TITLE PAGE

IMPACT OF GOVERNMENT EXPENDITURE ON NIGERIAN ECONOMIC GROWTH (1981 – 2010)

A PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc). DEGREE IN ECONOMICS.

BY

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APPROVAL PAGE

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DEDICATION

This Research Project is dedicated to God Almighty and to my beloved and caring parents: Sir and Lady Paul Ezeanyagu and also to my siblings whose sacrifice has made this research and education possible.

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ABSTARCT

The work was on the impact of Government Expenditure on Nigeria Growth (1981 – 2010) dealing with secondary data from the Central Bank of Nigeria (CBN) and the National Bureau of Statistics Regression Analysis with (OLS) technique was   used. Our findings indicate that there is a positive correlation between Inflation, Money Supply, Government Consumption Expenditure. While Money Supply and LGDP-I has a positive impact on the dependent variable (GDP). But the GE (Government Expenditure) and M_2 (Money Supply) has a significant impact on the model with 2.800 and 0.190 respectively. Also the model shows a good fit at 96% of the dependent variable accounted for by independent variable.

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CHAPTER ONE

1.0   INTRODUCTION

1.1   BACKGROUND OF THE STUDY

Following the classical prescription before the great depression of the 1930's the role of government in the economy were Limited to the few of services like law and order, natural security and promotion of property rights. Adam Smith (1776) in his discussion of the proper role of the government listed three factors. First "protecting the society from the violence and invasion of other independent societies, secondly, protecting as far as possible every member of the society from injustice or oppression every other member and thirdly, erecting and maintaining those public work which through they may be in the highest degree advantages to a great society are however of such a nature that the profit could never repay the expense to ay individual or small group of individual this list is referred to as the care function of the government. Today however, the economic role of the government has expanded to include consumption and investment expenditure.

Government or public expenditure has served as most commonly used fiscal policy in growth, expansion, structural transformation and

diversification of economic base. Public expenditure is used for allocation, stabilisation and distribution (Musgrave and Musgave, 1989). Hence, public expenditure programmes is a comprehensive set of expenditure policy measures, designed to achieve a given set of macroeconomic goals including the restoration of equilibrium between aggregate domestic demand and supply (IMF 1993).

According to Gwartney (1998) while countries have moved towards economic freedom and open markets, government expenditure has increased more and more. Government expenditure can be defined as spending by the national and local government and some government based institutions. Economic growth is an increase in output or income overtime, it is a positive change in the level of production of goods and services over certain period of time. Economic growth is measured using real gross domestic product (G.D.P).

There are few more hoting debased topics in economic that what the government expenditure plays in economic growth. Keyesian argued that government should manage the amount of demand in an economy to maintain full employment. Since the 1950's there has been growing evidence that government intervention can also be flowed and can be imposed even greater cost in an economy than market failure. There

have been growing concern that government investment expenditure have been, crowding out supervisor private investments.

Government expenditure has continued to increase as a share of GDP within the organisation of economic Co-operation and Development (OECD) countries, government expenditures amounted for a larger size of GDP in 2002 that in 1999. In Nigeria, as in most countries, this is the case. Why this increase in government expenditure? Is it in the interest of the nation that the share of government expenditure in GDP is increasing?

Most growth theories like the big push theory and the balanced growth theory among others aimed at improving the growth rate in developed countries. This need for development is hindered by lies saving which is a result of low aggregation income in most developing countries.

1.2 STATEMENT OF THE PROBLEM

According to Dunnet (1990) economic growth is an increase in real per Capital Gross National Product (GNP). Economic growth is the steady process by which the productive Capacity of an economy is increased over time to bring about rising levels of national output and income. Growth is an engine of development. There can be no development

without growth hence; economic growth is desirable since it is associated with an increase in welfare.

At the dawn of this new millennium, Africa in general Nigeria in particular still faces monumental development like new level of living characterised by low per capital income inequality, poor health and inadequate education. All these are consequence of poverty.

Nigeria present a paradox the country is rich but the people are poor. Per capital income today in Nigeria is around the same level as 1970. Meanwhile between 1970 and 2000 over $200 million has been earned from the exploitation of countries resources. Nigeria is rich on land, oil, people and natural Gas Resources, yet Nigeria has been bedevilled with debts problems until just recently when her debt was forgiven.

Nigeria has been classified by the World Bank as a low income developing country. She is characterised by wide spread of poverty not less than 60% of Nigerian population are below development report (UNDP) 1988.

The better reality of the Nigeria situation is not yet that the poverty line is getting worse by the day but more than four ten of Nigerians live in

conditions of extreme poverty of less than ₦320 per month which barely provide for a quarter of the nutritional requirement of health living.

The sluggish growth of the Nigeria economy despite the increase in government has been rather surprising since independent according to Kweka, P. J. (1969 – 1986, 1999), government consumption and investment expenditure in Nigeria has been on the increase. On the other hand, has not been regular in fact it has been less static. The decade of 1980's is generally referred to as Africa "last decade of development opportunities" Nigerian economy crisis in the early 80's was attributed to several factors including the collapse of price. The rise in international interest rate and domestic policy mistakes.

In order to successfully map out strategy for accelerating Nigeria's growth rate in the year ahead, it is necessary to fully understand the source of economic growth in Nigeria during the past four decades, one with notice that government expenditure in Nigeria has been on the increase. To what extent does this increase in government spending affect the level of growth in Nigeria? In this work, using data on Nigeria government expenditure from 1980 - 2009, we will try to answer the question; Does government expenditure cause the bring about in economic growth in Nigeria?

1.3 OBJECTIVE OF THE STUDY

The objective of the study was specifically;

i. To find out if government expenditure significantly affect economic growth in Nigeria.

1.4 STATEMENT OF HYPOTHESIS

The following null hypothesis will be tested at 0.05 level of significance.

H_0: Government expenditure does not significantly affect economic growth in Nigeria.

1.5 SIGNIFICANCE OF THE STUDY

The result of the study will be of great benefit to the federal republic of Nigeria because economic growth is the motor *vehicle) of development. Development is the sustained education of an entire society and social activity towards a better tomorrow and more human life. The result of this study will be significant in the following ways:

1) It will help the Nigerian government and her policy makers to restore fiscal discipline in Nigeria.

2) The study will be important in debt management in Nigeria. This include government restricting expenditure within he constraints imposed by available revenue.

3) It will also have implication for formulating a workable model for Nigeria.

1.6 SCOPE AND LIMITATIONS OF THE STUDY

This study will use an empirical analysis of macro-economic environment that prevailed in Nigeria between 1981 and 2010. However, literature especially and notable works and event that relates to the study will be examined.

In the course of this work, many problem were encountered which affected the final result.

First, the death of required statistics and limited access to literature. Some journals and publications which could have been of immense help to this work were unavailable.

Secondly, the result of the fourth chapter were somehow affected by the problem of the use of secondary data in Nigeria. Most of the estimates are not reliable.

Thirdly, there is the limitation of the small sample size which has its attended drawbacks. This research work is limited by a number of constraints; greatest is the absence of vital data that would have boosted its result expectation. There is also lack of strong evidence in

the theoretical framework of this topic that would have provided a reliable foundation for us to stem from and particularly Nigeria case. Time constraint is equally one of them.

Due to the above constraints the data to be used are mainly secondary data.

CHAPTER TWO

2.0   LITERATURE REVIEW

This chapter two of this work is divided into theoretical and empirical literature. Theoretical literature has the various economic theories is saying about government spending while the empirical literature tries to capture the opinion of the various contemporary research in the same subject matter.

2.1   THEORETICAL LITERATURE

Economic policy makers are divided as to whether government expenditure helps or hinders economic growth. JOHN MAYNARD KEYNES argues that government spending particularly increase government expenditure boosts economic growth by injecting purchasing power into the economy. The opposite view maintains that government consumption crowds out private investment, dampers economic stimulus in the short-run and reduces capital accumulation in the long-run. The nation and impact of government expenditure however, depends on its form. In (1994) outlines some important says in which government can increase growth. These include provision of public goods and infrastructures, social service and targeted intervention (such as export

subsidies). On the other hand, government taxation may induce miscalculation of resources public goods may be provided inefficiently. The public sector may engage in excessive or unproductive expenditure and government indeed distortion may have disseminative effect.

ANYATO, (1996) government expenditure is the total in cash terms of the federal, state and the local government spending including transfer to the parastatals and the three levels of the government. In as much as public highly desirable, it however, takes from of allocation, stabilisation of resources (Musgrave and Musgave, 1989). The allocation of function becomes necessary so as to provide both private and in particular social goods in appropriate mix with available resources. The provision of social and physical infrastructure through public investment and expenditure on some goods and services theoretical can directly improve productivity in the private sector through a more efficient allocation of resources due to the special characteristics of social goods (Spill over and externalities, non-excludability) they will be provided at all or where they are produced the output will be inadequate and outrageously expensive of left in the hands of private individuals.

Other benefit of government expenditures includes the correction of market failures and then preservation property rights through legislation and the provision of security services.

Government intervention using the instrument of public expenditure and fiscal policy tools. Theories argue that large expenditure in GDP reduces economic growth consistent with the pro-markets view that the growth in the government constrains the overall economic growth.

More recently, the role of government expenditure as the output promoting control variables that has been highlighted in the framework of the endogenous growth literature pioneered in seminal paper by ROMER (1986) and LUCAS (1998). Endogenous growth models postulate that the economy's output is conditioned not only on the level of physical labour stock (as it was in the case of Solow's neoclassical growth model, 1995) but also no additional production factors which may enter the production function with constant return to scale alone. If this is the case, return on investment of such production factor need not diminish as the stock of the later increases and growth differences among nation may persist indefinitely in the rate of accumulation of specific production factor differs from country to country. A number of variables have been proposed to exhibit constant return to scale along

with spending on public infrastructure being one of them (ASCHAUER 1989). Government Expenditure may increase growth performance by promoting human capital accumulation (MANKIN ET AL, 1992).

Both government expenditure on education and on infrastructure may be responsible for the creation of positive externalities with potentially important output implications. However, the endogenous growth models framework has also been used to highlight possible harmful effects of excessive government spending for example, it has been suggested (KING and REBELO, 1990) that increase government expenditure is financed through taxation, the economy may end in a "developing trap" and pay significant welfares cost as a result of distortions affecting economic incentives.

Some economists have argued that there is a growth maximizing level of government expenditure. The notion of optimal size of government has been popularised by ARMEY (1995) who developed the Armey curve? He argues that non-existence of the government causes a state of anarchy and low level of output per capital because there is no rule of law and no protection not property rights. Similarly when all input and output decision are made by the government, output is low. However, as government spending arises, additional projects financed by the

government become increasingly less productive and taxes and borrowing viewed to finance government imposed increasing burdens.

At some point, the marginal benefits from the increased government spending become zero.

Source Armey 1995

Y

General welfare

Real GDP

T
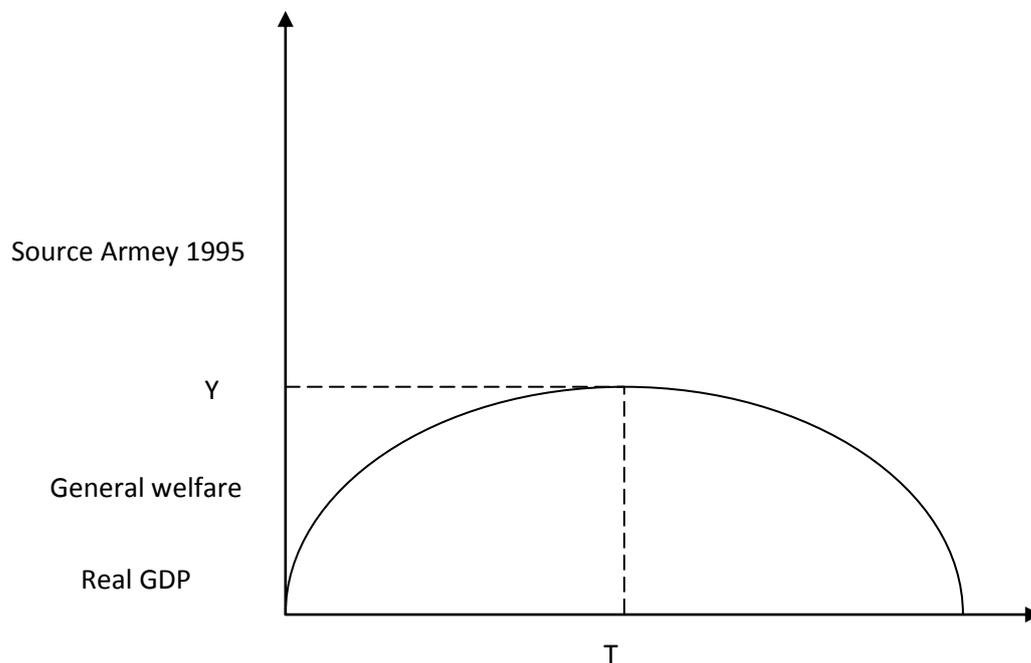
SIZE OF GOVERNMENT AS A SHAPE OF GDP

2.2   EMPIRICAL LITERATURE

Empirical work on the determinants of economic growth seems to pursue evidence that large sectors reduce economic growth. This result has been confirmed in numerous studies (Barro, 1991), Engen and

Skinner (1992), Hanson and Henkreson (1994), Gwartney, Holcombe and Lawson (1998) etc.

More specifically in recent studies, the negative impact of the size of the government on the factor productivity and capital formation has been stressed resulting in lower economic growth. Dar and Amarkhalkli (2001) argue that this adverse impact appears to reflect in countries with large government size.

Accordingly, the advantage of a small government sector is that, in general, it should reflect in the greater inefficiencies from the fewer policy induced distortion and the over tax burden more efficient resources use fuel to the existing market forces and the absence of crowding effort that impair the incentives of capital creation these studies looks beyond certain core functions and conclude that growth will be retarded if government spending is too high.

However, Al-Yousif (2000) when investigating the effects of government on economic growth in Saudi Arabia found a positive relationship between the two and therefore conclude that increasing government expenditure could have a positive effect on economic growth. FAM (1986) using a sample of one hundred and fifty countries found

government expenditure to have a significant positive externally effect on growth.

LIN (1994) used a sample of sixty two countries (1960 – 1985) and found that non-productive spending has no effect on growth in advanced countries but a positive in less developed countries.

Other studies have investigated that impact of particular function al. Categorised of public expenditure for example, Deveraran et al, (1993) using the sample of 14 OECD countries found that spending on health, transport and communication have positive impacts while spending on education and defence did not have a positive impact.

Barro (1990) noted that the growth in real GDP per capital was positively related to the share of government in consumption GDP. Crosman (1998) found a positive relationship between government spending and economic growth regardless of expenditures.

Aigokoha (1996) in his studies of the impact of government expenditure as a measure of economic growth found a negative relationship between the two.

Ozoh (1993) in his study of local government expenditure in Nigeria found a negative relationship between government expenditure and

economic growth and concluded that government expenditure has an adverse effect on growth. Essien (1997) tested the applicability of Wagner's law in Nigeria. He discovered that the growth in government expenditure would not likely be the cause of income growth.

Studies based in endogenous growth models distinguish between productive and non-productive expenditures (Knever et al 1998).

According to Barro Ad Sala-i-Martin (1992) expenditure are classified as productive if they are included in private production functions and unproductive if they are not. This implies that productive expenditure has a direct effect upon economic growth but unproductive expenditure has an indirect effect.

According to Turnursky (2003), it is not surprising since in the Solow-Swan neoclassical growth model that conventional macro-economics policy had no influence on long run growth performance. Recent evidence on the effect in the government spending shock on consumption cannot be easily reconciled with spending optimising business cycle models.

Jordi Cyali Lopez Salidaau and Javier Valles (2004) extended the standard new Keynesian model to allow for the presence of rule of

thumb (non-recordian (consumers, to show how the interaction of the later with sticky price deficit financing can account for existing evidence on the effect of government spending on consumption through most macro-economic models predict that rise in government will have an expansionary effort on output, those models offer differs regarding the implicit effect of such a policy intervention on consumption. That's why the standard Real Business Cycle (R.B.C) model generally predicts a see line in consumption in response to the rise in government spending. The IS-LM model predicts an increase in the same variable hence amplifying the effect of the expansion in government spending on output. The RBC model feature and infinitively lived household whose consumption decision is based on inter-temporal budget constraints. All other thing being equal, increase in government lowers the present value of after tax income that generates negative wealth effect of an increase in government spending will depend critically on how the later is financed. Most empirical work supply multivariate's time series method in estimating the responses of consumption and the number of other variable to an exogenous increase in government spending.

Jordi et al argued with many authors that government spending leads to a significant increase in consumption with an attendant fall in investment.

Other frameworks share among ingredients with recent optimising sticky price model though they modified the sticky model by allowing for the presence of rule of thumb consumers (Who do not borrow or save, consuming their wages instead) in co-existence with conventional infinite horizon regarding consumers.

Mankind (2000) calls for the introduction of rule-of-thumb household in Macro-economics models and for examination of the policy implication of its presence that the co-existence of sticky price and ruler of thumb consumer is a government spending to raise aggregate consumption. That for empirical plausible calibration of the fraction of rule of thumb consumers, the degree of price stickiness and the extent of deficit financing, predict response of aggregate of consumption and other variable in line with the existing evidence.

Blanchard and Perottic (2000) and Fatas and Mihor (2001) identified exogenous shock to government spending by assuming that the later variable is predetermined relative to the variable in their model. These finding includes firstly, that a positive shock to government spending

lead to a persistent rise in the variable (sticky price). Secondly, the implied fiscal expansion generates a positive response in output with the implied multiplied greater than one in Blanchard and Perottic (2002). Thirdly in both paper, the fiscal expansion leads to large increase in consumption. Fourthly, they found investment response to the spending shock to be insignificant in Fatas and Mihor (2001), but negative (significant) in Blanchard.

In related work, Mountford and Uhilig (2002) and based on sign and non-zero restriction on impulses response to identify and estimates the effect of "balanced budget" and a deficit spending shocks crowd out both resident and non-residential investment but do not reduce consumption.

Shashanka and Singh (2002) analysed the effect of fiscal stimulus on growing by choosing a policy variable e to test the later collect on the overall economic growth.

Devarajan, Swaroop and Zon (1996) classified government expenditure as productive and unproductive are found public spending to have negative effect on economic growth in developing economies. They emphasised based on previous studies no empirical evidence provides

clear-out answer on how the composition of public expenditures affect economic growth.

By Shashanka and Singh (2000) argument in favour of market forces are based on requirement of business environment which motivates private investment and sustain economic growth. In the context, non-productive expenditure such as subsidies to public enterprise produces marketable goods. The government borrowings to finances such activities weaken the business environment.

That some economist also differs on the effect of taxes and its composition especially on consumption and investment. They summarised their main conceptual argument within the framework of the stylised classical and Keynesian models. The prediction of the responses of investment to the government expenditure and taxes are totally opposite in the case of Keynessian and classical framework. On the opposite both models predict similar responses of consumption to change in taxes.

Shengyen Fan and Neetan Raw (2003) in their work, public spending in developing countries; trends, determination and impact with the objective to review trends in government expenditure in the developing world, to analyse the causes of changes and to develop an analytical

framework for determining the differential impact of various government expenditure on economic growth. They started by saying that, it has been found that structural adjustment programme increases the size of government spending Agriculture, Education and Infrastructure in Africa, on Agricultural and Health in Asia and Education and infrastructure in Latin America. All decline as a result of the structural Adjustment Programme.

Ekpo (1998) investigates the effect of government expenditure on growth in the Nigeria economy between 1960 and 1992. A division type of growth model was employed and total expenditure was decomposed into capital and recurrent expenditure to explore their impact on economic growth. The expectations were not realizes due to a mix of government expenditure that was not conducive to growth. However, Ogiogio(1995) carried out the study. The result of this analysis indicated that the productive base which can support growth in the absence of new investment is lacking the economy is vulnerable to macro economic disturbance.

In Seymour et al (1997), used a disaggregated approach to examine the impact of government expenditure on economic growth in the OECS.

Their work is similar to Cashin (1995) but it opens new grounds by focusing on the short to medium term impact of fiscal policy abd incorporates the distortionary effects of government activities using four regression models and a fixed effect model or least square dummy variable (LSDV)model.

Junko and Vitali (IMF, 2008) investigate the impact of government expenditure on economic growth in Azerbaijan because of the temporarily oil production boom (2005-2007), which caused exceptionally large expenditure increase aimed at improving infrastructure and raising incomes. Azerbaijan total expenditure increased by a cumulative 160 percent in nominal value from 2005 to 2007 or from 41 percent of non-oil GDP to 74 percent. In their research reference were made to Nigeria and Sandi Arabia (1970 – 89) who have also experienced oil boom and increased government expenditure over the years. The study simulated the neo-classical growth model tailored to the Azeri conditions. Their analysis suggested that the evaluated fiscal scenario poses significant risks to growth sustainability and historical experience indicates that the initial growth performance largely depends on the efficiency of scale-up expenditure. The study also sheds light on the risks associated with a sudden scaling down of expenditure,

including the political difficulties to undertake an orderly expenditure reduction strategy without undermining economic growth and the crowding-out effects of large government domestic borrowing.

In summary, most of the studies found a negative relationship between government expenditure and economic growth. Lindaver and Valendine (1992) recognize that government can have negative effect because of the suppression of private investment expenditure through high taxes and deficit financing.

CHAPTER THREE

3.0   METHODOLOGY

3.1   NATURE OF MODEL

This study is based on the neoclassical approach to the study of Gross Domestic Product and Government Expenditure relationship between the variables; dependent and independent to be specified in this model.

The variable included in this model are based on data collected for a period of years (1981 – 2010) through which the impact of government expenditure and other variables like money supply, inflation and GDP of the previous year on Gross Domestic Product of the current year was examined. The necessary information needed to explore this economic phenomenon can be illustrated in a functional relationship.

3.2   MODEL SPECIFICATION

This specification of econometric form is always based on economic theory which does not indicate the precise mathematical forms of stated variables would be stated or linear or non-linear form. But for simplicity, they shall be stated in the simplest possible mathematical form. That is, we will assume a linear relationship between the dependent and explanatory variable in the model.

Economic relationships are not however assumed to be exact the variables apart from the ones stated exists which can influence economic growth but are mitted in the model. These factors omitted in the model are considered by introducing the error-term or random variables (disturbance term) in the model to capture all kinds of disturbances that might distort the structure of the model. This thus makes the model stochastic.

The model can be specified in mathematical form as autogressive lag model;

Log (GDP)m = F(log GE), (INF), (M$_2$) log (GDP-1)μ

In econometric form,

Log(GDP)=

$$\beta_0 + \beta_1 \log GE + \beta_2 \log M_2 + \beta_3 INF + \beta_4 \log GDP - 1 + \mu$$

Where log (GDP) = log of Gross Domestic Product

Log $(M_2) = \log of\ money\ supply.$

Log (INF) = log of Inflation

Log (GDP)(-1) = log of Gross Domestic Product of the previous year

$\beta = Parametric\ Estimation$

μ = Random term

(Our model is a lag-logmodel)

However, the value of the random term cannot be observed like the values of the explanatory variables. Therefore, the value μ's and making plausible assumption about their distribution.

Assumption 1: μ is a Random Variable.

Assumption 2: the mean variable in Each Period

$Var\ (μ_i) = E(μ_i - \ E\ μ_i\ \ - E\ μ_i\ ^2 = μ^2.$

Assumption 3: The mean value of $μ_i$ in any particular period is zero

$E\ μ_i\ = 0$

Assumption 4: The variable $μ_i$ I normally distributed.

$μ_i \sim N(O, μ^2)$

Assumption 5: Serial Independence of Random Term

$(μ_i\ ) = 0$ for $x_i \neq x_j$

3.3   METHOD OF THE ESTIMATION

The economic technique employed in the study is the Ordinary Lest Squares (OLS). This is because the OLS Computational procedure is

fairly simple a best linear unbiased estimator among all unbiased estimators, efficient and shown to have the smallest (minimum) variance. Thus, it becomes the Best Linear Unbiased Estimator (BLUE) in the classical Linear Regression (CLR) model.

Basic assumptions of the OLS are related to the forms of the relationship among the distribution of the random variable (μ). OLS estimators are said to be BLUE if the following holds:

- ✓ It is linear, that is a linear function of a random variable say Y, a dependent in the regression model
- ✓ Unbiased, its estimated value E (β_i) is equal to to its true value B_i
- ✓ Minimum variable in the class of all such linear unbiased estimators.
- ✓ Finally, the OLS is an essential component of most other economic techniques.

3.4   METHOD OF EVALUATION

To evaluate the regression results in this research model, it should be on the basis of the economic apriori expectations of the parameters, the statistical test and the econometric test.

A) ECONOMIC APRIORI EXPECTATION

The economic apriori expectation involves an examination of the signs and magnitude of the estimated parameter to determine the conformity with theoretical expectation.

In our regression model, β_1 will be positive, implying that (GE) impacts positively on GDP ($\beta_1 > 0$). β_2 Will be positive ($\beta_2 > 0$) also indicating a positive relationship with GDP. β_3 Should be negative ($\beta_3 > 0$) implying that inflation impacts positively on GDP. $\beta_4 > 0$, indicating that GDP of the previous year impact positively on GDP of current year of analysis.

B) STATISTICAL TEST OR FIRST ORDER CRITERION

These are test determined by statistical theory and aimed at evaluating the reliability of the parameters estimates.

We shall employ the t-test to see if our parameters estimates are statistically different from Zero or not. The F-test to test for the overall significance of our model. The co-efficient of multiple determination (R^2) to test for goodness of it.

ECONOMETRIC TEST

There test set by the theory of econometric and aim at investigating whether the assumption of the econometric method employed are satisfied or not.

Among the tests are: Normality test, Heteroscedastic test. Multicolineanity test and auto-correlation test.

3.5 DATA REQUIRED AND SOURCE/SOFTWARE PACKAGE

A secondary data was employed in this analysis at it suits the economic research nature of the work.

Major sources are the Central Bank of Nigeria (CBN) Statistical Bulletin (volume. 21, December, 2010); CBN annual reports.

Information was also gathered from economic journals and textbooks.

CHAPTER FOUR

4.0   PRESENTATION AND ANALYSIS OF RESULT

4.1   PRESENTATION AND ANALYSIS OF RESULT

Dependent variable: Gross domestic product

Method: Ordinary Least Square

Period of study: 1981 – 2010

Included Observation: 30

Variable	Coefficient	Standard error	t-statistics	t-prob.	Party Ry
Constant	1.0852	0.64493	1.683	0.1049	0.1017
GE	0.95064	0.33948	2.800	0.0097	0.2388
M_2	0.049033	0.25855	0.190	0.8511	0.0014
INF	0.0024208	0.0051487	0.470	0.6423	0.0088
GDP-1	0.039719	0.20951	0.190	0.8512	0.0014

$R2 = 0.957632 \{4, 25\} = 141.27 \{0.0000\}$ $a = 0.478204$

$DW = 2.26$ $RSS = 5.716988282$ for variables and 30 observations.

4.2. RESULT INTERPRETATION

From the above, the interpretation of the result as regards the coefficient of various regressors is stated as follows:

The value of the intercept is 1.0852; it shows that the Nigerian economy will experience a 1.0852 increase when all other variables are held constant. The estimate coefficients which are 0.95064 {GE} shows that a unit charge in GOVERNMENT EXPENDITURE will cause a 0.95064% increase in GDP, 0.049033% {M_2} shows that a unit charge in MONEY SUPPLY will cause a 0.049033 increase in GDP, 0.0024208 {INF} shows that a unit charge in INFLATION RATE will cause a 0.0024208% increase in GDP.

4.3. ECONOMIC APRIORI CRITERIA

The test is aimed at determining whether the signs and sizes of the result are in line with what economic theory postulates. Thus, economic theory tells us that the coefficients are positively related to the dependent variables, if an increase in any of the explanatory variables leads to a decrease in the dependent variable.

Therefore, the variable under consideration and their parameter exhibition of apriori signs have been summarized in the table below.

This table will be guarded by these criteria

When β >0 = conform

When β >0 = not conform

Variables	Expected signs	Estimate	Remark
GE	+	β >0	Conforms
M$_2$	+	β >0	Conforms
INF	+	β >0	Conforms

From the above table, it is observed that all except TPS actually conforms to the economic theories.

A positive relationship which exists between GE, M2, INF and Gross Domestic Product indicates that an increase in GE, M2 and INF will result in a positive change in the Growth Rate of Gross Domestic Product. This conforms to the apriori criteria because an increased or high GE, M2 and INF over the years will increase inflation in the economy.

4.4   STATISTICAL CRITERIA (FIRST ORDER TEST)

4.4.1 COEFFICIENT OF MULTIPLE DETERMINANTS (R^2)

The R^2 (R square) which measures the overall goodness of fit of the entire regression, shows he value as 0.957632 = 95.7632%

approximately 96%. This indicates that the independent variables accounts for about 96% of the variation in the dependent variable.

4.4.2. THE STUDENT'S T-TEST

The test is carried out to check for the individual significance of the variables. Statistically, the t-statistics of the variables under consideration is interpreted based on the following statement of hypothesis.

H_0:   The individual parameters are not significant

H_1:   The individual parameters are significant

Decision Rule:

If t-calculated > t-tabulated, we reject the null hypothesis $\{H_0\}$ and accept the alternative hypothesis $\{H_1\}$, and if otherwise, we select the null hypothesis $\{H_0\}$ and reject the alternative hypothesis $\{H_1\}$.

Level of significance = α at 5%

= 0.025

Degree of freedom: n-k

When n: Sample size

K: Number of parameter

The t-test is summarized in the table below:

Variables {t-value}	t-tab	Remark
GE {2.800}	± 2.056	Significant
M_2 {0.0190}	± 2.056	Insignificant
INF {0.470}	± 2.056	Insignificant

The t-statistics is used to test for individual significance of the estimated parameters {β_1, β_2, and β_3}.

From the table above, we can deduce that the GE {2.800} is greater than 2.059, which represents the t-tabulated implying that GE is statically significant.

On the other hand, the intercept {1.683}, M_2 {0.190} and INF {0.470} is less than the t-tabulated {± 2.056} signifying that M_2 and INF are statistically insignificant.

4.4.3   F-STATISTICS

The F-statistics is used to test for simultaneous significance of all the estimated parameters.

The hypothesis is stated;

H_0: $\beta_1 = \beta_2 = \beta_3$

H_0: $\beta_1 \neq \beta_2 \neq \beta_3$

Level of significance = α at 5%

Degree of freedom: $V_1 = K - 1$ $V_2 = N-k$

Decision rule:

If the f-calculated is greater than the f-tabulated {f-cal > f-tab} reject the null hypothesis (H_0) that the overall estimate is not significant and conclude that the overall estimate is statistically significant.

From the result, f-calculated {141.27} is greater than f-tabulated {2.92}, that is, f-cal > f-tab. Hence, we reject the null hypothesis {H_0} that the overall estimate has a good fit which implies that our independent variables are simultaneously significant.

4.5 ECONOMIC CRITERIA

4.5.1 TEST FOR AUTOCORRELATION

One of the underlying assumptions of the ordinary least regression is that the succession values of the random variables are temporarily independent. In the context of the series analysis, this means that an error {Ut} is not correlated with one or more of previous errors (U_{t-1}). The problem is usually dictated with Durbin-Watson (DW) statistics.

The Durbin Watson's test compares the empirical d* and du in d-u tables to their transforms (4-d_L) and (4-d_U).

Decision rule

- If d* < D_L then we reject the null hypothesis of no correlation and accept that there is positive autocorrelation of first order.

- If d* > {4-d_L} we reject the null hypothesis and accept that there is a negative autocorrelation of the first order.

- If d_U < d* {4-d_U}, we accept the null hypothesis of no autocorrelation.

- If d_L < d*< d_U or if {4-d_U} <{4-d_L}, that test is inconclusive

Where: d_L = Lower limit

           d_U = Upper limit

           d* = Durbin Watson.

From our regression result, we have;

d* = 2.26

d_L = 1.214

d_U = 1.650

4-d_L = 2.768

$4 - d_U = 2.35$

Conclusion

Since d_L {2.768} d* < {2.26} < d_U {1.650} or if {4-d_U} {2.35} <{d-d_L} {2.768}, that test is inconclusive.

4.5.2 NORMALITY TEST FOR RESIDUAL

The Jarque-Bera test for normality is an asymptotic, or large-sample, test. It is also based on the ordinary least square residuals. This test first computes the skewness and kurtosis measures of the ordinary least square residuals and uses the chi-square distribution {Gujarati, 2004}.

The hypothesis is:

H_0 : $X_1 = 0$ normally distributed

H_0 : $X_1 \neq 0$ not normally distributed

At 5% significance level with 2 degree of freedom.

JB = + = 49.256

While critical JB > {$X^2_{\{2\}}$ df} = 5.99147

Conclusion:

Since 4.9.256 > 5.99147 at 5% level of significance, we reject the null hypothesis and conclude that the error term does not follow a normal distribution.

4.5.3.   TEST FOR HETEROSCEDASTICITY:

Heteroscedasticity has never been a reason to throw out an otherwise good model, but it should not be ignored either {Mankind Na, 1990}.

This test is carried out using White's general heteroscedasticity test {with cross terms}. The test asymptotically follows a chi-square distribution with degree of freedom equal to the number of regressors {excluding the constant term}. The auxiliary model can be stated thus:

$Ut = \beta_0 + \beta_1 LGE + \beta_2 M2 + \beta_3 TINF + \beta_4 LGE^2 + \beta_5 M2^2 + \beta_6 INF^2 + vi$

Where Vi = pure noise error.

This model is run and an auxiliary R^2 from it is obtained.

The hypothesis to the test is stated thus:

H_0: $= \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$ {Homoscedasticity}

H_0: $= \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6 = 0$ {Heteroscedasticity}

Note: the sample size {n} multiplies by the R^2 obtained from the auxiliary regression asymptotically follows the chi-square distribution with degree of freedom equal to the number of regressors (excluding constant term) in the auxiliary regression.

Decision Rule:

Reject the null hypothesis if $X^2_{cal} > X^2$ at 5% level of significance. If otherwise, accept the null hypothesis, from the obtained results, $X^2_{cal} = 7.9545 < X^2_{tab}$ at 0.05 significance level {8} = 15.5, we therefore reject the alternative hypothesis of heteroscedasticity showing that the error terms have a constant variance and accept the null hypothesis showing that the error terms does not have a constant variance.

4.5.4. TEST FOR MULTICOLLINEARITY:

The term Multicollinearity is due to Ragner Frisch. Originally it meant the existence of a "perfect" or exact, linear relationship among some or all explanatory variables of a regression model. The tests were carried out using correlation matrix. According to Barry and Feldman (1985) criteria; "Multicollonearity" is not a problem if no correlation exceeds 0.80.

	INF	GDP	GE	M_2	REMARK
INF	1.000				-
GDP	-0.1835	1.000			Nm
GE	-0.2048	0.9784	1.000		Nm, M
M_2	-0.2243	0.9665	0.9870	1.000	Nm, M,M

Where M = Presence of multicollinearity

NM = No multicollinearity

We can conclude that there are existence of a "perfect" or exact, linear relationship among some of the explanatory variables.

4.6. POLICY IMPLICATION

So far, we have critically analyzed the research findings. However, it is important at this point to state the implications of our findings.

An examination of model indicated that changes in government consumption expenditure exerted a significant influence on the country's Gross Domestic Product in the study period (1981 - 2010). And also the money supply influences insignificantly on the GDP. The negative impact is due to misuse of public finding by public office holders, political

instability and spending in low priority sectors of the economy. Inflation

was found to be insignificant during the study period.

CHAPTER FIVE

5.0   SUMMARY, POLICY RECOMMENDATION AND CONCLUSION

5.1   SUMMARY OF FINDING

Our empirical findings support that government expenditure is a significant component of the Nigeria economy. In other words, fiscal activism as propounded by the Keynesians is relevant to Nigeria. This finding can be identified in the T-test (T-statistics).

Similarly, Money Supply (M_2) was found to be insignificant, as well as inflations are insignificant.

Following the aprior expectation, the parameter of government expenditure give $\beta > O$ is positive. A positive relationship which exists between government expenditure, Money Supply, Inflation and Gross Domestic product indicates that an increase in government expenditure, Money Supply and Inflation will result in a positive change in the Growth rate of Gross Domestic product. This accepts what theory say that government expenditure is mount to accept what theory say that government expenditure is mount to be positive in solution to GDP.

This phenomenon explains that everything is in equity. The parameter of Inflation is positive and it conforms to apriori expectation and the parameter of Money Supply Conform and it is positive.

The F-test shows that the overall regression has a good fit and significant which implies that our independent variables are simultaneously significant on economic growth.

5.2   POLICY RECOMMENDATIONS

As a result of empirical findings, we offer the following policy recommendation.

Government should pursue vigorously its raw economic reform agenda (Needs) but should re-think its privatization public enterprises.

Government should remain active in the process of economic growth in Nigeria. This means that Nigerian government should increase spending in the area of infrastructure needed in developing the real sector in order to bring structural change and modernization required to speed up the growth process.

Policy makers should understand that development is not just an attempt to secure an increase in income but the way the lives of people

are positively affected by such increases to sector that relevant social services are under its control.

On the monetary side, the apex bank (Central Bank of Nigeria) should influence money supply by restructure (contraction) monetary policy, reducing the volume of money on the hands of the public by selling Federal Government Fund (FGF) and Treasury Bills (TB) to the public investors.

5.3 CONCLUSION

A study of government's role in the economy has been given much attention in the literature and there has been mixed feelings on the direction of the impact of government expenditure on economic growth. Although, we can conclude that the Nigerian economy will do better with active government participation in order to improve social infrastructure and modernization, as well as create incentive for privatization, and bank reform will be determinate to the economy in the future just as was SAP before it was abolished.

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APPENDIX A

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---- PcGive 8.00, copy for meuller                    ----
---- session started at  5:36:10 on 18th July 2013    ----

Data loaded from: ezeany~1.wks
LGDP = log(GDP);
LGDP_1 = lag(LGDP, 1);
LGE = log(GE);
LM2 = log(M2);
```

EQ(1) Modelling LGDP by OLS
        The present sample is: 1981 to 2010

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	1.0852	0.64493	1.683	0.1049	0.1017
LGE	0.95064	0.33948	2.800	0.0097	0.2388
LM2	0.049033	0.25855	0.190	0.8511	0.0014
INF	0.0024208	0.0051487	0.470	0.6423	0.0088
LGDP_1	0.039719	0.20951	0.190	0.8512	0.0014

Rý = 0.957632 F(4, 25) = 141.27 [0.0000] à = 0.478204 DW = 2.26
RSS = 5.716988282 for 5 variables and 30 observations

Normality test for Residual
        The present sample is: 1981 to 2010

Sample Size	30
Mean	-0.000000
Std.Devn.	0.436539
Skewness	-3.139155
Excess Kurtosis	11.876127
Minimum	-1.997803
Maximum	0.519130
Normality Chiý(2)=	49.256 [0.0000] **

Testing for Heteroscedastic errors
Chiý(8) = 7.9545 [0.4379]   and   F-Form(8, 16) = 0.72164 [0.6708]

V01=LGE   V02=LM2   V03=INF   V04=LGDP_1

Heteroscedasticity Coefficients:

	Constant	V01	V02	V03	V04	V0.ý
Coeff.	6.562	3.768	-4.468	0.001313	-0.3094	-0.1646
t-value	0.3743	0.7668	-0.7594	0.03798	-0.04261	-0.8355

	V02ý	V03ý	V04ý
Coeff.	0.1749	4.33e-005	0.02463
t-value	0.8428	0.08626	0.1064

RSS = 11.1091   à = 0.833259

Descriptive statistics
The present sample is: 1981 to 2010
Means

INF	LGDP	LGDP_1	LGE	LM2
21.15	13.95	13.73	12.25	12.60

Standard Deviations

INF	LGDP	LGDP_1	LGE	LM2
18.06	2.157	2.141	2.032	2.159

Correlation matrix

	INF	LGDP	LGDP_1	LGE	LM2
INF	1.000				
LGDP	-0.1835	1.000			
LGDP_1	-0.2357	0.9593	1.000		
LGE	-0.2048	0.9784	0.9795	1.000	
LM2	-0.2243	0.9665	0.9691	0.9870	1.000

APPENDIX B

year	GDP	GE	MSP	INF
1980	49632.3	14968.5	14397.4	9.9
1981	47619.66	11413.7	14471.17	20.9
1982	49069.23	119232.2	15786.74	7.7
1983	53107.38	9636.5	17687.93	23.2
1984	59622.53	9927.6	20105.94	39.6
1985	67908.55	13041.1	22299.24	5.5
1986	69146.99	16223.7	23806.4	5.4
1987	105222.84	22018.7	27573.58	10.2
1988	139085.3	27749.5	38356.8	38.3
1989	216797.54	41028.3	45902.88	40.9
1990	267549.99	602680.2	52857.03	7.5
1991	312139.74	66584.4	75401.18	13
1992	532613.83	92797.4	111112.31	44.5
1993	638869.79	191228.9	165338.75	57.2
1994	899863.22	160893.2	230292.6	57
1995	1933211.55	248768.1	289091.07	72.8
1996	2702719.13	337417.6	345853.96	29.3
1997	2801972.58	428215.2	413280.13	8.5
1998	2708430.86	487113.4	488145.79	10
1999	3194014.97	947690	628952.16	6.6
2000	4582127.29	701050.9	878457.27	6.9
2001	4725086	1017996.5	126932.161	18.9
2002	6912381.25	1018178.1	1508172.91	12.9
2003	8487031.57	1225988.3	1952922.8	14
2004	1141066.91	1384000	2131820.08	15
2005	14572239.12	1743200	2637913.73	17.8
2006	18564594.73	184258.7	3799538.5	8.2
2007	20657317.67	2348593	5138700.94	5.4
2008	2429632.29	2880200	8029088.61	11.6
2009	24794238.66	3116985.6	9456480.31	12.4
2010	29205782.96	3845720	11034940.93	13.2

Source: CBN statistical Bulletin(Volume 21)December 2010