NEAR EAST UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCES

ECONOMICS DEPARTMENT

MASTER OF SCIENCE ECONOMICS

MASTER THESIS

AN ASSESSMENT OF THE SIGNIFICANT IMPACT OF FISCAL POLICY INSTRUMENTS ON ECONOMIC GROWTH IN NIGERIA: 1970-2013

SHEHU BALARABE MIJINYAWA

20124844

THESIS SUPERVISOR: ASSIST. PROF. DR. ERGIN AKALPLER

NICOSIA

(2015)

NEAR EAST UNIVERSITY

GRADUATE SCHOOL OF SOCİAL SCİENCES

Economics Master Programme

Thesis Defence

Thesis Title: An Assessment of the Significant Impact of Fiscal Policy Instruments on Economic Growth in Nigeria: 1970-2013

Prepared by: Shehu Balarabe Mijinyawa

20124844

We certify this thesis is satisfactory for the award of the degree of Master of Science in Economics

Examining Committee:

Assoc. Prof. Dr. Hüseyin Özdeşer	**Committee Chairman, Department of Economics, Near East University.**
Assist. Prof. Dr. Ergin Akalpler	**Supervisor, Department of Economics, Near East University.**
Assist. Prof. Dr. Ahmet Ertugan	**Department of Marketing, Near East University.**

Approval of Director of Graduate School of

Social Sciences

PROF. DR. ÇELİK ARUOBA/DR. MUHİTTİN ÖZSAĞLAM

ACKNOWLEDGEMENTS

In the name of **Allah**, the Most Gracious, the Ever Merciful. All type of perfect and true praise belongs to **Allah** (SWT) alone, the Lord of the worlds, who in His ultimate and bountiful mercy created me and gave me the opportunity to study up to this level. Peace and blessings of **Allah** be upon our holy Prophet **Muhammad** (SAW), his family, his companions and those who follow his path until the Last Day.

First and foremost, I would like to express my profound gratitude and appreciation to the Kano State Governor **Engr. Dr. Rabiu Musa Kwankwaso,** for awarding me with a fully-funded M.Sc. scholarship in **501 M.Sc. Foreign Training Programme**. May The Almighty **Allah** reward him abundantly.

Secondly, I would like to express my profound gratitude and appreciation to my supervisor, **Assist. Prof. Dr. Ergin Akalpler,** for his guidance and support during my studies here in Near East University, Turkish Republic of Northern Cyprus. Working with such a respected and inspirational person has been a privilege.

Special thanks go to the chairman of the examining committee, **Assoc. Prof. Dr. Hüseyin Özdeşer** and the examining committee member, **Asst. Prof. Dr. Ahmet Ertugan** for their invaluable time in reviewing the research work.

My deep appreciation is extended to **Prof. Irfan Civcir, Mrs Behiye Tuzel, Prof. Dr. Erdal Yavuz, Asst. Prof. Dr. Turgut Türsoy, Mrs. Veclal Gulay, Assoc. Prof. Dr. Mustafa Sağsan** and **Mr. Vur Yektaoğlu**, for their support and assistance in providing me with valuable information during my studentship at Near East University.

My sincere appreciation goes to the entire academic and non-academic staff of the Department of Economics as well as that of Faculty of Economics and Administrative Sciences, Near East University, TRNC, for their valuable and commendable efforts towards my success academically.

Special thanks to **Mrs. Verda Gumush Ozatach** for her invaluable generosity, guidance and kindness towards me throughout my stay in Nicosia, Cyprus.

I would like to express my profound gratitude and appreciation to my beloved parents **Alkali Balarabe Mijinyawa** and **Umma Balarabe** for their love, affection, caring, support, prayer and encouragement towards me throughout my entire life. May The Almighty **Allah** (SWT) reward them with Al-Jannatul Firdausil Al-A'alaa. Ameen.

Lastly, I wish to express my special thanks and appreciation to all my kith and kin, lovely T1, well-wishers, in-laws, KSSB staff, and course mates for their encouragement and prayers towards ensuring success throughout my entire life. May The Almighty **Allah** (SWT) reward them abundantly.

ABSTRACT

The study empirically evaluates the significant impact of fiscal policy instruments on economic growth in Nigerian from 1970 to 2013. It adopts Wagner's law and Keynesian theory as its theoretical framework for the study. It employs Vector Autoregression (VAR) model using real GDP, total government expenditure, total government revenue, inflation rate, budget deficit financing and public debt services as control variables. Preliminary diagnostic test using Augmented Dickey-Fuller (ADF) unit root test indicates that all the variables are stationary at level, which paves way for applying the unrestricted VAR. The coefficient of VAR estimates reveals that the variables in the model are statistically significant at 5% level of significance. The VAR Granger Causality result confirms the presence of a unidirectional causality running from TGE to RGDP in support of Keynesian theory. The Impulse Response Function (IRF) results indicate that, real GDP shows negative responses to a unit shock of all the variables except total government revenue which is positive in the short term period. However, all the variables with the exception of inflation have a negative long run relationship with the real GDP. The results of Variance Decomposition Function (VDF) show that, total government expenditure explains most of the variation of real GDP in the entire horizons. The study concludes that the study variables exert both significant positive and negative impact on economic growth in different term periods; hence they remain the essential instruments toward achieving economic growth in Nigeria.

Keywords: Fiscal Policy Instruments, Economic Growth, Vector Autoregression Model, Granger Causality Test, Impulse Response Force, Variance Decomposition Function.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

ADF	Augmented Dickey-Fuller
BDF	Budget Deficit Financing
CBN	Central Bank of Nigeria
IMF	International Monetary Fund
INF	Inflation Rate
IRF	Impulse Response Function
NEEDS	National Economic Empowerment and Development Strategies
NBS	National Bureau of Statistics
OLS	Ordinary Least Square
PDS	Public Debt Services
RGDP	Real Gross Domestic Product
SAP	Structural Adjustment Programme
TGE	Total Government Expenditure
TGR	Total Government Revenue
VAR	Vector Auto Regression
VDF	Variance Decomposition Function
VECM	Vector Error Correction Model
WAI	War Against Indiscipline

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background to the Study

Almost all governments the world over have certain economic policies which are articulated and implemented in order to achieve material economic growth and prosperity for every citizen of the country. All alternatives to achieving quick and sustainable economic growth are usually examined with the formulation of such policies or programs. Economic policies are formulated toss chart a pathway for the future economic course of a nation which is often targeted towards achieving macroeconomic goals or solving certain macroeconomic problems bedeviling the society. Such policies are usually expressed in terms of either Fiscal or Monetary Policy. It is believed that fiscal policy plays a key role in a sound macroeconomic framework. In such a policy, government uses its tax-revenue, expenditure program, or borrowing to pursue the national economic goals; which include the acceleration of economic growth, balance of payments viability, stable price and lowering unemployment.

Nigeria has always held the notion that economic programs would automatically lead the country onto the path of successful economic progress, as done by other countries of the world. Thus, over the periods or years, the nation has been using its administrative instrument which consists of revenue and expenditure in affecting the macroeconomic performance of the country based on Fiscal Policy measures. The

Nigerian economy had gone through a number of development plans and reform programs in the use of fiscal policy measures in its effort towards ensuring stability and economic progress of the country. The plans are all strategies aimed at raising the living standards of citizens and their economic and social well being. These would include the past four national plans (such as 1962-1968, 1970-1975, 1975-1980, 1981-1985 National Development Plans) and the 1990-1992 National Rolling Plan). The primary objectives of these plans has always been the hope of achieving economic progress through several macroeconomic strategies, an increased growth rate in the Gross National Product, that should out-pace the population growth rate, infrastructure necessary for economic development. Other objectives normally include plans to enhance facilities for education, health and housing as well as the important tasks of creating better employment opportunities and investment. While the reform programs include the SAP and NEEDS embarked upon with a view to controlling the government expenditure.

Unfortunately, the desired goals have not always been achieved, thus leaving many wondering as to what has been left out in the economic policies. Several studies reveal that these lofty expectations have never been achieved even in the minimal sense in the Nigerian context. As noted by Galadanci (2009, 202), that all the four National Development Plans that were implemented earlier on, none of them materialized as they failed to lay the solid foundation for sustainable growth and development. The country is still relying on imported food and raw materials for industries, unemployment is still high and the economy remains mono-cultural crude oil. Several empirical studies have shown that economic programs in Nigeria contain inherent deficiencies so long as they do leave out significant sectors of the economy in the design and execution of such programs. Osagie and Edodi (1992, 52) further noted that a number of policy packages were adopted to arrest economic problems in the country with mixed results.

However, one cannot brush thing aside without going into the details of the genesis of the prevailing crisis of the Nigerian economy which started after the era of Oil Boom (1974-1980). The rises in the crude oil price and the heavy increase in Nigerian oil made possible some significant progress in various sectors of Nigerian economy. This has in turn led to greater development in economic and infrastructure

and a simultaneous expansion of the public sector. Consequently, Nigeria became a mono-cultural economy depending heavily on oil export alone. The agricultural sector which was the main sources of foreign exchange earnings and GDP before declined due to appreciating Naira which started falling hence losing its competitiveness in external trade, resulting in inefficient domestic pricing policies. From 1971 to 1976, government has acquired a lot and its role in the economy became more prominent.

Furthermore, the public sector became prominent in the economy by 1980. Public expenditure has expanded immensely due to huge revenue from production and sales of crude oil and the increased demand for public utility goods such as water, health, roads, education, power supply, etc.

Today, the impact of Oil Boom on the Nigerian economy can be seen all over. At the same time growth and development in Nigeria as a result came with some structural changes and substantial price distortions that rendered the economy vulnerable to the vagaries of various shocks (Galadanci, 2013, 37). With the collapse of international oil prices and the economic crises that followed, the government was forced to reduce its participation in the economy drastically. By 1986, the government came up with Structural Adjustment Program (SAP) in its efforts to make changes in the size of its expenditure. It had to do this due to the continuous sliding of its oil revenue downwards and the commitment of increased share of the dwindling revenue to debt servicing rather than development. The outcome of SAP left the economy frustrated because it was well intended but badly executed. The next half decade (1994 to 1999) witnessed increased restrictive measures, mismanagement and international isolation that further crippled the economy. Thus another reform was adopted in 1999 in the form of a new economic policy and strategy which later manifested into a National Interim Strategy, and then National Economic Empowerment and Development Strategy (NEEDS), as a steadfast reform to improve growth prospect in Nigeria. However, empirical results revealed that, the outcome has not been realized (Tsauni, 2006, 81).

According to CBN (2010, 21), public expenditure as percentage of GDP increased from 13% in the 1980-1989 periods to 29.7% in the 1990-1994 periods. This

increased public expenditure to GDP ratio resulted from fiscal policy expansion embarked upon during the oil boom era of the 1970s. However, despite the oil boom declined in the 1980s, priorities of the government did not change.

Unfortunately, increase in public spending has not been translated into poverty reduction and job creation in Nigeria, as the country is ranked the 25th among the poorest countries in the world. Furthermore, several Nigerians have been wallowing in abject poverty and about more than 50% live less than two US dollars ($2) per day. It is estimated that the figures would continue to increase to more than 62% in 2015, (NBS, 2014, 314). Coupled with this, are poor infrastructures, especially power supply, water supply and roads, (CBN, 2014, 114).

Therefore, it is against this background that this research seeks to critically assess the significant impact exerted by fiscal policy instruments on economic growth in Nigeria from 1970 to 2013.

1.2 Statement of Research Problem

Nigeria's fiscal policy has constantly lacked the suitable characteristics needed for its effectiveness as an instrument of macroeconomic management since 1980s (Joseph, 2012, 65). Thus fiscal goals have not always been consistent with other macroeconomic policies. For many years, the budgetary administration has been characterized by poor monitoring of public expenditure, irregular release of funds, loss of autonomy by states and local governments in making expenditure decisions, etc, (Ogbole, Amadi, Essi, 2011, 407).

The public expenditure has been increasing in Nigeria since 1970s, mostly surpassing its revenue, which suggests that the macroeconomic indicators have been affected by fiscal deficit operation over the decades. Over a period of 43 years (1970-2013), the fiscal operations of the Nigerian government, resulted in surplus in only six (6) years. Thus, the rising level of deficit was identified as a major source of instability in the economy.

The fiscal deficits for such years emanated due to certain factors that compelled the made the proposed expenditure to exceed the expected revenue, such as civil war, corruption, mismanagement, additional local and state governments creation and the dwindling price of crude oil at the international market (Ekpo, John, 1996, 44).

Unfortunately, the country is still suffering from macroeconomic problem like unemployment and inflation, and lacks the social amenities like electricity, water supply, etc.

In addition, recent studies reviewed revealed conflicting results; for instance, a study by (Ibi, Opue, 2012, 97) revealed negative impact while a study by (Musa, Asare, Gulumbe, 2013, 74) revealed positive effect of fiscal policy variables on economic growth in Nigeria. In the same vein, some studies applied the same technique of analysis and used almost the same data but found unclear relationship between fiscal policy and economic growth in Nigeria. For instance, a study by (Medee, Nenbee, 2011, 183) showed negative relationship, while that carried out by (Audu, 2012, 150) showed positive relationship. This gap identified has also served as the basis of this study.

In a nutshell, the major gaps observed in literature that served as motivating factors, are first, the fact that the available studies reviewed in Nigeria did not include budget deficit and public debt service in their empirical model. Secondly, some studies did not use vector autoregressive model and causality test in the research area. Thirdly, previous studies revealed conflicting results; some positive while others negative relationship between fiscal policy variables and economic growth in Nigeria. All these, triggered interest in this research work. Thus, this research study includes fiscal deficit and public debt service in the empirical model and also employs Vector Autoregression model for its analysis.

1.3 Research Objectives

The main objective of this research study is to assess the significant impact exerted by fiscal policy instruments on economic growth in Nigerian from 1970 to 2013.

The specific objectives of the research include:

i. To investigate the significant effects of fiscal policy variables on economic growth (real GDP) in Nigeria.
ii. To investigate the long run relationship among the study variables in the model.
iii. To examine the causal relationship among the variables in the model.

iv. To examine the response of real GDP to a change in the fiscal policy variables.

v. To offer practical policy guides towards achieving successful economic progress in Nigeria.

1.4 Research Hypothesis

The research develops the following null hypotheses in view of the above objectives:

i. Ho: Fiscal policy variables have no significant impact on real GDP in Nigeria.

ii. Ho: There is no long run relationship between fiscal policy variables and real GDP in Nigeria.

iii. Ho: There is no causal relationship between fiscal policy variables and real GDP in Nigeria.

iv. Ho: Real GDP does not respond to a change in fiscal policy variables in Nigeria.

1.5 Significance of the Study

Having observed the research problem and identified the literature gaps, this study aims at bridging the gaps by including BDF and PDS as well as extending the time frame of the study to cover almost four and a half decades, from 1970 to 2013. Empirical literature review showed that many studies conducted on the impact of fiscal policy on real GDP in Nigeria by using the same data sources, have reported conflicting results. This may be due to the inappropriate methodology adopted by the researchers which can affect the validity of the result findings significantly. Thus, the major significance of this research work lies in the technique of data analysis employed (that is, Vector Auto-regression analysis) as well as the variables selected. The VAR model is chosen because it treats all variables as endogenous, estimation is very simple too, i.e. each equation can be estimated with usual OLS method separately and at the same time it useful for forecasting a system of inter-related time series. The application of impulse response and variance decomposition functions allows for analyzing the impact and contributions of the fiscal policy variables on the real GDP in various term periods, while the VAR Granger causality test gives room for the investigation of the causality (direction of influence) among the selected

variables in the model in Nigeria. This bridges one of the important gaps observed in the course of reviewing literature in the research area.

Since many researchers have found some form of structural rigidities within the macroeconomic framework in the economy, such issues could be addressed if the government adopts and implements the recommendations offered by this research work. In addition, the public authorities would conduct an intensive research carefully before publishing any report concerning the economic performance of the country. Thus, the government would know which of the key variables of fiscal policy that impact positively and which impact negatively on growth and development of the economy. It would be of great helpful to government in proper implementation of fiscal policy in the country by determining how and where to use its revenue and expenditure for societal development. In essence, the results of the study would be very useful to the policy makers that are responsible for policy formulation and implementation on the composition of public revenue and expenditure to adopt a policy that will enhance and promote sound economic growth in the country and solve certain macroeconomic problems bedeviling the society.

Therefore, the study would also contribute to the general literature and provide an insight for researchers as well as serve as a reference to be used for further research.

1.6 Scope and Limitation of the Study

This research empirically examines the significant impact exerted by fiscal policy instruments towards achieving successful economic progress in Nigeria. The study covers the period of forty-three years (1970-2013) using evidences from Nigeria. The justification for choosing the period lies in the fact that the period cuts across all government expenditures designed and implemented in both military and civilian regimes. This period also witnessed the efforts of various governments in Nigeria to control public expenditure through national development plans (such as 1970-1975, 1981-1985 National Development Plans and 1990-1992 National Rolling Plan), as well as marked the years of economic reforms in Nigeria; such as Austerity Measures, Structural Adjustment Program (1986-1993), and National Economic Empowerment and Development Strategy (1999-2004), despite these efforts, the outcome has not been realized, as the macroeconomic aggregates are not faring

better. Hence the research work considers some important economic variables like TGE, TGR, INF, BDF, and PDS as independent variables while real GDP is the dependent variable.

The major limitation of the research work is access to adequate data. Accurate data is difficult to obtain. Most of the data used for the study are publications of CBN and NBS, which in most cases usually vary with the data obtained from IMF and World Bank. Time constraint and financial problem also posed limit to the research work. However, certain efforts have been made to minimize the negative impact these constraints would have on this research.

1.7 Organization of the Study

The study is organized into five independent but interrelated chapters. Chapter one consists of general introduction which includes: background to the study, statement of the problem, research objectives, hypothesis of the research, significance of the study as well as scope and limitation of the study as well as organization of the study. Chapter two examines review of some conceptual literature, empirical literature, overview of fiscal operations in Nigeria and theoretical framework. Chapter three contains the methodology of the research, sources of data, data analysis technique, model specification and description of variables as well as estimation procedures. Chapter four comprises of data presentation and analysis of the result. Lastly, chapter five provides the summary, conclusion and policy recommendations.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter is divided into four various subsections. The first subsection deals with the conceptual literature on the key terms. The second subsection reviews the empirical literature on the impact of fiscal policy variables on economic growth across the globe and in Nigeria in particular. The third subsection gives an overview of fiscal operations in Nigeria. The last subsection presents the theoretical framework of the research.

2.1.1 Conceptual Literature

This subsection discusses briefly some of the concepts relevant to the research study.

2.1.2 Concept of fiscal policy

Fiscal policy refers to the use of government expenditure and taxation to influence the economy. That is to say, whenever the government decides on the type of goods and services to purchase, the transfer payments to distribute or the taxes/revenue to collect; it therefore said to be engaged in fiscal policy (Weil, 2008, 28).

Fiscal policy refers to the use of revenue and public expenditure by the government for growth or stabilization (Jhingan, 2010, 582). In other words, a policy whereby government uses its revenue and expenditure programs to produce desirable effects and avoid undesirable effects on the national income, production and employment, is referred to as fiscal policy. Similarly, Culbertson defines fiscal policy as "government actions affecting its receipts and expenditures which are ordinarily

taken as measured by the public's receipts, its deficit or surplus" (Culbertson, 1968, 81).

We can therefore define fiscal policy as decisions made by government with regard to how much revenue to collect in form of taxes and how much to spend in form of money.

Fiscal policy is aimed at achieving the following macroeconomic objectives:

- Stabilizing the economic growth rate.
- Stabilizing the price level.
- Maintaining and achieving full employment; and
- Achieving equilibrium in the balance of payment.

2.1.2.1 Expansionary Fiscal Policy

Fiscal policy is said to be expansionary when expenditure is higher than revenue (i.e., budget deficit financing), (Weil, 2008, 30). This implies that, when there are deflationary tendencies in the economy, the government can increase its expenditure and decrease its taxes at the same time via budget deficit. On the other hand, when there are inflationary tendencies, the reverse should be the case, that is, by decreasing its spending and increasing its taxes via surplus budgeting.

2.1.2.2 Contractionary Fiscal Policy

Fiscal policy is said to be contractionary or tight when revenue is higher than expenditure (that is, the budget is in surplus) (Weil, 2008, 30). It can take one of the three methods:

i. **Changing Revenue with Public Expenditure Unchanged:** When taxes are lowered, while expenditure is kept unchanged, the incomes at the disposal of households and firms will increase and consequently, the national output will increase. On the other hand, when taxes are raised the disposable incomes of such economic agents will fall which will eventually lead to a decrease in national output. This can be applied in controlling inflation.
ii. **Changing Government Expenditure with Taxes Constant:** This involves raising or decreasing the public expenditure and the taxes are kept constant at

the same time. This will lead to the expansion of economic activities and hence national output. This can be applied in controlling deflation.

iii. **Changing Both Taxes and Expenditure Simultaneously:** This involves changing the taxes and public spending simultaneously. This can be applied in controlling inflation or deflation.

2.1.3 Fiscal Policy Instruments

Fiscal policy through the variations in public revenue and spending stabilize the economy. In addition to public revenue and expenditure, budgetary policies can also be applied to stabilize the economy. Budget is the main instrument of fiscal policy that is why budgetary policies exercise control over the amount and composition of public expenditures (Jhingan, 2009, 586). There are three forms of budgetary policies as follows:

i. **Surplus Budgeting:** This occurs when the revenues generated by government exceed its expenditures during boom. It can either be by increasing taxes or decreasing public spending or both. It is applied in controlling inflation.
ii. **Deficit Budgeting:** This occurs when government expenditures exceed its revenues during depression, huge amount is injected into the economy.
iii. **Balanced Budgeting:** This occurs when the increases in revenue and in public expenditure are equal. This can increase national income.

It should be noted that our concern here is on the deficit budgeting.

2.1.4 Concept of Public Revenue

Public revenue is dealt with various ways in which the government raises income. Public authorities need huge amount of money that will enable them discharge the various obligations as assigned to them. Thus government has various ways in which it can raise its revenue (Stephen, Osagie, 1985, 98). Government has different sources for raising the money it needs for carrying out the various functions required of it. Broadly, the sources of government revenue can be classified into two namely, tax revenue and non-tax revenue the arithmetic sum of the two gives total government revenue.

Four hypotheses have been put forward in explaining the causal relationship between public revenue and spending (Chang, 2009, 93). The first is revenue-spend hypothesis of Friedman (1978) characterized by unidirectional causality running from public revenue to public expenditure. The second is spend-revenue hypothesis of Peacock and Wiseman (1961) characterized by unidirectional causality running from public expenditure to public revenue. The third is fiscal synchronization hypothesis of Musgrave (1966) and Meltzer and Richard (1981) characterized by bi-directional causality between public revenue and spending. Finally, the fiscal independence hypothesis of Baghestani and McNown (1994) characterized by non-causality between public revenue and public expenditure (Chang, 2009, 93).

2.1.5 Concept of Public Expenditure

Public expenditure means expenses incurred by public authorities at the central, state and local government levels. According to Okoh (2008, 152), government expenditure implies expenses the government incurs in carrying out its programs. Public expenditure can be seen as an outflow of resources from government to other sectors of the economy whether required or un-required. Public expenditure is usually categorized into recurrent and capital expenditure (CBN, 2014, 204). The main elements of government expenditure are:

- Expenditure on the government house administration.
- Expenditure for the maintenance of the armed forces and internal security.
- Expenditure on the legislature and the judiciary.
- Expenditure on maintenance of diplomatic agencies abroad.
- Expenditure incurred in the servicing of domestic and foreign debt.
- Expenditure on social, economic, and health services.
- Expenditure on development of domestic political institutions (Anyafo, 1996, 5).

Public expenditure is a vital instrument used by government in controlling the economy. It is generally believed that public expenditure can be growth-enhancing although the financing of such expenditure to provide social amenities like water,

electricity, roads, hospital, schools, etc, can be growth-retarding (Olukayode, 2009, 79).

Public expenditure plays four cardinal roles: contributes to current effective demand, coordinates impulse on the economy, increase the public endowment of goods as well as give rise to positive externalities to the economy and society through its capital components (Piana, 2001, 12). Thus, public expenditure provides an enabling environment that enhances private sector performance.

2.1.6 Concept of Economic Growth

Economic growth refers to the increase in real GDP. It is normally expressed as the annual rate of change in real GDP. Jhingan (2010, 312), argues that economic growth is related to a quantitative sustained increased in the country's per capita output or income accompanied by expansion in its volume of trade, consumption, labor force and capital. In less developed countries, economic growth is only possible through public expenditure because it helps in the provision of economic and social overheads, establishment of heavy and basic goods industries, reduction of extreme inequalities of income and wealth, improvement of the allocation of resources towards desired channels. Hence, for private sector to thrive, public expenditure is necessary.

2.1.7 Concept of Fiscal Deficit

Deficit budgeting is a policy of reviving the economy from depression. It occurs when public expenditure is greater than its revenue. It can also occur by decreasing taxes and unchanging public spending. Decrease in taxes will tend to raise households' disposable incomes thereby stimulating increase in consumption expenditure, (Jhingan, 2010, 589).

The deficit is financed through internal or external borrowing or use of foreign reserves. It has been argued that in the process of economic development especially in developing economies, fiscal deficit should be regarded as essential elements in development process (NCEMA, 2004, 45). According to (Adam, Bankole, 2000, 13) the volatile revenue base of rich oil producing countries combines with increasing public expenditure profile results in persistence of fiscal deficits. Always the focus is on the change in the deficit, but not on the level of the deficit (Weil, 2008, 31).

2.2 Empirical Literature Review

Many researchers have attempted to examine the impact of fiscal policy variables on economic growth in various countries of the world. For example, Ram (1986, 130) carried out an empirical study using a sample of 115 countries comprising both developed and developing in investigating the effect of fiscal policy tools on economic growth of the selected countries. The author has discovered that government capital expenditure has a significant positive effect on growth especially in developing countries sample, but total government expenditure has a negative effect on growth.

Volkov (1998, 11) investigated the short-run and long-run effects of public expenditure on economic growth by taking Ukraine as the case study. The findings revealed that public total and current expenditures have insignificant impact in the short-run and significant negative impact in the long-run, while public capital expenditure has significantly positive impact both in the short-run and long-run.

A study carried out by Abdullah (2000, 191) in analyzing the impact of fiscal policy on economic growth in Saudi Arabia, the results revealed that the size of public expenditure played significant role in the growth of the economy. It is therefore recommended that government should encourage and support the private sector so as to accelerate the process of economic growth.

Adam and Bevan (2000, 23) presented a paper at the 2000 WIDER project meeting held in Helsinki, in which they investigated how fiscal policy was designed in low income countries. The authors argued that fiscal policies were usually imposed upon such countries by international communities such as IMF, with the aim of reducing poverty and achieving economic growth; and as such, they have less effect on economic growth. They concluded that there has been an extended period in which fiscal policy was not a choice for poor countries. Therefore, fiscal policy should be formulated and implemented by such countries at their discretion.

Reynolds (2001, 275) in a research that studied the relevance of fiscal-monetary policy mix argued that fiscals' counterrevolution has now been rigorously tested against reality and discovered that it failed quite spectacularly in solving the problem

of unemployment. He therefore suggested among others that a tax and regulatory environment conducive to economic progress should be created.

Blanchard and Perotti (2002, 1329) investigated the dynamic effects of public revenue and expenditure on economic growth in the US. The researchers employed a mixed structural Vector Autoregression (VAR) approach in their study. The findings of the research indicated a positive effect of increase in government expenditure on output, and a negative effect of increase in government tax/revenue on output. But the results showed a strong negative effect of simultaneous increase in government revenue and expenditure on investment spending.

Fan and Rao (2006, 54) reviewed the trends, determination as well as the impact of government expenditures by using cross-sectional data for 43 developing countries comprising of Asia, Latin America and Africa from 1980 to 1998. The findings indicated that total government expenditures for the studied countries increased over time, and the Structural Adjustment Program (SAP) increased the total government expenditures in almost every region in question. The empirical results of the disaggregated regression analysis further revealed that government revenue and structural adjustment program have significant positive and statistical relationship with government spending but GDP per capita and urbanization variables are statistically insignificant. The author reported that structural adjustment programs promoted growth in Asia and Latin America but not in Africa. The authors therefore recommended that, governments should improve their expenditures through the reallocation among other sectors of the economy, and they should reduce their expenditures in unproductive sectors such as defense, rather, they should increase the share of expenditure as well as encourage investment in agriculture.

Komain and Brahmasrene (2007, 100) examined the association between government expenditure and economic growth in Thailand, by making use of Granger Causality Test. Findings of the study indicated that government expenditure and economic growth were not co-integrated. In addition, the results revealed a unidirectional relationship, as causality ran from government expenditure to growth. Finally, the results showed a significant positive impact of government expenditure on economic growth.

Zaibash (2007, 65) investigated the relationship existing between public expenditure and economic growth by taking a sample of thirty OECD countries for 35 years, by employing causality test. The findings of the result suggested the existence of a long-run relationship between the variables in question. Furthermore, the findings indicated that in 16 countries, there was a unidirectional causality from public expenditure to economic growth in support of the Keynesian theory. However, the reverse was the case for 10 countries in support of Wagner's law.

Babalola and Aminu (2011, 249) presented a paper in which they conducted a research in their attempt to investigate the relationship between fiscal policy and economic growth in Nigeria for 32 years. The study employed the Augmented Dickey –Fuller technique in examining the series and made use of the Engle-Granger approach in conducting the Co-integration test of the models. The findings of the study indicated that productive expenditure has positive impact on economic growth and the Co-integration test confirmed the existence of a long-run relationship between them during the studied period. The paper further suggested that economic growth could be boosted provided that there was significant improvement in government expenditure on economic services and social amenities.

Bakare and Olubakun (2009, 27) used Ordinary Least Square Multiple Regression technique to investigate the trend and impact of health care expenditure on economic growth in Nigeria using time series data. The data series covered the period between 1970 and 2008. The result revealed a significant positive relationship between health care expenditure and economic growth. The researchers recommended that Nigerian policy makers should pay more attention to the health sector and increase its yearly budgetary allocation to the sector.

Adefeso and Mobolaji (2010, 142) in their paper re-examined and re-estimated the relative effectiveness of fiscal and monetary policy on economic growth in Nigeria for a period of 37 years. The authors analyzed the data by employing the Error Correction Mechanism and Co-integration technique. The empirical analysis showed that fiscal policy was less effect than monetary policy during the covered period by the study. They therefore recommended the laying of more emphasis on monetary policy in order to achieve economic growth in Nigeria.

Day and Yang (2011, 218) used Keynesian growth model in analyzing the macroeconomic effects of fiscal policy on economic growth in US, by using time-series data from 1930 to 2007. The empirical results showed the existence of long-run effects of increase in public expenditure and decrease in revenue on economic growth depending on the relative size of MPC and MPS. The results further revealed that fiscal policy had both positive and negative effects on economic growth in different time of studied periods.

Isiaka, Abulraheem and Mustapha (2011, 37) employed the Multiple Regression Analysis technique in their analysis, in a study that sought to identify the impact of fiscal and monetary policies on the level of economic activities in Nigeria for the period of ten (10) years. The results revealed that collectively, money supply, tax revenue and government expenditure have no significant influence on the level of economic activities in the country. The study therefore recommended that government should improve the conditions of service, and employ highly skilled personnel adequately that would shoulder the responsibilities of formulating as well as executing its policies of improving the economic activities in the country.

Attah (2011, 7) investigated the impact of fiscal policy in the tourism sector in his research study. The study employed the use of Multiple Regression technique in analyzing the data. The results revealed that federal government spending has a direct effect on the tourism sector while federally collected government revenue has an indirect effect on the sector. The study recommended that the means of collecting federal government revenue should be improved so to achieve economic growth in the country.

Medee and Nenbee (2011, 171) applied the Vector Error Correction Mechanism (VECM) technique in their analysis that sought to investigate the impact of fiscal policy variables on Nigeria's economic growth for 39 years. The empirical results revealed that a long-run relationship existed between fiscal policy variables and economic growth in Nigeria. The results further revealed that the response of GDP to public expenditure was negative in some period. Consequently, the study recommended the formulation and implementation of viable fiscal policy options that would stabilize the economy.

Similarly, Abata, Kehinde and Bolarinwa (2012, 75), in their paper titled "A Theoretical Exploration of Fiscal/Monetary Policy and Economic Growth in Nigeria", evaluated the influence of fiscal and monetary policies on growth and development of the Nigerian economy. The empirical findings revealed that fiscal policy proved abortive in achieving economic growth in the country in question. Consequently, the paper offered recommendations that government should curb its expenditure on unnecessary activities and focus on capital projects and non – oil sector.

Contrary to the findings of Medee and Nenbee (2011, 171), Audu (2012, 142) evaluated the impact of fiscal policy on the Nigerian economic growth from 1970 to 2010 in his research study. The study employed the Co-integration and Error Correction Mechanism (ECM) in testing the relative effectiveness of fiscal policy. Its findings indicated a significant positive relationship between GDP and fiscal policy. Thus fiscal policy has significant influence on the economic growth during the period of the study.

Ibi and Opue (2012, 85) in a study that tried to investigate the impact of fiscal policy on economic development in Nigeria for the period of fifty (50) years, employed the use of the Augmented Dickey-Fuller, Co-integration test, the Granger Causality test and the Variance Decomposition test in their analysis. The collective results showed that fiscal policy measures have been less effective in developing the Nigerian economy. The study therefore recommended that fiscal discipline through prudent spending and efficient revenue generation should be ensured in order to avoid the decline in the economy.

Musa, Asare and Gulumbe (2013, 55) in their research paper, identified the effectiveness of monetary-fiscal policies interaction on price and output growth in Nigeria. The findings indicated that government revenue and money supply have positive impact on economic growth especially in the long-run. And government revenue has positive effect on economic growth and inflation. The study concluded that both policies exerted greater impact on the real GDP and inflation in the country, but the impact of any policy had depended solely on the policy variables selected.

Having reviewed the available literature in the research area, it is observed that there are major gaps that need to be bridged. Firstly, the available studies reviewed in Nigeria did not include budget deficit and public debt service in their empirical model. Secondly, some studies did not use co-integration analysis and causality test, in the research area especially the pre-20s. Thirdly, previous studies reviewed revealed conflicting results; for instance, a study by Ibi and Opue (2012, 85) revealed negative impact while a study by Musa, Asare and Gulumbe (2013, 55) revealed positive effect of fiscal policy variables on economic growth in Nigeria. In the same vein, some studies applied the same technique of analysis and used almost the same data but found unclear relationship between fiscal policy and economic growth in Nigeria. For instance, study by Medee and Nenbee (2011, 171), revealed negative relationship, while a study by Audu (2012, 142) revealed positive relationship. Thus, this research study includes fiscal deficit and public debt service in the empirical model and also seeks to investigate the long run relationship, the direction of causality between fiscal policy variables and economic growth as well as the response of real GDP to a change in the variables in Nigeria, from 1970 to 2013.

2.3 An Overview of the Fiscal Operations in Nigeria

This subsection gives an overview of the fiscal operations in Nigeria over the years and at the same time reviewing some scholarly views about the Nigerian economy from 1970 to 2013. This is presented both in terms of revenue generation sources, public expenditure structure and the criteria for revenue allocation.

2.3.1 Major Sources of Public Revenue in Nigeria

Nigeria discovered oil in 1956 and began its exportation in 1958. Since the oil discoveries in the early 1970's, oil has become the dominant factor in the Nigeria's economy, using 1970 as a yardstick. Nigeria gained over $390 billion in oil related fiscal revenue over the period of 35 years (Galadanci, 2010, 52).

The major sources of government revenue are oil and non-oil revenues. The oil revenue includes proceeds from sales of crude oil, Petroleum Profit Tax (PPT), rents and royalties, while the non-oil revenue includes companies' income tax, customs and excise duties, Value-Added Tax (VAT) and personal income tax. Since the

1970s, oil revenue has been the dominant source of government revenue, contributing over 70% to federally collected revenue.

Moreover, the Federal Constitution provides for the independent generation of revenue by the three tiers of government in addition to the statutory allocation from the Federation Account. Such revenue include personal income tax, operating surpluses of federal parastatals, dividends from federal government investments in publicly quoted companies, rent on government properties, interest and capital repayment on loans, on-lent to state governments and parastatals, etc. Apart from the statutory allocation from the Federation Account and their share of VAT account, the other sources of revenue of states governments include internally generated revenue, grants and subventions. The major sources of internally-generated revenue of the local governments include radio and television licenses, property tax, as well as levies on underdeveloped plots used for commercial purposes, community taxes, development levy capitation and other general rates. However, a review of the state and local government finances reveals that since the 1980s there has been over reliance on the statutory allocations from the Federation Account.

2.3.2 Structure of Nigerian Public Expenditure

Public expenditure in Nigeria can broadly be categorized into recurrent and capital. The recurrent expenditures are government expenses on administration such as interest on loans, wages, and salaries maintenance while latter are on capital projects like roads, airport, education and power supply, etc.

The general structure of expenditure by functions consists of grouping the expenditures into different socio-economic sectors. Each functional group consists of both capital and recurrent component.

2.3.2.1 Functional Classification of Federal Government Expenditure in Nigeria.

1. Administration

- Central administration
- Defense
- Internal security

2. Economic Services

- Agriculture
- Constructions
- Transport and communication
- Miscellaneous

3. **Social and Community Services**

- Education
- Health
- Housing
- Miscellaneous

4. **Transfers**

- Public debt interest charges

i. Internal debt

ii. External debt

- Pension and gratuities
- Contingencies (CBN, 2014, 150).

2.3.3 Structure of the Nigerian Fiscal Federalism

Fiscal federalism refers to the division of revenue-generating powers and expenditure responsibilities among the levels that make up the government in a country. It is adopted due to the need for governments to provide various types of public goods in a socially optimal and economically efficient manner.

In Nigeria, the distribution of revenue from the Federation Account is done at two levels: first between Federal, State and Local Governments; and second among components of State and Local Governments. Over the years, the principle and formula for revenue allocation among the three tiers of government has been the subject of intense debate and controversy. This has necessitated the appointment of several Revenue Allocation Commissions prior to and after independence. Between 1979 and 1994, many ad-hoc amendments were made to the revenue allocation formula through various decrees, but whose impact is yet to provide a satisfactory solution to the issue of satisfactory share of federally collected revenue. The Revenue Commissions usually based their solutions on some fundamental principles, such as:

i. Derivation Principle, which accorded reasonable compensation to states according to their contribution to the national coffers.
ii. Allocation among States and Local Governments on the basis of equality, population, social development, landmass and internal revenue effort.
iii. Financial need, even development and minimum national standard (Galadanci, 2010, 61).

In Nigeria, the practice of fiscal federalism has been significantly impacted by political developments including the creation of additional states in 1967, 1976, 1987, 1991 and 1996.

2.3.4 Public Expenditure Policies in Nigeria

Nigeria has been using planning as one of its major growth and development strategy since 1960s. The country is now at the Fifth National Development Plan - Long-term plan (15-20 years). Review of past development plans will give us an insight of the direction being taken by the Nigerian economy in term of expenditure. The First National Development Plan (1962-1968) was aimed at achieving the growth rate of 4% per annum, promoting industrial growth, encouraging nationalization and creating job opportunities. The planned capital outlay was more than ₦1.3 million. It succeeded in achieving almost its planned targets, but the outbreak of Civil War (1967-1970) devastated the productive capacity of the country.

The Second National Development plan (1970-1974) considered public enterprise and agriculture as crucial to growth and self – reliance due to capital scarcity, perceived danger of foreign dominance of the private sector and laid emphasis on 3Rs; that is, reconstruction, rehabilitation and reconciliation after the civil war. The planned capital expenditure was ₦3.35 million. The Third National Development plan (1975-1980) advocated the policy of indigenization and some shift in resources allocation in favor of rural areas, thus small farmers and the rural population were expected to benefit from public expenditure. The planned capital expenditure was ₦30 billion, but was later revised to ₦43 billion. The revenues accrued from oil were to be used for the development of the productive capacity of the country. The Fourth National Development Plan (1981-1985) was aimed at developing technology and WAI (War Against Indiscipline) that is greater discipline, better attitude to work,

cleanliness, etc, in addition to the former objectives of the previous national plans. The capital expenditure planned was ₦82.2 billion.

However, against the background of the austere fiscal outlook of the government, under the Fourth National Plan, the role of fiscal policy was viewed mainly as the generation of revenue through increased tax effort and the control of public spending. The Structural Adjustment Program (SAP) introduced in July 1986 realized that, the financial resources for public spending for the rest of the 1980s and beyond were likely to be less than was previously envisaged. Moreover, given the uncertainty in the oil market and substantial debt repayment falling due, thus; there was need to curtail government expenditure, particularly those involving foreign exchange.

Keeping in line with IMF and World Bank programs, measures were to be taken to reduce government expenditure. These measures include reduction of the growth of government wage bill; reduction in government subsidies on petroleum, foods, fertilizer, and petroleum products; limiting or delaying new investments, the rationalization as well as the privatization and commercialization of public enterprise, thereby improving efficiency of investment, administration and expenditure control. Since 1990, national plan based on a series of medium term plans (rolling plans) was adopted. They were concerned with addressing the issue of macroeconomic instability which SAP had wanted to address. During the First National Rolling Plan (1990-1992), government aimed at controlling inflation hence budgetary deficit were to be avoided and thus government expenditure was made more cost- effective and kept at levels that were consistent with the nation's resources, growth targets and overall economic stability.

2.3.5 Fiscal Measures/ Economic Reform Policies in Nigeria

The issue of reforms and their success has been an important agenda that every developing nation would want to have, thus, economic reform is necessary for the economic progress of any country (Tsauni, 2006, 81). Reforms are embarking upon to free countries from their economic woes and to restructure the economies towards required growth. As mentioned earlier, by 1980 the economy has started declining and the need for adjustment has become imperative. The early 1980 problems that affected the Nigerian economy were resulted from over-reliance on crude oil,

inappropriate government policies in managing the economy, greater government intervention in the economy, excessive deficit in balance of payment and import dependent consumption and production patterns which require radical transformation of the economy. This marked the starting point of fiscal measures/economic reform policies in order to offer profound solutions to the predicaments. They are as follows:

i. Economic Stabilization (1982-1984): Economic Stabilization Temporary Provision Act of 1982 stressed the need for exchange control restrictions as well as monetary and fiscal policies, which included the reduction of Basic Traveling Allowances (BTA), compulsory advance deposits for imports, the creation of special account for deposit collected for imports under license, import prohibition, export licenses, import licenses and tariff charges. The objective of this package was economic revival through cuts in public expenditure, imports restriction and diversification of exports.

ii. Austerity Measure (1984-1985): The basic idea of 1982 Economic Stabilization remains the same, the difference being an intensified implementation of austerity measures including reductions from public expenditure, retrenchment, imposition of taxes and levies and the abandonment of certain government projects and a shift to maintenance and rehabilitation of projects of special interest. The Austerity Measure was geared towards improving the general economy through efficiency in public administration, engendering financial discipline, drastic cut and the elimination of accumulated external arrears.

iii. Structural Adjustment Program (SAP-1986): Its objectives were to change and realign aggregate domestic expenditure and production patterns in order to reduce to minimum the nation's import dependence, enhance the non-oil export base and re-direct the economy back on to the path of steady and balanced growth. Hence the main objectives of SAP were to achieve fiscal and balance of payments viability over the period, to reduce the government participation in the public sector; to improve the sector's efficiency and intensify the growth potential of the private sector, to restructure and diversify the productive base of the economy in order to reduce dependence on the oil sector and in imports, and to lay the basis for a sustainable minimal inflationary growth.

iv. National Economic Empowerment and Development Strategy (NEEDS: 2004-2007): This new reform program lasted from 2004 to 2007, which is now incorporated into Vision 20:2020 in addition to other reform programs. It was the strategy aimed at reducing poverty, re-engineering the growth process in the country, wealth creation, employment generation, domestic production stimulation, economic diversification, macroeconomic stability restoration, correcting the structural imbalances within the economy, acceleration of privatization program and reducing the role of government, provision of infrastructure and integrating the economy into the Global World. Its main focuses were on strategy and policy directions rather than programs and projects.

v. Vision 20:2020: The NV20:2020 economic transformation blueprint is a long term plan for stimulating the Nigeria's economic growth and launching the country onto a path of sustained and rapid socio-economic advancement. The blueprint articulates the country's economic growth and development strategies from 2009 to 2020. It contains the key principles of NEEDS and the Seven Point Agenda of the then democratic administration (2007-2011), situating both within a single and long term strategic planning perspective (Galadanci, 2013, 202).

Tsauni (2006, 81) stressed that all the economic reforms in Nigeria both the current and the previous ones are virtually the two sides of the same coin due to the inability of the government to ensure the provision of basic infrastructure like agriculture, health care, education and utilities as a cushioning effect that would make the reform very attractive.

2.3.6 Public Expenditure Trend in Nigeria

The trend of government expenditure in Nigeria over many years, has been incompatible and can be divided into two phases: pre-liberalization period (before 1986) which was characterized by a military regime and post-liberalization era (after 1986) made up partly of the military regime which gave way to a civilian regime from 1999 to date. It should be noted that 1986 marked the introduction of the SAP in Nigeria

Government expenditure did not contribute too much to economic growth in the 1960s as a result of the intense civil war (1967-1970). In the 1970s under the military

regime, some sectors started benefiting from the government. For example, rural farmers benefited from the public expenditure as well as the poor portion of the population in the form of subsidized water supply, electricity and healthcare services. During this period, the growth rate on average stood at 2.6%. From 1980 to 1986, fiscal policy was geared mainly at generating revenue through increased tax efforts and the control of public spending. But there were unsuccessful efforts to sustain the revenue collection with a significant drop in total government expenditure.

With the introduction of SAP which marked the post- liberalization period, strict measures were put in place to curtail government spending: reduction in wage bills, curtail in government grants and subsidies, limiting or delaying investment projects, privatization/commercialization. However the period (1995-1999) saw the regime's efforts to combat inflation hence large budgetary deficits were avoided which made government expenditure more cost-effective consistent with the nations resources. Besides, the latter 1990s to 2000s experienced a restrictive fiscal policy with the introduction of a modified value added tax and also subsidizing local industries.

Public expenditure in Nigeria has grown immensely throughout the period of study (1972 to 2013) with quite little exceptions. Public expenditure exhibited upwards trend despite the numerous efforts of government in reviewing how it could be reduced. From 1970 to 1980 total government expenditure had grown astronomically. It was ₦903.9 million in 1970 and rose to ₦14, 968.5 million in 1980. Public expenditure had only shown a decreasing trend in 1978 and 1979 where total government spending stood at ₦8000 million and ₦7, 406 million respectively. Much of this growth in total expenditure was accounted for by the oil boom era of 1970s.

Public expenditure continued to maintain upwards trend from 1981 to 1990. Total government expenditure was ₦11,413.7 million in 1981 but by 1990 it had risen substantially to ₦60,268.2 million with few exception in 1982, 1983, and 1984 in which total government expenditure exhibited downward trend. This development is attributed to the volatile revenue base of government and large fiscal deficits, despite the structural adjustment program (SAP) in 1986 which focused on short-term and medium-term policy reform to structurally adjust the economy, however, extra-

budgetary expenditures in Nigeria have been rising so fast and resulting in ever bigger fiscal deficit.

Total government spending had continued to increase persistently from 1991 to 1999. Throughout these years government expenditure depicted rising trend with only one exception in 1994 in which it fell slightly. Hence, total government expenditures were ₦66, 584.4 million, and ₦947, 690 million from 1991 to 1999. It decreased to ₦160, 893.2 million in 1994. This unprecedented increased in total government expenditure is linked to huge debt service obligations as actual debt service ratio reached peak at 37.06% in 1993, and the highest inflation rate recorded throughout the period was 48.81, 57.12, 57.03 and 72.81 percent in 1992, 1993, 1994 and 1995 respectively (CBN, 2010, 21). In addition to expenditure in respect of transition program, and other extra budgetary expenditures including the financing of ECOMOG in Liberia, donations to states and Family Support Program. All these justified the upward trend of government expenditures over these years.

According to Joseph (2012, 70), inflation was targeted to be 7.0%, 9.3% and 9.0% in 2001, 2002 and 2003 respectively, but recorded an outcome of 16.6%, 12.2% and 23.8% respectively. However, rate of 10% targeted for the year 2004 was achieved. Furthermore, real GDP growth was targeted at 3.0% in 1999 but realized 2.7% and the target of 5.0% in 2001 achieved 4.6%, while 5.69% outcome in 2007 was below it target of 7.0%.

Lastly, from 2000 to 2013 government expenditure continued to increase unabated. Throughout the period government expenditure remained at rising trend. Total government expenditure was ₦701, 059.4 million and rose immensely to ₦5, 185, 318.46 million from 2000 to 2013 respectively. Total government spending has been continuously on increase in this period because of the increased demand for the provision of socio-economic services due to population growth, increase in the flow of revenue from sales of crude oil, expenditure for security purpose, expenditure on elections and the desire of policy makers and political leadership to meet the aspiration of the citizens as well as to fulfill election promises. For these aforementioned reasons, total government spending has been on increase, mostly exceeding the revenue during 44 years period of study (1970 to 2013), and thus

Nigeria witnessed 37years of fiscal deficits, with only 6 years of surplus fiscal operation in 1971, 1973, 1974, 1979, 1995 and 1996 (CBN, 2010, 25). According to Badamasi (2006, 82), fiscal deficit can act as a stimulator of economic growth.

2.4 Theoretical Framework

This research study based its theoretical framework on the Wagner's law and the Keynesian model.

In the last quarter of the 19th century, a German economist Adolph Wagner (1883, 13) came up with what is popularly known as ''Wagner's law''. The first law identified the social transformation between agrarian society based on primary production and industrialized one. The second Wagner's law states "that public goods and services would grow as the economy grows". Thus with increasing economic growth, public expenditure will tend to grow. Thus, the common variable that explains the growth of public expenditure is national product. According to Wagner law, the share of public expenditure in national income will grow in size with the economic growth. Thus according to Wagner's law, causality runs from economic growth to public expenditure (Wagner, 1883, 13).

The Classical School is the earliest organized school of economic thought. The classical economists were proponents of the price mechanism which assumes a smooth functioning market where there is effective resource allocation and a guarantee to economic freedom to all and sundry, with built-in flexibility that excludes the need for conscious government planning and intervention (Iyoha, Oyefusi, Oriakhi, 2003, 103). It however has certain limitations and inefficiencies resulting in a condition referred to as market failure. The market failed to achieve a satisfactory level of welfare for the society by providing an equitable or fair distribution of income and wealth, or all of these (Jhingan, 2009, 577). The 1930s Economic Depression was a confirmation of the reality of the failure of the market economy which led to the evolution of Keynesian economists. Keynes submitted that the lingering unemployment and economic depression were the result of failure on the part of government to control the economy through appropriate economic policies. Consequently, Keynes proposed the concept of government intervention in

the economy through the use of macroeconomic policies such as fiscal and monetary policies.

Government interventions in economic activities are basically in the form of controls of selected sectors of the economy. However, such kinds of controls differ, and they depend on the specific needs or purpose the government targets to achieve.

Hal (2006, 345) distinguished between two forms of regulation, as follows:

i. **Economic Regulation:** This involves control of prices, entry and exit conditions, regulation of the financial sector operations, regulation of public utilities such as media organizations, transportation, etc.
ii. **Social Regulation:** This involves protection of lives, health and safety of workers at work place and the working environment, protection of consumer rights, and so on.

This research study focuses mainly on economic regulation.

Thus according to the Classical model, government intervention does not have any effect on the growth of the economy. On the other hand, the Keynesian model argued that government intervention will lead to larger economic growth of a country. This implies that fiscal policy will help to improve the failure that might arise from the inefficiencies of the market.

We can deduces that Wagner's postulation is that causality runs from economic growth to public expenditure, while Keynesian hypothesis states that unidirectional causality runs from public expenditure to economic growth.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the sources of data, data analysis technique, model specification and description of variables as well as estimation procedures that is carried out in assessing the significant role fiscal policy variables play toward successful economic progress in Nigeria, using annual time series data on the variables under study, from 1970 to 2013. Likewise, hypotheses are formulated to guide the research study.

3.2 Sources of Data

Given the nature of the research design, the research employed secondary data, that is, data from documentary sources. The sources of such data include publications from the Central Bank of Nigeria (CBN) statistical bulletins, Economic and Financial Review as well as National Bureau of Statistics (NBS) annual abstract of statistics.

Moreover, the major instrument used in collecting the data for this research was the computer through surfing the internet and software package. This was used to access the CBN data base mainly for those information and data that were not found in other documents such as the annual abstract of statistics from the National Bureau of Statistics (NBS).

3.3 Data Analysis Techniques

The study employed econometrics analysis of Vector Auto-regression (VAR) model to examine the relationship between economic growth and fiscal policy variables in Nigeria. The model is chosen as it treats all variables as endogenous, estimation is

very simple as well i.e. each equation can be estimated with usual OLS method separately and at the same time it useful for forecasting a system of inter-related time series. As a pretest to the analysis and for an appropriate estimation, the characteristics of the time series data to be used for the estimation of the model will be examined to avoid the problem of spurious regression. The estimation is carried out with the use of Econometrics Package better known as E-Views version 7.0 in order to facilitate the time series analysis.

3.4 Model Specification

A Vector Auto-regression (VAR) model of six variables was employed. Sims (1980) developed the VAR model, he notes that, if there is true simultaneity among a set of variables, they should all be treated as an equal footing. There should not be any a prior distinction between endogenous and exogenous variables (Gujurati, 2004, 23).

The generalized form of the Vector Auto Regressive (VAR) is stated below:

$X_t = \alpha + \beta_1 X_{t-1} + \ldots\ldots\ldots + \beta_p X_{t-p} + \varepsilon_t$ ……. Eqn (i)

Where:

X_t is a 6×1 vector of jointly determined endogenous variables containing ,RGDP, TGE, TGR, INF, BDF and PDS.

$\beta_1 \ldots\ldots \beta_p$ is a k x k matrices of coefficient that relate lagged values of all the endogenous variables to current values of those variables, α is the vector of constant, and ε_t is a white noise disturbance.

The relationship between real GDP and fiscal policy variables can be specified in a simple Keynesian theoretical model and presented in a functional form as follows:

RGDP= *f* (TGE, TGR, INF, BDF, PDS) ..... Eqn (ii)

Where;

RGDP= Real Gross Domestic Product

f = Functional notation

TGE = Total Government Expenditure.

TGR = Total Government Revenue.

INF = Inflation Rates.

BDF = Budget Deficit Financing.

PDS = Public Debt Service.

Moreover, the VAR estimates will chose the optimal lag length in line with the information provided by the lag selection criteria. This is because including too many lagged terms will consume degrees of freedom, while too few lags will lead to specification error.

The VAR model estimates each equation with usual OLS method separately (i.e. six equations). The data of the variables obtained are in real form with the exception of inflation and as such were converted in to rate of growth for simplicity and better estimate as done by Agbiokoro (2010, 97).

Therefore, equation (ii) is modified as:

RGDP = *f* (RTGE, RTGR, RINF, RBDF, RPDS) ..... Eqn (iii)

The attached "R" in each variable indicates that, the variables are in growth rate. Thus for the purpose of analysis and explanation, only the "R" of GDP will be left while those of the remaining variables will be removed; since all the variables are properly scaled or converted into rate of growth.

3.5 Descriptions of Variables

The variables included in the model consist of dependent and independent. The dependent variable used is the real GDP, while the independent variables used include the total government expenditure, total government revenue, inflation rate, budget deficit and public debt services.

3.5.1 Real GDP (RGDP)

This refers to the socio-economic indicator that is used to measure economic growth of a country. It is thus the value of all goods and services produced within geographical boundary of a given nation during a specified period of one year divided by consumer price index.

3.5.2 Total Government Expenditure (TGE)

Government expenditure can be seen as outflow of resources from government to other sectors of the economy. It is normally divided into recurrent and capital

expenditures. The arithmetic sum of the two expenditures (recurrent and capital) is regarded as total government expenditure.

3.5.3 Total Government Revenue (TGR)

This is federally collected revenue from oil and non oil sources. It comprises total revenue generated from production and sale of crude oil as well as taxes levied on incomes and goods and services. The sums of these revenues are considered to be total government revenue.

3.5.4 Inflation Rate (INF)

This refers to a percentage rate of change in price level during a specified period of one year. Thus, inflation rate is designed to measure the rate of increase of price index based on twelve month moving average (year by year).

3.5.5 Budget Deficit Financing (BDF)

This represents the difference between federal government retained revenue and total expenditure. It indicates that government revenue is less than total expenditure within fiscal year. However, when the total government revenue is higher than the total government expenditure; the fiscal operation of government results in budget surplus.

3.5.6 Public Debt Services (PDS)

This is the payment of interest charges on debt as at when due. Public debt service in this study comprises both interest payments on domestic and foreign debts.

3.6 Estimation Procedures

3.6.1 Unit Root Test

Before estimation of VAR model, tests for stationarity i.e. unit root tests are conducted on the variables to determine their stationarity or otherwise using Augmented Dickey-Fuller test (ADF test) which is mostly used to test for unit root. When dealing with time series data, a lot of econometric issues can influence the estimation of parameters. Therefore, prior to estimation of a model based on time series data, econometric methodology needs to examine the stationarity for each individual time series. Because most macro-economic data are non-stationary, that

is, they are likely to show a deterministic and/or stochastic trend, it is recommended that a stationarity (unit root) test be carried out to test for the order of integration or stationarity. A data is said to be stationary if the mean and variance are time-invariant. On the other hand, non-stationary time series will have a time dependent mean or make sure that the variables are stationary. Therefore, a stochastic process is said to be stationary if given a series (Yt), the mean [(E(Yt)] and the variance [Var (Yt)] of Yt remain constant over time for all t, and the covariance [covar (Yt, Ys)] and hence the correlation between any two values of Y taken from different time periods depends on the difference apart in time between the two values for all t≠s.

The following equation is used to test for the unit root or stationarity of time series data:

$\Delta Y_t = \beta_1 + \beta_2 t + \lambda Y_{t-1} + a_i \sum_{i=1}^{m} \Delta Y_{t-i} + \upsilon_t$ ..... Eqn (iv)

Where υ_t is white nose error term in the model of unit root test or stationarity, with a null hypothesis that the data or variable has a unit root. The test for a unit root is conducted on the coefficient of $yt\text{-}_1$ in the regression i.e. λ. If the coefficient is significantly different from zero, it then follows that the hypothesis that says y contains a unit root can be rejected. Thus the null and alternative hypotheses for the existence of unit root in variable yt is H0; $\lambda = 0$ versus H1: $\lambda \neq 0$. Rejection of the null hypothesis denotes stationarity in the series.

If the ADF test-statistic (t-statistic) is less (in the absolute value) than the Mackinnon critical t-values, then the null hypothesis of a unit root cannot be rejected and hence, one can reach to the conclusion that the series is non-stationary at their levels. Consequently, the unit root test, tests for the existence of a unit root in two cases. First, with intercept only and second, with intercept and trend to take into the account the impact of the trend on the series.

3.6.2 Co-integration Test

Co-integration test, tests for the existence of a long run equilibrium economic relationship between two or more variables having unit roots (i.e. integrated of order one). The Johansen approach can determine the number of co-integrated vectors for any given number of non-stationary variables of the same order. The

purpose of the Co-integration tests is to determine whether a group of non-stationary series is co-integrated or not.

Simply put, co-integration indicates the presence of long run equilibrium among time series data. In our case, it is quite possible that economic growth (real GDP), total government expenditure, total government revenue, inflation rate, budget deficit and public debt services are co-integrated, that is, have a long run relationship. Technically co-integration implies that even if the individual variables are non-stationary, then a linear combination of such variables may be stationary (McNown, Wallace, 1994, 31, Gujarati, 2004, 253). It is this linear combination that we call co-integrating equation. If there is no co-integration in the data then standard VAR analysis applies. If, on the other hand, there existed one or more co-integrating equations, then the VAR should take them into account through an error correction term. The VAR that incorporates co-integration is called Vector Error Correction (VEC) model. Thus testing for co-integration in the data is a necessary step in VAR analysis, because the presence of co-integration may influence the final form of the model. As Granger notes, "a test for co-integration can be thought of as a pre-test to avoid 'spurious regression' situation.

To test for co-integration, the research uses the conventional Johansen (1991) test procedure (Gujarati, 2004, 313). Let consider a VAR model of the order *p*:

$$y_t = \mathrm{A_1 y_{t-1}} + \cdots + \mathrm{A_p y_{t-p}} + Bx_t + \varepsilon_t \quad \text{..... Eqn (v)}$$

Where:

y_t is a k-vector of non-stationary I(0) variables,

x_t is a d vector of deterministic variables,

ε_t is a vector of innovation

The VAR can be rewrite as;

$$\Delta y_t = \Pi \mathrm{y_{t-1}} + \sum_{i=1}^{p-1} \Gamma i \ \Delta y_{t-i} + Bx_t + \varepsilon_t$$

Where:

$$\Pi = \sum_{i=1}^{p} Ai - I$$

$$\Gamma i = \sum_{j-i+1}^{p} Aj$$

Granger representation theorem asserts that if the coefficient matrix Π has reduced rank r < k, then there exist $k \; x \; r$ matrices α and β each with rank r such that $\Pi = \alpha \beta'$ and $\beta' y_t$ is stationary. Γ is the number of the co-integrating relations (the co-integration rank) and each column of β is the co-integrating vector. Johansen' method is to estimate the Π matrix in an unrestricted form, and then test the possibility of the restrictions implied by the reduced rank can be rejected.

Thus, y_t is a (6x1) vector of the RGDP, TGE, TGR, INF, BDF and PDS (in their percentage growth rate form). The matrix Π conveys the long-run information contained in the time series data. The test calculates the trace statistic for the number of co-integrating relations, that is; co-integration rank test by testing the null hypothesis that there are at most *r* co-integrating vectors against the hypothesis of *r* or more co-integrating vector.

3.6.3 The Granger Causality Test

In order to determine the mutual interdependence between fiscal policy variables and economic growth, we use the Granger causality test. Thus, causality is a kind of statistical feedback concept which is widely used in the building of forecasting models. Historically, Granger (1969) and Sims (1972) were the ones who formalized the application of causality in economics (Green, 2003, 313).

Granger causality test is a technique for determining whether one time series is significant in forecasting another. The standard Granger causality test seeks to determine whether past values of a variable helps to predict changes in another variable. This definition states that in the conditional distribution, the lagged values of Y_t will not add any information to the explanation of movements of X_t beyond that provided by lagged values of X_t itself (Green, 2003, 313). We should take note of the fact that the Granger causality technique measures the information given by one variable in explaining the latest value of another variable. Moreover, it also says that variable Y is Granger caused by variable X if variable X assists in predicting the value of variable Y. If this is the case, it implies that the lagged values of variable X are statistically significant in explaining variable Y. The null hypothesis (H_o) that we

test in this case is that the X variable does not Granger cause variable Y and variable Y does not Granger cause variable X.

In summary, one variable (X_t) is said to granger cause another variable (Y_t) if the lagged values of X_t can predict Y_t and vice-versa. Fiscal policy variables and real GDP are, in fact, interlinked and co-related through various channel. There are some conflicting theoretical or empirical evidences that could conclusively indicate sequencing from either direction. Consequently, the Granger Causality test will be carried out on RGDP, TGE, TGR, INF, BDF and PDS.

In order to investigate the direction of causality between RGDP, TGE, TGR, INF, BDF and PDS, the research made use of VAR granger causality test. The Granger causality equation is stated below:

$$y_t = \alpha + \sum_{j=1}^{k} \beta_j y_{t-j} + \sum_{j=1}^{k} \lambda_j x_{t-j} + u_{1t} \quad \text{.....Eqn (vi)}$$

$$x_t = \alpha + \sum_{j=1}^{k} \lambda_j x_{t-j} + \sum_{j=1}^{k} \beta_j y_{t-j} + u_{2t} \quad \text{...Eqn (vii)}$$

Where the u's are the stochastic error terms, k represent the number of lags, α's constant terms, while β and ג are parameters. For each equation, the null hypothesis is therefore that x does not Granger-cause y in the first regression and that y does not Granger-cause x in the second regression.

If there is a long run relationship among the macroeconomic variables under study, the next step is to examine causality, since if two or more variables are co-integrated; there should be causality in at least one direction (Granger, 1986, 228). We then proceed to determine whether RGDP Granger-cause TGE and other variables individually and vice versa.

3.6.4 Vector Error Correction Model (VECM)

A Vector Error Correction Model (VECM) is used to estimate the short run dynamic relationships. This is done because the data used were only stationary at first difference and are co-integrated. Thus if after conducting the unit root tests and the variables found non stationary at level, the VECM should be employed for

adjustment. The VECM has co-integration relations built in to the model so that it restricts the long term behavior of the endogenous variables to converge to their co-integrating relationship while allowing for short term dynamic adjustments.

3.6.5 Impulse Response Function

The obtained coefficients of the VAR models are difficult to interpret since they totally lack any theoretical background. In order to overcome this criticism, the advocates of VAR models estimate the so called impulse response functions. The impulse response function examines the response of the dependent variable in the VAR to shocks in the error terms. Impulse responses trace out the responsiveness of the dependent variables in the VAR to shocks to each of the variables (Brooks, 2008, 106).

3.6.6 Variance Decomposition Function

The forces error of variance decomposition of a variable suggests that forces associated with one variable are major influences on the evaluation of another variable. It depicts how much of the average squared forecast error the model makes is used by surprise movement associated with each of the variable and gives insight about the relative importance of each variable in the model. Therefore forces of error are used to interpret VAR.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This section presents the empirical estimation results and other necessary tests based on the procedures stated in the methodology. This included unit root test, the Johansen co-integration test, vector error correction model, causality test, impulse response and their corresponding variance decomposition. Finally, the chapter discusses the major findings and policy implications of the results.

4.2 Estimation and Results

Before conducting co-integration analysis, the time series properties of the data were checked first. Various methods can be used to examine the stationarity or otherwise of the variables. These include Augmented Dickey-Fuller (ADF), Phillips-Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) tests. In this study, the Augmented Dickey-Fuller (ADF) unit root test was employed in order to have robust results.

4.2.1 Results of ADF Unit Root Test

The Augmented Dickey-Fuller (ADF) test was conducted at level with trend and intercept with the null hypothesis that, the series has a unit root against the alternative that the variable does not has a unit root. The table on the next page provides the summary of ADF unit root test results:

Table 4.1 Summary of ADF Unit Root Test Results				
ADF at Level				
Variables	**t-Statistic**	**Critical Values**	**Probability**	**Decision**
RGDP	-6.744098	-4.186481	0.0000*	I(0)
TGE	-7.420283	-4.186481	0.0000*	I(0)
TGR	-8.348957	-4.186481	0.0000*	I(0)
INF	-5.969272	-4.192337	0.0001*	I(0)
BDF	-7.470853	-4.186481	0.0000*	I(0)
PDS	-7.956722	-4.186481	0.0000*	I(0)

Source: *Extract from estimation output using E-views 7*

Note: * *indicates stationary at 1% level of significance*

Table 4.1 above, reports the result of the ADF unit root test. All the variables RGDP, TGE, TGR, INF BDF and PDS are found to be integrated and stationary in their level at 1% level of significance. Therefore, examinations of table 4.1 reveals that, all the variables are stationary at level, i.e., integrated of same order and are thus characterized as *I(0)* processes. Since the variables are stationary at their level, there is no need to check for co-integration and we can proceed with VAR Model estimates.

4.3 VAR Model Estimates

Given that all the variables are stationary at levels, the unit root test results favored the use of unrestricted VAR. The unrestricted VAR chooses the optimal lag length in line with the information provided by the lag order selection criteria in order to avoid specification error. The result at 5% level of significant vindicates that; the entire criterions selected lags two.

Table 4.2 is a VAR estimates results. The results indicate that, all the variables under study taking first and second lags are either statistically significance or insignificance in each equation which exhibited positive and negative relationship.

Table 4.2(a) Vector Autoregression Estimates Results						
Variable	**RGDP**	**TGE**	**TGR**	**INF**	**BDF**	**PDS**
RGDP(-1)	0.0389	-0.0405	-0.2265	-0.2030	-0.3719	0.0339
	(0.1694)	(0.0575)	(0.0783)	(0.1885)	(1.3607)	(0.1978)
	[0.2298]	[-0.7040]	[-2.8917]	[-1.0766]	[-0.2733]	[0.1716]
RGDP(-2)	-0.11483	0.00262	0.04643	0.39665	0.4513	0.2374
	(0.1727)	(0.0586)	(0.0798)	(0.1922)	(1.3874)	(0.2017)
	[-0.664]	[0.0446]	[0.5811]	[2.0630]	[0.3253]	[1.1768]
TGE(-1)	1.78010	-0.30300	-0.31065	0.61147	-2.6698	3.1369
	(0.6383)	(0.2167)	(0.2951)	(0.7103)	(5.1262)	(0.7453)
	[2.7886]	[-1.3977]	[-1.0524]	[0.8608]	[-0.5208]	[4.2086]
TGE(-2)	-0.19916	0.61863	1.23911	1.25533	2.03081	2.2277
	(0.7699)	(0.2614)	(0.3560)	(0.8568)	(6.1832)	(0.8990)
	[-0.2586]	[2.3658]	[3.4803]	[1.4651]	[0.3284]	[2.4778]
TGR(-1)	-0.55649	0.28633	-0.00199	0.17501	4.86641	-0.7350
	(0.3785)	(0.1285)	(0.1750)	(0.4212)	(3.0402)	(0.4420)
	[-1.4699]	[2.2271]	[-0.0114]	[0.4154]	[1.6006]	[-1.6627]
TGR(-2)	-0.09598	-0.16184	-0.28765	-0.39934	-0.21392	-0.5215
	(0.4186)	(0.1421)	(0.1935)	(0.4658)	(3.3617)	(0.4888)

	[-0.2293]	[-1.1384]	[-1.4860]	[-0.8572]	[-0.0636]	[-1.0669]
INF(-1)	-0.13080	0.10481	0.15139	0.01894	0.33836	0.3278
	(0.1485)	(0.0504)	(0.0687)	(0.1653)	(1.1931)	(0.1734)
	[-0.8804]	[2.0773]	[2.2036]	[0.1146]	[0.2836]	[1.8898]
INF(-2)	-0.23190	0.03714	0.05237	-0.45111	-1.58421	0.12302
	(0.1581)	(0.0537)	(0.0731)	(0.1759)	(1.2699)	(0.1846)
	[-1.4665]	[0.6915]	[0.7162]	[-2.5634]	[-1.2474]	[0.6662]
BDF(-1)	-0.02585	0.01012	-0.00243	-0.02136	-0.0725	-0.0341
	(0.0211)	(0.0072)	(0.0098)	(0.0235)	(0.1701)	(0.0247)
	[-1.2201]	[1.4073]	[-0.2484]	[-0.9060]	[-0.4263]	[-1.3809]
BDF(-2)	-0.04454	-0.01011	-0.0207	-0.03348	0.33405	0.0109
	(0.0234)	(0.0079)	(0.0108)	(0.0260)	(0.1883)	(0.0273)
	[-1.8998]	[-1.2707]	[-1.9109]	[-1.2831]	[1.7739]	[0.3999]
PDS(-1)	-0.02933	-0.12733	-0.23097	-0.09720	0.04394	-0.5910
	(0.1431)	(0.0486)	(0.0662)	(0.1593)	(1.1499)	(0.1672)
	[-0.2048]	[-2.6184]	[-3.4883]	[-0.6100]	[0.0382]	[-3.5349]
PDS(-2)	-0.05057	-0.05060	-0.10705	-0.02467	-0.18708	-0.1257
	(0.1071)	(0.0364)	(0.0495)	(0.1192)	(0.8608)	(0.1251)
	[-0.4717]	[-1.3899]	[-2.1596]	[-0.2068]	[-0.2173]	[-1.0042]
C	33.1193	21.0810	36.0486	9.64523	48.5406	-18.292
	(25.125)	(8.5329)	(11.618)	(27.960)	(201.77)	(29.338)

[1.3181] [2.4705] [3.1027] [0.3449] [0.2405] [-0.6234]

Source: *Extract from estimation output using E-views 7*

4.3.1 VAR Stability Conditional Check

The VAR was subjected to a number of diagnostic tests. Checks for stability condition were conducted; the result shows that, the VAR satisfies all the stability condition since no root lies outside the unit circle in the figure 4.1 below.

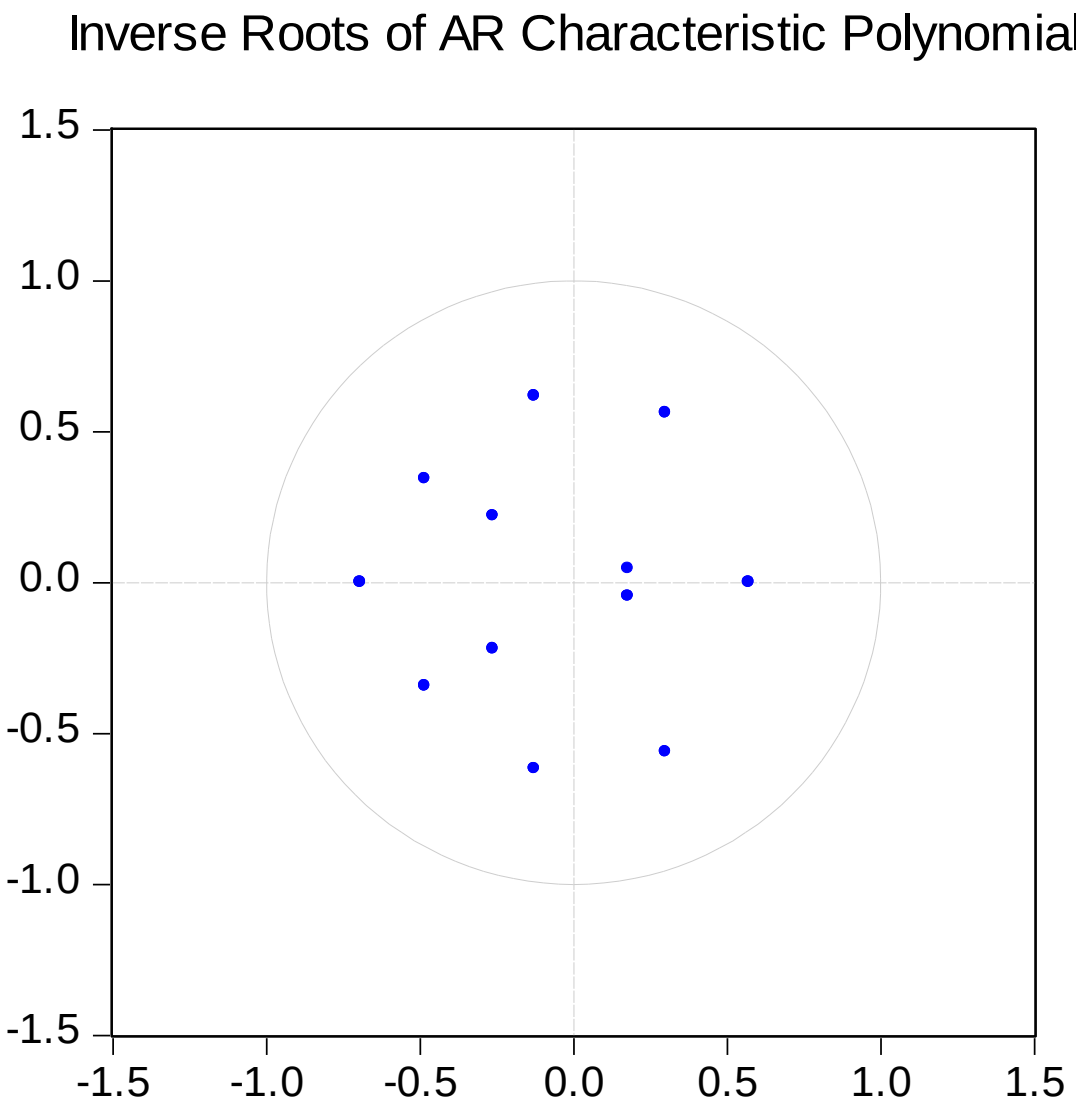

Figure 4.1 Result of VAR Stability Condition Check

Source: *Extract from estimation output using E-views 7*

4.4 VAR Granger Causality Test

Correlation does not necessarily imply causation in any meaningful sense of that word. The Granger causality approach to the question of whether x causes y is to see how much of the current y can be explained by past values of y and then to see whether adding lagged values of x can improve the explanation. Y is said to be "Granger-caused" by x if x helps in the prediction or forecasting of y. It should be noted that the statement "x Granger causes y" does not imply that y is the effect or the result of x.

In this study the VAR Granger causality/Block Exogeneity Wald test was employed. Therefore, the estimated Block Exogeneity Wald test results are reported on the six components of table 4.3 below.

Table 4.3 VAR Granger Causality/ Block Exogeneity Wald Test Results

Table 4.3(a)				**Table 4.3(b)**			
Dependent variable: RGDP				**Dependent variable: TGE**			
Excluded	**Chi-sq**	**df**	**Prob.**	**Excluded**	**Chi-sq**	**df**	**Prob.**
TGE	9.12763	2	0.010	**RGDP**	0.49586	2	0.780
TGR	2.24143	2	0.326	**TGR**	8.99493	2	0.011
INF	2.88665	2	0.236	**INF**	4.75025	2	0.093
BDF	4.48403	2	0.106	**BDF**	4.25643	2	0.119
PDS	0.22404	2	0.894	**PDS**	7.09097	2	0.028
All	**14.1422**	**10**	**0.166**	**All**	**24.1264**	**10**	**0.007**

Table 4.3(c)				Table 4.3(d)			
Dependent variable: TGR				**Dependent variable: INF**			
Excluded	**Chi-sq**	**df**	**Prob.**	**Excluded**	**Chi-sq**	**df**	**Prob.**
RGDP	8.47778	2	0.014	**RGDP**	5.07868	2	0.078
TGE	17.0253	2	0.002	**TGE**	2.33642	2	0.310
INF	5.32181	2	0.069	**TGR**	1.29589	2	0.523
BDF	3.65436	2	0.160	**BDF**	2.15725	2	0.340
PDS	13.1191	2	0.001	**PDS**	0.37232	2	0.830
All	**29.7389**	**10**	**0.009**	**All**	**8.65716**	**10**	**0.564**

Table 4.3(e)				Table 4.3(f)			
Dependent variable: BDF				**Dependent variable: PDS**			
Excluded	**Chi-sq**	**df**	**Prob.**	**Excluded**	**Chi-sq**	**df**	**Prob.**
RGDP	0.16680	2	0.920	**RGDP**	1.45868	2	0.482
TGE	0.53250	2	0.766	**TGE**	19.2921	2	0.001
TGR	2.97430	2	0.226	**TGR**	3.05288	2	0.217
INF	1.64788	2	0.438	**INF**	3.97745	2	0.136
PDS	0.06267	2	0.969	**BDF**	2.29490	2	0.317
All	**4.72117**	**10**	**0.909**	**All**	**47.8335**	**10**	**0.000**

Source: *Extract from estimation output using E-views 7*

Tables 4.3(a), (b), (c), (d), (e) and (f) above present the causality tests as performed using the VAR Granger Causality approach/Block Exogeneity Wald test.

The results from the above tables reveal that there is a bi-directional causal relationship between TGR and TGE, and between TGE and PDS, that is; TGR granger causes TGE and TGE granger causes TGR. Similarly, TGE granger causes PDS and the reverse is the case. The empirical findings further suggest that there is a significant unidirectional causal relationship between TGE and RGDP, RGDP and TGR, PDS and TGR at 5% and RGDP and INF and INF and TGE at 10% (that is to say, TGE granger causes RGDP; RGDP granger causes TGR and INF; while TGR in turn is granger caused by PDS and INF granger causes TGE) in Nigeria.

Furthermore, regarding the interrelationship between BDF and the other variables, the results from the VAR Granger Causality test/Block Exogeneity Wald test indicate that there is no causal relationship between the budget deficit financing and the other fiscal policy variables during the covered period by the research study. Consequently, with regard to the null hypothesis of no causality between the BDF and these variables is therefore not rejected.

4.5 Impulse Response Function

The obtained coefficients of the VAR models are difficult to interpret since they totally lack any theoretical background. In order to overcome this criticism, the advocates of VAR models estimate so called impulse response functions. The impulse response function examines the response of the dependant variable in the VAR to shocks in the error terms. Impulse responses trace out the responsiveness of the dependent variables in the VAR to shocks to each of the variables (Brooks, 2008, 106). The response of RGDP, TGE, TGR, INF, BDF and PDS to itself and to other variables in the generalized ordering for 9 years is presented and the analysis is based on three periods of each term, where 1 to 3 periods represent the short term, 4 to 6 periods for medium term and 7 to 9 periods for long term. Hence, the figures given at each of the last periods are the basis of this analysis. This is also applied to variance decomposition in the subsequent part.

The response of RGDP to itself and other fiscal policy variables in table 4.4(a) below shows that, one unit shock of itself accounted for a positive response in the medium

term period and a negative response in both the short term and long term periods. Similarly, a unit shock of TGE, BDF and PDS accounted for a positive response of RGDP in the medium term period and a negative response in both the short term and long term periods. While a unit shock of TGR accounted for a positive response of RGDP in the short term period and a negative response in both the medium and long term periods. And the reverse is the case for INF because a unit shock of it, accounted for a negative response of RGDP in the short term period and a positive response in both the medium term and long term periods.

Table 4.4(a) Response of RGDP:

Period	RGDP	TGE	TGR	INF	BDF	PDS
Short Term	-7.1854	-14.221	11.702	-10.782	-10.489	-11.403
Medium Term	2.6743	0.2589	-1.8828	0.0425	1.4219	1.3277
Long Term	-1.8793	-0.3092	-0.003	0.4843	-1.7553	-0.5302

Source: *Extract from estimation output using E-views 7*

The response of TGE to itself and other fiscal policy variables in table 4.4(b) below shows that, one unit shock of itself accounted for a positive response throughout the three periods. Similarly, one unit shock of INF accounted for a positive response of TGE throughout the three periods. While shocks of RGDP and PDS accounted for a negative response of TGE in both the short term and medium term periods and a positive response in the long term period. A unit shock of TGR accounted for a negative response of TGE in the short term and a positive response in the medium term and long term periods. But a one unit shock of BDF accounted for a negative response of TGE in the short and long term periods and a positive response in the medium term period.

Table 4.4(b) Response of TGE:						
Period	**RGDP**	**TGE**	**TGR**	**INF**	**BDF**	**PDS**
Short Term	-7.3201	4.2748	-2.7747	3.3170	-7.404	-1.0797
Medium Term	-1.1376	0.2114	0.5470	0.8791	0.8359	-0.6328
Long Term	0.2639	0.1263	0.1491	0.2622	-0.0109	0.0679

Source: *Extract from estimation output using E-views 7*

The response of TGR to itself and other variables in table 4.4(c) below indicates that, one unit shock of itself accounted for a negative response in the short term period and a positive response in the medium and long term periods, while a positive response of TGR in the short term period and a negative response in the medium and long term periods as a result of TGE shock by one unit. A unit shock of RGDP accounted for a positive response of TGR throughout the periods. But a unit shock of INF accounted for a negative response of TGR in both the short and medium term periods and a positive response in the long term period. Meanwhile, TGR responds negatively in both short and long term periods and responds positively in the medium term period due to a unit shock by BDF, the reverse of the case occurs due to a unit shock by PDS.

Table 4.4(c) Response of TGR:						
Period	**RGDP**	**TGE**	**TGR**	**INF**	**BDF**	**PDS**
Short Term	1.2370	7.5364	-3.6494	-0.8768	-10.637	5.7811
Medium Term	1.0241	-1.7904	2.6844	-1.6827	4.0103	-0.8738
Long Term	0.5671	-0.1250	0.1213	0.5078	-0.8056	0.5188

Source: *Extract from estimation output using E-views 7*

The response of INF to itself and other variables in table 4.4(d) below reveals that, one unit shock of itself accounted for a negative response in both the short and medium term periods and a positive response in the long term period. And one unit shock of RGDP accounted for a positive response of INF in the short term period and a negative response in the medium and long term periods, while it shows a negative response throughout the three periods as a result of one unit shock of BDF. A unit shock of TGE and TGR accounted for a positive response of INF in short term and long term periods and a negative response in the medium term period, and the reverse is the case for PDS.

Table 4.4(d) Response of INF:

Period	RGDP	TGE	TGR	INF	BDF	PDS
Short Term	21.657	2.4813	1.2350	-31.599	-9.880	-7.7641
Medium Term	-6.3560	-6.9415	-2.2449	-2.1056	-5.044	1.0831
Long Term	-2.2552	0.9931	0.8644	0.4750	-0.7470	-1.8717

Source: *Extract from estimation output using E-views 7*

The response of BDF to itself and other fiscal policy variables in table 4.4(e) on the next page indicates that, one unit shock of itself accounted for a positive response in both short and long term periods and a negative response in the medium term period. And a unit shock of RGDP, TGE and PDS accounted for a negative response of BDF in both short and long term periods and a positive response in the medium term period. But a unit shock of TGR accounted for a positive response of BDF while it accounted for a negative response with a unit shock of INF throughout the periods.

Table 4.4(e) Response of BDF:						
Period	**RGDP**	**TGE**	**TGR**	**INF**	**BDF**	**PDS**
Short Term	-62.580	-19.854	16.172	-135.45	232.72	-96.404
Medium Term	0.3149	6.9030	8.5168	-2.0704	-35.893	14.498
Long Term	-7.3481	-6.7361	6.9392	-7.3839	23.046	-9.6835

Source: *Extract from estimation output using E-views 7*

The response of PDS to itself and other fiscal policy variables in table 4.4(f) below reveals that, one unit shock of itself accounted for a negative response in the short term and long term periods and a positive response in the medium term period, and a unit shock of RGDP accounted for a positive response of PDS throughout the three term periods. PDS accounted for a positive response in both the short and long term periods and a negative response of TGE and BDF in the medium term period, while it accounted for a positive response in both the short term and medium term periods and a negative response in the long term period due to a unit shock of TGR and INF.

Table 4.4(f) Response of PDS:						
Period	**RGDP**	**TGE**	**TGR**	**INF**	**BDF**	**PDS**
Short Term	24.667	17.812	24.014	4.7829	41.294	-3.8101
Medium Term	7.3996	-4.7112	0.1605	9.7466	-7.9206	10.091
Long Term	2.7106	1.0748	-1.2018	-0.6203	2.2617	-0.1053

Source: *Extract from estimation output using E-views 7*

4.6 Variance Decomposition Analysis

The impulse response functions trace the effects of a shock to one endogenous variable on the other variables in the VAR; while, the variance decomposition provides information about the relative importance of each random innovation in affecting the variables in the VAR. The analysis is employed in order to give more

detailed information regarding the variance relations between the selected macroeconomic variables. In this study our concern is the role of macroeconomic variables to budget deficit and its role to these macroeconomic variables. The results are categorized in to short term, medium term and long term respectively; with three periods in each term.

The result of variance decomposition of RGDP in table 4.5(a) below reveals that, in the short term period RGDP accounts for more than 73.77% variation on itself, with TGE accounting for about 15.19%, TGR is 4.09%, INF is 1.82%, BDF is 3.79% and PDS is 1.34%. In the medium term period, RGDP is still the major factor in variation of itself, it accounting for more than 70%, followed by TGE with more than 15.78%, TGR accounting for more than 4.90%, BDF is more than 4.50%, INF is more than 2.31% and PDS accounts for more than 2.15% variation of RGDP. In the long term period, RGDP accounts for its variation by 70.06% and TGE still follow it accounting for 15.94% variation of RGDP, followed by TGR with 4.98%, BDF, INF and PDS accounting for 4.53%, 2.32 and 2.18% respectively.

Table 4.5(a) Variance Decomposition of RGDP:

Period	RGDP	TGE	TGR	INF	BDF	PDS
Short Term	73.775	15.187	4.0899	1.8171	3.7876	1.3425
Medium Term	70.246	15.781	4.9946	2.3130	4.5071	2.1567
Long Term	70.055	15.938	4.9800	2.3160	4.5313	2.1784

Source: *Extract from estimation output using E-views 7*

The result of variance decomposition of TGE in table 4.5(b) on the next page reveals that, at short term period TGE accounts for about 59.84% variation on itself, with BDF, PDS, TGR, INF and RGDP accounting for 11.15%, 9.87%, 8.12%, 6.53% and 4.49% variation of TGE respectively. In the medium term and long term periods, TGE still is the most important factor contributing to variation of itself compared to other factors because it accounts for more than 57.61% at both terms. The other contributing factors still followed as before in the last two terms; that is, BDF, PDS,

TGR, INF and RGDP accounting for 11.17%, 9.56%,8.51%,8.25% and 4.84% in the medium term, and 11.21%, 9.55%, 8.52%, 8.26% and 4.85% in the long term, respectively.

Table 4.5(b)Variance Decomposition of TGE:

Period	RGDP	TGE	TGR	INF	BDF	PDS
Short Term	4.4899	59.836	8.1222	6.5263	11.150	9.8740
Medium Term	4.8376	57.665	8.5122	8.2507	11.176	9.5581
Long Term	4.8533	57.614	8.5162	8.2598	11.209	9.5472

Source: *Extract from estimation output using E-views 7*

The variance decomposition of TGR in table 4.5(c) below shows that, TGR accounts for about 33.27%, 32.15% and 23.55% of variation on itself at the short, medium and long term periods respectively. The table further reveals that, in Nigeria, TGE is the second most important factor contributing to TGR compared to other factors. Its contribution to TGR is 22.85% at short term period, 23.69% at medium term period and 23.55% at long term period. PDS accounts for 16.42%, 15.19% and 15.12% at short, medium and long term periods. RGDP accounts for 14.71%, 14.02% and 13.96% at short, medium and long term periods respectively. INF and BDF account for 8.32% and 4.41% at short term, 8.26% and 6.68% at medium term, 8.32% and 7.06% at long term period respectively.

Table 4.5(c) Variance Decomposition of TGR:

Period	RGDP	TGE	TGR	INF	BDF	PDS
Short Term	14.712	22.858	33.270	8.3220	4.4135	16.422
Medium Term	14.015	23.689	32.151	8.2650	6.6842	15.194
Long Term	13.959	23.547	31.996	8.3174	7.0590	15.120

Source: *Extract from estimation output using E-views 7*

The result of variance decomposition of INF in table 4.5(d) below reveals that, at short term period INF accounts for about 80.53% variation on itself, with RGDP and TGE accounting for 8.03% and 6.34%, BDF and TGR accounting for 1.96% and 1.93%, while PDS accounting for less than 1.5%variation to INF respectively. In the medium term and long term periods, INF accounts for more than 75% of variation on itself. It is followed by RGDP with 10.54% and 11.05%, TGE with 7.07% and 7.08%, TGR with 2.53% and 2.55%, BDF with 2.30%and 2.30% and PDS with 1.24% and 1.41% at medium term and long term periods respectively.

Table 4.5(d) Variance Decomposition of INF:

Period	RGDP	TGE	TGR	INF	BDF	PDS
Short Term	8.0345	6.3396	1.9345	80.531	1.9594	1.2006
Medium Term	10.537	7.0693	2.5270	76.328	2.2965	1.2412
Long Term	11.048	7.0774	2.5532	75.619	2.2921	1.4089

Source: *Extract from estimation output using E-views 7*

The variance decomposition of BDF in table 4.5(e) on the next page shows that, BDF accounts for more than 86% variation of itself in the short term period. Similarly, in the medium term and long term periods, BDF is still the dominant factor accounting for more than 84% variation of itself. INF and TGR account for 6.57% and 4.11% in the short term, 6.31% and 4.25% in the medium term, 6.34% and 4.23% in the long term periods respectively. They are followed by RGDP and PDS accounting for not less than 1% in the short term and more than 2% variation of INF in the last two periods respectively, while TGE accounts for less than 1% variation of INF throughout the three periods.

Table 4.5(e) Variance Decomposition of BDF:						
Period	**RGDP**	**TGE**	**TGR**	**INF**	**BDF**	**PDS**
Short Term	1.2279	0.4489	4.1098	6.5717	86.086	1.5554
Medium Term	2.4829	0.6473	4.2500	6.3119	84.263	2.0444
Long Term	2.4876	0.7318	4.2280	6.3571	84.144	2.0503

Source: *Extract from estimation output using E-views 7*

The result of variance decomposition of PDS in table 4.5(f) below indicates that, PDS accounts for about 49.31% variation of itself in the short term and more than 44% in the last two term periods. TGE is the second dominant factor contributing to variation of PDS, accounting to 25.32% in the short term and more than 14% in the medium and long term periods. It is followed by BDF accounting to 10.40%, 14.25% and 14.17% variation of PDS in the short, medium and long term periods respectively. While INF, RGDP and TGR account to 6.64%, 3.07% and 5.25% in the short term, 7.82%, 5.57% and 4.82% in the medium term, 7.93%, 6.04% and 4.83% in the long term period respectively.

Table 4.5(f) Variance Decomposition of PDS:						
Period	**RGDP**	**TGE**	**TGR**	**INF**	**BDF**	**PDS**
Short Term	3.0736	25.320	5.2541	6.6388	10.403	49.308
Medium Term	5.5671	22.640	4.8225	7.8153	14.250	44.903
Long Term	6.0412	22.454	4.8311	7.9255	14.170	44.576

Source: *Extract from estimation output using E-views 7*

4.7 Results Discussion/Policy Implications

Based on the result findings of VAR Granger causality test, there is the existence of bi-directional causality between TGR and TGE in support of Musgrave (1966) and Meltzer and Richard (1981)s' "the fiscal synchronization hypothesis' which states

that decisions concerning government revenue and government expenditure are jointly determined. The policy implication on Nigerian economy is that the huge amount of revenue generated by government determines its expenditure decision. The country's planned expenditure has been increasing over the years based on the increasing revenue from the oil and non-oil sources. In addition, the government came up with various industrial development programs through granting loans and subsidies to local industries in anticipating of sourcing revenue from them.

The findings also indicate the bi-causal relationship between government expenditure and public debt services. This implies that increase in debt-financed expenditure brings about high public debt service obligation which leads to subsequent increase in government expenditure but as debt-financed expenditure reduces, fewer funds is dedicated to public debt service obligation thereby increasing government expenditure on social and economic services. In Nigeria, the various tiers of government usually plan their expenditures in providing capital projects such as roads, electricity and water without considering what they have at their disposal (revenue); as such, this makes it necessary for them to borrow money from both internal and external sources in order to meet up with the societal demand. Therefore, they must pay interest in relation to the amount they borrow.

The economic implication of the result of unidirectional causality running from government expenditure to real GDP in validation of Keynesian theory indicates that, government expenditure is a veritable instrument that could be utilized to stimulate economic growth in Nigeria. It has multiplier effect on Nigeria's investment in internal and external sectors. Government expenditure facilitates the availability of capital to investors who invest in companies, which in turns stimulates economic activities thereby creating more jobs available to citizens and eventually leads to economic growth.

The findings that real GDP granger causes government revenue and inflation in Nigeria implies that, as real GDP expands, economic activities in the country expand too, which gives room for government to generate a huge amount from its revenue sources. In addition, real GDP granger causes inflation, the policy implication on Nigerian economy is that inflation is like hydra-headed monster, this is because it

affects income distribution in term of increasing the widening gap between the lower and higher income earners in the society and reduces savings due to the fact that more money is needed to buy goods and services which have multiplier effect on investment, capital formation and as a result production is hindered. This also leads to rise in government expenditure in order to compensate the rise in the general price level (inflation granger causes government expenditure). More importantly, inflation adversely affects the balance of payments in the sense that, domestic products become costlier compared to foreign goods. This has the tendency of increasing the volume of imports and reducing that of exports, thereby making the balance of payments unfavorable for the country.

The empirical results of impulse response function reveal that, a unit shock of TGE, BDF and PDS accounted for a positive response of RGDP in the medium term period and a negative response in both the short term and long term periods. That is to say, in the short term and long term periods, RGDP responds to government expenditure, budget deficit financing and public debt services negatively, is due to the fact that most of the expenditures by the government in Nigeria are channeled to unproductive sector than real sector of the economy. In other words, government expenditure exerts a negative impact on growth may be due to the crowding out effect of government expenditure on private sector investment.

The findings further indicates that, a unit shock of TGR accounted for a positive response of RGDP in the short term period and a negative response in both the medium and long term periods. This implies that in the short run, government revenue has a multiplier effect on economic growth and development of Nigeria. The results finally show that, RGDP responds negatively to a unit shock of INF in the short term period while it responds positively in both the medium term and long term periods. The results have a serious implication on Nigerian economy, because inflation rate has an adverse effect on savings. High inflation rate discourages people to save money thereby increasing consumption, which in turn disallows the opportunity to borrow and invest such funds and hence retards economic growth in the country. These results show that all the explanatory variables included in the model have significant impact on the real GDP in Nigeria during the period of study.

In Nigeria from 1970 to 2013, apart from real GDP which contributes to more than 70% of its own variation, government expenditure is the major factor affecting economic growth throughout the three periods based on the result findings of variance decomposition, followed by government revenue, budget deficit, inflation and public debt services. The results reveal that, in the short term period RGDP accounts for more than 73.77% variation of itself, with TGE accounting for about 15.19%, TGR is 4.09%, INF is 1.82%, BDF is 3.79% and PDS is 1.34%. In the medium term period, RGDP is still the major factor in variation of itself, it accounting for more than 70%, followed by TGE with more than 15.78%, TGR accounting for more than 4.90%, BDF is more than 4.50%, INF is more than 2.31% and PDS accounts for more than 2.15% variation of RGDP. In the long term period, RGDP accounts for its variation by 70.06% and TGE still follow it accounting for 15.94% variation of RGDP, followed by TGR with 4.98%, BDF, INF and PDS accounting for 4.53%, 2.32 and 2.18% respectively. The low contributions of the aforementioned factors to real GDP are attributed to corruption, mismanagement of public funds, white elephant projects and so on.

The results finally indicate that, total government expenditure is the major contributor to real GDP, total government revenue and public debt services, while budget deficit financing is the major contributor to total government expenditure, real GDP is the major contributor to inflation and inflation is the major contributor to budget deficit financing in Nigeria during the period of study.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The chapter summarizes the major findings of the entire study, concludes the research work and offers policy recommendations based on the findings of the study.

5.1 Summary of the Major Findings

This research study evaluated the significant impact of fiscal policy instruments on the economic growth in Nigerian using time series data from 1970 to 2013. It specifically examined the significant effects of total government expenditure, total government revenue, inflation rate, budget deficit financing and public debt services on economic growth; the long run relationship and the direction of causality among these variables as well as the response of real GDP to a change in these fiscal policy variables. The review of related literature showed that, the debate on the impact of fiscal policy variables on economic growth is far from being conclusive.

Wagner's law and Keynesian theory were adopted as the theoretical framework for the study. Data for the analysis was sourced from the publications of the Central Bank of Nigeria statistical bulletins and National Bureau of Statistics abstract of statistics. The objectives of the research were achieved through the use of VAR Granger causality/Block Exogeneity Wald test and Vector Autoregressive analysis via impulse response and variance decomposition functions.

Augmented Dickey-Fuller unit root test was used in order to determine the stationary properties of the time series data used in the study which indicated that all the

variables are stationary at level; that is, they are *I* (0). This paved way to use unrestricted VAR.

The coefficient of VAR estimates showed that the variables were individually statistically significant and insignificant at different lags, and were jointly statistically significant at 5% level of significance.

The Granger Causality results based on unrestricted VAR revealed that, there was a bi-directional causal relationship between TGR and TGE in validation of Musgrave and Meltzer and Richards' fiscal synchronization hypothesis and between TGE and PDS. The empirical findings further suggested a significant unidirectional causal relationship running from TGE to RGDP in support of Keynesian theory and in violation of Wagner's law. Unidirectional causality was also found between RGDP and TGR, PDS and TGR, RGDP and INF as well as INF and TGE. However, the Granger causality test revealed the absence of causality between BDF and other fiscal policy variables in Nigeria during the period of study.

The empirical results of impulse response function revealed that, a unit shock of RGDP to itself accounted for its negative response in both the short term and long term period, and a positive response in the medium term period. In the short term period, RGDP responded negatively to a unit shock of government expenditure, inflation rate, budget deficit financing and public debt services with the exception of government revenue which was positive while in the medium term period RGPD responded positively to an innovation of these variables with the exception of government revenue which was negative. Finally, in the long term period, RGPD showed negative response due to an impulse received from these variables except inflation rate, which was positive. Thus all the variables with the exception of inflation have a negative long run relationship.

Lastly, the empirical evidences from variance decomposition function indicated that, economic growth was significantly explained by TGE, TGR, BDF, INF and PDS. Thus, TGE was the major factor that determined RGDP; TGR determined PDS; BDF determined TGE; RGDP determined INF while INF determined BDF during the studied period in Nigeria.

In a nut shell, the result findings are in line with those of Ram (1986), Volkov (1998), Adam and Bevan (2000), Blanchard and Perotti (2002), Medee and Nenbee (2011), Attah (2011), Abata, Kehinde and Bolarinwa (2012), Ibi and Opue (2012), and contradict with those of Bakare and Olubakun (2009), Audu (2012) as well as Musa, Asare and Gulumbe (2013).

5.2 Conclusions

Based on the result findings of various tests and their discussion so far, the study reaches to the conclusion that fiscal policy instruments have significant impact on economic growth in Nigeria. These is because all the variables were stationary at level and were jointly statistically significant at 1% and 5% levels of significance respectively, which indicates that, they are relevant for determining their impact on economic growth. The empirical findings of the research reject the null hypothesis of the research that says fiscal policy variables have no significant impact on economic growth in Nigeria.

Furthermore, the VAR Granger causality test results confirm the presence of bi-directional causality between TGR and TGE, and between TGE and PDS. It also showed unidirectional causality between TGE and RGDP, RGDP and TGR, PDS and TGR, RGDP and INF as well as INF and TGE. This implies that TGE is the main determinant of economic growth in Nigeria. Thus, empirical findings of the study reject the null hypothesis that says there is no causality between real GDP and these variables.

The long run effect of the study variables were estimated and analyzed based on the impulse responses and variance decompositions of RGDP to the unit shocks of fiscal policy variables throughout the periods. Thus the empirical findings reject the null hypothesis that says there is no long run relationship between the real GDP and the fiscal policy variables

Finally, impulse response results reveal the positive and negative responses of real GDP as a result of unit shocks received from fiscal policy variables during various term periods. This allows the rejection of null hypothesis that say real GDP does not responds to a change in fiscal policy variables.

In view of the above, it is evident that fiscal policy variables exerted both significant positive and negative impact on economic growth in different term periods in Nigeria; we can therefore conclude that, fiscal policy variables remain the essential instruments toward achieving successful economic progress in Nigeria.

5.3 Recommendations

Based on the findings of this research study, some policy recommendations are offered in relation to Nigeria's fiscal operation as follows:

- Considering the inverse relationship between total government expenditure and real GDP, government should intensify effort to ensure that resources are properly managed and invested in productive sectors so as to foster rapid economic growth.
- Government should diversify the economy and encourage non-oil exports so as to reduce the over reliance of the economy on crude petroleum exports as the main source of foreign exchange earnings and government revenue.
- Government should curtail some unnecessary expenditure on non-development activities in order to curb inflation and improve the productive capacity of the economy.
- There is a need for fiscal discipline, which requires the budget deficit to remain at a sustainable level, that is, to bring it to a minimal level. This is due to the fact that most of the finances in developing countries that result to deficits in the fiscal operation are caused by mismanagement of public funds due to corruption.
- Government should reduce debt-financed expenditure in order to free more funds for development projects rather than dedicating resources for debt servicing.
- Overall, there is a need to effectively address the issue of corruption and mismanagement in the public sector of the Nigerian economy as the effect of the agencies charged with the responsibility has no any positive result on graft.
- Lastly, there is a need for further investigation with regard to the fiscal operation in Nigeria

BIBLIOGRAPHY

Abata, M., Kehinde, J., Bolarinwa, S. 2012. "Fiscal/Monetary Policy and Economic Growth in Nigeria: A Theoretical Exploration". **International Journal of Academic Research in Economics & Mangement Sciences,** c.1, s. 5: 75-88.

Abdullah, H. 2000. "The Relationship Between Government Expenditure and Economic Growth in Saudi Arabia". **Journal of Administrative Science,** c. 2, s. 2: 173-191.

Adam, C., Bevan, D. 2000. "Fiscal Policy Design in Low-Income Countries". **World Institute for Development Economic Research (UNU/WIDER),** c.5, s. 67: 1-23.

Adam, J., Bankole, A. 2000. "The Macroeconomics of Fiscal Deficits in Nigeria". **Nigerian Journal of Economics & Social Studies,** c. 42, s. 3: 125-167.

Adefeso, H., Mobolaji, H. 2010. "The Fiscal - Monetary Policy and Economic Growth in Nigeria: Further Empirical Evidence (1970 - 2007)". **Pakistan Journal of Social Sciences,** c. 7, s. 2: 137-142.

Agbiokoro, T. 2010. "Budget Deficit and Macroeconomic Performance of Nigeria (1970-2006)". **World Journal of Economics,** c. 21, s. 11: 97-126

Anyafo, A. 1996. **Public Finance in a Developing Economy: The Nigeria Case.** Department of Banking and Finance, University of Nigeria, Enugu Campus.

Attah, A. 2011. "The Nigerian Tourism Sector & the Impact of Fiscal Policy: A Case Study of the 2000 - 2009 Federal Budget". B.Sc. Project. UNIJOS Faculty of Social Sciences.

Audu, N. 2012. "The Impact of Fiscal Policy on the Nigerian Economy (1970 - 2010)". **International Review of Social Sciences and Humanities,** c. 4, s. 1: 142 - 150.

Babalola, S., Aminu, U. 2011. "Fiscal Policy & Economic Growth Relationship in Nigeria (1977 - 2009)". **International Journal of Business & Social Science,** c. 2, s. 17: 244-249.

Badamasi, U. 2006. "An Assessment of the Sustainability of Nigeria's Fiscal Deficit (1986-1999)". **Topics on the Nigerian Economy,** c. 1, s. 1: 82-100.

Baghestani, H., McNown, R. 1994. "Do Revenues or Expenditures Respond to Budgetary Disequilibria"? **Southern Economic Journal,** c. 6, s. 2: 31-53.

Bakare, A., Olubakun, S. 2009. "Health Care Expenditure and Economic Growth in Nigeria: An Empirical Study". **Journal of Emerging Trends in Economics & Management Sciences (JETEMS),** c. 2, s. 2: 25-56.

Blanchard, O., Perotti, R. (2002). "An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output". **Quarterly Journal of Economics,** c. 7, s. 4: 1329-1369.

Brooks, C. 2008. **Introductory Econometrics for Finance.** 2nd ed. New York: Cambridge University Press.

Central Bank of Nigeria. 2010. **CBN Statistical Bulletin.** Abuja, Nigeria. c. 21, s. 10: 21-89

_____. 2014. **CBN Annual Report and Statement of Account.** Abuja, Nigeria. c. 21, s. 14: 114-204.

Chang, T. 2009. "Revisiting the Government Revenue-Expenditure Nexus: Evidence from 15 OECD Countries based on the Panel Data Approach". **Czech Journal of Economics & Finance,** c. 59, s. 2: 92-112.

Culberston, J. 1968. **Macro Economic Theory and Stabilisation Policy.**Vrinda Ltd.

Day, R., Yang, C. 2011. "Economic Growth and the Effects of Fiscal Policy". **Metroeconomica,** c. 62, s. 1: 218-234.

Ekpo, A. 2004. "Intergovernmental Fiscal Relations: The Nigerian Experience". Paper presented at the **10th Anniversary of the Financial and Fiscal Commission of South Africa, Capetown, 10-12 August, 2004.**

_____. John, E. 1996. "Fiscal Operations in a Depressed Economy: Nigeria (1960-1990)". **AERC Research Paper,** c. 4, s. 4: 44-71.

Erkin, B. 1988. "Government Expenditure and Economic Growth: A New Framework and Some Evidence From New Zealand Time Series Data". **Keio Economic Studies,** c. 25, s. 1: 59-66.

Fan, S., Rao, N. 2006. "Public Spending in Developing Countries: Trends, Determination and Impact". **EPTD Discussion Paper,** c. 9, s. 99: 1-54.

Friedman, M. 1978. "The Limitations of Tax Limitation". **Policy Review,** c. 5, s. 78.

Galadanci, D. 2009. **Development Planning in Nigeria.** 1st ed. Samaru-Zaria: ABU Press Limited.

_____. 2010. **Developing Structure of the Nigerian Economy**. 1st ed. Samaru-Zaria: ABU Press Limited, Zaria.

_____. 2013. **Introduction to Political Economy of Nigeria.** 2nd ed. Samaru-Zaria: ABU Press Limited.

Granger, C. 1986. "Developments in the Study of Cointegrated Economic Variables". **Oxford Bulletin of Economics and Statistics,** c. 48, s. 1: 213-228.

Green, C. 2003. **Econometric Analysis.** 3rd ed. Englewoodcliff, N.J.: Prentice Hall.

Gujarati, D., Porter, D. 2009. **Basic Econometrics.** International 5th ed. McGraw-Hill Companies.

_____. 2004. **Basic Econometrics.** 4 ed. New Delhi: Tata McGraw-Hill Companies.

Hal, R. 2006. **Intermediate Microeconomics: A Modern Approach.** 7th ed. New-Delhi: First East-West Press, .

Ibi, E., Opue, J. 2012. "Fiscal Policy and Economic Development in Nigeria (1960 - 2011)". **Journal of Agriculture, Forestry & the Social Sciences,** c. 10, s. 1: 85-97.

Isiaka, S., Abdulraheem, A., Mustapha, I. 2011. "Impact of Fiscal and Monetary Policies on the Level of Economic Activties in Nigeria (1995 - 2004)". **Lapai Journal of Management Science,** c. 12, s. 2: 15-37.

Iyoha, A., Oyefusi, S., Oriakhi, D. 2003. **An Introduction to Modern Macroeconomics.** Benin: Mindex Publishing Co.

Jhingan, M. 2009. **Advanced Economic Theory: Micro and Macroeconomics.** 13th Revised & Enlarged Edition ed. Vrinda Publications (P) Ltd.

_____. 2010. **Macro Economic Theory.** 12th ed. Delhi: Vrinda Publications Ltd.

Joseph, A. 2012. "The Maroeconomic Effects of Fiscal Stances in Nigeria: A Dynamic Analysis". **Journal of Monetary & Economic Integration,** c. 11, s. 1: 53-83

Keynes, J. M. 1936. **The General Theory of Employment, Interest and Money.** London: Harcourt and Burice, .

Komain, J., Brahmasrene, T. 2007. The Relationship Between Government Expenditures and Economic Growth in Thailand. **Journal of Economics & Economic Education Research,** c. 9, s. 1: 78 -100.

Medee, P., Nenbee, S. 2011. "Econometric Analysis of the Impact of Fiscal Policy Variables on Nigeria's Economic Growth (1970 - 2009)". **International Journal of Economic Development Research & Investment,** c. 2, s. 1: 171-183.

Musa, Y., Asare, B., Gulumbe, S. 2013. "Effect of Monetary - Fiscal Policies Interaction on Price and Output Growth in Nigeria". **CBN Journal of Applied Statistics,** c. 4, s. 1: 55-74.

Musgrave, R. 1966. **Principles of Budget Determination.** New York: Random House: H. Cameron & W. Henderson.

National Bureau of Statistics. 2011. **The Nigerian Statistical Fact Sheet on Economic & Social Development.** NBS. Abuja, Nigeria.

_____. 2014. **The Nigerian Statistical Fact Sheet on Economic & Social Development.** NBS. Abuja, Nigeria.

NCEMA. 2004. **Macroeconomic Effects of Deficit Financing in Nigeria.** Ibadan: National Centre for Economic Management & Administratiion Workshop.

Ogbole, F., Amadi, S., Essi, I. 2011. "Fiscal Policy: Its Impact on Economic Stabization in Nigeria (1970-2006)". **Journal of Economics & International Finance,** c. 3, s. 6: 407-417.

Okoh, S. 2008. **Public Sector Economics,** Benin City: Mindex Publishing Co.

Olukayode, M. 2009. Does Government Spending Spur Economic Growth in Nigeria? **MPRA Paper,** c. 17, s. 41: 41-79.

Osagie, E., Edodi, U. 1992. "Economic Management in the Politics of the Second Republic". **NIPSS**, c. 3, s. 8: 52-69.

_____. 1985. "Foreign Capital and Aid Flows in Nigeria". **The Quarterly Journal of Administration,** c. 9, s. 1: 32-50

Peacock, A., Wiseman, J. 1961. **The Growth in Public Expenditure in the United Kingdom.** Allen & Urwin, London.

Piana, V. 2001. **Public Expenditure: A Key Concept in EConomics.** Economics Web Institute.

Ram, N. 1986. The Impact of Government Expenditure on Economic Growth in Developing Countries. **European Economic Review,** c. 20, s. 4: 86-130.

Reynolds, A. 2001. The Fiscal-Monetary Policy Mix. **Cato Journal,** c. 2, s. 2: 263-275.

Richard, M. 2003. Evaluating Public Expenditures: Does it Matter How they are Financed? **Handbook on Public Sector Performance Review,** c. 1, s. 3: 1-32.

Robert, P. 2002. Estimating the Effects of Fiscal Policy in OECD Countries. **European University Institute & Centre for Economic Policy Research,** c. 1, s. 1: 1-48.

Stephen, N., Osagie, E. 1985. **A Text Boojk of Economics for West African Students.** Ibadan University Press Limited.

Tanzi, Venedict., Mario, I., Mario, O. 1987. "Inflation and the Measurement of Fiscal Deficits". **Staff Papers-IMF,** c.34, s. 4: 711-738.

Tsauni, A. 2006. "Economic Reform in Nigeria: A Critical Analysis (1999-2004)". **Topics on the Nigerian Economy,** c. 1, s. 1: 64-81.

Volkov, A. 1998. "Long-Run & Short-Run Effects of Government Expenditures on Economic Gowth: Are there Lessons for Ukraine?" M.Sc. Department of Economics, EERC-NaUKMA University.

Wagner, A. 1883. **Classics in Theory of Finance.** Macmillan, London.

Weil, D. 2008. "Fiscal Policy". **The Concise Encyclopedia of Economics,** c. 2, 2nd ed. CEE: 28-50.

Zaibash, B. 2007. "The Causal Relationship Between Pubic Expenditure and Economic Growth for OECD Countries". M.Sc Thesis. TAN Institute of Social Sciences.

APPENDIX I

DATA USED IN THE STUDY

Table 1A Raw Data of the Variables Used in the Study

YEAR	RGDP	TGE	TGR	INF	BDF	PDS
1970	4219.00	903.90	448.80	13.76	-455.10	151.80
1971	4715.50	997.20	1168.80	16.00	171.60	81.59
1972	4892.80	1463.60	1404.80	3.46	-58.80	67.31
1973	5310.00	1529.20	1695.30	5.40	166.10	74.75
1974	15919.70	2740.60	4537.00	12.67	1796.40	74.72
1975	27172.02	5942.60	5514.70	33.96	-427.90	108.62
1976	29146.51	7856.70	6765.90	24.30	-1090.80	920.46
1977	31520.34	8823.80	8042.40	15.09	-781.40	134.05
1978	29212.35	8000.00	5178.10	21.71	-2821.90	309.23
1979	29947.99	7406.70	8868.40	11.71	1461.70	229.45
1980	31546.76	14968.50	12993.30	9.97	-1975.20	256.95
1981	205222.06	11413.70	7511.60	20.81	-3902.10	1027.41
1982	199685.25	11923.20	5819.10	7.70	-6104.10	1167.17
1983	185598.14	9636.50	6272.00	23.21	-3364.50	1007.08
1984	183562.95	9927.60	7267.20	17.82	-2660.40	1235.32
1985	201036.27	13041.10	10001.40	7.44	-3039.70	1606.05
1986	205971.44	16223.70	7969.40	5.72	-8254.30	1631.59
1987	204806.54	22018.70	16129.00	11.29	-5889.70	3928.95
1988	219875.63	27749.50	15588.60	54.51	-12160.90	9238.70
1989	236729.58	41028.30	25893.60	50.47	-15134.70	13273.70
1990	267549.99	60268.20	38152.10	7.36	-22116.10	23822.30
1991	265379.14	66584.40	30829.20	13.01	-35755.20	26414.40
1992	271365.52	92797.40	53264.90	44.59	-39532.50	19400.26
1993	274833.29	191228.90	126071.20	57.17	-65157.70	81081.58

1994	275450.56	160893.20	90622.60	57.03	-70270.60	49400.32
1995	281407.40	248768.10	249768.10	72.84	1000.00	51058.40
1996	293745.38	337217.60	369267.00	29.27	32049.40	53047.50
1997	302022.48	428215.20	423215.20	8.53	-5000.00	68539.74
1998	310890.05	487113.40	353724.10	10.00	-133389.30	64394.53
1999	312183.48	947690.00	662585.30	6.62	-285104.70	30843.38
2000	329178.74	701059.40	597282.10	6.93	-103777.30	131048.02
2001	356994.26	1018025.60	796976.70	18.87	-221048.90	155416.22
2002	433203.51	1018155.80	716754.20	12.88	-301401.60	163811.32
2003	477532.98	1225965.90	1023241.20	14.03	-202724.70	363510.32
2004	527576.04	1426200.00	1253598.70	15.00	-172601.30	382502.80
2005	561931.39	1822100.00	1660693.70	17.86	-161406.30	393963.10
2006	595821.61	1938002.50	1836605.00	8.24	-101397.50	249326.00
2007	634251.14	2450896.70	2333659.60	5.38	-117237.10	213728.80
2008	672202.55	3240820.00	3193441.50	11.58	-47378.50	381200.00
2009	718977.33	3452990.80	2642982.34	11.54	-810008.46	251791.20
2010	776332.21	4194217.88	3088778.10	13.72	-1105439.78	415621.70
2011	834161.83	4299155.10	3140636.60	10.84	-1158518.50	527182.74
2012	888893.00	4605319.72	3629595.72	12.20	-975724.00	679278.00
2013	950114.03	5185318.46	4031828.24	8.50	-1153490.22	772390.00

Source: CBN Statistical Bulletin and NBS Abstract of Statistics of Various Years

Table 1B Growth Rate of the Variables in Percentage

YEAR	RGDP	TGE	TGR	INF	BDF	PDS
1970	0.00	0.00	0.00	0.00	0.00	0.00
1971	11.77	10.32	160.43	16.28	-137.71	-46.25
1972	3.76	46.77	20.19	-78.38	-134.27	-17.51
1973	8.53	4.48	20.68	56.07	-382.48	11.06
1974	199.81	79.22	167.62	134.63	981.52	-0.04
1975	70.68	116.84	21.55	168.03	-123.82	45.36
1976	7.27	32.21	22.69	-28.45	154.92	747.40
1977	8.14	12.31	18.87	-37.90	-28.36	-85.44
1978	-7.32	-9.34	-35.61	43.87	261.13	130.68
1979	2.52	-7.42	71.27	-46.06	-151.80	-25.80
1980	5.34	102.09	46.51	-14.86	-235.13	11.99
1981	550.53	-23.75	-42.19	108.73	97.55	299.84

1982	-2.70	4.46	-22.53	-63.00	56.43	13.60
1983	-7.05	-19.18	7.78	201.43	-44.88	-13.72
1984	-1.10	3.02	15.87	-23.22	-20.93	22.66
1985	9.52	31.36	37.62	-58.25	14.26	30.01
1986	2.45	24.40	-20.32	-23.12	171.55	1.59
1987	-0.57	35.72	102.39	97.38	-28.65	140.80
1988	7.36	26.03	-3.35	382.82	106.48	135.14
1989	7.67	47.85	66.11	-7.41	24.45	43.67
1990	13.02	46.89	47.34	-85.42	46.13	79.47
1991	-0.81	10.48	-19.19	76.77	61.67	10.88
1992	2.26	39.37	72.77	242.74	10.56	-26.55
1993	1.28	106.07	136.69	28.21	64.82	317.94
1994	0.22	-15.86	-28.12	-0.24	7.85	-39.07
1995	2.16	54.62	175.61	27.72	-101.42	3.36
1996	4.38	35.56	47.84	-59.82	3104.94	3.90
1997	2.82	26.98	14.61	-70.86	-115.60	29.20
1998	2.94	13.75	-16.42	17.23	2567.79	-6.05
1999	0.42	94.55	87.32	-33.80	113.74	-52.10
2000	5.44	-26.02	-9.86	4.68	-63.60	324.88
2001	8.45	45.21	33.43	172.29	113.00	18.59
2002	21.35	0.01	-10.07	-31.74	36.35	5.40
2003	10.23	20.41	42.76	8.93	-32.74	121.91
2004	10.48	16.33	22.51	6.91	-14.86	5.22
2005	6.51	27.76	32.47	19.07	-6.49	3.00
2006	6.03	6.36	10.59	-53.86	-37.18	-36.71
2007	6.45	26.47	27.06	-34.71	15.62	-14.28
2008	5.98	32.23	36.84	115.24	-59.59	78.36
2009	6.96	6.55	-17.24	-0.35	1609.65	-33.95
2010	7.98	21.47	16.87	18.89	36.47	65.07
2011	7.45	2.50	1.68	-20.99	4.80	26.84
2012	6.56	7.12	15.57	12.55	-15.78	28.85
2013	6.89	12.59	11.08	-30.33	18.22	13.71

Source: Researcher's Computations

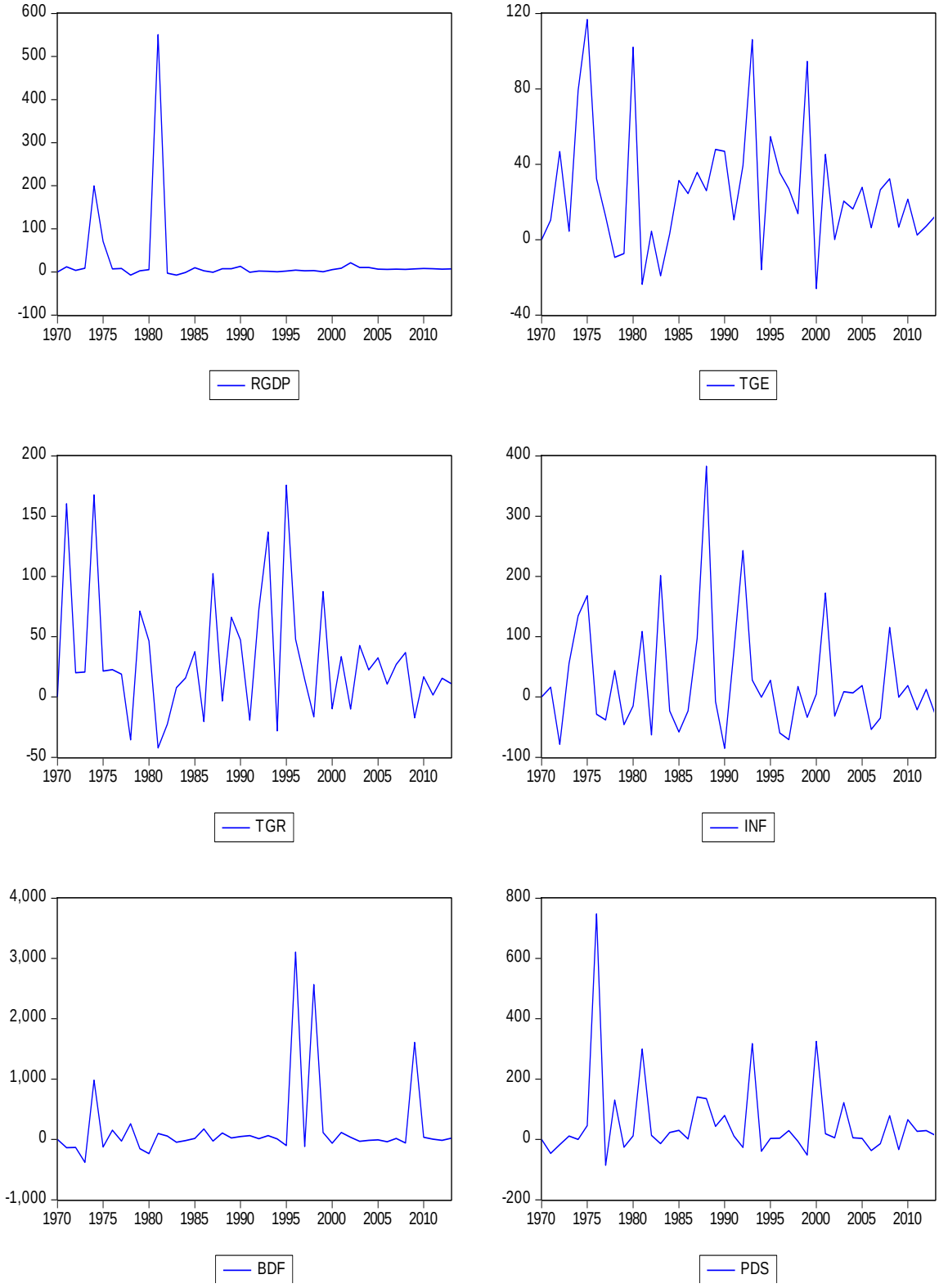

Figure 4.2 Endogenous Graphs

Source: *Extract from estimation output using E-views 7*

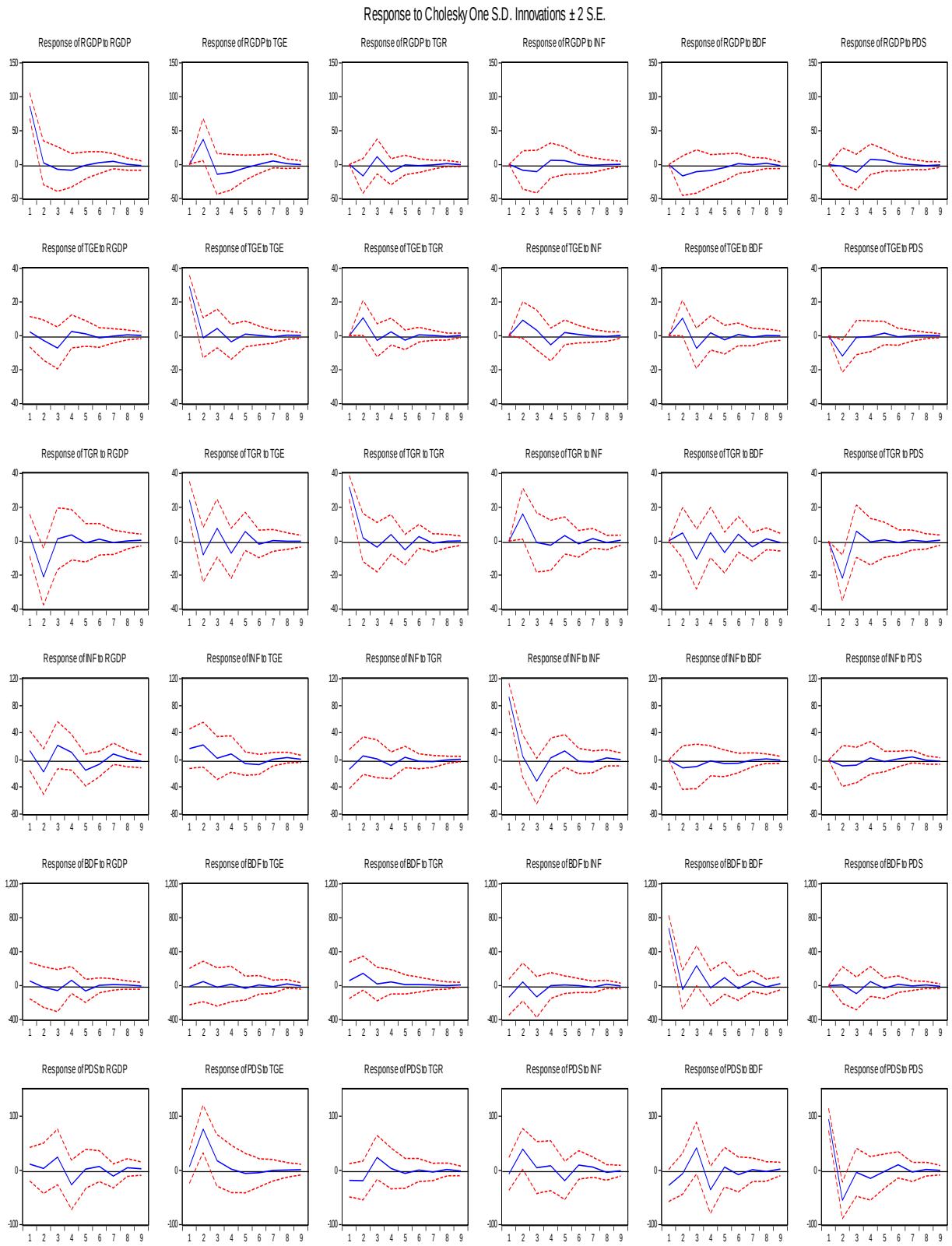

Figure 4.3 Impulse Response Function

Source: *Extract from estimation output using E-views 7*