rule, the GDP of the nation was higher and the total revenue accrued to the government as the period was higher with less spending on capital expenditure and higher spending on recurrent expenditures. From 2011 to 2015, during President Goodluck Jonathan's civilian rule, the Federal Government's total revenue was higher than previous years while the GDP was also higher. However, the regime spent more on recurrent expenditure than capital expenditure. This study revealed that the more revenue sourced during this period, the less was spent on recurrent and capital expenditure.

The President Buhari Administration that came on board in May 2015 till date has reduced total revenue compared to previous civilian regimes, particularly that of President Goodluck Jonathan's civilian rule. This may likely be due to reduction in the price of crude oil in the world market and the present Corona virus pandemic (COVID-19) which is seriously affecting all sectors of the economy globally. Moreover, President Buhari's administration spends more on recurrent expenditure than capital expenditures.

CONCLUSION AND RECOMMENDATIONS

The study reveals that the recurrent expenditure has been on the increase with the civilian government spending more money than the military government. It is important to note that the reduction in recurrent expenditure during the military rule cannot be as a result that they were more financially prudent than their civilian counterparts but can be deduced to be due to the reduction in some institution and personnel during the military regime.

Furthermore, the Auto-Regression Distributed Lag (ARDL) provides evidence that capital expenditure and recurrent expenditure have positive significant relationship with Gross Domestic Product. This result suggests that capital and recurrent expenditure may likely increase the Gross Domestic Product. However total revenue is negatively significant with Gross Domestic Product (GDP). This finding indicates that once the revenue from the Federal Government continues to decrease this may likely reduce the Gross Domestic Product, this is what is happening currently with the Federal Government in Nigeria.

The present civilian government should reduce wastage in the government spending through proper accountability and transparent processes and find more sources to increase revenue generation in order to increase Gross Domestic Product (GDP).

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