

Government Expenditure and Performance of Selected Macroeconomic Variables in Nigeria (1981 – 2018)

Nnamocha, P.N. (PhD)¹, Anyanwu, Austin Chinenye (PhD)²

¹*Dept of Economics, Imo State University, Owerri, Nigeria*

²*President/CEO, Gulftek Microfinance Cooperative Society Ltd, Owerri, Nigeria*

Abstract: This research work studied government expenditure and performance of selected macroeconomic variables (RGDP, Unemployment rate and Inflation Rate) in Nigeria from 1981 to 2018. The study made use of annual data sourced from the Central Bank of Nigeria Statistical Bulletin (2018 edition). Three models were formulated using government expenditure which was disaggregated into two components; government capital expenditure and government recurrent expenditure as independent variables for each of the selected macroeconomic variables, while economic growth (proxied by RGDP), inflation rate and unemployment rate were the dependent variables in each of the three models. Error Correction model was used in analysing the data. The findings showed that government capital expenditure had positive impact on economic growth (proxied by RGDP), and negative impact on inflation rate and unemployment rate. On the other hand, government recurrent expenditure had positive relationship with economic growth, unemployment and inflation rate. The study concluded that government expenditure has a significant relationship with the selected macro-economic growth variables i.e. real GDP, unemployment rate and inflation rate in Nigeria. Based on these findings, the study recommended that government capital expenditure being the engine of industrial development should be increased in order to build up or increase the productive capacity in the country.

Keywords: Government Expenditure, Unemployment Rate, Inflation Rate, Economic growth, Error Correction Model.

I. INTRODUCTION

Government spending is a key policy instrument and occupies a strategic position in all the economies of the world. It stimulates economic activities needed to promote the well-being of its citizens and no economy that exists without incurring government spending. Nigeria, like most developing economies in the world, has witnessed a continuous increase in government expenditure over the years, both in the recurrent and the capital expenditure. This could be attributed to huge receipts from the production and sale of crude oil and the increased demand for public goods like roads, education and health facilities, external and internal security given an ever increasing population. However, the rising government expenditure is yet to translate to commensurate growth and development and improvement in the performance of key macroeconomic indicators. It is of great concern that

government expenditure seems not to have shown the same level of economic growth in Nigeria.

Dikeogu, et al (2016), opined that the poor performance of government expenditure in advancing the growth of the Nigerian economy since independence has led to the debate on the effectiveness of the public sector in the macroeconomic management in Nigeria. Adegboye (2012) further argued that the debate on government expenditure in Nigeria like in most other less developed countries has also focused on its effectiveness in business cycle stabilization as a fundamental aspect as well as on the output growth outcomes. Ezeabasili (2013) on his part stated that the management of government expenditure in Nigeria since independence has not been able to deliver the anticipated macroeconomic stability and growth. A detailed analysis of the trend of the relevant economic variables shows that the country is still battling with fluctuating economic imbalances which is can be seen in the inconsistent growth rates, illiteracy, high level of inflation, unemployment and poverty amongst others.

According to Okoro (2013), between 1981 and 1990, while the GDP growth rate was decreasing (57.15 percent down to 2.87 percent), government expenditure growth rate was increasing (23.2 percent to 41.24 percent). Thus, the two periods had an inverse relationship between them. On the contrary, it is revealed that the growth rate of government expenditure in 2000 and 2010 was 15.53 percent and 2.15 percent respectively, while GDP growth rate witnessed within the same period 8.79 percent and 1.54 percent respectively. Thus, the growth rate of government expenditure was higher than GDP growth in the same period. The business day Newspaper of Tuesday 14 February, 2012, reported that the percentage of Nigerians living in abject poverty rose to 60.9 percent in 2012 as compared to 54.7 percent in 2004 and Nigeria ranks among the poorest countries in the world (Okoro, 2013). While it is expected that the growth in government expenditure in Nigeria over the years will also drive improvement in economic growth, reduce the inflation rate and unemployment rate in Nigeria, the story has been quite different.

Iyeli (2012) in supporting these statistics argued that the Nigeria economy is yet to arrive on the path of sound growth

and development in spite of the lofty height of fiscal policy in its management over the past decades. Ewetan (2012) also stated that Nigeria have been contending with declining real income in the last three decades, and also increased levels of unemployment, inflation and decay in social amenities etc. Available statistics also reveals that there was an increase in total government recurrent expenditure from N4.85 billion in 1981 to N36.22 billion in 1990, to N461.6 billion in 2000. It increased further to N3,109.38 billion in 2010 and to N3,807.77 billion in 2018. For Capital expenditure, it increased from N6.57 billion in 1981 to N24.05 billion in 1990, then to N239.45 billion in 2000, N883.87 billion in 2010 and declined to N768.12 billion in 2018. In 2018 recurrent expenditure accounts for about 77.2% of total expenditure whereas about 22.8% is expended on capital expenditure (CBN statistical bulletin, 2018).

It can be seen from the statistics above that the quality of public expenditure was declining, as a result of the reducing proportion of capital expenditure and the commensurate growth of recurrent expenditure. The figures on public expenditure in Nigeria revealed a major problem which indicate that attention was given more on recurrent expenditure against capital expenditure which is expected to boost economic growth and development. Meanwhile, there are challenges of mismanagement and misappropriation of public expenditure in the economy which is seen in the inability to maximize the benefits associated with economic booms. Abu and Abdullahi 2010 stated that Nigeria's currency was overvalued; and this has led to the discouragement of export while import was encouraged, coupled also with poor business environment, neglect and decay of infrastructure, corrupt practices, and huge expenditure on maintenance of democratic institutions.

Moreover, Nigeria has not performed well in the last couple of years as manifested in fiscal imbalance running into large fiscal deficits (Onoh, 2007). Thus, it is quite regrettable that the quantity and quality of government expenditure has not yielded the desired meaningful development or improvement in the welfare of the citizens. The standard of living of majority of Nigerians is low; many are living in abject poverty, while more than 50 percent live on less than US\$2 per day with unemployment and inflation rates very high. Nigeria is among the poorest countries in the world despite the amount of public spending made by the government. Giving these existing problems, it is therefore significant to look into the nature and effect of capital and recurrent expenditure on some selected macroeconomic variables in order to proffer solution that will help in resolving the existing problem. Consequently, this study will attempt to empirically examine the impact or effects of government expenditure on selected macroeconomic variables in Nigeria.

II. LITERATURE REVIEW

Conceptual Framework

Government Expenditure

Nnamocha (2001) defined Government expenditure as the expenses incurred by the government for its own maintenance and on the society and the economy as a whole. According to Anyanwu (1993) opined that public expenditure are the expenses which the government incurs in maintaining itself, which benefits the society, external bodies, the economy, and for other countries. In simple terms, he stated as government spending from revenues received from taxes and other sources. Ajie, Akekere and Ewubare (2014) opined that public expenditure are the expenditure that are incurred by public authorities such as central, state or local government in order to meet the overall social wants of the people. Public Expenditure is referred to a situation where there is resources flow from government to other sectors of the economy.

Government expenditure can be classified into recurrent and capital expenditures.

Capital Expenditure

This is payment made by the government on the creation or acquisition of assets to be used for production for more than one year or for a long period of time. This includes payment on the acquisition of equipment, machineries, construction of roads and other infrastructural facilities. Capital expenditure has a lasting impact on the economy and helps provide a more efficient, productive economy such as construction of canals, dams, water storage, roads and railway lines, etc. Nnamocha (2002) defined capital expenditure as expenditure incurred in:

- a. The initial setting up of the business
- b. The acquisition of fixed assets required for use in the business and not for resale.
- c. The change or improvement of assets in order to increase their profit earning capacity.

He also defined it as money injected into the business permanently or for a long period of time usually beyond one accounting period or one year

Recurrent Expenditure

This is a short time spending by the government which does not result in the creation or acquisition of fixed assets. It is the spending on day to day running of government affairs. It includes government spending on wages, salaries, interest payment, debt servicing. Most are usually non-refundable and the effect on the economy is simply a short-term one. According to Nnamocha (2002) revenue or recurrent expenditure is expenditure incurred in:

- a) Maintenance of the revenue earning capacity of the fixed assets,
- b) The acquisition of assets required for conversion into cash;
- c) The selling and distribution of goods, manufacturing and the daily administration of the business.

The benefit from recurrent expenditure is usually used up entirely during one accounting period usually one year

Unemployment

Unemployment according to Briggs (1973) is the difference between the numbers of labour employed at current wage rates and working conditions, and the number of labour not hired at these levels. Gbosi (1997) asserted that unemployment is a situation where people who are willing to work at the prevailing wage rate are not able to find jobs. The International Labour Organization (ILO) defined an unemployed as a member of the economically active population, who are without work but available for and seeking for work, including people that have lost their jobs and those that have left work voluntarily (World Bank, 1998).

Inflation

Balami (2006) sees inflation as a situation of a rising general price level of all categories of goods and services over a long period of time. Haslag (1997) is of the view that inflation is always and everywhere a monetary phenomenon; and can be produced only by a more rapid increase in quantity of money than output. He regarded inflation as “a destroying disease which emanated from out of lack of monetary control by the government and whose result undermined the rules of business, creating crisis in the market and financial destruction of even the products”. Inflation can simply be defined as a general and continuous increase in prices of goods and services without a corresponding rise in the quantity of goods and services. Its effects on economic activities and ultimately on people’s well-being is a primary concern of policymakers and has been the focus of many studies.

Gross Domestic Product (GDP)

Jochumzen (2010) stated that Gross Domestic Product (GDP) is the market value of all finished goods and services produce in a country during a certain period of time. GDP can also be defined as the market value of all officially recognized finished goods and services produced within a country in a year, or other giving period of time. In the period 1988 – 1997 which constitutes the period of the structural adjustment and economic liberalization, the GDP responded to economic adjustment policies and grew at a positive rate of 4.0%. From 2005 Nigeria GDP growth rate averaged 6.8%, reaching 7.36% in 2011 and a low record of 6.5% in 2012, 4.69% in 2017 and 1.93% in 2018 (NBS Economic Outlook, 2018).

III. THEORETICAL REVIEW

Theories of Public Expenditure

This section provides the theoretical framework upon which this study will be based. They include the following:

- i) Wagner’s Law of increasing State activities
- ii) The Peacock and Wiseman’s Hypothesis of Displacement Effect, and
- iii) Keynesian Theory of Government Expenditure.

Wagner Law of Increasing State Activities

Adolph Wagner (1835-1917), a famous German political economist made the earliest attempt to do an in-depth study towards the end of the 19th century on the rise in government expenditure. He propounded the 'law of increasing public and particularly state activities - 1912', which is referred to as the 'law of increasing expansion of fiscal requirements'. Wagner’s law states that “ the development of the economy over time brings about increase in the activities and functions of the government”. This law is the result of empirical observation in progressive countries in Western Europe. According to him an increase regularly takes place in the activity of both the central and local governments of such countries. The increase is both substantial and thorough, the central and local governments always engage in new functions, while they perform both old and new functions more efficiently and completely (Taiwo and Abayomi, 2011). This implies that there is a functional relationship between the growth of an economy and the growth of government activities so that the government sector grows faster than the economy. Thus, the main thesis of Wagner is that the collective sector of an economy has an inherent tendency to increase in size and importance (Nnamocha 2001)

The growth path in the Wagner’s law is smooth and continuous over time and illustrated in the diagram below.

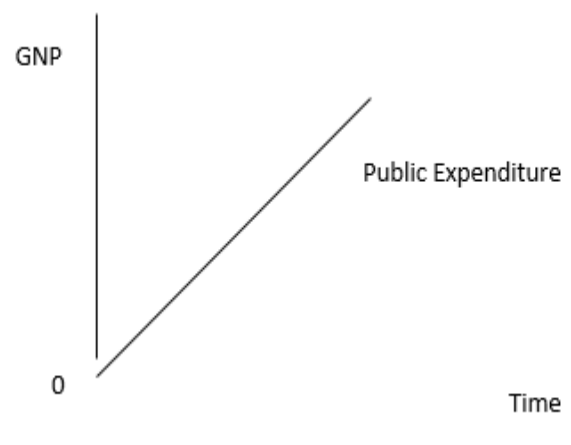


Fig 1: Law of Increasing State Activities

Wagner’s law can be summarized as follows;

- The activities of the central and local government increase on a regular basis in progressive societies.
- There is an increase in government activities which is both extensive and intensive
- The governments undertake new functions which are performed more efficiently and completely than before.
- The duty of government activities is to provide the economic needs of the people.

- The increase and improvement in the effectiveness of government function and activities results to increase in public expenditure.
- Though Wagner studied the economic growth of Germany, the law applies to other countries too both developed and developing.

T.E Nitti was among the writes that supported Wagner’s theory and showed that the law also applies to various other countries as it does to Germany. The principal criticisms of Wagner’s law have concerned his view of history and the relationship between the State and its citizens. Peacock and Wiseman also were not convinced if Wagner’s ideas could be applied to all societies at all times and suggested that the time pattern of actual government expenditure growth did not fit well with Wagner’s law. However, Wagner’s and Peacock Wiseman hypothesis emphasised on the fact that the government expenditure has the tendency to increase over time.

Peacock and Wiseman’s Theory of Expenditure

Alan T. Peacock and Jack Wiseman’s study is probably one of the best-known analyses of the time pattern of public expenditures. Their analyses were based on a political theory of public determination where the governments like to spend more money and citizens do not like to pay taxes, and that government need to pay some attention to the wishes of their citizens. Wiseman and Peacock in their study of public expenditure in UK (1961) for the period 1890-1955 revealed that public expenditure does not increase in a smooth and continuous manner, but in jerks or step like fashion. In other words, government fiscal activities rise step by step to successive new plateau, sometimes, some social or other disturbance takes place creating a need for increased public expenditure which cannot be met with the existing public revenue (Anyanwu, 1993). The core argument according to Nnamocha (2001), is that public expenditure does not increase in a smooth and continuous manner but in a stepwise fashion.

This is illustrated graphically in Fig 2.2 below.

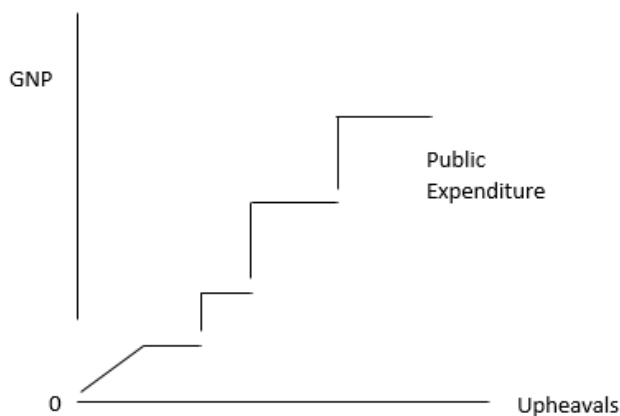


Fig 2: Displacement Effect Hypothesis

Peacock and Wiseman have considered the role of emergency such as war, in raising the level of public expenditure. In normal times, the size of public expenditure is restricted mainly by the level of taxation which the general public is willing to tolerate. And this tolerable level cannot be high. But major disturbance like war, changes the tolerance limit. At some times tragic events such as wars, famine, large scale social disturbances happen to trigger the need for increased public expenditure over and above what the people had earlier regarded as acceptable level and are willing to accept a rise in taxes. During the period of crises or conflict they get so used to these new tax burdens that even if taxes are reduced after the crises periods, the tax rates do not fall back to the levels they were before the crisis. Hence the growth trend of revenue and expenditures is moved upward permanently. The result is a new higher level of government revenue and expenditure which displaces the old one (Nwezeaku, 2010). This movement is been regarded as the 'displacement effect'. Their hypothesis indicates that in the absence of major disturbances like war government outlay would increase only gradually (Anyanwu, 1993). In a nutshell, the movement from the older level of expenditure and taxation by major economic disturbances to a new and higher level is the “Displacement Effect”. The displacement effect hypothesis is based on the political theory of public expenditure determination which says that: - Government likes to spend more money, citizens do not like to pay more taxes, Government needs to pay attention to the wishes of their citizens (Nnamocha, 2001)

The insufficiency of the revenue as compared with the required public expenditure creates an “Inspection Effect” that is, war and other social disturbances force people and the government to seek solutions to important problems which had been neglected in the past. In addition, since each major disturbance causes the government to assume a large proportion of national economic activities, the net result is the “Concentration Effect” or “scale effect”. This refers to the apparent tendency for national government economic activity to grow faster than that of the state and the local governments when a society is experiencing economic growth. The concentration effects hold that the change in the division of responsibilities between layers of government, brought about by these major social disturbances, is always in favour of the higher organs of government.

Peacock and Wiseman Hypothesis were developed using data from the UK during the two world wars and may not apply to other countries as such generalization is questionable. According to Emerenini (2005), the theory coincided with the world wars and wars are not regular happenings.

The Keynesian Theory of Government Expenditure

This was first presented by Keynes in his book, “The General Theory of Employment, Interest and Money”, published in 1936. The Keynes theory states that the increase of government expenditure increases economic growth. Keynes, assumes the aggregate supply function to be stable, and

concentrates his entire attention upon the aggregate demand function to fight economic depression. Keynes posited that the lingering economic depression was due to the failure on the part of the government to moderate the economy through appropriate economic policies (Iyoha et. al., 2003). Consequently, Keynes proposed the concept of government intervention in the economy through the use of macroeconomic policies (Torres, 2010). According to Keynes economics, when the economy is knocked off balance by serious economic shocks, the government can help restore normalcy by increasing demand through government spending. Due to the fact that the increase of government spending induces businesses to hire and consumers to spend, its impact is multiplied (Mankiw, 2010). In his writing of the Great Depression of the 1930s, Keynes argued that output and employment were well below their potential level because there was insufficient total demand. An increase in demand could lead an expansion of output and employment which would induce the economy to return to its full employment potential. Moreover, it is the belief of Keynes that this could be achieved with expansionary fiscal policy.

Keynes argued that during a recession, instead of balancing its budget, the government should rather increase its spending, reduce taxes, and shift its budget toward a deficit. According to Keynes, increase in the levels of government spending would directly increase aggregate demand. Also, reduction in taxes would increase the disposable incomes of households which would enable them to spend most of that additional income, and this would in turn stimulate total demand. Thus, the prescription by the Keynesians to cure a recession was a larger budget deficit. In contrast, if the economy was having an inflationary problem during an economic boom, Keynesian analysis recommended restrictive fiscal policy to reduce excessive demand. In this case, reduced government spending, increased taxes, and a shift towards budget a surplus would reduce aggregate demand and thereby help to contend inflation. Thus, Keynesians were not in support of the view that the budget of the government should be balanced. They asserted that relevant budgetary policy was dependent on the conditions of the economy. Keynesian are of the view that governments should run budget deficits during period of recession and surpluses during periods when inflation was a problem because of high demand.

Empirical Literature Review

Many scholars have argued that government expenditure contributes significantly to performance of various macroeconomic variables in Nigeria. Olanrele, 2020, carried out a study on Dynamic Effect of Public Expenditure on Oil Producing Economy: An Empirical Evidence from Nigeria. The study employed time series data from 1970 to 2017 and used the Autoregressive Distribute Lag (ARDL) technique in the analysis. The findings revealed that there was a positive effect of the aggregate government spending on the real GDP on the short and long-run. Mixed outcomes were realized

when the effect of government expenditure on agricultural and manufacturing sector outputs were considered.

Dikeogu, (2018) in a paper titled ‘public spending and inflation in Nigeria’ explored the effect of public spending on inflation in Nigeria from 1980 to 2017 using Auto Regressive Distributed Lag (ARDL) method of estimation. The study found that government capital spending impacted negatively on inflation and government recurrent spending had a negative and insignificant impact on inflation. Also, money supply had both positive and negative relationship with inflation while exchange rate had positive and insignificant relationship with inflation. They advocated for the government to efficiently engage monetary policy instruments that are adequate in ensuring a given level of money supply that stabilizes prices.

A study carried out by Dikeogu, Ohale, and Otto. (2016) titled ‘Public Expenditure and Economic Growth in Nigeria’ examined the impact of public expenditure on economic growth in Nigeria from 1970 to 2013. Public expenditure in its aggregated and disaggregated form served as the major explanatory variables with money supply as check variable meant to enhance the explanatory power of the model while economic growth was the dependent variable. The study adopted the econometric technique of Ordinary Least Squares (OLS) and Error Correction Model (ECM) using annual time series data. Their findings revealed that aggregated government expenditure does not impact significantly on economic growth, while disaggregated government expenditure exerts a significant impact on economic growth. They concluded that public expenditure has serious implication on economic growth in Nigeria within the period of study.

Momodu and Ogbole (2014) in their study on “public sector spending and macroeconomic variables in Nigeria” examined public sector activities and macroeconomic variables in Nigeria within a period of forty years (1970-2010). They paid special attention on how effective the period of regulation (1970-1985), and deregulation (1986-2010) was on the Nigerian economy. They employed multiple regression analysis and Granger causality test to test the causal relationships between government expenditure and other explanatory variables- GDP, unemployment, inflation balance of payments. The study revealed that public sector was more effective though marginally in stimulating economic growth (measured by GDP) in the period of regulation and more effective in reducing unemployment and enhancing BOP in the period of regulation. The public sector was significantly more effective in the period of deregulation in terms of maintaining price stability.

Arewa and Nwakahma (2013) using annual data collected from CBN statistical bulletin for a period of 1991 to 2011 did a study on macroeconomic variables and the dynamic effect of public expenditure: long-term trend analysis in Nigeria. They investigated the long-run relationship between government

expenditures and a set of macroeconomic variables (GDP, consumer price index and unemployment). The study adopted the Johansen multivariate cointegration for its estimation procedure and found out that there was long-run relationship between government expenditure and the specified macroeconomic variables. They also discovered that an increase in capital expenditure improves economic bliss, while recurrent expenditure was detrimental to growth

Modebe *et. al.*, (2012) carried out a study titled “Impact of Recurrent and Capital Expenditure on Nigeria’s Economic Growth” The study examined the impact of government expenditure (disaggregated into recurrent and capital expenditure) on economic growth from 1987 to 2010. The result study revealed that while recurrent government expenditure had positive and non-significant relationship with economic growth, capital expenditure had negative and non-significant relationship with economic growth.

Olaiya *et. al.*, (2012) carried out a research on a trivariate causality test among economic growth, government expenditure and inflation rate using evidence from Nigeria. They examined the causal relationships among economic growth, government expenditure and inflation rate in Nigeria from 1970 to 2010. The study used Granger Causality and Vector Error Correction Model (VECM) in analyzing the data. They found presence of bi-directional causality between government expenditures and economic growth both in the short run and in the long run. It also revealed that a unidirectional causality existed from economic growth and government expenditure to inflation rate in the short run while there was no feedback from inflation rate. This then implies that from this result is that both government spending and economic growth also influence inflation rate in Nigeria.

Mohammadi *et. al.*, (2012) examined the effect of governmental expenditure composition on the economic development of Economic Cooperation Organization countries (ECO) from 1995 to 2009. The study emphasized on three types of public expenditure, health expenditure, education and defense. Dynamic panel data method & generalized method of moments (GMM) was used as the tool of analysis. They used the Sargan test for accuracy of applied moments to shows the accuracy of used methods. The findings showed that the health expenditure by government had statistical Significance and negative effect on growth, educational expenditure by government had statistical significance and positive effect, also the government defense expenditure had statistical significant and positive effect on the economic development of ECO countries.

Pyrae *et. al.*, (2010) in their study on the effect of public expenditure shocks on macroeconomic variables in a real business cycle model in Iran used a real business cycle model to analyse the impact of stochastic shocks of government spending on macroeconomic variables by application of dynamic stochastic general equilibrium model. The model was estimated by the maximum-Likelihood method using data

from Iran. The result showed that a negative response of consumption and following a government spending shock. Other macroeconomic variables like private investment, capital, employment, wages, and output were caused by a positive response to government spending shock.

Ohwofasa (2008) carried out a study on public expenditure and economic growth in Nigeria between 1986 – 2005. He used simple regression model and granger causality to assess how fiscal policy influences economic growth in Nigeria and determined which components of government functional expenditure enhances growth and identified those that do not. The study revealed that government expenditure on administrative sector and economic sector were significant in explaining growth in Nigeria, while that of social sector and transfer sector were not.

Perotti (2004) carried out a study titled “Estimating the Effects of Fiscal Policy in OECD Countries” and used a structural VAR model in order to analyze the effects of fiscal policy (per capita real public spending and net taxes) on gross domestic product, inflation and interest rates in five Organisation for Economic Cooperation and Development (OECD) countries from 1960 to 2001. The findings revealed that both the effects of spending shocks and tax cuts upon product and its components had become more weaker or negative over time, particularly on private investment. As regards the other variables, it was only in the post-1980 period that Perotti found evidence of positive effects of government spending on long term interest rates whereas, under plausible price elasticity values, expenditure had a small influence on inflation.

Ojeka (2002) examined the separate effects of various categories of federal government expenditure on private investment using the ordinary least square regression method. He demonstrated that while capital expenditure significantly complemented private investment, government expenditure on infrastructure, education and health complemented private investment. He also found that while fiscal deficit had negative effect, inflation rate had positive effects on private investment.

Ekpo (1995) using ordinary least squares approach with annual data for 1960 – 1990, regressed the disaggregated components of government capital expenditures on private investment, The findings revealed that capital expenditures on transport and communication, agriculture, health and education had a positive relationship with private investments in Nigeria, which invariably improved the growth of the overall economy. Also, government capital expenditures on construction and manufacturing crowded out private investments.

IV. METHODOLOGY

The study adopted ex-post facto research design by collecting secondary data from the following sources; Central Bank of Nigeria (CBN) Statistical Bulletin 2018 edition. The data

sourced were analysed using multiple regression technique. The analysis conducted include, unit root tests, Cointegration test, and error correction model within the framework of ordinary least square method (OLS) estimation etc. The empirical works of Olaiya *et al* (2012) and Momodu & Ogbole (2014) provided the basis for the specification of the model in this study. We modified their models by specifying a three-equation model capturing the three selected macro-economic growth indicators in each of the models. The model is specified thus:

$$MEG_t = f(GRE_t, GCE_t) \quad \dots i$$

Where:

MEG_t = macro-economic growth indicators for Nigeria during period t;

GRE_t = government recurrent expenditure at time t

GCE_t = government capital expenditure at time t.

More specifically, we substitute for the macroeconomic growth variables as below:

$$RGDP_t = f(GRE_t, GCE_t) \quad \dots ii$$

$$INFR_t = f(GRE_t, GCE_t) \quad \dots iii$$

$$UNEMP_t = f(GRE_t, GCE_t) \quad \dots iv$$

Where:

RGDP = Real gross domestic product

INFR = Inflation rate

1. Analysis and Interpretation of Results

UNEMP = Unemployment rate

The econometric model can be expressed in mathematical form incorporating the identified macro-economic growth variables. The models are specified thus:

Model I:

$$RGDP_t = \beta_0 + \beta_1 GRE_t + \beta_2 GCE_t + \varepsilon_{1t} \quad \dots v$$

Model II:

$$INFR_t = \beta_0 + \beta_1 GRE_t + \beta_2 GCE_t + \varepsilon_{2t} \quad \dots vi$$

Model III:

$$UNEMP = \beta_0 + \beta_1 GRE_t + \beta_2 GCE_t + \varepsilon_{3t} \quad \dots vii$$

RGDP, INFR and UNEMP represent the Real gross domestic product, inflation rate and unemployment rate which are the selected macro-economic growth indicators. RGDP, GRE and GCE were converted to their natural logarithm forms in order to standardize the data for the regression analysis.

Mathematical Transformation of the Model:

$$\text{LogRGDP} = \alpha_0 + \alpha_1 \text{logGCE} + \alpha_2 \text{logGRE} + \varepsilon_{1t} \quad \dots viii$$

$$\text{UNEMP} = \beta_0 + \beta_1 \text{logGCE} + \beta_2 \text{logGRE} + \varepsilon_{2t} \quad \dots ix$$

$$\text{INFR} = \lambda_0 + \lambda_1 \text{logGCE} + \lambda_2 \text{logGRE} + \varepsilon_{3t} \quad \dots x$$

Where:

α_0 , β_0 and λ_0 are the autonomous component of the macro-economic variables or the intercept of the models; α_1 - α_3 , β_1 - β_3 and λ_1 - λ_3 are the unknown coefficients to be estimated. U_t is the stochastic error term.

Table 1: Unit Root Test

| Variable(s) | ADF Test Statistics | | Decision | Order Of Integration |
|------------------------|---------------------|-------------------------------|--------------------------------|----------------------|
| | At Level | At 1 st Difference | | |
| RGDP | 0.1716 | -3.0503 | Stationary at first difference | I(1) |
| UNEMP | -1.9990 | -6.0920 | Stationary at first difference | I(1) |
| INF | -2.8942 | -3.3593 | Stationary at first difference | I(1) |
| GCE | -1.1074 | -8.2993 | Stationary at first difference | I(1) |
| GRE | -0.8412 | -6.1618 | Stationary at first difference | I(1) |
| Critical Values | 1% | -3.6329 | | |
| | 5% | -2.9484 | | |
| | 10% | -2.6129 | | |

Source: Author's Computation (2021)

The unit root test above reveals that all the variables are stationary at first difference. This is because the Augmented Dickey Fuller Test statistics are greater than the Mackinno critical value at 5% level of significance. This implies Real gross domestic product (RGDP),unemployment rate (UNEMP), Inflation rate (INFR), Government recurrent

expenditure(GRE) and government capital expenditure (GCE) were stationary after first differencing, indicating an order of integration 1, i.e. were integrated of order one I~(1). Based on this result, we can test for the existence of a long-run relationship amongst the variables, i.e. cointegration using the Johansen cointegration test.

Table 2A: Model 1 Johansen Cointegration Test Result

| Model 1: Trace Statistic | | | | | Max-Eigen Statistic | | |
|---------------------------|-------------|------------------|----------------|--------|----------------------|----------------|--------|
| Hypothesized No of CE (S) | Eigen-Value | Trace statistics | 5% Crit. Value | Prob | Max-Eigen statistics | 5% Crit. value | Prob |
| None** | 0.4976 | 34.6189 | 20.7971 | 0.0121 | 24.0196 | 21.1316 | 0.0186 |
| At Most 1 | 0.2367 | 10.5273 | 15.4947 | 0.2423 | 9.4544 | 14.2646 | 0.2503 |
| At Most 2 | 0.0302 | 1.0728 | 3.8415 | 0.3003 | 1.0728 | 3.8414 | 0.3003 |

**Trace test indicates 1 cointegrating equation(s) at the 0.05 level
 **Max-eigen value test indicates 1 cointegrating equation(s) at the 0.05 level

Table 2B: Model 2 Johansen Cointegration Test Result

| Model 1: Trace Statistic | | | | | Max-Eigen Statistic | | |
|---------------------------|-------------|------------------|----------------|--------|----------------------|----------------|--------|
| Hypothesized No of CE (S) | Eigen-Value | Trace statistics | 5% Crit. Value | Prob | Max-Eigen statistics | 5% Crit. value | Prob |
| None** | 0.5773 | 35.3312 | 29.7970 | 0.0104 | 30.1384 | 21.1316 | 0.0021 |
| At Most 1 | 0.1343 | 5.1927 | 15.4947 | 0.7880 | 5.0472 | 14.2646 | 0.7359 |
| At Most 2 | 0.0041 | 0.1455 | 3.8415 | 0.7029 | 0.1455 | 3.8414 | 0.7029 |

**Trace test indicates 1 cointegrating equation(s) at the 0.05 level
 **Max-eigen value test indicates 1 cointegrating equation(s) at the 0.05 level

Table 2C: Model 3 Johansen Cointegration Test Result

| Model 1: Trace Statistic | | | | | Max-Eigen Statistic | | |
|---------------------------|-------------|------------------|----------------|--------|----------------------|----------------|--------|
| Hypothesized No of CE (S) | Eigen-Value | Trace statistics | 5% Crit. Value | Prob | Max-Eigen statistics | 5% Crit. value | Prob |
| None** | 0.5464 | 43.5194 | 29.7970 | 0.0007 | 28.4619 | 21.1316 | 0.0039 |
| At Most 1 | 0.3313 | 15.0576 | 15.4947 | 0.0581 | 14.4882 | 14.2646 | 0.0461 |
| At Most 2 | 0.0157 | 0.5693 | 3.8415 | 0.4505 | 0.5693 | 3.8414 | 0.4505 |

**Trace test indicates 1 cointegrating equation(s) at the 0.05 level
 **Max-eigen value test indicates 2 cointegrating equation(s) at the 0.05 level

Source: Researchers' Computation (2021)

The result of the Johansen cointegration rank tests presented in table 2A, 2B and 2C above shows that the Trace and Max-eigen statistics in the first model indicate two (2) Cointegrating equations at the 5% level. For the second and third models, the Trace statistic and Max-Eigen statistic both indicated 1 cointegrating equations at 5% level. The existence of at least 1 cointegrating equation(s) in the three models is an indication that there exists a long-run relationship between government expenditure and selected macroeconomic variables measured by real GDP, unemployment rate and inflation rate. In effect, government expenditure and its

indices have long run effect on economic growth, unemployment rate and exchange rate in Nigeria.

Error Correction Model Estimation

The study proceeded with the estimation of the Error Correction Model which was developed by Engle and Granger to reconcile the short-run behavior of government expenditure with its long-run behavior, and to investigate the adjustment mechanisms towards the long-run equilibrium which is represented by the cointegration relationship. The ECM equations are summarized below:

Table 3A -Error Correction Model (ECM) for Model 1 - RGDP

| Dependent Variable: D(RGDP) | | | | |
|-----------------------------|-------------|--------------------|-------------|----------|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 1063.313 | 290.8250 | 3.656196 | 0.0009 |
| D(GCE) | 1.041003 | 2.031195 | 0.512508 | 0.6117 |
| D(GRE) | 3.940275 | 1.205654 | 3.268164 | 0.0025 |
| ECM(-1) | -0.250000 | 0.102762 | -2.432811 | 0.0206 |
| R-squared | 0.990355 | Mean dependent var | | 1505.856 |

| | | | |
|--------------------|----------|-----------------------|----------|
| Adjusted R-squared | 0.980333 | S.D. dependent var | 1755.210 |
| F-statistic | 4.285313 | Akaike info criterion | 17.63839 |
| Prob(F-statistic) | 0.011646 | Durbin-Watson stat | 0.995910 |

** At 5% level of significance

Source: Researchers' Computation (2021)

Table 3A presents the ECM for Model 1. Thus, the result of the residual of model 1 was negative, with value of -0.2500 which shows that a short-run relationship exists between government expenditure and economic growth. Thus, the speed of adjustment to which disequilibrium in economic growth could be corrected by government expenditure is 25%. The result shows that the explanatory variables included in the model accounted for 98 percent of the variations in economic growth in Nigeria. The calculated F-statistic of 4.285 is greater than the F-table of 2.410 implying that the model is statistically significant and that the independent variables are significant explanatory factors of the dependent variable. This goes to show that the model has a strong goodness of fit and the Durbin Watson test statistics of 0.996 reveals that there is

presence of autocorrelation among the variables used in the model.

Furthermore, the coefficients of the Government Capital expenditure and Government recurrent expenditure have positive values of 1.041 and 3,940 respectively. This implies that there is a positive relationship between GCE, GRE and economic growth in Nigeria. Thus a unit change in GCE and GRE will increase the RGDP by 1.041 percent and 3.940 percent respectively. The significance test reveals that GCE and GRE were significantly impacting on real gross domestic product (RGDP) in Nigeria. The study equally reveals that all the explanatory variables are statistically significant with economic growth at 5 percent level because the calculated t-values are greater than the t-table of 1.960.

Table 3B-Error Correction Model (ECM) for Model 2 – UNEMPLOYMENT RATE

| Dependent Variable: D(UNEMP) | | | | |
|------------------------------|-------------|-----------------------|-------------|----------|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.723126 | 0.275368 | 2.626037 | 0.0130 |
| D(GCE) | -0.000246 | 0.001878 | -0.131262 | 0.8964 |
| D(GRE) | 0.000909 | 0.000102 | 8.911765 | 0.0155 |
| ECM(-1) | -0.166992 | 0.083894 | -1.990521 | 0.0549 |
| R-squared | 0.919598 | Mean dependent var | | 0.845405 |
| Adjusted R-squared | 0.868962 | S.D. dependent var | | 1.531705 |
| F-statistic | 3.494296 | Akaike info criterion | | 3.752080 |
| Prob(F-statistic) | 0.234170 | Durbin-Watson stat | | 0.370814 |

** At 5% level of significance

Source: Researchers' Computation (2021)

Table 3B presents the ECM for Model 2. The result from the model shows that the residual of the model was negative, with value of -0.1669 which shows that a short run relationship exists between government expenditure and unemployment rate.

The result shows that the explanatory variables included in the model accounted for 86.90 percent of the variations in unemployment rate in Nigeria. The calculated F-statistic of 3.494 is greater than the F-table of 2.410 implying that model is statistically significant and that the independent variables are significant explanatory factors of the dependent variable. This goes to show that the model has a strong goodness of fit and the Durbin Watson test statistics of 0.371 reveals that there is presence of autocorrelation among the variables used in the model.

Furthermore, the coefficient of the GCE has a negative sign of -0.000246 while that of GRE has a positive value of 0.000909 implying that there is an inverse relationship between GCE and unemployment rate in Nigeria while a positive relationship exist between GRE and unemployment rate in Nigeria. The significance test reveals that GCE was insignificantly impacting on unemployment rate in Nigeria in conformity with a priori expectation. GRE on the other hand was significantly impacting on unemployment rate in Nigeria which is not conformity with a priori expectation. The study equally reveals that all the explanatory variables are statistically significant with unemployment rate at 5 percent level because the calculated t-values are greater than the t-table of 1.960.

Table 3C-Error Correction Model (ECM) for Model 3 – INFLATION

| Dependent Variable: D(INF) | | | | |
|----------------------------|-------------|-----------------------|-------------|----------|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.187632 | 2.452995 | 0.076491 | 0.9395 |
| D(GCE) | -0.005493 | 0.016752 | -0.327895 | 0.7451 |
| D(GRE) | 0.000792 | 0.009820 | 0.080687 | 0.9362 |
| ECM(-1) | -0.476285 | 0.146633 | -3.248145 | 0.0027 |
| R-squared | 0.244757 | Mean dependent var | | 0.227027 |
| Adjusted R-squared | 0.614399 | S.D. dependent var | | 14.76098 |
| F-statistic | 3.564849 | Akaike info criterion | | 8.129953 |
| Prob(F-statistic) | 0.024431 | Durbin-Watson stat | | 0.949961 |

** At 5% level of significance

Source: Researchers’ Computation (2021)

Table 3C presents the ECM for model 3. The residual of the model 3 was negative, with value of -0.4762 which shows that a short run relationship exists between government expenditure and inflation rate. The result shows that the explanatory variables included in the model accounted for 61.44 percent of the variations in inflation rate in Nigeria. The calculated F-statistic of 3.565 is greater than the F-table of 2.410 implying that model is statistically significant and that the independent variables are significant explanatory factors of the dependent variable. This goes to show that the model has a strong goodness of fit and the Durbin Watson test statistics of 0.950 reveals that there is presence of autocorrelation among the variables used in the model.

Furthermore, the coefficient of the GCE has a negative sign of -0.005493 while that of GRE has a positive value of 0.000792 implying that there is an inverse relationship between GCE and inflation rate in Nigeria while a positive relationship exist between GRE and inflation rate in Nigeria. The significance test reveals that GCE was insignificantly impacting on inflation rate in Nigeria in conformity with a priori expectation. GRE on the other hand was significantly impacting on inflation rate in Nigeria which is not conformity with a priori expectation. The study equally reveals that all the explanatory variables are statistically significant with inflation rate at 5 percent level because the calculated t-values are greater than the t-table of 1.960.

V. DISCUSSION OF FINDINGS

The research sought to examine government expenditure and the performance of selected macroeconomic variables in Nigeria from 1981 to 2018. The study covers three models; first it analyzes the relationship between government expenditure and economic growth in Nigeria; secondly, the relationship between government expenditure and unemployment rate; and finally the relationship between government expenditure and inflation rate. The ADF unit root test was used to ascertain the stationarity of the model, and it was discovered that all the variables were stationary at first difference, indicative of an order of integration of I~(1).

Judging from the results of the stationarity test, with the variables integrated at only first difference, the Co-integration test was employed to ascertain the long run relationship of the variables in the three models, the Johansen test was used for all the three models. The results for the models revealed that there exists one co-integrating equations hence suggesting a long run relationship exist between government expenditure and real gross domestic product in Nigeria; government expenditure and unemployment rate in Nigeria; and government expenditure and inflation rate in Nigeria.

The ECM results of model 1 indicates that GCE has positive coefficient values of 1.041 implying that there is a positive relationship between GCE and economic growth in Nigeria. This means that that an increase in government capital expenditure will increase economic growth by 1.041%. The positive sign of GCE conform to the a priori expectation in line with economic theory and this aligns with works of Udoka and Anyingang (2015), Arewa and Nwakahma (2013), Ahmad and Masan (2015), and Okoro (2013). The works by the above mentioned scholar reveled a positive effect between government capital expenditure and economic growth which is in agreement with the findings of this study.

Also, GRE has a positive coefficient value of 3.940, and this indicates that there is a positive relationship between government recurrent expenditure and economic growth in Nigeria, thus if there is a unit change in GRE, it increases RGDP by 3.940%. This result agrees with the works of Peter (2015), Udoka and Anyingang (2015), AlShatti (2014), and Ahmad and Masan (2015) who found government recurrent expenditure to be positively related to economic growth. The coefficients of all the explanatory variables have significant impact on economic growth at 5 percent level because their t-values calculated are greater than the table value of 1.960

Following from the above analysis, this study therefore rejects the null hypothesis which says that there is no significant relationship between disaggregated government expenditure and economic growth in Nigeria and accept the alternative hypothesis. The short run result for model 2 showed that there

existed a short run relationship between government expenditure and unemployment rate in Nigeria. The Error Correction Coefficient was -0.1669 indicating that there is presence of short run relationship, leading to the variables converging on the short run. The speed of adjustment suggests that about 16.69% of the previous period's disequilibrium in unemployment is corrected every year by government expenditure.

The ECM results of model 2 indicates that GCE has a negative coefficient value of 0.000246 implying that there is a negative relationship between GCE and unemployment rate in Nigeria. This means that that an increase in government capital expenditure will decrease unemployment rate by 0.000246%. The negative sign of GCE conforms to the a priori expectation in line with economic theory and this aligns with works of Momodu and Ogbole (2015) whose work revealed an inverse relationship between government expenditure and unemployment in Nigeria which is in agreement with the findings of this study.

Furthermore, GRE has a positive coefficient value of 0.000909, this indicates that there is a positive relationship between government recurrent expenditure and unemployment rate in Nigeria, thus if there is a unit change in GRE, it increases UNEMP by 0.000909%. The significance test revealed that Government recurrent expenditure was significantly impacting on unemployment rate (UNEMP) in Nigeria. This does not conform to the a priori expectation. This result does not agree Chimeziri (2016) who found a negative relationship between government recurrent expenditure and unemployment rate in Nigeria. The coefficient of the GCE has no significant impact on unemployment rate at 5 percent level because the calculated t-value of 0.131262 is less than the table value of 1.960. However, the coefficient of GRE significantly impacted on the unemployment rate at 5 percent level because t-value calculated of 8.911765 is greater than the table value of 1.960.

As a result of the above analysis, this study therefore accepts the null hypothesis which says that there is no significant relationship between government capital expenditure and unemployment rate in Nigeria. Also, the study rejects the null hypothesis that there is a significant relationship between government recurrent expenditure and unemployment rate in Nigeria and accept the alternative hypothesis.

The short run result for model 3 showed that there existed a short run relationship between government expenditure and inflation rate in Nigeria. The Error Correction Coefficient was -0.4762. The speed of adjustment suggests that about 47.62% of the previous period's disequilibrium in inflation rate is corrected every year by government expenditure. Government Capital expenditure (GCE) has a negative coefficient value of -0.00549, this indicates that there is an inverse relationship between government capital expenditure and inflation rate in Nigeria, thus if there is a unit change in GCE, it decreases INF by 0.00549%. The significance test revealed that Government

capital expenditure is insignificantly impacting on inflation rate (INF) in Nigeria. This conforms to the a priori expectation. This study is in agreement with Dikeogu (2018) and Peter (2015) who found government capital expenditure to be negatively related to inflation.

Government recurrent expenditure (GRE) has a positive coefficient value of 0.000792, this indicates that there is a positive relationship between government recurrent expenditure and inflation rate in Nigeria, thus if there is a unit change in GRE, it increases INF by 0.000792%. The significance test revealed that Government recurrent expenditure is significantly impacting on inflation rate (INF) in Nigeria. This does not conform to the a priori expectation. This study is not in conformity with Dikeogu (2018) who found government recurrent expenditure to be negatively and insignificantly impacting on inflation rate in Nigeria. The coefficients of all the explanatory variables do not impact significantly on inflation rate at 5 percent level. This is so because their t-values calculated are less than the table value of 1.960.

As a result of the above analysis, this study therefore accepts the null hypothesis which says that there is no significant relationship between government capital expenditure and inflation rate in Nigeria. Also, the study accepts the null hypothesis that there is no significant relationship between government recurrent expenditure and inflation rate in Nigeria and reject the alternative hypothesis.

VI. CONCLUSION AND RECOMMENDATIONS

The study sought to examine government expenditure and selected macroeconomic variables in Nigeria, for a 37-year period from 1981 to 2018, making use of time series data ascertained from CBN statistical bulletin (2018). Government expenditure was used in consonance with three macroeconomic variables (real gross domestic product, unemployment and inflation rate), yielding three distinct models with government recurrent and capital expenditure as the exogenous variable in all three models. The Error Correction Model and ordinary least square method were used in estimating the three models formulated for the study. After a thorough analysis of the models, the study concludes that government expenditure has a significant relationship with the selected macro-economic growth variables i.e. real GDP, unemployment rate and inflation rate in Nigeria. The co-integration test revealed that there was also long run relationship between government expenditure and economic growth; unemployment rate; and inflation rate in Nigeria for the period reviewed.

The following recommendations are made from the findings of this research;

1. Government expenditure yields such a significant importance to the growth of the Nigerian economy; hence the government should implement its

- budgetary expenditures effectively, as that will uplift the economy of the country to a higher threshold.
2. The regression result showed that fiscal policy instrument as government expenditure is not so powerful in regulating the price level in Nigeria, hence more effective policies (monetary) should be used to combat inflation in Nigeria, rather than through budgetary expenditures. Efforts should be channeled into job creation and human capacity building. This could be achieved through increased government capital expenditure.
 3. Capital expenditure being the engine for industrial development should be increased in order to build up or increase productive capacity. In 2015 capital expenditure takes 16% of the total public expenditure, while recurrent expenditure takes 84% (table 4.1). Capital expenditure should be increased and made to take at least 55% of the total public expenditure.
 4. The government should allocate or channel more funds toward reviving the non-oil sector, with attention given to agriculture, manufacturing and other export driven sectors of the economy. This has the potentials for self-sufficiency, creating more employment, more output, reduction in inflation rate (general price level), increasing economic growth.
 5. Policy makers should exhibit a high public expenditure management capacity to ensure that both the recurrent and capital expenditure are properly and effectively managed in a manner that they will achieve the outcome for which they are intended for. In this manner the government should plan well before implementing projects so as not to abandon these projects in the long run. This raises the need for transparency, probity and accountability on how public expenditure is spent.
 6. Government should always conduct cost-benefit analysis to assess projects to embark upon in order to avoid waste of resources and white elephant projects. Finally, with proper handling of the capital expenditure and the recurrent expenditure, it will be easier for the government to manipulate macroeconomic variables (unemployment rate, inflation and so on) to ensure steady and accelerated economic development in Nigeria.

REFERENCES

- [1] Abu, N. and Abdullahi, U. (2010). Government Expenditure and Economic Growth in Nigeria, 1970-2008: A Disaggregated Analysis. *Business and Economics Journal*, 2010: BEJ-4. Retrieved from: <http://astonjournals.com/bej>
- [2] Adubi, A. A. and Obioma, E. C. (1999) "Public Expenditure Management in Nigeria" *Fiscal Policy Planning and Management in Nigeria*. Ibadan, National Centre for Economic Management and Administration.
- [3] Ahmad, I. and Qayyum, A. (2009) "Role of Public Expenditures and Macroeconomic Uncertainty in Determining Private Investment in Large Scale Manufacturing Sector of Pakistan" *International Research Journal of Finance and Economics*. 1450-2887 Issue 26.
- [4] Ajie, H.A, Akere, J. and Ewubare, D. B., (2014) *Praxis of Public Sector Economics & Finance*, Pearl Publishers, Port Harcourt, Nigeria
- [5] Akpan, P. L. Unemployment and Exchange Rate Uncertainty in an Emerging Sub-Saharan Economy: A Case for Nigeria (1970-2005). *Global Journal of Social Sciences*. Vol. 7, No. 2, 2008: 107-113.
- [6] Anyanwu, J. C. (1997) *Nigerian Public Finance*, Onitsha, Jogroee Educational Publishers Limited.
- [7] Anyanwu, J. C. (1993) *Monetary Economics: Theory, Policy and Institutions*. Onitsha Hybrid Publishers.
- [8] Bhatia, H. L. (1982) *Public Finance*. New Delhi: Vikas Publishing.
- [9] Blanchard, O., and Perotti R. (2002) "An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output," *The Quarterly Journal of Economics*, 117(4), 1329-1368.
- [10] Central Bank of Nigeria (2018) *Statistical Bulletin*, Published by Research Department, Central Bank of Nigeria, Abuja.
- [11] Dapendra, S. (1998). Government Expenditure and Econometrics Growth in Malaysia, *Journal of Economic Development*. 25 (2) 71-80
- [12] Dikeogu, C.N., Ohale, L and Otto, G. (2016) Public Expenditure and Economic Growth in Nigeria, *International Journal of Advanced Academic Research*, Vol. 2, Issue 12
- [13] Dikeogu, C. C., (2018) Public Spending and Inflation in Nigeria, *International Journal of Advanced Academic Research*, Vol. 4, Issue 14
- [14] Ekpo, A. H. (1995) *Public Expenditure and Economic Growth in Nigeria; 1960 – 1992. Final Report*, AERC, Nairobi, Kenya.
- [15] Eze, M. C. and Nnedum, O. A. U. (2003) Public expenditure management reforms and national development: A critical evaluation of Obasanjo's administration, 1999-2007. *African Journal of Political Science and International Relations* Vol. 7(2), pp. 42-51, May 2013
- [16] Ezirim, B.C., Muoghalu, M. I. and Elike, U., (2008), Inflation versus Public Expenditure Growth in the US: an Empirical Investigation, *North American Journal of Finance and Banking Research*, 2, 2.
- [17] Gbosi, A. N. (1997), "Chronic Unemployment in Nigeria," *Napean, Australia, International Journal of Employment Studies*.
- [18] Ikpeze, N. I., Soludo, C. C. and Elekwa, N.N. (2005). Nigeria: "The Political Economy of the Policy Process, Policy Choice and Implementation". Publication of the International Development Research Centre. URL http://web.idrc.ca/es/ev-1-2011-do_topic.html.
- [19] Islam, R. The Nexus of Economic Growth, Employment and Poverty Reduction: An Empirical Analysis. *Issues in Employment and Poverty Discussion Paper 14. Recovery and Reconstruction Department International Labour Office, Geneva. January 2004.*
- [20] Jhingan, M. L. (2003) *Macroeconomic Theory*. 11edn Delhi. Vrinda Publications Limited.
- [21] John, L. and George, V. (2005), *Government Expenditure and Economic Growth: Evidence from Tri-variate Causality Testing*. *Journal of Applied Economics*, Vol. VIII, No. 1: 125-152.
- [22] Kamps, C. (2005), "The Dynamic Effects of Public Capital: VAR Evidence for 22 OECD Countries", *International Tax and Public Finance*, Vol. 12, No. 4.
- [23] Kareem, O. I. (2009) "Economic Liberalization and Job Creation in Nigeria" *Economic and Financial Review of Central Bank of Nigeria* Vol.47, No. 1 March 2009.
- [24] Keynes, J. M. (1936). "The General Theory of Employment, Interest and Money". London, Macmillan.
- [25] Loto, M. A. Impact of Government Sectoral Expenditure on Economic Growth, *Journal of Economics and International Finance* Vol. 3(11), pp. 646-652, 7 October, 2011. <http://www.academicjournals.org/JEIF>
- [26] Mankiw, N. G. (2010) "Crisis Economics" *Issues* No. 4 Summer 2010 www.NationalAffairs.com.

- [27] Modebe, N.J., Okafor, R. G., Onwumere, J.U.J and Ibe, I. G. (2012). Impact of Recurrent and Capital Expenditure on Nigeria's Economic Growth. *European Journal of Business and Management*. Vol. 4, No.19
- [28] Momodu, A. A. and Ogbolo F (2014). Public Sector Spending and Macroeconomic Variables in Nigeria. *European Journal of Business and Management*. Vol.6, No.18, 2014
- [29] Musgrave, R. A. and Musgrave, P. B. (1989) *Public Finance in Theory and Practice*, 5th edn. New York: McGraw Hill, 1989.
- [30] Nnamocha P.N., (2001) *Public Finance – Concepts, Principles and Theories*, Bon Associates, Owerri, Nigeria
- [31] Nnamocha P.N., (2002) *Public Finance for a Developing Economy: The Nigerian Application*, Bon Associates, Owerri, Nigeria
- [32] Nurudeen, A. and Usman, A. (2010) "Government Expenditure and Economic Growth In Nigeria, 1970-2008: A Disaggregated Analysis" *Business and Economics Journal*, Volume 2010: BEJ-4. <http://astonjournals.com/bej>.
- [33] Ohwofasa, B. O. (2008), *Public Expenditure and Economic Growth in Nigeria, 1986 – 2005*. An Unpublished M.Sc. Thesis, Department of Economics, Ahmadu Bello University, Zaria Nigeria.
- [34] Ojeka, G. O. (2002) *Federal Government Expenditure and Domestic Private Investment in Nigeria, 1973 – 1997*. An Unpublished M.Sc. Thesis, Department of Economics, Ahmadu Bello University, Zaria Nigeria
- [35] Olaiya, S. A., Nwoa Philip Ifeakachukwu, N. P. and Ditimi, A. A. Trivariate Causality Test among Economic Growth, Government Expenditure and Inflation Rate: Evidence from Nigeria. *Research Journal of Finance and Accounting*. ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) Vol. 3, No. 1, 2012
- [36] Olopade, B. C. and Olopade, D. O. (2010) *The Impact of Government Expenditure on Economic Growth and Development in Developing Countries: Nigeria as a Case Study*.
- [37] Omoke, P. C. and Ugwuanyi, C. U. (2010), *Money Price and Output: A Causality Test for Nigeria*. *American Journal of Scientific Research* 8: 78 – 87.
- [38] Oni, L. B., Aninkan, O. O. and Akinsanya, T. A. (2014) *Joint Effects of Capital and Recurrent Expenditures in Nigeria's Economic Growth*. *European Journal of Globalization and Development Research*, Vol. 9, No. 1, 2014
- [39] Onoh (2007): *Dimensions of Nigeria's Monetary and Fiscal Policies – Domestic and External*. Aba: Astra Meridian Publishers.
- [40] Perotti, R. (2004), "Estimating the Effects of Fiscal Policy in OECD Countries", IGIER, Università Bocconi, Working Paper, No. 276, Milano.
- [41] Peter, G. A. (2015). *Effects of public expenditure on selected macroeconomic variables in Nigeria; 1986-2012*. An unpublished thesis submitted to Department of Economics, Faculty of Social Sciences, Ahmadu Bello University, Zaria.
- [42] Pyraee, K., Keshavarz, G. R. H. and Mofrad, M. A. P. (2010). "The Effect of Public Expenditure Shocks on Macroeconomic Variables in a Real Business Cycle Model, Case Study of Iran" *School of Doctoral Studies (European Union) Journal*.
- [43] Richard A. Musgrave, (1969) *Fiscal Systems*, Yale University Press, New Haven 1969, pp. 72 – 74.
- [44] Stephen, B. A. (2012) *Assessing the Role of Public Spending for Sustainable Growth: Empirical Evidence from Nigeria*. *Journal of Economics and Sustainable Development*. Vol.3, No.2, 2012.
- [45] Suleman, D. et al. (2009), *An Empirical Investigation between Money Supply Government Expenditure, Output & Prices: the Pakistan Evidence*. *European Journal of Economics, Finance and Administrative Sciences* Issue 17: 60-68
- [46] Taiwo, M. and Abayomi, T. (2011) *Government Expenditure and Economic Development: Empirical Evidence from Nigeria*, *European Journal of Business and Management*. Vol. 3, No.9.
- [47] Ukwu, I. U., Obi A. W. and Ukeje, S. (2003). *Policy Option for Managing Macroeconomic Stability in Nigeria* Enugu: African Institute for Applied Economic August.