IMPACT OF FISCAL POLICY ON ECONOMIC PERFORMANCE IN NIGERIA

BY

EWALEFOH JEREMIAH IBHAEBOSORIA

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A RESEARCH SUBMITTED TO THE DEPARTMENT OF ECONOMICS, FACULTY OF SOCIAL SCIENCES, NASARAWA STATE UNIVERSITY KEFFI, NASARAWA STATE, NIGERIA

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF POSTGRADUATE DIPLOMA, IN ECONOMICS

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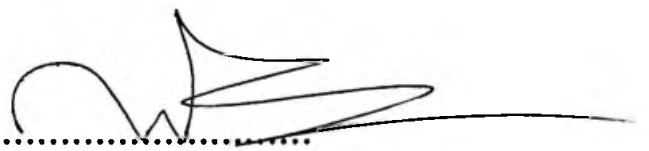
DECLARATION

I hereby declare that this project on "Impact of Fiscal Policy on Economic Performance in Nigeria" is an original work done by me under the supervision of Francis Uger, Department of Economics, Faculty of Social Sciences, Nasarawa State University, Keffi, Nasarawa State, Nigeria.

CERTIFICATION

This project titled "Impact of Fiscal Policy on Economic Performance in Nigeria" by Ewalefoh Jeremiah Ibhaebosoria meets the regulations governing the award of Post Graduate Diploma in Economics of the school of postgraduate studies, Nasarawa State University, Keffi, and is approved for its contribution to knowledge.



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DEDICATION

This project is dedicated to AlmightyGod for his grace that made it possible for me to end this program and to write this research work.

ACKNOWLEDGEMENT

I would like to appreciate my supervisor, Francis Uger for his guidance to make this project a reality. May the Almighty God continue to be with you and family. I thank my wonder lecturers Dr.Bala I.A., Dr.Salihu H.M.G., Prof. J.M. Ibbih., Dr. (Mrs) Goodman, Mr. Adijani M.O., Mr. Odonye J.O., Mr. Abdul Ibrahim. I also thank my wonderful pillars (Mr & Mrs Ewalefoh) for making the entire program in this department to be a huge success. More also, I thank my beloved friends and family for their support. May Almighty God be your shield in all area of life. Thank you all and God bless.

ABSTRACT

The study examines the impact of fiscal policy on economic performance in Nigeria between 1981 and 2016. Fiscal policy is represented by government total expenditure, government total revenue and direct tax. A model was developed in which economic growth (proxy as economic performance) is expressed as a function of government total expenditure, government total revenue, direct tax, capital (represented as gross capital formation) and labour (represented as employment rate). The study covered a 36-year period ranging from 1981 to 2016. The econometric techniques of Augmented Dickey Fuller test, Cointegration test and Error Correction model estimation.

Three theories were reviewed namely the classical, neo-classical and the endogenous growth model.

The study concludes that fiscal policy was partially effective on economic growth (surrogate of economic performance) in Nigeria between 1981 and 2016.

The study suggest that; Government should enhance investment in productive expenditure including expenditure on education, health, manufacturing, mining and agriculture and also ensure that funds meant for development of these sectors are properly utilized; Government should strive to reduce expenditure on recreational, cultural and religious affairs and other functions like political administrative expenses in order to stabilize the economy; Appropriate mix of fiscal and monetary policies that would effectively stabilize the economy should be pursued; Government should consider restructuring its expenditure pattern by allocating more funds towards productive expenditure such as capital projects; Government should consider harnessing its revenue potentials by expanding its revenue base via effective and efficient taxation system and diversification of Nigeria's revenue base by tapping into solid minerals and agricultural potentials.

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INTRODUCTION

1.1 Background to the Study

Fiscal policy has traditionally been related to the use of taxation and public expenditure to influence economic activities of a country. The implementation of fiscal policy is basically rooted in the budget of the government. The most vital aspect of a public budget is its use as an instrument to manage an economy (Omitogun&Ayinla, 2007). Fiscal policy is a deliberate action of government which entails the use of government spending, taxation and borrowing to control the pattern of economic activities, level of output growth, employment, inflation and employment (Ugwanta, 2014). Over the last decade, the growth impact of fiscal policy has generated large volume of theoretical and empirical literature. Economic growth is considered is a key macroeconomic objective of a country and that increase in government expenditure on socio-economic and physical infrastructure encourage economic growth as well as expenditure in health and education stimulates the rate of growth of national output (Barro, 1990). Expenditure on infrastructures such as road, power, communication, railway, etc, reduces production costs, raises private sector investment and profitability of firms thus enhancing economic growth. Barro (1990) supported this assertion that increase in government expenditure fosters economic growth. Conversely, another school of thought argued that increasing government expenditure inhibits economic growth. This school of thought maintained that higher levels of government expenditure tend to reduce the aggregate performance of an economy. Furthermore, in an attempt to finance increasing expenditure, government tends to increase taxes and/or borrowing which might affect her spending behavior. Higher income tax de-motivates individuals from working for long hours or even searching for jobs, which in turn reduces income and aggregate demand (Maku,

2015). Similarly, higher profit tax tends to increase cost of production and reduces investment expenditure and profitability of firms. If government increases borrowings, especially from banks, in order to finance expenditure, it will crowd out the private sector, thus reducing private investment.

The debate on the effectiveness of fiscal policy as a tool for stimulating growth and development remains unanswered given conflicting results of past studies. Oshinowo (2015) observed that there are two sides of literature regarding the role of fiscal policy in stimulating economic growth. The first view is that government's support for knowledge, research and development, productive investment, maintenance of law and order and provision of public services can stimulate growth in short-run and long-run. Conversely, the second view is that governments, especially in developed economies, are bureaucratic and less efficient and as a result they tend to impede growth if they get involved in the productive sectors of the economy. Fiscal policy is perceived to destabilize economic growth by distorting the effect of tax and inefficient government spending. In addition, propositions exist on the effect of fiscal policy on economic performance outcomes. Khosravi and Karami (2010) stated that supporters of the classical school of thought believed that the effect of government spending is temporary and not effective particularly in the long-run when prices adjust and output is at optimal level. In similar vein, endogenous theorists proposed that government expenditure and taxation have temporary and permanent effect on economic growth. To this end, the study contributed to the argument by examining the effect on fiscal policy on economic performance in Nigeria.

1.2 Statement of the Problem

Over the years, Nigeria's potential for sustainable economic growth and development has remained unattained. This is quite disheartening that despite the enormous mineral and human resources the country owns coupled with increasing trend of public spending year in-year out, the economy has been performing below expectation. Policy analysts, economists and other professionals have attributed the poor performance of the Nigerian economy to corruption, bureaucracy, political instability, lack of accountability and transparency, poor governance and lack of visionary leaders that will direct the economy to the path of growth. Asaju, Adagba and Kajang (2014) added that the misapplication of monetary and fiscal policies and complications in the adoptions of non-market friendly tools constituted major challenges to realizing Nigeria's fiscal objectives. The public has remained inefficient in terms of service delivery, infrastructural decay, high rate of corrupt practices and lack of accountability and probity in the management of public policies and resources shows the depth of the ineptitude of the public sector in Nigeria that is supposed to lead the economy through fiscal policies. These have resulted to high rate of unemployment, rising inflation, fall in growth, decreasing real incomes and high rate of poverty. It can be unequivocally stated that fiscal policy has not been effectual in the accomplishment of macroeconomic objectives of full employment, price stability, balance of payment equilibrium, efficient resource allocation, uneven redistribution of income and wealth, exchange rate stability and economic growth.

Moreover, there has been serious contention in literature as to which policy is more appropriate for the pursuit of macroeconomic stabilization in developing countries. Supporters of the monetarist school of thought reported that monetary policy exerts greater influence on economic performance and it should be embraced by

developing economies. On the other hand, the Keynesians school of thought posited that fiscal policy has greater influence on economic performance and should be adopted by developing economies. However, both monetary and fiscal policies have not been appropriately used to spur improved performance of the Nigerian economy (Ugwanta, 2014).

1.3 Research Questions

The questions central to this study are:

i. To what extent has government total expenditure influenced the economic performance of Nigeria?

ii. What is the magnitude of government total revenue on the economic performance of Nigeria?

iii. To what extent has direct taxes influenced on the economic performance of Nigeria?

1.4Research Objectives

The broad objective of the study is to examine the effect of fiscal policy on the economic performance of Nigeria. The specific objectives are:

i. To determine the extent to which government total expenditure has contributed to economic performance of Nigeria.

ii. To explore the extent to which government total revenue has contributed to economic performance of Nigeria.

iii. To assess the extent to which direct taxes has contributed to economic performance of Nigeria.

1.5 Research Hypothesis

H1: there is long run equilibrium relationship between economic performance and fiscal policy

1.6 Scope of the Study

The study examines the impact of fiscal policy on economic performance in Nigeria between 1981 and 2016. The fiscal policy instruments considered are government total expenditure, government total revenue and direct taxes. Similarly, economic performance is streamlined to economic growth (proxy as real gross domestic product).

1.7 Significance of the Study

A number of studies have been conducted to examine the impact of fiscal policy on economic performance (economic growth) in Nigeria. There is consensus from empirical past findings that fiscal policy has positive impact on economic growth in Nigeria. However, the magnitude of the impact has been contentious. Scholars such as Audu (2012) and Agu, Idike and Okuwo (2014) stated that fiscal policy has robust impact on the Nigerian economy. On the contrary, scholars such as Onwe (2014) and Abdulrauf (2015) contended that fiscal policy has negligible impact on the economy of Nigeria. This however has created a gap in literature. The study therefore examine the magnitude of the impact of fiscal policy on economic growth in Nigeria by extending the scope of past studies in recent years, because the periods 2014, 2015 and 2016 has not been covered in literature.

1.8 Organization of the Study

The study is put in to five chapters. Chapter one includes the background of the study, problem statement, research questions, research objectives, hypothesis,

scope of the study and significance of the study. Chapter two consists of literature review. Chapter three embodies the study carried out in Nigeria using secondary data that covers a 36-year period ranging from 1981 to 2016. The econometric techniques of Augmented Dickey Fuller test, Cointegration test and Error Correction model estimation was used for the analysis. Chapter four covers results and discussion and the final Chapter includes major findings, recommendations and conclusion.

1.9 Definition of Key Terms

Fiscal Policy

This refers to the discretionary power of the government to control and regulate an economy through government spending and taxation.

Economic Performance

This refers to the extent to which an economy has accomplished its macroeconomic objectives. Economic performance can be ascertained through price stability, full employment, economic growth and soundness of foreign account. However, the study used economic growth as an index of economic performance.

Government Total Expenditure

This refers to the total spending of government over a period of time. Government total expenditure is the summation of recurrent and capital expenditure over a period of time.

Government Total Revenue

This refers to the total amount of funds realized by the government of a country. Government total revenue in Nigeria can be broadly sub-divided into revenue from oil and non-oil sources.

Direct Taxes

This refers to a compulsory levy imposed by the government on the personal income of individuals and profits of companies and industries.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Conceptualization of Fiscal Policy

The term 'fiscal policy' has conventionally been associated with the use of taxation and public expenditure to influence the level of economic activities. The implementation of fiscal policy is basically premised through the budget of the government. The budget is more than a plan for administering the government sector. The most critical aspect of a public budget is its use as a tool in the management of the economy (Omitogun&Ayinla, 2007). Fiscal policy deals with government deliberate actions in spending money and levying taxes with a view of influencing macroeconomic variables in the desired direction (Ugwanta, 2014). This includes sustainable economic growth, employment generation, price stability and balance of payment equilibrium. Fiscal policy aims at stabilizing the economy through increasing government expenditure or reducing taxes in order to pull the economy out of recession or reducing government spending and increasing taxes to address inflationary pressures (Abata, Kehinde &Bolarinwa, 2012). Fiscal policy involves the use of government spending, taxation and borrowing to influence the pattern of economic activities and also the level and growth of aggregate demand, output and employment. Fiscal policy entails the management of the economy by the government through the manipulation of its income and spending power to achieve certain macroeconomic objectives (Medee&Nembee, 2011). Fiscal policy as described by Olawunmi and Tajudeen (2007) is the use of taxation and public expenditure to control economic activities in a country. The implementation of fiscal policy is essentially through the budget of the government. Fiscal policy is a macroeconomic policy that reconciles the changes which government modifies in

taxation and expenditure, programmes or to regulate full employment price and total demand to be used through instruments such as government expenditures, taxation and debt management (Asaju, Adagba&Kajang, 2014).

Government spending and the policies guiding the public expenditure of the government affect macroeconomic conditions. These policies affect tax rates, interest rates and government spending, in an effort to control the economy. Fiscal policy is the means by which a government adjusts its level of spending in order to monitor and influence economic activities. Fiscal policy is used in addition to other measures in order to smoothen out business cycles and consequently result in sustainable economic growth. Fiscal policy serves as an important tool to influence aggregate demand. The major instruments of fiscal policy are government spending and taxation.

Depending on the current situation of an economy, government can employ either expansionary or contractionary fiscal policy. Expansionary fiscal policy is used to increase aggregate demand, the level of productivity and employment. It eliminates the recessionary gap existing in an economy (Ilegbinosa, 2013). Recessionary gap occurs when the real gross domestic product is below the potential real gross domestic product. In this situation, unemployment is greater than the natural rate of unemployment. On the other hand, contractionary fiscal policy is used to reduce aggregate demand. It reduces production and employment. It eliminates the inflationary gap existing in an economy (Ilegbinosa, 2013). It should be noted that inflationary gap occurs when real GDP is higher than potential real GDP. In this situation, unemployment is lower than the natural rate of unemployment.

2.1.2 Objectives of Fiscal Policy

Ugwanta (2014) averred that the objectives of fiscal policy are to promote economic conditions conducive for business growth while ensuring that any such government actions are consistent with economic stability. According to the Ilegbinosa (2013), the major objectives of fiscal policy include:

- **Full employment:** This is a vital objective of fiscal policy. Unemployment reduces the level of productivity, and hence the level of economic growth. It also creates many problems to the unemployed in their daily life. Countries strive to remove unemployment and attain full employment. Full employment refers to the situation where there is no involuntary unemployment in the economy. The government increases its spending, lower personal income taxes, lower business taxes or employ a mix of increasing government spending and decreasing taxes. However, it is difficult to achieve full employment because the factor markets are beset with market imperfections and structural rigidities.

- **Price Stability:** Both sharp rise and fall in general price level are not desirable. Sharp rise in prices makes many goods and services unaffordable to consumers whereas sharp fall in prices discourages producers to produce goods and services. To this end, fiscal policy is used to stabilize general price level devoid of inflationary and deflationary pressures.

- **Economic Growth:**By means of higher economic growth, the problem of unemployment can be addressed. However, it may create some problems in the maintenance of price stability. Developed countries like United Kingdom, USA and Germany, pay attention to the relationship of actual growth rate to the potential growth rate permitted by consumption- savings ratio, technological factors and other factors. The developing countries

emphasizes on how to increase potential growth rate as well as the relationship between actual and potential growth rates.

- **Increase in Savings:**Fiscal policy is used to increase the rate of savings in the country. In the developing countries, the upper class spends a lot of money on luxuries. The government can impose taxes on them and provide the basic necessities of life to the poor class on low rate. By providing this incentive, savings can be increased.

- **Uneven Redistribution of Income and Wealth:**Fiscal policy is very useful for redistributing wealth. When wealth is equally distributed among various classes, then their purchasing power increases, which ensures high level of employment and production.

- **To Control Inflation:** Fiscal policy is a potent weapon for controlling the rate of inflation. When the expenditure on non-productive projects is reduced or the rates of taxes are increased, then the purchasing power of the people reduces.

- **Resource Allocation:** Resource allocation refers to assigning the available resources of the economy to the specific uses chosen among many possible and competing alternatives. It gives answers to what to produce, how to produce question of the economy. Fiscal policy ensures the optimum allocation of the resources. It can be used to divert the resources from unproductive sectors to the productive sectors of the economy. The priority of government on full employment, price stability and economic growth should not overshadow resource allocation goal.

- **Reduce Regional Disparity:** Regional disparity is prominent in developing economies. Some areas are more developed than the other. Government provides infrastructures in less developed areas. The tax holiday incentive is also provided in these areas which are very useful for increasing per capita income.

- **Check Rapid Increase in Consumption:**Fiscal policy is used to check the rapid increase in consumption. When consumption is high, savings is low and consequently investment is low. A country cannot improve its economic situation without increasing investment.

In addition, Musgrave and Musgrave (1989) maintained that the objectives of fiscal policy include:

- The production of social goods, or the process by which total resource use is divided between private and social goods and by which the mix of social good is chosen. This is referred to as allocation function.
- Adjustment of the distribution of income and wealth to ensure conformity with what the society considers as fair or just state of distribution. This is referred to as distribution function.
- The use of budget policy as a tool for maintaining high employment, a reasonable degree of price stability, and an appropriate rate of economic growth, with allowances for effects on trade and on the balance of payment. This is referred to as stabilization function.

The fiscal policy objectives of Nigeria in recent years can be distilled from the macroeconomic policy of 2001-2003 and 2003-2005 National Rolling Plans, National Economic Empowerment Strategies (NEEDS), Seven-Point Agenda,

Transformation Agenda and various federal government budgets (Asaju, Adagba&Kajang, 2014). The major fiscal policy objectives of these policies are reduction of unemployment, poverty and inflation. In order to accomplish these objectives, attention is paid to infrastructures such as power supply, transportation and communication, agriculture, health, education and national security as well as laying a strong foundation for a private sector market-driven and growth-oriented economy. The specific objectives of these policies include:

- Pursuing low interest rate regime.
- Minimizing budget deficit and eliminate extra budgetary expenditure.'
- Targeting a mild inflation rate.
- Striving towards a growth rate of at least 5% per annum.
- To provide enabling legal, fiscal and monetary environment for the private sector to become the engine of growth.
- Enhancing the performance of infrastructures through proper rehabilitation and maintenance of existing infrastructures, and the provision of additional facilities such as energy.
- Prioritize on an external debt management approach that builds confidence through negotiation and consultation. For possible reduction in aggregate debt levels and debt services cost in the context of medium-term programmes.
- Continuation of privatization of government investment and utilities.

2.1.3Fiscal Policy in Nigeria: Problems and Prospects

Over the years, the fiscal policy has been the most important influencing macroeconomic performance in Nigeria. The importance of having virile fiscal policies in Nigeria has continued to be the major focus of successive governments

in Nigeria. Fiscal policy in Nigeria became vibrant during the Obasanjo's civilian administration. According to Retired General Olusegun Obasanjo (2001), while all levels of government have joint responsibility for managing the economy, the federal government must play pivotal role in this regard for the benefit of all Nigerians, no matter where they reside. To him, the modest achievements have been eroded by what remains to be done, that is ensuring virile fiscal policy. He pointed on their failure – "Despite our determined effort in the area of poverty eradication, many of our citizens still remain poor. Our industries are being revived and government has taken many measures to support them, but industrial capacity is still far below the level we like to see. Inflation is still high. We all need to apply our collective will and resources so that every day, every year, we can look back and see how much more value we have added to our circumstance" (Obasanjo, 2001).

Other problems include ineffective use of resources, waste and misplaced priorities in government expenditure, high fiscal deficits at all frontiers of government, weak institutional structure among others (Abdulrauf, 2015). These problems have resulted to heavy debt burden, huge recurrent expenditure, inefficient public service delivery among others. In addition, government spends huge proportion of current revenue in debt servicing and interest payment. The Fiscal Responsibility Act is currently implemented at the federal level with little result to show for it. The rate of corruption is still pervasive at the federal level and the virtue of transparency and accountability is grossly abused and undermined by public officers (Nurudeen& Usman, 2010). Furthermore, the budget process reached the point of near breakdown before the emergence of democracy. The problem is connected to lack of political will and commitment to abide by stipulated rules and

budget guidelines. As such, it is difficult for government to achieve the objectives of fiscal policy.

2.1.4 Economic Performance: Economic Growth

Economic performance in simplest terms refers to the extent to which an economy achieves its macroeconomic objectives namely economic growth, price stability, full employment and balance of payment equilibrium. In literature, economic growth is commonly used to measure economic performance. Economic growth refers to the expansion of a country's potential GDP or output. According to the International Monetary Fund (2012), economic growth is the increase in market value of the goods and services produced ina particular country overtime. It is traditionally measured as the percentage rate of increase in real GDP. Of more importance, the growth of the ratio of GDP to population, which indicates GDP per capita, is another veritable measure of economic growth. An increase in per capita income or GDP per capita is referred to as intensive growth. GDP growth caused only by increase in population is called extensive growth (IMF, 2012). Economic growth can be measured in nominal or real terms. In nominal term, inflation is excluded while in real term, adjustments are made for inflation to eliminate the distorting effect of the prices of goods and services produced. For the purpose of inter-country comparison, the GDP per capita or GNP per capita is used due to the fact that they take into account the population differences of countries. In recent time, economic growth has been associated with technological changes in a country. Economic growth is not only associated with an increased productive capacity but an improvement in the quality of life of citizens (Ugwanta, 2014). For instance, the Nigerian economy is said to have experienced increase in productive capacity, but this increase has not resulted in the improvement in the quality of life of the citizenry as majority of Nigerians live below the international poverty line.

2.1.5Fiscal Policy and Economic Growth in Nigeria

Fiscal policy is generally believed to be associated with growth and can be used to stimulate economic growth and development. Over the years, government intervention began to be more popular in the management of the economy. Government has embarked on several macroeconomic policies to direct the economy to the path of sustainable growth. Fiscal policy is one of the macroeconomic policies used by the government to manage the economy through the manipulation of its income and spending power to achieve certain desired macroeconomic objectives amongst which is economic growth (Iyeli& Azubuike, 2013). Omitogun and Ayinla (2007) reported that despite the efforts of successive government to the put the economy on the path of sustainable economic growth and development, the economy is still beset with rising unemployment rate, rising inflation rate, overdependence on foreign inputs and commodities, low industrial development, heavy debt burden and balance of payment pressure. The impotence of fiscal policy in Nigeria can be linked to the wrong application of the country's resources from productive sectors to unproductive ones.

According to Omitogun and Ayinla (2007), an investigation of the performance of macroeconomic indicators of fiscal policy showed that Nigeria is below the ideal situation. According to them, between 1980 and 2004, excluding 1995 and 1996, the Nigerian government recorded budget deficits. Even the budget surpluses recorded for 1995 and 1996 may turn out to be deficits if exposed to more accounting and budgetary procedures. Abdulrauf (2015) pinpointed that deficits are not totally bad provided – they do not exceed 3% of GDP, they are not chronic and there is overall balance or surplus taking several years together, they are not financed by borrowing from the banking sector, especially the Central Bank and

they are spent on productive activities, which will generate resources for paying back.

Unfortunately, budget deficits in Nigeria did not align with these conditions. The unproductive performance of ever increasing government expenditure is also reflected in the level of economic growth proxied by real GDP growth rate, which was negative between 1981 and 1985 and 1987 and suggested an average of 2.6% between 1981 and 2004. Also, the high degree of instability became more evident with inflationary trends maintaining over the years (Omitogun&Ayinla, 2007). The fiscal policy behavior in Nigeria has followed irregular pattern, assessing the significance of the policy, therefore in actualization of sustainable economic growth is important so that the country is working towards the accomplishing sustainable development goals.

2.2 Theoretical Review

Literature on economic growth have identified three frontline growth theories namely the endogenous growth theory, neo-classical growth theory and classical growth theory. The theories are reviewed as follows:

2.2.1 Classical Growth Theory

The classical growth theory is the oldest theory that is developed in growth literature. The classical growth theory is primarily associated with Thomas Malthus. The classical growth theory, which was developed in the late 1700s, has no practical relevance in today's modern economy (Abata, Kehinde&Bolarinwa, 2012).In short, the major points of the classical growth theory as espoused by Jhingan (2007) may be described as follows:

1. Due to technological development, the amount of capital increases and the marginal product of labour rise.
2. GDP per capital rises as the economy grow, so also living standard and population.
3. As population increases, the labour productivity falls (more individuals but the same amount of capital).
4. GDP per capita will fall again. When GDP per capita has fallen to a level just high enough to keep the population from starving, population will cease to grow.
5. Destruction of capital, for example, through war, works in the opposite way. The marginal product of labour declines and population falls. This will again lead to an increase in the marginal product of labour and GDP per capita returns to the survival rate.

The main point of the model is that population growth will always eliminate the positive effects of technological development and GDP per capita will always return to the survival level. The postulations of the model are not correct. During the rest of the 1800s, Europe experienced a growth in GDP per capita. Although the population growth was high, it was not nearly sufficient to eliminate the positive effects of technological progress.

2.2.2 The Neo-Classical Growth Model

The main purpose of another growth model, the neo-classical growth model, is to explain how it is possible to have a permanent growth in GDP per capita (Fashola, 2001). The model was developed by Robert Solow in the 1960s and it is sometimes called the Solow growth model or exogenous growth model. The main difference between the classical and neo-classical growth model is that population is

endogenous in the former and exogenous in the latter. In the classical model, population will increase or decrease depending on whether GDP per capita is higher or lower than the survival level. In the neo-classical model, population growth is not affected by GDP per capita; however, population growth will affect the growth in GDP per capita (Jhingan, 2007).The neo-classical model posits that it is only technological progress that affects the GDP per capita in the long-run. There will be permanent increase in GDP per capita when there is a technological development that increases productivity of labour. Permanent growth in GDP requires continuous technological progress (Odubunmi, 2013). It is not possible for the government, except temporarily, to affect the growth rate in the neo-classical model. The government might be able to affect GDP per capita, but the growth rate is always returned to the level determined by technological progress.

2.2.3 Endogenous Growth Theory

The endogenous growth model or new growth theory was developed in the 19080s by Paul Romer and others. In the neo-classical model, technological progress is an exogenous variable. The neo-classical growth model makes no attempt to explain how, when and why technological progress takes place. The main objective of the endogenous growth theory is to make the technological progress an endogenous variable to be explained within the model, hence the name, endogenous growth theory. There are many explanations for technological progress. Most of them, however, have identical characteristics, which are:

1. They are based on constant returns to scale for capital. Thus, the marginal product of capital is not a decreasing function of capital.
2. They consider technological progress as a public good.
3. They focus more on human capital.

4. It is possible for the government to affect the growth rate. Higher savings also leads to higher growth, not just higher GDP per capita.
5. They predict convergence of GDP per capita between countries in the long-run. This is a consequence of the public good characteristic of technological developments.

2.3 Empirical Review

Several studies have been carried out to examine the effect of fiscal policy on economic growth in Nigeria and Diaspora. Agu, Idike and Okwor (2014) examined the impact of various components of fiscal policy on the Nigerian economy between 1961 and 2010. The study disaggregated fiscal policy into government spending on administration, social and community services and economic services. The results showed that total government expenditures have tended to increase with government revenue, with expenditure peaking faster than revenue. Investment expenditure was found to be much lower than recurrent expenditures evidencing poor growth in the country's economy. In addition, the results showed that government expenditure on economic services is positively related to economic growth. An increase in budgetary allocation to economic services will lead to enhancement in economic stability. Audu (2012) evaluated the causal relationship between money supply, fiscal deficits and exports as means of analyzing the impact of fiscal policy on the growth of the Nigerian economy between 1970 and 2010. The study employed the Error Correction Model and two-band recursive least square to test for the stability of variables on economic growth. The findings showed a significant causal relationship between GDP, fiscal deficit, money supply and export. The study maintained that fiscal policies have significant influence on output growth of the Nigerian economy.

Babalola and Aminu (2014) examined the impact of fiscal policy in Nigeria between 1977 and 2009. Fiscal policy was captured by government productive expenditure, unproductive expenditure, distortionary and non-distortionary taxation. The study employed the Augmented-Dickey Fuller test, Cointegration test and Error Correction Model. The findings revealed that productive government expenditure has long-run positive impact on economic growth. Unexpectedly, distortionary taxation positively impacted economic growth. The study maintained that government should increase its spending on health, education and economic services, as components of productive expenditure to boost economic growth. Olasunkanmi and Babatunde (2012) investigated the fiscal policy variables that contributed to growth in Nigeria between 1981 and 2010 in a view to hypothesize the fiscal policy variables-growth effect. The variables utilized are productive expenditure, unproductive expenditure, distortionary taxes, non-distortionary taxes, fiscal deficit and real growth rate of GDP. The results of fiscal-growth effect model found that productive expenditure, distortionary taxes and fiscal deficit contribute to growth in Nigeria. Furthermore, non-distortionary tax was found to exert significant impact on economic growth in Nigeria.

Onwe (2014) examined the impacts of fiscal policy components on economic growth in Nigeria between 1980 and 2012. Expenditure on administration, economic services, social and community services, transfers and ratio of federal government expenditure to GDP are regressed on GDP growth rate. The result of the regression analysis revealed that expenditure on administration, social and community services and ratio of federal government expenditure to GDP have positive impact on economic growth while expenditure on transfers and economic services has negative impact on economic growth in Nigeria. The study maintained that fiscal policy components have no robust impact on economic growth in

Nigeria within the estimated period.Falade and Folorunsho (2015) examined the relative effectiveness of fiscal and monetary policy instruments on economic growth in Nigeria in order to determine the appropriate mix of both policies. The study employed the error correction mechanism between 1970 and 2013. Real GDP was expressed as a function of money supply, exchange rate, interest rate (monetary policy instruments), government revenue, government expenditure (fiscal policy instruments) gross capital formation and inflation rate (control variables). The results showed that all the fiscal and monetary policy variables attained stationary. The results also showed a long-run relationship among fiscal and monetary variables and economic growth. The study maintained that the current level of exchange rate and its previous level, interest rate and current level of government expenditure and money supply are the suitable appropriate policy mix in promoting economic growth in Nigeria in short-run and long-run.

Abdulrauf (2015) examined the short and long run impact of fiscal policy on economic development in Nigeria between 1981 and 2013. The study used government recurrent expenditure, government capital expenditure, government investment and tax revenue to indicate fiscal policy. Economic development was proxied by real per capita income. The study employed the vector error correction model. The results revealed that government recurrent expenditure and government investment have significant positive impact on economic development in both the short and long run. Capital expenditure appeared to have a short run positive impact but not in the long run. Tax revenue has negative significant impact in both short and long run. The speed of adjustment to long run equilibrium stood at 115%. Maku (2015) examined the impact of fiscal policy on economic growth in Nigeria between 1970 and 2011. The study employed the Engle-Granger cointegration for long-run relationship, ordinary least square for long run estimate and diagnostic

test for consistency of instruments. Economic growth was proxied by real gross domestic product while fiscal balance was used to denote fiscal policy. Macroeconomic indices such as gross capital formation, broad money supply and exchange rate were captured in the study. The results revealed fiscal policy exerted significant positive effect on economic growth, which indicates that appropriate fiscal measures stimulate economic growth in Nigeria. The study maintained that government spending has greater impact on the growth rate of the Nigerian economy.

Osuala and Jones (2014) employed the autoregressive distributed lag model to empirically analyze the impact of fiscal policy on economic growth in Nigeria between 1986 and 2010. The fiscal policy variables considered in the study include government recurrent and capital expenditure, non-oil taxes and government debt. The findings revealed an evidence of long run equilibrium relationship between fiscal policy and economic growth within the period estimated. Government recurrent and capital expenditure were found to have significant and positive impact on economic growth while non-oil taxes and government debts have no significant impact on real GDP. Only capital expenditure had short-run equilibrium relationship with economic growth. Oshinowo (2015) broadly examined the effect of fiscal policy on sectoral output growth in Nigeria between 1970 and 2013. The study employed autoregressive distributed lag model and error correction model. The study investigated the effect of total fiscal expenditure on growth on agriculture, manufacturing, building and construction, mining and services sectors. The results showed that total fiscal expenditure have positively contributed to all the sectors' output except the agriculture. The finding also revealed that manufacturing sector output has positive relationship with all determinant variables while inflation rate has negatively impacted output growth of

all the sectors except agriculture. The study maintained that the existence of disparity in sectoral response to fiscal policy variables underscored the difficulty of conducting uniform and economic wide fiscal policy in Nigeria.

Ugwanta (2014) determined the effect of fiscal policy variables on economic growth of selected Sub-Saharan African countries. Government productive and unproductive expenditure and distortionary and non-distortionary taxes are used to measure fiscal policy. The results of the panel least squares showed that government productive and unproductive expenditure as well as distortionary and non-distortionary taxes have significant effect on economic growth of selected countries. The results also showed that budget balances of selected countries have positive but weak impact on economic growth of selected Sub-Saharan African countries. Tchokote and Ibe (2016) examined the effect of monetary and fiscal policies on economic growth in Nigeria. The study adopted correlation analysis, unit-root, ordinary least square and granger causality test on selected fiscal and monetary policies variables – money supply, interest rate, government revenue and government expenditure. The results showed that money supply exerts greater impact on growth than government expenditure.

Abubakar (2016) investigated the effect of fiscal policy shocks on output and unemployment in Nigeria between 1981 and 2015. The study employed the structural vector autoregressive methodology coupled with unit root and cointegration tests. The results showed that shock in public expenditure have positive long-lasting effect on output while revenue shock was found to exert a positive effect (lower than that of public expenditure shock) on output. However, the effect of revenue shock on unemployment was found to be negative but short-lived.Odetayo and Adeyemi (2017) examined fiscal policy sustainability and

economic growth in Nigeria between 1980 and 2015. The study adopted the error correction model and autoregressive distributed lag model to analyze the effect on government expenditure and revenue on economic growth in Nigeria. The results showed that government revenue, government expenditure and fiscal deficit grew massively within the period considered. The results equally revealed that fiscal policy is weakly sustainable in Nigeria.

2.10 Summary and Gap in Literature

This chapter provided review on fiscal policy and economic performance in Nigeria. It discusses the concept of fiscal policy, objectives, problems and prospects, state of fiscal policy in Nigeria, concept of economic performance and relationship between fiscal policy and economic performance. The theories reviewed are endogenous growth theory, neo-classical growth model and classical growth model. Findings from empirical studies evidenced that fiscal policy has impacted on economic performance (growth) of Nigeria over the years. However, there is a need to extend the scope of the study to recent years in order to ascertain the efficiency of government in managing the economy of Nigeria.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

This chapter describes the methodology adopted to provide answers to research questions and test the research hypotheses. This chapter contains the identification of variables, model specification, definition and measurement of variables, sources of data and estimation techniques.

3.2 Identification of Variables

The variables of focus in this research work are government total expenditure, government total revenue, direct taxes, real gross domestic product, capital and labour. The variables covered a 36-year period spanning between 1981 and 2016.

3.3 Definition and Measurement of Variables

Real Gross Domestic Product: This is proxy as economic performance. Real GDP refers to the market value of goods and services produced in an economy at a specified period of time. Real GDP considers changes in price level in its computation and is commonly used in literature to measure economic performance. Real GDP is used as the dependent variable.

Government Total Expenditure: This refers to the total spending of the federal government at a specified period of time. Government total expenditure is simply the summation of capital and recurrent federal government expenditure. Based on a-priori expectation, government expenditure is positively related to economic performance. The sign of the coefficient of GTEXP is expected to be positive or greater than zero.

Government Total Revenue: This refers to the amount realized by the government at a specified period of time. GTREV is measured as the sum of oil and non-oil revenue of the federal government. It is expected that the coefficient of GTREV is positive or greater than zero.

Direct Taxes: This refers to the compulsory levy imposed by the government on the personal income of individuals and profits of companies and industries. Taxes are a component of fiscal policy. Increase in tax revenue is expected to result in improved economic performance as more funds are available to be dissipated for productive projects. It is expected that the coefficient of direct taxes to be positive or greater than zero.

Capital: Capital represented by capital formation refers to the net accumulation during an accounting period used for a particular country, and also refers to additions of capital stock, such as equipments, tools, transportation assets and electricity. Countries need capital goods to replace the current assets that are used to produce goods and services. If a country is unable to replace capital goods, production declines. Generally, the higher the capital formation of an economy, the faster an economy can grow its aggregate income.

Labour: This refers to the physical and mental efforts dissipated towards the production of goods and services. Labour force is a surrogate for labour consists of the working population in the age group of 18-65 years in the economy currently employed or seeking employment. People who are still undergoing studies, housewives and persons above the age of 64 are not part of the labour force. In the study, labour is measured by employment rate. Employment rate refers to the measure of the extent to which available labour resources (people available to

work) are being used. Employment rate is the ratio of employed to the working age population. The higher the level of employment rate, the higher the level of national income.

3.4 Model Specification

The study empirically examines the impact of fiscal policy on economic performance of Nigeria. The functional form of the model is specified as:

PERF= f (FP)..... (3.1)

Where: PERF= Economic performance and FP = fiscal policy. Economic performance can be assessed in terms of economic growth, full employment, price stability and balance of payment equilibrium. However, economic performance is streamlined to economic growth, proxied as real gross domestic product. On the other hand, the fiscal policy variables relevant to the study aregovernment total expenditure and government total revenue. Based on this, the functional notation of the model is expressed as:

RGDP= f (GTEXP, GTREV, DTAX)..... (3.2)

It is very imperative to factor-in vital macroeconomic indices that affect the growth of output in any economy. In any production function or growth model, capital and labour are the two most important factors of production that are used in the process of production.So therefore, capital and labour are utilized as control variables. The variables now become

RGDP= f (GTEXP, GTREV, DTAX, CAP, LAB)..... (3.3)

Where:

RGDP= Real gross domestic product (proxy as economic performance).

GTEXP= Government total expenditure.

GTREV= Government total revenue.

DTAX= Direct taxes.

CAP= Capital (proxy by gross capital formation)

LAB= Labour (proxy by employment rate).

The standardized econometric form of the model with the inclusion of constant term and regression coefficients is specified as:

$$RGDP= \beta_0 +\beta_1 GTEXP + \beta_2 GTREV +\beta_3 DTAX +\beta_4 CAP +\beta_5 LAB + \mu \ldots\ldots (3.4)$$

Where:

β_0= Constant term of the regression model.

β_{1-5} = Regression coefficients of explanatory variables.

μ= Error term.

3.5Nature andSources of Data

Secondary annual-time series data are used in the study. The data are obtained from the Central Bank of Nigeria Statistical Bulletin for various issues. The data spanned between 1981 and 2016.

3.6 Estimation Techniques

The study employed the econometric techniques of Phillips-Perron unit root test, Cointegration test and Error Correction Model.The analysis of data is carried out by the use of Econometric Views (EVIEWS).

The Augmented Dickey Fuller (ADF) test is adopted to test the time-series properties of data and determine the order of integration to stationarity. The

Cointegration is applied to determine the existence of long-run relationship between fiscal policy variables and economic performance. The Error Correction Model is employed to determine the speed of adjustment of the variables to long-run equilibrium.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESULTS

4.1 Data Presentation

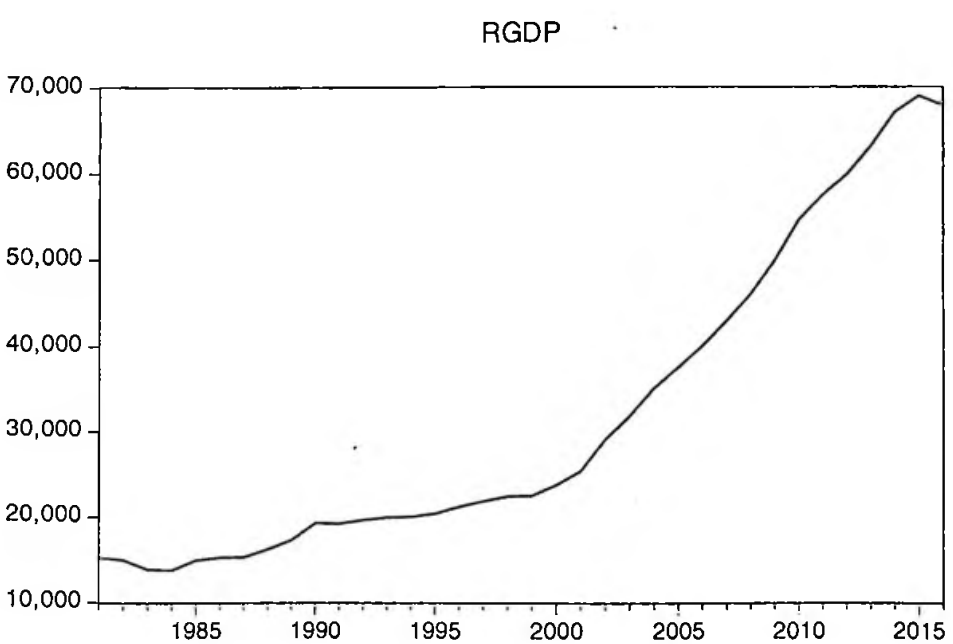
This chapter focuses on the presentation and discussion of results as regard the impact of fiscal policy on the economic performance of Nigeria. As earlier stated, economic performance, proxied as real gross domestic product, is expressed as a linear function of government total expenditure, government total revenue, direct taxes, capital and labour. The analysis of results was carried out by the use of the Augmented Dickey Fuller Test, Cointegration test and the Error Correction Model (ECM).

4.2 Data Analysis

Trend in Dependent and Independent Variables

The figures below presented the trend in the variables of interest within the periods of investigation.

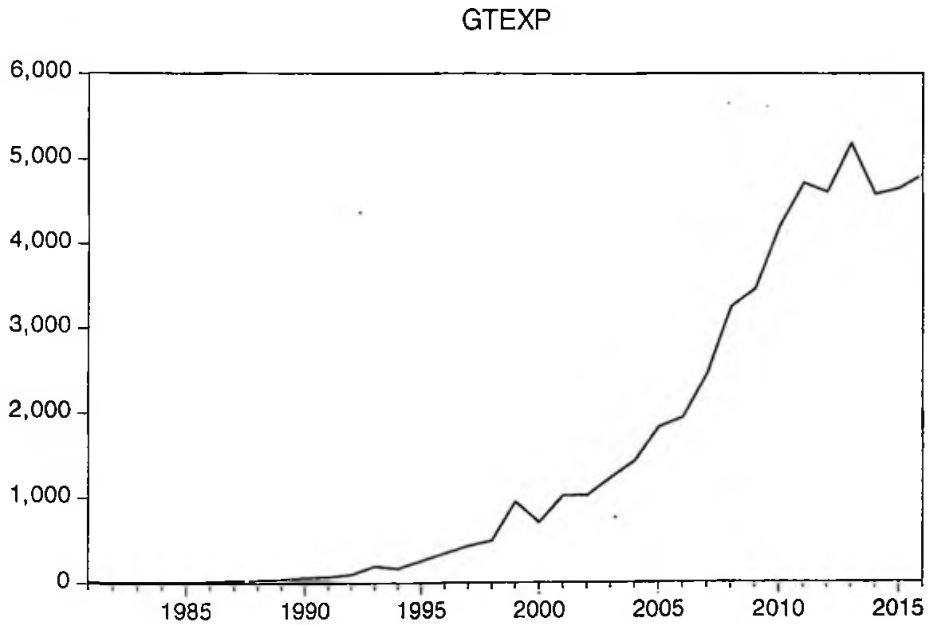
Figure 4.1: Trend in Real Gross Domestic Product



Source: Central Bank of Nigeria Statistical Bulletin

Figure 4.1 presented the trend in real gross domestic product or national output. Real gross domestic product is captured by the aggregate of sectoral output (agriculture, industry, services, construction and trade) in Nigeria. Real GDP has been on the upward trend over the years. Real GDP rose from N15,258.00 billion in 1981 to N31, 709.45 billion in 2003, N42, 922.41 billion in 2007, N69, 023.92 billion in 2015 and slightly fell to N67, 931.24 billion in 2016.

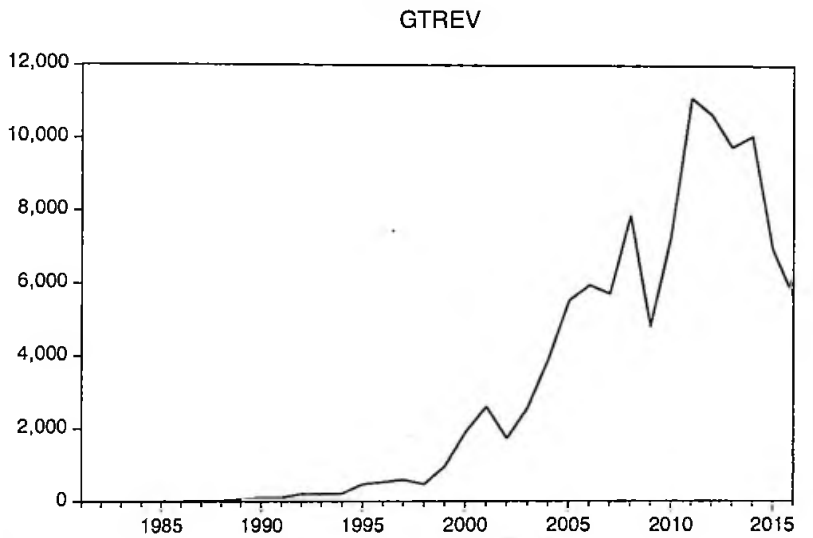
Figure 4.2: Trend in Government Total Expenditure in Nigeria



Source: Central Bank of Nigeria Statistical Bulletin

Figure 4.2 presented the trend in government total expenditure in Nigeria. Government total expenditure is captured as the aggregate of Federal government capital and recurrent expenditure. Government total expenditure has been on the upward trend over the years. From N14.82 billion in 1981, government total spending increased N191.23 billion in 1993, N1, 426.20 billion in 2004, N2, 450.90 in 2007, N5, 185.32 billion in 2013 and decreased to N4, 813.38 billion in 2016.

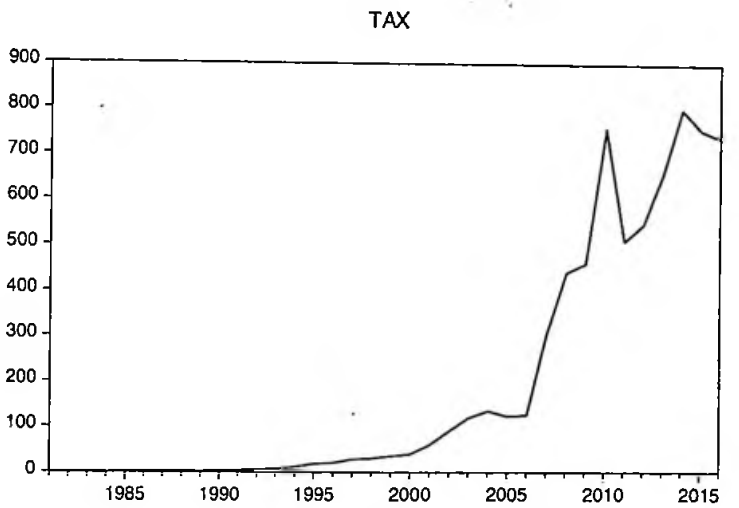
Figure 4.3: Trend in Government Total Revenue in Nigeria



Source: Central Bank of Nigeria Statistical Bulletin

Figure 4.3 presented the trend in government total revenue in Nigeria. Government total revenue is captured as the aggregate of oil and non-oil revenue. Government total revenue rose from N13.29 billion in 1981 to N5, 727.50 and reached its peak at N11, 116.85 billion in 2011. However, the rise in total revenue is attributed to the rise in the price of crude oil in the international market. After 2011, total revenue declined to N10, 654.75 billion in 2012, N6, 952.00 billion in 2015 and N5, 679.03 billion in 2016.

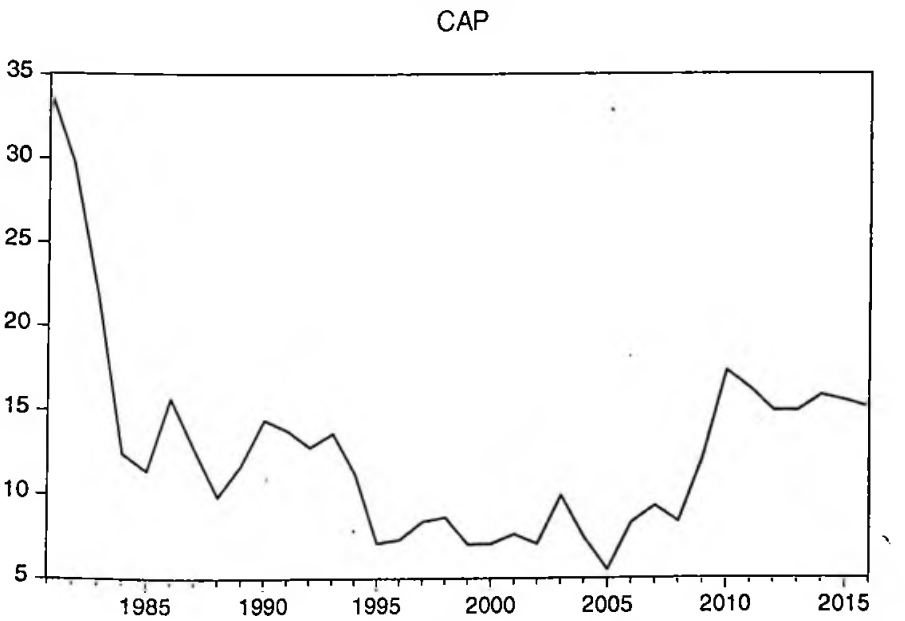
Figure 4.4: Trend in Direct Tax in Nigeria



Source: Central Bank of Nigeria Statistical Bulletin

Figure 4.4 presented the trend in direct tax in Nigeria. Direct tax is captured by the sum of personal income tax and corporate tax. Direct tax increased from N0.14 billion in 1981to N10.93 billion in 1994, N125.23 billion in 2006, and N757.90 billion in 2010 and decreased to N738.02 billion in 2016.

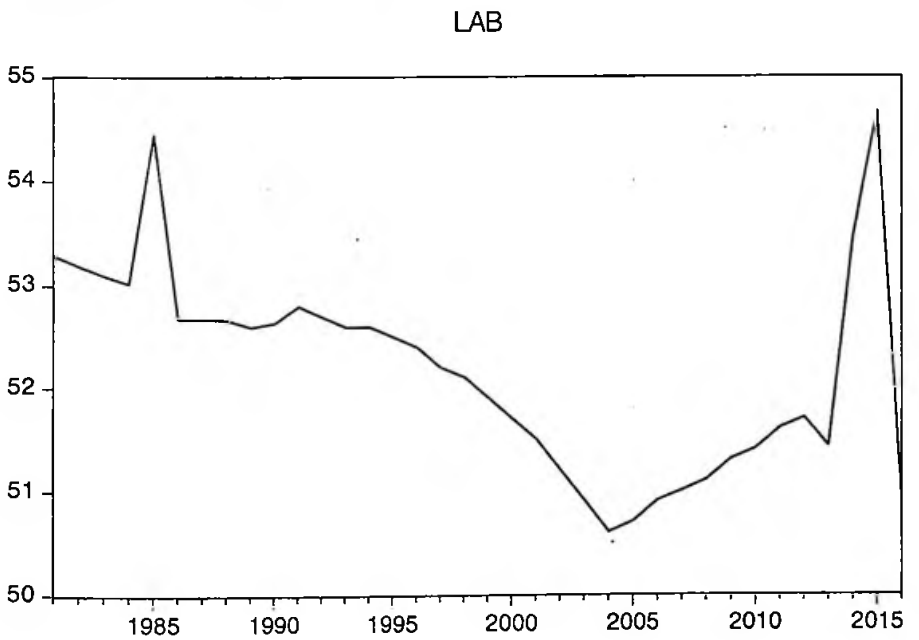
Figure 4.5: Trend in Capital in Nigeria



Source: Central Bank of Nigeria Statistical Bulletin

Figure 4.5 presented the trend in capital in Nigeria. Capital is represented by the ratio of gross capital formation to GDP in Nigeria. Gross capital formation has been fluctuating over the years. The ratio of gross capital formation to GDP in Nigeria was 34.02% in 1981, declined to 7.3% in 1996, 12.09% in 2009, 16.21% in 2011 and 15.09% in 2016.

Figure 4.6: Trend in Labour in Nigeria



Source: Central Bank of Nigeria Statistical Bulletin

Figure 4.6 presented the labour in Nigeria. Labour is surrogated as employment rate. Employment rate is the ratio of employed active population to the total labour force. Employment rate in Nigeria between 1981 and 2016 falls between the interval of 51% and 55%.

Unit-Root Test

In order to avoid having spurious results, the Augmented-Dickey Fuller test was carried out to remove any trend that might be present in the series. Most importantly, the ADF unit root test is carried out to ensure that robust results are generated as most macroeconomic data have unit root problem. Variables that are stationary produce robust results than non-stationary ones. The table below shows the Augmented-Dickey Fuller test (ADF) of the variables. The 5% probability value is used in the analysis.

Table 4.1: Augmented Dickey Fuller Test Unit Root Test

Series	ADF test statistic	Critical value	ADF test statistic at difference	Critical value at difference	Order of Integration
Lnrgdp	0.09	-2.95	-3.22	-2.95	I(1)
Lngtexp	-1.46	-2.95	-3.44	-2.96	I(1)
Lngtrev	-1.31	-2.94	-5.84	-2.95	I(1)
Lntax	-1.27	-2.94	-5.45	-2.95	I(1)
Lncap	-2.87	-2.94	-3.61	-2.95	I(1)
Lnlab	-1.37	-2.95	-3.87	-2.95	I(1)

Source: Author's Computation from E-views Output

Table 4.1 presented the ADF unit root test for the variables. None of variables was stationary at level as their ADF test statistic is less than the critical value. However, the variables became stationary at first-order difference and thus integrated at order of one. Since at least one of the variables is stationary, the Cointegration needs to be carried out.

Cointegration Test

Cointegration test is conducted in order to determine the existence of long-run equilibrium relationship between economic performance and fiscal policy variables. Cointegration test is decomposed into the Trace Statistic and Maximum

Eigen value statistic. Cointegration is said to be existent between two or more variables if the Trace Statistic and Maximum Eigen value statistic indicates at least one cointegrating equation. The asterisked indicates the rejection of no cointegration at 5%.

Table 4.2: Johansen Cointegration Test

Trace Statistic			
Hypothesized No. of CE(s)	**Trace statistic**	**0.05 Critical value**	**Probability value**
None*	102.68	95.73	0.01
At most 1	66.63	69.81	0.08
At most 2	42.09	47.86	0.15
At most 3	21.13	29.79	0.35
At most 4	4.82	15.49	0.82
At most 5	0.72	3.84	0.39
Max-Eigen Statistic			
Hypothesized No. of CE(s)	**Max-Eigen statistics**	**0.05 Critical value**	**Probability value**
None	36.04	40.07	0.13
At most 1	24.55	33.87	0.41
At most 2	20.95	27.58	0.27
At most 3	16.30	21.13	0.20
At most 4	4.09	14.26	0.84
At most 5	0.72	3.84	0.39

Source: Author's Computation from E-views Output

The Trace statistic indicates one cointegrating equation between economic growth and the independent variables while the Maximum Eigen Statistic indicates no cointegrating equation. However, Green (2007) posited that whenever there is conflict in the number of cointegrating equations between Trace Statistic and Maximum Eigen Statistic, the result of the Trace Statistic should be reported

because the Trace Statistic is superior to the Maximum Eigen Statistic because the former engulfs smaller components of the latter. Thus, going by the Trace Statistic, there is a long run equilibrium relationship between real GDP, government expenditure, government revenue, direct tax, capital and labour in Nigeria.

It is possible for shocks to arise in the short-run to prevent the variables from reaching a state of equilibrium in the long run. In other words, the variables possess the characteristics that would cause them to converge in the long-run.

Error Correction Mechanism

Given the fact that the variables are cointegrated, the next step is to estimate the short-run dynamics in the error correction model in order to capture the speed of adjustment to equilibrium in case of any shock that might arise in the independent variables. The error correction model estimation is carried out to integrate short-run dynamics with long-run relationship. The error correction estimation result is presented in the table below:

Table 4.3: Error Correction Model Estimation of the Impact of Fiscal Policy on Economic Performance in Nigeria

Dependent Variable: D(LNRGDP)
Method: Least Squares
Date: 05/05/18 Time: 05:24
Sample (adjusted): 1982 2016
Included observations: 35 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.015634	0.003630	4.306999	0.0002
D(LNGTEXP)	0.004754	0.033353	0.142534	0.8877
D(LNGTREV)	0.015506	0.021480	0.721878	0.4764
D(LNTAX)	0.022843	0.012293	1.858147	0.0737
D(LNCAP)	0.089800	0.030682	2.926791	0.0067
D(LNLAB)	0.493021	0.415854	1.185562	0.2458
ECM(-1)	-0.867251	0.171335	-5.015034	0.0000

R-squared	0.690145	Mean dependent var	0.018531
Adjusted R-squared	0.623628	S.D. dependent var	0.018682
S.E. of regression	0.016461	Akaike info criterion	-5.198743
Sum squared resid	0.007587	Schwarz criterion	-4.887674
Log likelihood	97.97801	Hannan-Quinn criter.	-5.091362
F-statistic	2.632240	Durbin-Watson stat	1.920489
Prob(F-statistic)	0.037589		

The result shows that the coefficient of error correction mechanism is negative (-0.867) and significant as its probability value is less than 0.05. This indicates that about 86.7% disequilibria in Nigeria's real GDP in the previous year are corrected in the current year. The speed of adjustment from short-run equilibrium to long-run equilibrium is approximately 86.7% per annum.The overall goodness of fit of the model as indicated by the coefficient of determination is 0.69. This indicates that the independent variables – government total expenditure, government total revenue, direct tax, capital and labour, explained about 69% variation in economic growth in Nigeria. The adjusted R-squared stood at 62.3% after allowing for degree of freedom.The value of the F-statistic is 2.63, with a probability value of

0.04, which is considered significant. This implies that the combined effect of the independent variable is statistically significant on economic growth (real GDP) within the estimated periods. The Durbin-Watson statistic of 1.92 indicates the absence of autocorrelation in the model.

The estimated coefficient of government expenditure is 0.0047. This connotes that government expenditure has positive impact on real GDP in Nigeria. A percent increase in government expenditure would generate a 0.005% increase in real GDP while keeping other independent variables constant. However, government expenditure has no significant impact on real GDP as its probability value is greater than 0.05.

The estimated coefficient of government revenue is 0.0155, thus aligning with the a-priori expectation. An increase in government revenue produces an increase in real GDP. A percent increase in government revenue would result in about 0.02% increase in real GDP while keeping other independent variables. However, government revenue has negligible impact on real GDP as its probability value is greater than 0.05.

Direct tax has a positive relationship with real GDP and it conformed to the a-priori expectation. A percent increase in direct tax would metamorphose into 0.02% increase in real GDP while keeping other variables constant. However, direct tax has no robust impact on real GDP as its probability value is greater than 0.05.

For the control variables, capital and labour have estimated coefficients of 0.089 and 0.493 respectively. This implies that capital and labour have positive impact

on real GDP. A percent increase in capital and labour (in isolation) would increase real GDP approximately by 0.09% and 0.49% respectively. However, while capital exerts significant impact on real GDP as its probability value is less than 0.05, labour has no strong impact on real GDP as its probability value is greater than 0.05.

4.3 Discussion of Findings

The results of the analysis indicated that there is long run equilibrium relationship between economic performance and fiscal policy. Furthermore, it was found that fiscal policy represented by government total expenditure, government total revenue and direct tax, have positive impact on economic performance, but the magnitude of their impact is weak. Fiscal policy is not fully effective on Nigeria's economic performance. The non-significance or partial effectiveness of fiscal policy on economic performance of Nigeria within the estimated periods could be attributed to a number of reasons.

Firstly, there is lack of cohesion between monetary and fiscal policies in Nigeria. As done in other countries, monetary policy and fiscal policy are expected to complement each other to enhance economic performance, but in Nigeria, it has been observed that policies formulated by the monetary authorities (Central Bank) and the Federal government. The federal government and monetary authorities had different views on how to stimulate the economic performance of the country. However, the contradiction between these policies has limited the effectiveness of fiscal policy on the economy of Nigeria. Secondly, the partial effectiveness of fiscal policy on Nigeria's economic performance could be attributed to budget deficit or fiscal deficit. Fiscal deficit arises when government expenditure exceeds revenue and has been Nigeria's experience over the years. Most times, Federal

government has implemented expansionary fiscal policy (reducing taxes and increasing expenditure). But this caused an increase in budget deficit which has many adverse effects. A higher budget of fiscal deficit required higher taxes and may result in crowding out (a situation when increased government expenditure discourages private investment by increasing interest rate and reducing availability of funds). However, decrease in private investment would result in decrease in national income.Thirdly, poor information has limited the effectiveness of fiscal policy on Nigeria's economic performance. Fiscal policy will suffer if the government has poor information. For example, if the government projected a recession, they will want to increase aggregate demand. However, if this projection is wrong and growth of real GDP increases, government action would generate inflationary pressure. According to Obamanyi (2014), the factors responsible for public policy failure in Nigeria include lack of defined policy framework with no proper guidelines, ineffective targeting to real beneficiaries, deficiencies in the structure and content of budget, lack of full implementation of budget, corruption, lack of continuity as different regimes, both military and civilians, enunciated different pattern of fiscal policy, poor governance, misappropriation of public funds and macroeconomic dislocation.Other problems include ineffective use of resources, waste and misplaced priorities in government expenditure, high fiscal deficits at all frontiers of government, weak institutional structure among others (Abdulrauf, 2015). These problems have led to heavy debt burden, huge recurrent expenditure, inefficient public service delivery, huge cost of debt servicing and interest repayment. It is no gainsaying to assert that fiscal policy has enormous consequences and implications for the country. As the consequences affect individual citizens, so it affects the economy in entirety. The consequence of fiscal policy failure on economic growth is that the aggregate production of people in a specific period in a particular geographical location constitutes the gross domestic

product. But where majority of the citizens cannot pull resources together that can contribute to the collective growth of the country is a setback for the nation. Part of the reason for this is the failure of fiscal policy that would have encouraged and motivated the people for higher performance economically and socially.

CHAPTER FIVE
SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

5.1 Summary of Major Findings

The study examined the impact of fiscal policy on economic performance of Nigeria. It was established that fiscal policy is the deliberate action taken by the government of a country to stabilize the economy by manipulating public expenditure and taxation. Fiscal policy can be expansionary or contractionary. Expansionary fiscal policy is targeted to increase aggregate demand by raising government expenditure and reducing taxation. On the other hand, contractionary fiscal policy aims to reduce aggregate demand by reducing government expenditure and increasing taxation. It was also established that the objectives of fiscal policy amongst others include price stability, full employment, economic growth, equitable distribution of income and wealth, resource allocation, enhance savings and investment and reduce regional disparities. Economic performance is multidimensional in contextually, but the study streamlined economic performance to economic growth. Economic growth was defined as the percentage change (increase or decrease) in the real gross domestic product at a specified time period. It was also established in the review of literature that fiscal policy has not fully achieved its stated objectives due to certain problems such as ineffective use of resources, weak institutional framework, diversion of government spending on unproductive projects, corruption and high fiscal deficit. Three theories were reviewed namely the classical, neo-classical and the endogenous growth model. The theories provided different suggestions on how national output can be enhanced in an economy. In the review of empirical studies, it can be deduced that fiscal policies affected economic growth of Nigeria positively.

Fiscal policy is represented by government total expenditure, government total revenue and direct tax. A model was developed in which economic growth (proxy as economic performance) is expressed as a function of government total expenditure, government total revenue, direct tax, capital (represented as gross capital formation) and labour (represented as employment rate). The scope of the study covered a 36-year period ranging from 1981 to 2016. The econometric techniques of Augmented Dickey Fuller test, Cointegration test and Error Correction model estimationthe findings of the study revealed that:

1. The dependent variable – real GDP and the independent variables - government total expenditure, government total revenue, direct tax, capital and labour became stationary at first-order difference.
2. There is long-run equilibrium relationship between fiscal policy and economic growth in Nigeria.
3. The speed of adjustment from short-run to long-run equilibrium is 5.9% per annum.
4. Fiscal policy variables – government total expenditure, government total revenue and direct tax had positive but little impact on Nigeria's economic growth.
5. For the control variables – capital had positive and significant impact on economic growth in Nigeria while labour had positive but little impact on economic growth in Nigeria.

5.2 Conclusion

Based on the findings, the study concludes that fiscal policy was partially effective on economic growth (surrogate of economic performance) in Nigeria between 1981 and 2016. The partial effectiveness of fiscal policy on the Nigeria's economy could be attributed to lack of coherence between monetary and fiscal policies, huge

fiscal deficit, lack of proper economic planning and projection, misappropriation of public funds,deficiencies in the structure and content of budget, lack of full implementation of budget, corruption and weak institutional framework.

5.3 Recommendations

In an attempt to accelerate the rate of growth of the Nigerian economy through fiscal policy, the following recommendations are proposed for implementation.

1. Government should enhance investment in productive expenditure including expenditure on education, health, manufacturing, mining and agriculture and also ensure that funds meant for development of these sectors are properly utilized.
2. Government should strive to reduce expenditure on recreational, cultural and religious affairs and other functions like political administrative expenses in order to stabilize the economy.
3. Anti-corruption agencies like the Economic and Financial Crimes Commission (EFCC) and Independent Corrupt Practices Commission (ICPC) and the judicial system should be strengthened to tackle the high incidence of corruption in public sector. This will go a long way to ensure that public funds are expended on productive purposes.
4. Government should ensure a strict fiscal policy discipline. Also government needs to demonstrate high level of commitment to policy consistency and implementation. In addition, consistency in macroeconomic policies implementation in the non-oil sectors of economy should be pursued.
5. The Programme Project Budgeting system should be adopted by the government. This apart from enhancing effective implementation and monitoring of budgeted funds, corruption will also be reduced. It will thus result in greater transparency and accountability in the utilization of public

funds. This will however ensure that fiscal policy would not only promote economic growth but will also improve the living standard of the Nigerian populace.

6. Government should formulate and implement viable fiscal policy options that will stabilize the economy. This could be achieved through the practice of true fiscal federalism and decentralization of levels of government in Nigeria.
7. Appropriate mix of fiscal and monetary policies that would effectively stabilize the economy should be pursued.
8. Government should consider restructuring its expenditure pattern by allocating more funds towards productive expenditure such as capital projects. This will consequently stimulate the output growth in Nigeria.
9. Lastly, government should consider harnessing its revenue potentials by expanding its revenue base via effective and efficient taxation system and diversification of Nigeria's revenue base by tapping into solid minerals and agricultural potentials.

5.4 Suggestion for Further Studies

It should be noted that economic performance goes beyond economic growth. In order to enrich literature on fiscal policy and Nigeria's economic performance, it is suggested that further studies should to:

1. Examine the impact of fiscal policy on human capital development in Nigeria.
2. Examine the impact of fiscal policy on price stability in Nigeria.
3. Examine the impact of fiscal policy on balance of payment performance of Nigeria.

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Abstract

Fiscal policy is one of the macroeconomic policies that can be used to stabilize an economy. The effectiveness of fiscal policy on the Nigerian economy has generated controversy in literature. To this end, the study examined the impact of fiscal policy on economic performance (proxy as economic growth) of Nigeria between 1981 and 2016. The study sought to investigate the extent to which fiscal policy variables such as government expenditure, direct tax, government revenue as well as capital and labourinfluenced economic growth in Nigeria. The study employed the Augmented Dickey Fuller test, Cointegration test and Error Correction Model. Findings of the study showed that all the variables are integrated at order of one. Also, a long run equilibrium relationship was found between fiscal policy and economic growth in Nigeria. The result of the ECM indicated that the variables would have to be adjusted approximately by 86.7% to achieve equilibrium in the long run. It was further discovered that fiscal policy variables – government expenditure, government revenue and direct tax had positive but negligible impact on economic growth in Nigeria. Lastly, there is no causation between fiscal policy variables and economic growth in Nigeria. The study therefore concluded that fiscal policy was partially effective on the Nigerian economy within the periods estimated. The study suggested amongst others that Government should enhance investment in productive expenditure including expenditure on education, health, manufacturing, mining and agriculture and also ensure that funds meant for development of these sectors are properly utilized.

Word Count: 247

Keywords: ***Fiscal Policy, Economic Performance, Government Revenue, Government Expenditure and Direct Tax***

APENDIX 1

LnRGDP at level

Null Hypothesis: LNRGDP has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		0.097325	0.9609
Test critical values:	1% level	-3.639407	
	5% level	-2.951125	
	10% level	-2.614300	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNRGDP)
Method: Least Squares
Date: 05/04/18 Time: 17:20
Sample (adjusted): 1983 2016
Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNRGDP(-1)	0.001376	0.014143	0.097325	0.9231
D(LNRGDP(-1))	0.502945	0.172824	2.910158	0.0066
C	0.003506	0.061338	0.057156	0.9548

R-squared	0.262058	Mean dependent var	0.019306
Adjusted R-squared	0.214449	S.D. dependent var	0.018382
S.E. of regression	0.016293	Akaike info criterion	-5.312109
Sum squared resid	0.008229	Schwarz criterion	-5.177430
Log likelihood	93.30585	Hannan-Quinn criter.	-5.266179
F-statistic	5.504359	Durbin-Watson stat	1.887415
Prob(F-statistic)	0.009002		

Ln RGDp at first diff

Null Hypothesis: D(LNRGDP) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.229347	0.0268
Test critical values:	1% level	-3.639407	
	5% level	-2.951125	
	10% level	-2.614300	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNRGDP,2)
Method: Least Squares
Date: 05/04/18 Time: 17:34
Sample (adjusted): 1983 2016
Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNRGDP(-1))	-0.489413	0.151552	-3.229347	0.0029
C	0.009462	0.004013	2.358021	0.0246

R-squared	0.245793	Mean dependent var	2.67E-05
Adjusted R-squared	0.222224	S.D. dependent var	0.018186
S.E. of regression	0.016039	Akaike info criterion	-5.370627
Sum squared resid	0.008231	Schwarz criterion	-5.280841
Log likelihood	93.30065	Hannan-Quinn criter.	-5.340007
F-statistic	10.42868	Durbin-Watson stat	1.898814
Prob(F-statistic)	0.002867		

Lngtexp at level

Null Hypothesis: LNGTEXP has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.469215	0.5368
Test critical values:	1% level	-3.639407	
	5% level	-2.951125	
	10% level	-2.614300	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNGTEXP)
Method: Least Squares
Date: 05/04/18 Time: 17:35
Sample (adjusted): 1983 2016
Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNGTEXP(-1)	-0.025986	0.017687	-1.469215	0.1519
D(LNGTEXP(-1))	-0.133659	0.165527	-0.807480	0.4255
C	0.153074	0.050041	3.058968	0.0046

R-squared	0.081007	Mean dependent var	0.076649
Adjusted R-squared	0.021717	S.D. dependent var	0.095628
S.E. of regression	0.094584	Akaike info criterion	-1.794552
Sum squared resid	0.277332	Schwarz criterion	-1.659873

Log likelihood	33.50738	Hannan-Quinn criter.	-1.748622
F-statistic	1.366281	Durbin-Watson stat	2.072954
Prob(F-statistic)	0.269986		

Lngtexp at first diff

Null Hypothesis: D(LNGTEXP) has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.448299	0.0019
Test critical values:	1% level	-3.661661	
	5% level	-2.960411	
	10% level	-2.619160	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNGTEXP,2)
Method: Least Squares
Date: 05/04/18 Time: 17:36
Sample (adjusted): 1986 2016
Included observations: 31 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNGTEXP(-1))	-0.535332	0.369628	-1.448299	0.1595
D(LNGTEXP(-1),2)	-0.791900	0.325248	-2.434759	0.0221
D(LNGTEXP(-2),2)	-0.528899	0.268828	-1.967424	0.0599
D(LNGTEXP(-3),2)	-0.163939	0.170988	-0.958774	0.3465
C	0.044050	0.035175	1.252305	0.2216

R-squared	0.714485	Mean dependent var	-0.003339
Adjusted R-squared	0.670559	S.D. dependent var	0.151478
S.E. of regression	0.086944	Akaike info criterion	-1.900416
Sum squared resid	0.196541	Schwarz criterion	-1.669127
Log likelihood	34.45644	Hannan-Quinn criter.	-1.825022
F-statistic	16.26585	Durbin-Watson stat	1.924311
Prob(F-statistic)	0.000001		

Lngtrev at level

Null Hypothesis: LNGTREV has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.319012	0.6097
Test critical values:	1% level	-3.632900	
	5% level	-2.948404	
	10% level	-2.612874	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNGTREV)
Method: Least Squares
Date: 05/04/18 Time: 17:37
Sample (adjusted): 1982 2016
Included observations: 35 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNGTREV(-1)	-0.031714	0.024044	-1.319012	0.1962
C	0.161548	0.070256	2.299431	0.0279

R-squared	0.050081	Mean dependent var	0.075164
Adjusted R-squared	0.021295	S.D. dependent var	0.152075
S.E. of regression	0.150447	Akaike info criterion	-0.894964
Sum squared resid	0.746934	Schwarz criterion	-0.806087
Log likelihood	17.66187	Hannan-Quinn criter.	-0.864284
F-statistic	1.739794	Durbin-Watson stat	2.050582
Prob(F-statistic)	0.196245		

Lngtrev at first diff

Null Hypothesis: D(LNGTREV) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.841468	0.0000
Test critical values:	1% level	-3.639407	
	5% level	-2.951125	
	10% level	-2.614300	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNGTREV,2)

Method: Least Squares
Date: 05/05/18 Time: 05:13
Sample (adjusted): 1983 2016
Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNGTREV(-1))	-1.036710	0.177474	-5.841468	0.0000
C	0.082232	0.030074	2.734296	0.0101

R-squared	0.516052	Mean dependent var	-0.000661
Adjusted R-squared	0.500928	S.D. dependent var	0.218859
S.E. of regression	0.154613	Akaike info criterion	-0.838763
Sum squared resid	0.764964	Schwarz criterion	-0.748977
Log likelihood	16.25897	Hannan-Quinn criter.	-0.808143
F-statistic	34.12275	Durbin-Watson stat	1.989881
Prob(F-statistic)	0.000002		

Lntax at level

Null Hypothesis: LNTAX has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.275062	0.6301
Test critical values:	1% level	-3.632900	
	5% level	-2.948404	
	10% level	-2.612874	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNTAX)
Method: Least Squares
Date: 05/05/18 Time: 05:14
Sample (adjusted): 1982 2016
Included observations: 35 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNTAX(-1)	-0.046492	0.036463	-1.275062	0.2112
C	0.166563	0.065607	2.538808	0.0160

R-squared	0.046953	Mean dependent var	0.106113
Adjusted R-squared	0.018073	S.D. dependent var	0.270749
S.E. of regression	0.268291	Akaike info criterion	0.261956
Sum squared resid	2.375342	Schwarz criterion	0.350833
Log likelihood	-2.584233	Hannan-Quinn criter.	0.292637
F-statistic	1.625784	Durbin-Watson stat	1.806256
Prob(F-statistic)	0.211191		

Lntax at first diff

Null Hypothesis: D(LNTAX) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.455855	0.0001
Test critical values:	1% level	-3.639407	
	5% level	-2.951125	
	10% level	-2.614300	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNTAX,2)
Method: Least Squares
Date: 05/05/18 Time: 05:14
Sample (adjusted): 1983 2016
Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNTAX(-1))	-0.934879	0.171353	-5.455855	0.0000
C	0.110325	0.049926	2.209768	0.0344

R-squared	0.481919	Mean dependent var	0.007921
Adjusted R-squared	0.465729	S.D. dependent var	0.369061
S.E. of regression	0.269761	Akaike info criterion	0.274463
Sum squared resid	2.328676	Schwarz criterion	0.364249
Log likelihood	-2.665878	Hannan-Quinn criter.	0.305083
F-statistic	29.76635	Durbin-Watson stat	2.023884
Prob(F-statistic)	0.000005		

LncAP AT LEVEL

Null Hypothesis: LNCAP has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.879713	0.0580
Test critical values:	1% level	-3.632900	
	5% level	-2.948404	
	10% level	-2.612874	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(LNCAP)
Method: Least Squares
Date: 05/05/18 Time: 05:15
Sample (adjusted): 1982 2016
Included observations: 35 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNCAP(-1)	-0.248244	0.086204	-2.879713	0.0069
C	0.253115	0.092687	2.730856	0.0101

R-squared	0.200828	Mean dependent var	-0.010087
Adjusted R-squared	0.176611	S.D. dependent var	0.100406
S.E. of regression	0.091110	Akaike info criterion	-1.898062
Sum squared resid	0.273932	Schwarz criterion	-1.809185
Log likelihood	35.21609	Hannan-Quinn criter.	-1.867382
F-statistic	8.292749	Durbin-Watson stat	1.750881

Lncap at first diff

Null Hypothesis: D(LNCAP) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.612197	0.0111
Test critical values:	1% level	-3.653730	
	5% level	-2.957110	
	10% level	-2.617434	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNCAP,2)
Method: Least Squares
Date: 05/05/18 Time: 05:15
Sample (adjusted): 1985 2016
Included observations: 32 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNCAP(-1))	-0.942885	0.261028	-3.612197	0.0012
D(LNCAP(-1),2)	0.126914	0.183081	0.693212	0.4939
D(LNCAP(-2),2)	-0.350711	0.146354	-2.396318	0.0235
C	0.003334	0.013875	0.240276	0.8119

R-squared	0.715035	Mean dependent var	0.007324
Adjusted R-squared	0.684503	S.D. dependent var	0.138045
S.E. of regression	0.077539	Akaike info criterion	-2.159606
Sum squared resid	0.168344	Schwarz criterion	-1.976389
Log likelihood	38.55369	Hannan-Quinn criter.	-2.098874

F-statistic	23.41920	Durbin-Watson stat	2.008624
Prob(F-statistic)	0.000000		

Lnlab at level

Null Hypothesis: LNLAB has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.377401	0.5808
Test critical values:	1% level	-3.653730	
	5% level	-2.957110	
	10% level	-2.617434	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNLAB)
Method: Least Squares
Date: 05/05/18 Time: 05:17
Sample (adjusted): 1985 2016
Included observations: 32 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNLAB(-1)	-0.232852	0.169052	-1.377401	0.1797
D(LNLAB(-1))	-0.251540	0.266206	-0.944907	0.3531
D(LNLAB(-2))	-0.629153	0.283786	-2.216997	0.0352
D(LNLAB(-3))	0.052372	0.353605	0.148110	0.8834
C	0.399386	0.290208	1.376205	0.1801

R-squared	0.347896	Mean dependent var	-0.000562
Adjusted R-squared	0.251288	S.D. dependent var	0.007495
S.E. of regression	0.006485	Akaike info criterion	-7.095997
Sum squared resid	0.001136	Schwarz criterion	-6.866976
Log likelihood	118.5359	Hannan-Quinn criter.	-7.020083
F-statistic	3.601106	Durbin-Watson stat	1.731944
Prob(F-statistic)	0.017738		

Lnlab at first diff

Null Hypothesis: D(LNLAB) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.879751	0.0057
Test critical values:	1% level	-3.653730	

5% level	-2.957110
10% level	-2.617434

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNLAB,2)
Method: Least Squares
Date: 05/05/18 Time: 05:17
Sample (adjusted): 1985 2016
Included observations: 32 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNLAB(-1))	-2.194439	0.565613	-3.879751	0.0006
D(LNLAB(-1),2)	0.768532	0.516940	1.486696	0.1483
D(LNLAB(-2),2)	0.002335	0.356952	0.006540	0.9948
C	-0.000344	0.001181	-0.291155	0.7731

R-squared	0.612872	Mean dependent var	-0.000957
Adjusted R-squared	0.571394	S.D. dependent var	0.010063
S.E. of regression	0.006588	Akaike info criterion	-7.090588
Sum squared resid	0.001215	Schwarz criterion	-6.907371
Log likelihood	117.4494	Hannan-Quinn criter.	-7.029857
F-statistic	14.77585	Durbin-Watson stat	1.717660
Prob(F-statistic)	0.000006		

Cointegration

Date: 05/05/18 Time: 05:20
Sample (adjusted): 1983 2016
Included observations: 34 after adjustments
Trend assumption: Linear deterministic trend
Series: LNRGDP LNGTEXP LNGTREV LNTAX LNCAP LNLAB
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.653573	102.6818	95.75366	0.0153
At most 1	0.514254	66.63897	69.81889	0.0873
At most 2	0.460118	42.08864	47.85613	0.1563
At most 3	0.381006	21.13089	29.79707	0.3495
At most 4	0.113559	4.822440	15.49471	0.8274
At most 5	0.021071	0.724065	3.841466	0.3948

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized	Max-Eigen	0.05

No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None	0.653573	36.04280	40.07757	0.1329
At most 1	0.514254	24.55033	33.87687	0.4160
At most 2	0.460118	20.95775	27.58434	0.2788
At most 3	0.381006	16.30845	21.13162	0.2073
At most 4	0.113559	4.098375	14.26460	0.8488
At most 5	0.021071	0.724065	3.841466	0.3948

Max-eigenvalue test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

LNRGDP	LNGTEXP	LNGTREV	LNTAX	LNCAP	LNLAB
11.59568	0.392550	2.981484	-4.575955	-5.799376	197.1820
4.111820	11.53484	-8.304687	-2.798896	2.867615	-110.2384
-17.11766	-8.470921	9.919744	1.716588	13.50060	15.67887
-9.290582	4.569113	-2.663473	0.612135	4.094801	152.2351
1.172421	-4.328098	1.538883	0.490229	0.780646	-100.6598
-19.92751	1.833960	2.341818	-0.223594	4.373864	-24.99537

Unrestricted Adjustment Coefficients (alpha):

D(LNRGDP)	-0.000862	-0.000603	-0.003966	-0.007262	-0.001155	0.000764
D(LNGTEXP)	-0.017266	-0.043158	-0.016914	0.002604	0.015989	0.003108
D(LNGTREV)	-0.048314	0.018324	-0.061082	0.029471	0.010653	0.006219
D(LNTAX)	0.116923	0.023368	-0.059345	-0.071188	0.029815	0.014860
D(LNCAP)	0.013623	-0.017676	-0.028436	-0.013336	-0.001208	-0.007729
D(LNLAB)	-0.001038	0.002382	0.000402	-0.002461	0.001265	-0.000182

1 Cointegrating Equation(s): Log likelihood 342.2629

Normalized cointegrating coefficients (standard error in parentheses)

LNRGDP	LNGTEXP	LNGTREV	LNTAX	LNCAP	LNLAB
1.000000	0.033853	0.257120	-0.394626	-0.500133	17.00479
	(0.18844)	(0.15209)	(0.05873)	(0.10942)	(3.58800)

Adjustment coefficients (standard error in parentheses)

D(LNRGDP)	-0.009998
	(0.03320)
D(LNGTEXP)	-0.200206
	(0.19201)
D(LNGTREV)	-0.560233
	(0.27957)
D(LNTAX)	1.355797
	(0.49600)
D(LNCAP)	0.157963
	(0.17286)
D(LNLAB)	-0.012034
	(0.01500)

2 Cointegrating Equation(s): Log likelihood 354.5381

Normalized cointegrating coefficients (standard error in parentheses)

LNRGDP	LNGTEXP	LNGTREV	LNTAX	LNCAP	LNLAB
1.000000	0.000000	0.284932	-0.391132	-0.514761	17.53999
		(0.06711)	(0.05137)	(0.11056)	(3.62701)
0.000000	1.000000	-0.821535	-0.103221	0.432101	-15.80947
		(0.09309)	(0.07125)	(0.15335)	(5.03092)

Adjustment coefficients (standard error in parentheses)

D(LNRGDP)	-0.012479	-0.007297
	(0.03520)	(0.03302)
D(LNGTEXP)	-0.377664	-0.504598
	(0.17510)	(0.16426)
D(LNGTREV)	-0.484886	0.192404
	(0.29331)	(0.27516)
D(LNTAX)	1.451883	0.315448
	(0.52323)	(0.49084)
D(LNCAP)	0.085280	-0.198548
	(0.17838)	(0.16734)
D(LNLAB)	-0.002238	0.027072
	(0.01484)	(0.01392)

3 Cointegrating Equation(s): Log likelihood 365.0170

Normalized cointegrating coefficients (standard error in parentheses)

LNRGDP	LNGTEXP	LNGTREV	LNTAX	LNCAP	LNLAB
1.000000	0.000000	0.000000	-0.178357	-0.818285	10.92371
			(0.01557)	(0.09911)	(2.62279)
0.000000	1.000000	0.000000	-0.716707	1.307244	3.267032
			(0.05606)	(0.35686)	(9.44404)
0.000000	0.000000	1.000000	-0.746757	1.065253	23.22056
			(0.05424)	(0.34523)	(9.13605)

Adjustment coefficients (standard error in parentheses)

D(LNRGDP)	0.055408	0.026298	-0.036901
	(0.05804)	(0.03942)	(0.03655)
D(LNGTEXP)	-0.088133	-0.361319	0.139152
	(0.29176)	(0.19815)	(0.18375)
D(LNGTREV)	0.560687	0.709821	-0.902139
	(0.43452)	(0.29510)	(0.27366)
D(LNTAX)	2.467736	0.818158	-0.434154
	(0.86229)	(0.58562)	(0.54307)
D(LNCAP)	0.572034	0.042329	-0.094663
	(0.28213)	(0.19161)	(0.17768)
D(LNLAB)	-0.009126	0.023663	-0.018886
	(0.02537)	(0.01723)	(0.01598)

4 Cointegrating Equation(s): Log likelihood 373.1712

Normalized cointegrating coefficients (standard error in parentheses)

LNRGDP	LNGTEXP	LNGTREV	LNTAX	LNCAP	LNLAB
1.000000	0.000000	0.000000	0.000000	-5.737845	233.5613
				(2.07155)	(48.6254)
0.000000	1.000000	0.000000	0.000000	-18.46147	897.9117
				(7.94283)	(186.442)
0.000000	0.000000	1.000000	0.000000	-19.53230	955.3749
				(8.33749)	(195.706)

0.000000	0.000000	0.000000	1.000000	-27.58268	1248.270
				(11.3082)	(265.437)

Adjustment coefficients (standard error in parentheses)

D(LNRGDP)	0.122874	-0.006882	-0.017560	-0.005619	
	(0.05428)	(0.03541)	(0.03190)	(0.01335)	
D(LNGTEXP)	-0.112325	-0.349421	0.132216	0.172361	
	(0.31862)	(0.20785)	(0.18728)	(0.07835)	
D(LNGTREV)	0.286885	0.844476	-0.980634	0.082982	
	(0.45580)	(0.29734)	(0.26791)	(0.11209)	
D(LNTAX)	3.129118	0.492890	-0.244546	-0.745887	
	(0.88574)	(0.57781)	(0.52063)	(0.21782)	
D(LNCAP)	0.695933	-0.018604	-0.059143	-0.069837	
	(0.30237)	(0.19725)	(0.17773)	(0.07436)	
D(LNLAB)	0.013738	0.012418	-0.012331	-0.002735	
	(0.02540)	(0.01657)	(0.01493)	(0.00625)	

5 Cointegrating Equation(s): Log likelihood 375.2204

Normalized cointegrating coefficients (standard error in parentheses)

LNRGDP	LNGTEXP	LNGTREV	LNTAX	LNCAP	LNLAB
1.000000	0.000000	0.000000	0.000000	0.000000	-51.10788
					(24.7339)
0.000000	1.000000	0.000000	0.000000	0.000000	-18.00895
					(67.2360)
0.000000	0.000000	1.000000	0.000000	0.000000	-13.67244
					(71.7420)
0.000000	0.000000	0.000000	1.000000	0.000000	-120.1769
					(105.115)
0.000000	0.000000	0.000000	0.000000	1.000000	-49.61256
					(10.5576)

Adjustment coefficients (standard error in parentheses)

D(LNRGDP)	0.121520	-0.001885	-0.019337	-0.006185	-0.080908
	(0.05410)	(0.03668)	(0.03196)	(0.01334)	(0.03645)
D(LNGTEXP)	-0.093580	-0.418623	0.156821	0.180199	-0.228838
	(0.31073)	(0.21067)	(0.18358)	(0.07660)	(0.20934)
D(LNGTREV)	0.299375	0.798369	-0.964240	0.088205	-0.362906
	(0.45384)	(0.30769)	(0.26813)	(0.11188)	(0.30575)
D(LNTAX)	3.164073	0.363849	-0.198664	-0.731271	-1.680492
	(0.87657)	(0.59430)	(0.51788)	(0.21609)	(0.59055)
D(LNCAP)	0.694516	-0.013374	-0.061002	-0.070430	-0.569143
	(0.30271)	(0.20524)	(0.17885)	(0.07462)	(0.20394)
D(LNLAB)	0.015220	0.006945	-0.010385	-0.002115	0.009193
	(0.02478)	(0.01680)	(0.01464)	(0.00611)	(0.01670)

ECM

Dependent Variable: D(LNRGDP)
Method: Least Squares
Date: 05/05/18 Time: 05:24
Sample (adjusted): 1982 2016
Included observations: 35 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.

C	0.015634	0.003630	4.306999	0.0002
D(LNGTEXP)	0.004754	0.033353	0.142534	0.8877
D(LNGTREV)	0.015506	0.021480	0.721878	0.4764
D(LNTAX)	0.022843	0.012293	1.858147	0.0737
D(LNCAP)	0.089800	0.030682	2.926791	0.0067
D(LNLAB)	0.493021	0.415854	1.185562	0.2458
ECM(-1)	-0.059251	0.071335	-0.830595	0.4132

R-squared	0.360635	Mean dependent var	0.018531
Adjusted R-squared	0.223628	S.D. dependent var	0.018682
S.E. of regression	0.016461	Akaike info criterion	-5.198743
Sum squared resid	0.007587	Schwarz criterion	-4.887674
Log likelihood	97.97801	Hannan-Quinn criter.	-5.091362
F-statistic	2.632240	Durbin-Watson stat	1.219481
Prob(F-statistic)	0.037589		

Pairwise Granger Causality Tests
Date: 05/05/18 Time: 05:29
Sample: 1981 2016
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
LNGTEXP does not Granger Cause LNRGDP	34	1.73422	0.1943
LNRGDP does not Granger Cause LNGTEXP		1.94183	0.1616
LNGTREV does not Granger Cause LNRGDP	34	2.74933	0.0807
LNRGDP does not Granger Cause LNGTREV		0.98885	0.3842
LNTAX does not Granger Cause LNRGDP	34	1.11137	0.3427
LNRGDP does not Granger Cause LNTAX		0.54655	0.5848
LNCAP does not Granger Cause LNRGDP	34	4.45580	0.0205
LNRGDP does not Granger Cause LNCAP		3.58096	0.0407
LNLAB does not Granger Cause LNRGDP	34	5.48405	0.0095
LNRGDP does not Granger Cause LNLAB		1.26416	0.2976
LNGTREV does not Granger Cause LNGTEXP	34	0.68126	0.5139
LNGTEXP does not Granger Cause LNGTREV		2.47300	0.1019
LNTAX does not Granger Cause LNGTEXP	34	3.54601	0.0419
LNGTEXP does not Granger Cause LNTAX		3.14923	0.0579
LNCAP does not Granger Cause LNGTEXP	34	4.55151	0.0191
LNGTEXP does not Granger Cause LNCAP		0.37898	0.6879
LNLAB does not Granger Cause LNGTEXP	34	0.33708	0.7166
LNGTEXP does not Granger Cause LNLAB		1.90094	0.1676
LNTAX does not Granger Cause LNGTREV	34	2.18054	0.1312
LNGTREV does not Granger Cause LNTAX		3.62811	0.0392

LNCAP does not Granger Cause LNGTREV	34	1.57385	0.2244
LNGTREV does not Granger Cause LNCAP		0.34780	0.7091
LNLAB does not Granger Cause LNGTREV	34	3.56275	0.0413
LNGTREV does not Granger Cause LNLAB		1.94140	0.1617
LNCAP does not Granger Cause LNTAX	34	0.80769	0.4557
LNTAX does not Granger Cause LNCAP		1.48858	0.2424
LNLAB does not Granger Cause LNTAX	34	0.66084	0.5240
LNTAX does not Granger Cause LNLAB		2.51033	0.0987
LNLAB does not Granger Cause LNCAP	34	2.18968	0.1301
LNCAP does not Granger Cause LNLAB		2.78260	0.0784

APENDIX 2
DATA EXTRACT

Year	GTEXP	GTREV	CAP	LAB	RGDP	TAX
1981	14.82	13.29	34.02	53.29	15258.00	0.14
1982	11.92	11.43	29.74	53.19	14985.08	0.07
1983	9.64	10.51	21.87	53.1	13849.73	0.04
1984	9.93	11.25	12.42	53.02	13779.26	0.06
1985	13.04	15.05	11.36	54.45	14953.91	1.58
1986	16.22	12.60	15.7	52.68	15237.99	1.86
1987	22.02	25.38	12.66	52.68	15263.93	1.95
1988	27.75	27.60	9.84	52.67	16215.37	2.18
1989	41.03	53.87	11.75	52.6	17294.68	1.60
1990	60.27	98.10	14.42	52.64	19305.63	2.76
1991	66.58	100.99	13.79	52.8	19199.06	3.18
1992	92.80	190.45	12.8	52.7	19620.19	5.24
1993	191.23	192.77	13.61	52.6	19927.99	5.73
1994	160.89	201.91	11.2	52.6	19979.12	10.93
1995	248.77	459.99	7.08	52.5	20353.20	16.99
1996	337.22	523.60	7.3	52.4	21177.92	19.47
1997	428.22	582.81	8.37	52.2	21789.10	27.37
1998	487.11	463.61	8.62	52.1	22332.87	29.21
1999	947.69	949.19	7.01	51.9	22449.41	34.11
2000	701.06	1906.16	7.03	51.7	23688.28	37.79
2001	1018.03	2611.03	7.59	51.5	25267.54	59.42
2002	1018.16	1731.84	7.02	51.2	28957.71	89.61
2003	1225.97	2575.10	9.91	50.9	31709.45	118.75
2004	1426.20	3920.50	7.4	50.6	35020.55	134.20
2005	1822.10	5547.50	5.47	50.7	37474.95	122.74
2006	1938.00	5965.10	8.27	50.9	39995.50	125.23

2007	2450.90	5727.50	9.26	51	42922.41	305.71
2008	3240.82	7866.59	8.33	51.1	46012.52	441.15
2009	3452.99	4844.59	12.09	51.3	49856.10	461.22
2010	4194.58	7303.67	17.29	51.4	54612.26	757.90
2011	4712.06	11116.85	16.21	51.6	57511.04	509.30
2012	4605.39	10654.75	14.91	51.7	59929.89	548.12
2013	5185.32	9759.79	14.9	51.42	63218.72	657.02
2014	4578.06	10068.85	15.8	53.45	67152.79	801.29
2015	4650.33	6952.00	15.49	54.67	69023.92	755.75
2016	4813.38	5679.03	15.09	50.87	67931.24	738.02