EFFECTS OF TAX REVENUE ON SELECTED MACROECONOMIC VARIABLES IN NIGERIA (2000-2013)

EZU, GIDEON KASIE

2010417003P

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DOCTOR OF PHILOSOPHY (PhD) DEGREE IN BANKING AND FINANCE

DEPARTMENT OF BANKING AND FINANCE

FACULTY OF MANAGEMENT SCIENCES

NNAMDI AZIKIWE UNIVERSITY,AWKA

JUNE, 2016

DECLARATION

I, Ezu Gideon Kasie with the registration number: 2010417003P, do hereby declare that this research work titled: *The Effects of Tax Revenue on Selected Macroeconomic Variables (2000-2013)* was carried out by me. This work has not been presented to any other Degree or Diploma awarding institutions.

…….. ……..
Ezu Gideon Kasie Date
Student

APPROVAL PAGE

This Dissertation titled: *The Effect of Tax Revenue on Selected Macroeconomic Variables in Nigeria (2000-2013)* written by Ezu, Gideon Kasie with the registration number: 2010417003P, has met the standard and satisfied the requirement in partial fulfillment of the requirement for the award of Doctor of Philosophy Degree (PhD) in Finance, Faculty of Management Sciences, NnamdiAzikiwe University, Awka.

Prof.Steve.N.OIbenta Supervisor	Date
Dr Victor Ike Okonkwo Head of Department	Date
Rev. Canon Prof. A. DNkamnebe Dean of Faculty	Date
Prof. Mike Anyanwaokoro External Examiner	Date
Prof.Harris Ike Odimegwu Dean, SPGS	Date

DEDICATION

This research work is dedicated to my lovely wife - Gift; daughter - Mmesomachukwu and my brother - IkechukwuEzu.

ACKNOWLEDGEMENTS

I thank the almighty God immensely for the gift of life, knowledge and people. I owe everything I am to Him.

My patient and meticulous guide and supervisor, Prof. S.N.O Ibenta, I cannot thank you enough for the numerous corrections and words of motivation. I am deeply grateful Sir.

My wonderful HOD, Dr Victor Ike Okonkwo and academic father and friend, Dr. Clem Nwakoby, I wouldn't forget so easily how supportive and caring you have been. My lecturers who added to my wealth of knowledge:, Prof. Alex Mbachu, Dr. P. K. Adigwe, Mr. Celestine Okaro, E. S. Ekezie, Mr. Felix Echekoba, Dr.IfeanyiNwanna, and Mrs. IfeomaAmakor. I appreciate you all.

To a great extent, I am who I am today because of my family. So, I wish to appreciate my parents- Chief Shedrack and Mrs Charity Ezu, for their unwavering support and undiluted affection.

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

This research work examined the effect of tax revenue on selected macro-economic variables in Nigeria (2000-2013). There were propositions that increase in tax revenue will lead to increase in economic growth and macroeconomic stability. There is need to validate this assumption and study the effects of tax revenue on these variables in Nigeria. The variables analysed in this study include; total tax revenue, inflation, interest rate, Gross Domestic Product, Exchange rate and Government expenditure. The main objective of the study was to critically examine the effect of total tax revenue on these selected macro-economic variables in Nigeria. The study made use of secondary data collected from the CBN Annual Statistical Bulletin, National Bureau of Statistics and Federal Inland Revenue Service Journals. The result of the correlation analysis showed that most of the variables employed are highly correlated. The directions of the correlation for some are positive, while some variables are negative. Heteroskedasticity test and Ramsey RESET test were performed in order to validly test the hypotheses and estimate the coefficient. Regression analysis was carried out using E-views8.0. The result of the findings show that total tax revenue and consumption and property tax had positive but insignificant effect on gross domestic product while company income tax has positive and significant effect on gross domestic product. Personal income tax has insignificant negative effect on gross domestic product therefore,the null hypothesis that there is no significant effect of total tax revenue on gross domestic product in Nigeria was accepted. On the other hand, total tax revenue, personal income tax, company income tax and consumption and property tax had negative but insignificant effect on inflation while exchange rate, money supply and interest rate had insignificant positive effect on inflation. To this end, the null hypothesis that there is no significant effect of total Tax Revenue on inflation in Nigeria was accepted. In the same vein,

total tax revenue, personal income tax and inflation rate had negative but insignificant effect on interest rate while company income tax, consumption and property tax and money supply had positive but insignificant effect on interest rate in Nigeria. The regression outcome shows that total tax revenue had positive effect on interest rate. However, the effect is not statistically significant. To this end, the null hypothesis that there is no significant effect of total Tax Revenue on interest rate in Nigeria was accepted.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Revenue is strategic to any government owing to its importance to economic growth and development. This has made various governments all over the world to embark on different sources of revenue so as to maintain the machineries of government and keep the economy moving. One of the most profound sources of revenue all over the world is taxation. Oluoha (2012) stated that taxation helps to stabilize the economy, distribute income and allocate resources effectively.

Nigeria's revenue profile consists of oil and gas, and non-oil sectors with the former contributing over 70% of the total revenue to the federation. Available data from Central Bank of

Nigeria (2013) indicate that the oil and gas sector contributed 77.5% from 1986-2013 on the average while the non-oil sector generated only 22.5% during the same period. To stimulate economic growth, the nation's economy had undergone several restructuring programmes starting with the deregulation of the economy through introduction of the Structural Adjustment Programme (SAP) in 1986 yet there have been macroeconomic imbalances. As part of the reform agenda, government introduced an economic blueprint known as the National Economic Empowerment Development Strategy (NEEDS) which anchored the tax system as a critical part of the reform agenda that enunciated the National tax policy with a view to enhancing tax revenue on a year to year basis through stimulation of domestic and foreign investment and other economic measures.

The reality is that tax revenue generated has not matched the revenue from oil with all the concerted efforts by government. The fact remains that often, implementation has been a bane due to a combination of lack of commitment to set objectives, delay in implementation, leakages, wastages, endemic corruption and the vast unorganised informal sector. A comparative review of tax revenue as a percentage of Gross Domestic Product (GDP) index of some African countries by the World Bank Group (2014) for the period 2009-2012 showed that Nigerian has the lowest tax revenue as a percentage of GDP. Lucas (1990) maintained that a revenue-neutral change that eliminated all capital income taxes while raising labour income taxes would increase growth rates negligibly. Okoduwa (2012) stressed that increase in tax revenue will have a distortionary effect on some macroeconomic variables since it will decrease the gross domestic product, increase government expenditure and increase inflation. If tax cuts fail to produce the projected boost in economic growth, tax revenues could decline, putting upward pressure on the deficit; worsening levels of national saving, and leading to laggard economic growth.

1.2 **Statement of the Research Problem**

The quest for equitable distribution of income, efficient allocation of resources and stabilization of the economy stimulated government to embark on fiscal policies. It is a truism that Nigerian tax system is fraught with a lot of challenges but the major issue is whether the revenue collected (adequate or inadequate) affects positively or negatively the Nigeria economy vis-a-vis the achievement of macroeconomic fundamentals. There were propositions that increase in tax revenue will lead to increase in economic growth and macroeconomic stability. There is need to validate this assumption and study the effects of total tax revenueon these variables in the context of Nigeria environment.

Utomi (2012) stressed that the Nigeria economy failed to experience a boom between 2009-2012 irrespective of increase in total tax revenue owing to laxity in governance and lack of transparency which has resulted in poor economic development.

Egbuonu (2012) maintained that even if the Nigerian government surpasses their annual tax revenue target but the revenues are not properly channeled to relevant sectors due corruption and lack of political will, it will bring about inflation, high interest rate, naira depreciation and excessive government expenditures on frivolities.

If banks charge high interest, investors will be dissuaded from borrowing which will ultimately affect production and bring about unemployment in the society. A society where there is high unemployment rate; social vices and its attendant insecurity will be prevalent.

Adegbite (2013) stated that corruption from both tax and government officials have really affected some macro-economic variables in Nigeria such as interest rate, exchange rate, inflation, government expenditure and gross domestic product. This became possible owing to government over-reliance in oil sector, which is very volatile.

1.3 **Objectives of the Study**

The broad objective of this study is to assess the effect of total tax revenue on selected macro-economic variables in Nigeria. The specific objectives of this study are to,

1. Examine the effect of total Tax Revenue on the Gross Domestic Product of Nigeria.
2. Assess the effect of total Tax Revenue on Inflation.
3. Determine the effect of total Tax Revenue on Interest Rate.
4. Ascertain the effect of total Tax Revenue on Exchange Rate.
5. Investigate the effect of total Tax Revenue on government expenditure.

1.4 **Research Questions**

1. How does total tax revenue affect Gross Domestic Product in Nigeria?
2. How does total tax revenue affect Inflation in Nigeria?
3. What are the effects of total tax revenue on Interest Rate?

4. What are the effects of total tax revenue on Exchange Rate?
5. How does total tax revenue affect government expenditure

1.5 **Statement of Hypotheses**

For the purpose of this study, the following five null hypotheses have been formulated to guide the study:

$H0_1$: There is no significant effect of total Tax Revenue on Real Gross Domestic Product in Nigeria.

$H0_2$: There is no significant effect of total Tax Revenue on inflation in Nigeria.

$H0_3$: There is no significant effect of total Tax Revenue on interest rate in Nigeria

$H0_4$: There is no significant effect of total Tax Revenue o exchange rate in Nigeria.

$H0_5$: There is no significant effect oftotal Tax Revenue on government expenditure in Nigeria.

1.6 **Significance of the Study**

This research work is significant to the following stakeholders:

Government: Different tiers of government in Nigeria rely so much on oil revenue thus making Nigeria a mono economy where oil is the major source of revenue to the government. In advanced countries, manufacturing and taxation is the major source of revenue to the government. Therefore this study will help different tiers of government to harmonize and design a better tax regime so as to boost their internally generated revenue. The culture of waiting for federal allocation on monthly basis without aggressively embarking on internal generated revenue will be over. Moreover, there is need for revenue generated through taxation to be

largely employed in provision of infrastructures and engaging in other capital projects which create jobs and ensure sound macro-economic fundamentals.

Investors: Due to inefficiencies in the implementation of Nigeria's tax policies, many investors and Manufacturers evade or avoid tax with impunity. This study will educate them on the need to regularly declare their actual profit and pay the corresponding tax accordingly. This will help the government to provide the necessary basic amenities which will help investors to maximize profit.

Researchers: Groups or individuals who want to study the effect of total annual tax revenue on macroeconomic variables will find this work very handy because it carefully analysed tax revenues in Nigeria and proffered solutions on how best government can raise adequate revenue through tax and channel them into productive use.

General Public: Finally, this study will assist the general public in understanding the nitty-gritty involved in Nigeria tax system. There is a misconception by some uninformed public that payment of taxes is tantamount to freely giving money to government officials who will in turn use it for their own private use. Therefore, this study will encourage them to ask questions and monitor government officials especially when their money is being spent so as to ensure economic growth and development through the provision of infrastructural facilities.

1.7 **Scope of the Study**

This study covered the tax revenue accrued to the Federal Government of Nigeria over a period of time (2000-2013). These periods were chosen because of the robust tax reforms introduced by various governments within the period which included the enactment of Company

Income Tax Act (2001) as amended, Petroleum Profits Tax Act (2003) as amended as well as establishment of Central Data Base and tax identification number system (TIN) for easy collection of taxes. The work studied the effects total tax revenue on selected macroeconomic variables like Gross Domestic Product, Inflation, Interest rate, exchange rate and Government expenditure. Federal Inland Revenue Service was used as a focal point.

1.9 **Limitation of the Study**

The work studied the effects of total tax revenue on selected macroeconomic variables such as Gross Domestic Product, Inflation, Interest rate, exchange rate and Government expenditure. There are other macroeconomic variables that were not captured such as employment rate, general price level, foreign direct investment etc. It will be more difficult and humongous to add all the macroeconomic variables in this study.

1.9 Definition of Operational Terms

Macroeconomics

The field of economics that studies the behaviour of the total economy.Macroeconomics examines economy-wide phenomena such as changes in unemployment, national income, rate of growth, gross domestic product, inflation and price levels.

Microeconomics

It is the study of particular markets, and segments of the economy. It looks at issues such as consumer behaviour, individual labour markets, and the theory of firms.

Tax Evasion

It is the purposeful illegal attempt of a taxpayer to evade payment of a tax imposed by the federal government. Conviction of tax evasion may result in fines and imprisonment.

Tax Avoidance

It is the legal usage of the tax regime to one's own advantage to reduce the amount of tax that is payable by means that are within the law.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The three tiers of government in Nigeria have overtime devised a good number of sources for its revenue generation ranging from taxes, oil sales, royalties etc. This section critically analyses the views and contribution of various erudite scholars on the effect of total annual tax revenue on macro-economic variables as well as other related topics.

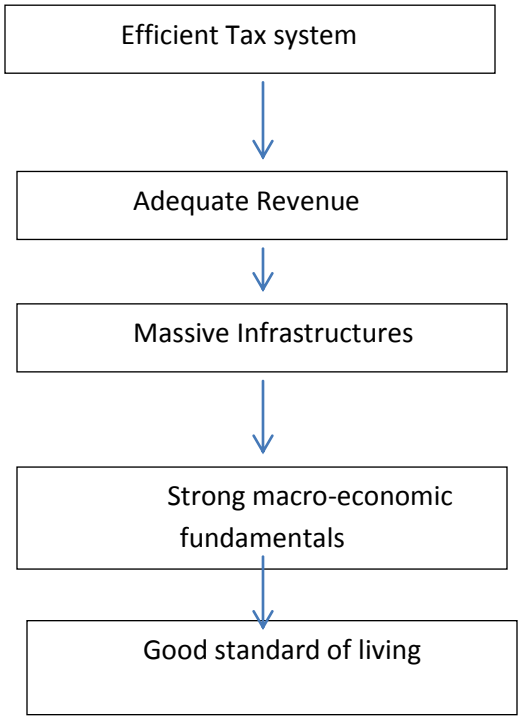
2.1 Conceptual Framework

2.1.1.0 Concept and Nature of Taxation

Taxation is seen as a burden which every citizen must bear to sustain his or her government because the government has certain functions to perform for the benefits of those it governs. According to Adams (2012), taxation is the most important source of revenue for modern governments, typically accounting for ninety percent or more of their income. Taxation is seen by Aguolu (2011), as a compulsory levy by the government through its agencies on the

income, consumption and capital of its profits, interests, dividends, discounts and royalties. It is also levied against company's profits, capital gains and capital transfers. Ejoor (2013) stresses that taxation is a concept and the science of imposing tax on citizens. According to him, the imposition of tax is expected to yield income which should be utilized in the provision of amenities, both social and security and create condition for the economic well-being of the society. He stressed that efficient tax system affords the government of adequate revenue which in turn leads to the provision of massive infrastructures and strong macro-economic fundamentals. He illustrated this concept thus:

Fig 1 Concept of Efficient Tax System



Source: Ejoor (2013) taxation policy and concept

2.1.1.1 FISCAL POLICY

This is the erection of tax structures and direction of government expenditure for the purpose of aj3ttaining specific objectives such as balance of payment or avoidance of inflation. It is the combination of measures to influence, regulate and control the flow of income, expenditure and distribution of resources in an economy (Uzoagu, 2008).

Fiscal policies, regardless of how articulated may not have a response to implementation problems if done in isolation, that is, even if well implemented, the desired result may never manifest. Therefore they are formulated along with other new already existing social and economic policies which ensures that micro and macro- economic fundamentals are sound. The key instruments are government expenditure and taxation.

Okowa (2009) stated that the major objectives of fiscal policy include; influencing the rate of economic growth of the economy; raising the level of national income output and employment; protecting infant industries from stiff or unhealthy competition, reducing the level of unemployment by seeing to equitable employment of resources, moderating the rate of inflation; improving the balance of payment position as well as encouragement and diversification of foreign exchange earnings through increased export activities especially in the non-oil sector.

2.1.1.2 Tax as a Tool of Fiscal Policy

Taxes are the most important sources of government revenue. Apart from being a source of government revenue, some of the major purposes of tax include; bringing efficiency through resource allocation; equality through income and wealth distribution, economic stabilization and economic growth. Jang (2012) stressed that taxation helps the fiscal policy of any government to achieve the following;

1. Meet its social, economic and political obligations and discourage the consumption of goods that are considered undesirable or harmful to health such as cigarettes, over-used cars and wrong investment priorities.
2. Protect infant industries through preferential tax policy that regulates the importation of certain goods that can be produced within the country e.g increasing the import tariff of rice and granting waivers to importation of raw materials and equipment for rice production in the country.
3. Control inflation and other social and economic policies of government. Inflation can be said to be caused by factors grouped generally under demand pull inflations where prices increase due to excessive demand for commodities and service cost. Pull inflation caused by increase in cost of production. Tax can be used to curb the demand side of the problem by reducing disposable income of individuals. Increase in personal income tax reduces inflationary pressure by taking away from individuals

some of their purchasing power, which might otherwise be spent. Also from the supply side of it, a combination of tax relievers can encourage large scale production through lower cost of production.

4. Stimulate growth and development by engaging in viable project which will help in developing the economy technologically, socially and otherwise.

2.1.1.3 Expenditure as a Tool of Fiscal Policy

Government expenditure can be in form of recurrent or capital expenditure. Recurrent expenditure refers to the usual continuous cost of running the government machinery, while capital expenditure refers to funds allocated to viable and relevant projects that can generate employment and may make some profits to repay the capital source. Therefore financial discipline/management should form the core of capital expenditure pattern (Okeke, 2009).

There are some specific sectors of the economy that need government spending as to lay a solid foundation that is needed to sustain steady growth. Funds could be channeled to these sectors through either government involvement or loans to private sectors through government numerous agencies established for such purpose such as National Directorate of Employment (NDE), Petroleum Trust Fund (PTF) etc to enhance upstream and downstream development of priority sectors. For instance; to achieve a major gain in oil sector, funds could be directed to the work of exploration development and production of oil and gas products (upstream) and

establishment of refineries, storage tanks, oil rigs etc. In terms of agriculture, government should directly or indirectly channel funds towards provision of fertilizers, improved seedlings, farm equipment, storage facilities and agro-based industries to process these farm products and possibly upgrade them to export quality for the international market. All these stages generate employment, act as an incentive to large-scale mechanized farming/production and indirectly improve the lot of the masses (Ekuno, 2011).

2.1.1.4 Limitations of Fiscal Policy Implementation

Hakeem (2009) stressed that policies would be well formulated but unfortunately due to one internal or external threat, the implementation of that policy would be hindered. In this case some of the factors that hinder fiscal policy implementation are discussed below;

1. **Structure of the Economy:** Certain features of an economy can become problematic on their own, thereby being detrimental to the implementation of fiscal policies. For instance, the activities of strong and recognized labour unions, monopolistic firms etc. if taxes are raised for a particular purpose, for instance to curbing demand-pull inflation, labour unions usually oppose, or threaten general strike action. On the other hand, they sometimes demand for wage increases which in most cases is done across the board and will in effect result in inflation. The multi-monopolistic firms simply pass on the burden of tax or higher cost of production to the buyer in form of higher prices.

2. **Political instability:** as a result of frequent changes in leadership, different ideologies also tend to be springing up as it pertains to economic regulations and sometimes lead to non-implementation or discarding of a predecessor long term strategic plan which. It is either out rightly changed or reversed without recourse to its benefit to the masses.
3. **Interpretation, Forecasting and Timing Problems:** Identification, interpretation and prediction of treads in economic activities and adjusting of policies to address observed cases are mainly the limitations of fiscal policies. Example is identification of high prices problems which could be as result of general decline in economic activities; increase in population resulting in total demand without increase in productivity; dwindling production resulting in lower supply and corruption.

2.1.1.5 Principles of Taxation

Okon (2012) stated the principles of taxation as follows;

Equity/Equality of Sacrifices

He maintained that each tax payer should contribute to the support of government also referred to as "state" as nearly as possible in proportion to his ability to pay. For example 10 to 20 percent of all income above a certain figure, since there are some citizens whose incomes were so low that they were obviously unable to pay any taxes. Similarly, Peacock (2013) conceived the principles of equity as equal proportion of taxation on every income, that is, in principle everyone should pay the same proportion of his income as tax. This means proportional taxation

or some percentage on all incomes and therefore rejected progressive taxation i.e (higher tax rates on higher incomes). It also means equal taxation of earned and investment incomes, existing private wealth and capital are exempted, taxation is limited to income only.

In the same view, Prest and Barr (2012) said that equal amount per head should be levied. It is obviously much easier to run a system under which everybody pays like ten pounds per head than one which the amount due varies according to economic circumstance.

The Principle of Certainty

This principle asserts that the taxpayer should know much tax he has to pay and when it is to be paid. Such information should be adequately accurate and clearly stated by the tax regulations. Thus, neither the amount nor the time of payment should be the subject of arbitrary decisions by the tax officials.

The Principle of Convenience

Taxes should be collected at the time convenient for the taxpayers. For example, the Pay as You Earn income tax on salaries and wages deducted weekly or monthly as the case may be as income is received, is a good example of the principle of convenience. Convenience as a principle of taxation has to do with the enforcement of tax and administration. Eckeston (2011) said that a good tax system should not impose taxes that are impossible to enforce even when

people comply to tax laws voluntary, the government should verify the tax payments, otherwise the tax becomes an invitation to default.

Ejim (2012) has pointed out that every tax ought to be levied at the time or in the manner in which it is likely to be convenient for the contributor to pay it. Using this principle as an example, one can argue that the convenient time for payment of tax for Nigerian farmers is during the harvest time.

The Principle of Economy

The principle emphasizes that the cost of assessing and collecting a tax should be small in relation to the revenue so collected i.e economy should be the yardstick so that the cost of collecting tax should not be excessive. For example, if the expenses incurred in the course of collecting a tax exceed even 50 percent of the yield, then such taxes do not conform to the principle of economy.

2.1.1.6 Objectives of Taxation

Although the tax structure in the various developing countries differs widely, the objectives of taxation in these countries are virtually the same. Unfortunately, however, the objectives of the tax system and the relationship between these objectives are hardly clearly stated (Cutt, 2009). This does not only makes tax administration difficult but also give room for

tax evasion with the attendant effects on economic development. He therefore states that a brief discussion on the objectives of taxation as outlined below would be a gainful exercise.

Raising of Revenue: The classical function of a tax system is the raising of the revenue required to meet government expenditure. This income is required to meet the expenditure which are either the provision of goods and services which members of the public cannot provide such a defense, law and order to the provision of goods and services which the federal and state governments feel are better provided by itself such as health services and education.

Wealth Redistribution: In modern times, great emphasis has come to be placed on the objective of redistribution of wealth. This has two quite distinct forms. The first is the doctrine that taxation should be based on ability to pay and is summarized by the saying that "the greatest burdens should be borne by the broadest backs". The second form presupposes that the present distribution is unjust and concludes that this should therefore be undone. This second principle sees confiscation as a legitimate objective of taxation.

Economic Price Stability: It has been said that the most fundamental reason a government has for taxing its citizens is to provide a reasonable degree of price stability within the nation (Summerfield, et al 2011). Most spending by the public and private sectors without taxes generates high demand, which is inflationary. In such a situation, the basic function of taxation is to reduce private expenditure in order to allow government to spend without causing inflation.

Thus, taxation is basically a deflationary measure. On the other hand, when total demand is lower than the deserved level, government has two options which are to increase government spending with increasing taxes or to reduce taxes while leaving government spending stable.

Economic Growth and Development

The overall control or management of the economy rests on the central government and taxation plays an important role in this direction. In addition to maintaining reasonable price stability, governments are determined to promote the near-full employment of all the resources of the country (including human resources i.elabour) and ensure a satisfactory rate of economic growth and development programmes are geared towards raising the standard of living of the masses of a country through the improvement of their economic and social conditions. Taxation in one way discourages, postpones or reduces consumption and encourages savings for private investments.

This is only possible when the basic necessities of life including security, law and order, education and communication are provided by government, hence, the national development plans of developing countries are considered to be important. This objective will be of great assistance to Nigeria where there is massive unemployment. According to Soyode and Kajola (2012) the responsibilities or objectives of government using taxation are as follows:

Revenue Generation: The primary objective of modern tax system is generation of revenue to help the government to finance ever-increasing public sector expenditure.

Provision of Merit Goods: An important objective of tax system is the promotion of social, economic and good governance through provision of merit goods. Examples of merit goods are health and education. These must not be left entirely to private hands though, private participation should be encouraged. Private enterprises will push the cost of providing education and health services beyond the reach of common people if left entirely in their hands.

(c) **Provision of Pubic Goods:** Revenue generated from tax can be used to provide commonly consumed goods and services for which an individual cannot be levied the cost of the goods or a service consumed is one of the functions of government. Examples of public goods include:

(i) Internal security through maintenance of law and order by police and other security agencies.

(ii) External security through defense against external aggression by Army, Navy and Airforce, and

(iii) Provision of street lights and roads

Discouraging Consumption of Demerit Goods: Tax can be used to discourage consumption of demerit or harmful goods like alcohol and cigarette. This is done to reduce external costs to the society. These external costs include health risks and pollution.

Redistribution of Income and Wealth

Tax system is a means of ensuring the redistribution of income and wealth in order to reduce poverty and promote social welfare. For example, taxation can be used as economic regulator for promotion of economic stability and sustainable growth through fiscal policy. Government also has responsibility for fighting inflation, unemployment and creating a sound infrastructure for business. A tax system is one of the means of achieving this.

Harmonization of Economic Objective

Harmonization of diverse trade or economic objectives of different countries is one of the modern objectives of tax systems. For example, tax system can be used to achieve the philosophy of the single market in ECOWAS or Africa so as to provide for the free movement of goods/services capital and people between member states.

2.1.1.7 Features of a Good Tax System

Somorin (2011) stated the features of a good tax system as follows:

Simplicity, certainty and clarity: Tax payers should understand and trust the tax system and this can only be achieved if Nigerian tax policy keeps all taxes simple, creates certainty through considerable restrictions on the need for discretionary judgments and produces clarity by educating the public on the application of relevant tax laws. It is therefore imperative that the Nigerian Tax System should be simple (easy to understand by all), certain (its laws and

administration must be consistent) and clear (stakeholders must understand the basis of its imposition)

Low Cost of Administration

A key feature of good tax system is that the cost of administration must be relatively low when compared to the benefits derived from its imposition. There must therefore be proper cost-benefit analysis before the imposition of any taxes and the entire machinery of Tax Administration in Nigeria should be efficient and cost effective.

Fairness

Nigeria's tax system should be fair and as such observe the objective of horizontal and vertical equity. Horizontal equity ensures equal treatment of equal individuals. The Nigerian tax system should therefore seek to avoid discrimination against economically similar entities. Vertical equity on the other hand addresses the issue of fairness among different income of fairness among different income categories. In this regard, the Nigerian tax system shall recognize the ability to pay principle, in that individuals should be taxed according to their ability to bear the tax burden.

Flexibility

Taxes in Nigeria should be flexible enough to respond to changing circumstances. Prevailing circumstances should also be considered before the introduction of new taxes or the review of existing ones.

Economic Efficiency

The Nigeria tax system shall at all times strive to minimize the negative impact of taxes on economic efficiency by ensuring that the marginal tax rates do not distort marginal propensity to save and invest.

Agbor (2008) believed that governments could counteract the problem of instability in the economy caused by cycles of high unemployment, severe fluctuations in prices (inflation or deflation) and uneven economic growth through the use of taxation as an instrument of fiscal policy to promote full employment, price level stability, and a steady rate of economic growth. In the Keynessian scheme, tax systems is a primary tool of fiscal policy used, rather than trying to design a neutral tax system, governments deliberately use taxes to move the economy in the desired direction.

Somorin (2011) stated that taxation is recognized as a very important tool for national development and growth in most societies. One of the major indices by which development and growth can be measured in any society is the amount of wealth, which is created by economic

activities undertaken in that society. Furthermore, she stressed that one of the means of creation of wealth for citizens is through meaningful employment, so that citizens are able to earn income to cater for their needs and also contribute taxes to the Government as part of their contribution to National Development.

He stressed that taxation can play a vital and pivotal role in the creation of wealth and employment in the Nigerian economy in the following ways:

(i) Stimulating growth in the economy by increased trade and economic activities. In this regard, tax revenues should be used to provide basic infrastructure such as power, roads, transportation and other infrastructure which would facilitate trade and other economic activities.

(ii) Stimulating domestic and foreign investment. It is necessary to mention that where the tax system creates a competitive edge for investments in the economy, local investments would be retained in the country while also attracting foreign investments. Increased investment would generate employment and provide wealth in the hands of individuals.

(iii) Revenue generated from taxes can also be applied directly to identify sectors of the Nigerian economy to stimulate such sectors. For this statement to apply, the sector must be those which have potential for creating employment, developing

the economy and creating wealth for the greater benefit of citizens and government of this country.

(iv) Revenue earned from taxes can be used to develop effective regulatory systems, strengthen financial and economic structures and address market imperfections and other distortions in the economic sector. Taxes realized from specific sectors of the economy can be channeled back to those sectors to encourage their continued growth and development.

(v) Redistribution of income, whereby tax revenue realized from high income earners is used to provide public infrastructure and utilities to the lowest income earners.

Reference to Equity, Smith said that an individual ought to be taxed in proportion to the revenue he enjoys under the protection of the state. On certainty, he argued that the rate of taxation should be certain but not arbitrary, the time of payment, the manner of payment the quantity paid all ought to be very clear to the taxpayers concerned.

Regarding convenient, Smith (2009) maintained that the method of collection should be convenient to both the collector and the contributor.In his last principle, on Economy, he said that a tax system must maintain adequate precaution to ensure that it does not make the economic situation worse off. It must take cognizance of the citizen as an investor, consumer and saver and must not affect adversely the economic contributions of the person taxed. Neither should it lead to disincentive of effort nor undesirable features like inflations.

Okon (2012) states that income tax can be regarded as a tool of fiscal policy used by the government all over the world to influence positively or negatively particular type of economic activities in order to achieve desired objectives. The primary economic goals of developing countries are to increase the rate of economic growth and hence per capita income, which leads to higher standard of living. Progressive tax rate can be employed to achieve equitable distribution of resources. Government can also increase or decrease the rates of tax, increase or decrease the rate of capital allowances (in lieu of depreciation) to encourage or discourage certain industries (e.g in the area of agriculture, manufacturing or construction) or may give tax holidays to pioneer companies. Tax therefore can be used as an agent of social change if employed as a creative force in economic planning and development.

However, tax revenue mobilization as a source of financing developmental activities in Nigeria has been a difficult issue primarily because of various forms of resistance, such as evasion, avoidance and corrupt practices attending to it. These activities are considered as sabotaging the economy and are readily presented as reasons for the underdevelopment of the country. Government collects taxes in order to provide an efficient and steadily expanding non-revenue yielding services, such as infrastructure, education, health, communications system, employment opportunities and essential public services (such as the maintenance of law and order) irrespective of the prevailing ideology or the political system of a particular nation. Tax is also the nexus between state and its citizens, and tax revenues are the lifeblood of the social contract.

2.1.1.8 Total Tax Revenue and Inflation

Inflation is a sustained increase in the general price level of goods and services in an economy over a period of time. When the general price level rises, each unit of currency buys fewer goods and services. Inflation has never done well to the economy, as it affects all sectors of the economy. Inflation and increase in tax revenue go together thereby reducing the value of money especially if the government decides to embark on massive provision of infrastructural facilities (Remy, 2001).

However, the rise in prices is inherent in the growth process. The demand for goods and services rises as a result of stepping up of investments on a large scale and consequent increase in incomes. This lead to inflationary rise in prices, especially when new resources are developed, and growth leads to the production of more commodities, the inflationary rise in prices will be checked, but the rise in prices will be there with the growth of the economy and it will be moderate and gradual.

Okoduwa (2008) disagreed with the general belief that increase in tax revenue will bring about inflation rather he postulated that the current inflation in Nigeria is a direct result of the policies of the Nigerian government which favours re-current expenditure instead of capital expenditure. According to Utomi (2013) since the 1999, 60 percent of government budget has been allotted to re-current expenditure which stimulates inflation. Therefore in Nigeria, the higher the revenue from taxation, the higher the recurrent expenditure by the government.

Okugba (2003) stressed that increase in total tax revenue cannot necessarily promote inflation in the economy because government can introduce some monetary policy instrument which involves the combination of measures designed to regulate the value, supply and cost of money in an economy in consonance with the level of economic activity. These policies actually control the rise in demand, by increasing the rates of interest and reducing the supply of real money. The central bank adopts a number of methods to control the quantity and quality of credit. Thus, it raises the interest rate to discourage borrowing from both companies and households. With increase in interest rates, it simultaneously encourages the savings rate, owing to an escalation in the opportunity cost of expenditure. It also decreases the demand for loans, thereby limiting the growth of broad money. There may also be a fall in the commercial investment due to a rise in the costs of borrowing money. This leads to a fall in the collective demand.

Okoye (2003) opined that increase in total tax revenue can stimulate inflation in the economy if the money realised are not judiciously utilised by the government. He maintained that the revenue realised during 70's were channelled to Festac 77 which did not add any value to national growth and development instead there was subsequent inflation in the economy which rose to two digit rate for the first time in the Nigeria economy.

2.1.1.9 Interest Rate and Government Tax Revenue

Interest rate is the percent charged or paid for the use of money, that is cost of fund. It is charged when the money is being borrowed, and paid when it is being loaned. The interest rate that the lender charges is a percent of the total amount loaned. Similarly, the interest rate that an institution, such as a bank, pays to hold your money is a percent of the total amount deposited, (Owen, 2003). Interest rates are charged not only for loans, but also for mortgages, credit cards and unpaid bills. The interest rate is applied to the total unpaid portion of your loan or bill. It's important to know what your interest rate is, and how much it adds to your outstanding debt. Herritt (2001) stated that if interest rate adds more to debt than the amount paid for, debt could actually increase even though payments are made.

The Central Bank of Nigeria is responsible for setting interest rates. The monetary policy rate is the rate at which the Central Bank of Nigeria lends to commercial banks. The interest rates that banks charge make loans more expensive. When interest rates are high, that means fewer people and businesses can afford to borrow. This lowers the amount of credit available to fund purchases thus slowing consumer demand. At the same time, it encourages more people to save (if they can) because they receive more on their savings rate. Higher interest rates also reduce the capital required to expand businesses, strangling supply. This reduction in liquidity usually slows the economy down.

Okoye (2001) opined that revenues from taxation can increase or decrease interest rate in a country since decrease in tax revenue means that there will be insufficient funds within the disposal of Central Bank to lend to commercial Banks. If commercial banks don't have sufficient funds in their vaults then many investors will not be able to borrow and vice versa.

2.1.2.0 **Government Expenditure and Tax Revenue**

According toArpaia and Turrini, (2008), the amount of revenue generated by the government determines the level of expenditure it will embark. First, it improves the understanding of long-term planning and structural public finance issues. Disposing of a reliable measure of the structural relation between the non-cyclical component of government expenditure and potential output is key to obtaining a benchmark against which to evaluate the stance of expenditure policy and then of overall fiscal policy. Judging whether expenditure policy is expansionary or contractionary requires some idea about how a neutral expenditure policy would look like.

However, while there is broad consensus that a neutral revenue policy is such that government revenues move together with output in a proportion depending on structural factors such as the degree of progression of the tax system and the responsiveness of the various tax bases with respect to output (the output elasticity of revenues), no clear a-priori exists for what concerns expenditure policy. Estimating the long-term relationship between government expenditure and GDP permits the formulation of a benchmark for neutral expenditure policy grounded on empirical evidence. Useful information for policymaking would also be provided by estimates of the speed at which

government expenditure adjust to their long-term relation with GDP after a shock in economic activity.

Herbert (2012) stated that increase in tax revenue should be judiciously used or else there will inflation in the economy. He suggested that revenue realized from taxes should be saved or channeled into productive sectors like the provision of basic amenities and social securities. The relationship between tax revenue and expenditure is that the higher the revenue, the higher the expenditure of government and vice versa (ceteris paribus)

2.1.2.1 Tax Revenue and Exchange Rate

Exchange rate is defined by Jhingan (1997) as the rate at which one currency is exchanged for another. Thus from this definition, Jhingan regards exchange rate as a price of one currency in terms of another currency. Thus the exchange rate between the naira and the dollar refers to the amount of naira required to purchase a dollar.

According to Obaseki (2013), the exchange rate of a particular currency measures the worth of a domestic economy in terms of another. The exchange rate measures the external value of a currency. It provides a direct relationship between the domestic and foreign prices of goods and services. With the national and international prices at a definite level over- valued exchange rates will harm the exports and stimulate imports. This situation can cause a deficit in the balance

of payment. On the other hand, if the exchange rate has been under- valued, then exports will be stimulated and imports discouraged, that will tend to cause a surplus in the balance of payments.

Agbasi (2003) stated that exchange rate of a country can be very stable if there is no over-reliance in foreign made goods. This can be achieved if revenues from taxation and other sources are judiciously utilized by the government through the provision of basic amenities and reducing the cost of doing business in Nigeria.

Kalu (2012) examined "The behaviour of real exchange rate and total annual tax revenue in Nigeria: An econometric exploration". The study made use of secondary data collected from CBN Statistical Bulletin and National Bureau of Statistics. The study involved time series data which spanned between 2000-2012. Various exchange rate management regime in Nigeria were analysed. The study found out that the current wholesale Dutch Auction System which is in use in Nigeria is the best for the Nigerian economy because it allows the forces of demand and supply to determine the exchange rate of a country's currency. The study equally found out that increase or decrease in tax revenue can stimulate or mar exchange rate of country if the proceeds from such revenues are channeled towards importation of finished goods without correspondent export of finished goods and vice versa.

Babaloola, (2012), examined the relationship between total annual tax revenue and exchange rate in Nigeria. A small macroeconomic model was formulated to capture the interrelationships. The study estimated the system equation using the three stage least square

(3SLS) regression framework. The study found out that efficient utilization of tax revenue and other revenues by the government is key to robust exchange rate mechanism. This implies that if Nigeria can transform her economy from consumption economy to manufacturing economy, then the value of naira will significantly appreciate against other international currencies owing to the forces of demand and supply of currencies.

2.1.2.2 **Tax Revenue and Gross Domestic Product**

Gross Domestic Product (GDP) is the market value of all officially recognized final goods and services produced within a country over a period of time usually in a year. GDP per capita is often considered an indicator of a country's standard of living. Okeke (2010) maintained that after the Bretton Woods Conference in 1944, GDP became the main tool for measuring a country's economy. GDP can be determined in three ways, all of which should, in principle give the same result. They are the production (or output) approach, the income approach, or the expenditure approach. The most direct of the three is the production approach, which sums the outputs of every class of enterprise to arrive at the total. The expenditure approach works on the principle that all of the product must be bought by somebody, therefore the value of the total product must be equal to people's total expenditures in buying things. The income approach works on the principle that the incomes of the productive factors must be equal to the value of their product and determines GDP by finding the sum of all producers' income. According to Straus (2001) two adjustments must be made to get GDP:

1. Indirect taxes minus subsidies are added to get from factors cost to market prices.
2. Depreciation (or capital consumption allowance) is added to get from net domestic product to gross product

According to Hyman (2013)while studying “Increase in Total Revenue and GDP per capita” stressed that GDP is not a measurement of the standard of living in an economy; however, it is often used as such an indicator, on the rationale that all citizens would benefit from their country's increased economic production. Similarly, GDP per capita is not a measure of personal income. GDP may increase while real incomes for the majority decline.

The major advantage of GDP per capita as an indicator of standard of living is that it is measured frequently, widely, and consistently. It is measured frequently in that most countries provide information on GDP on a quarterly basis, allowing trends to be seen quickly. It is measured widely in that some measure of GDP is available for almost every country in the world, allowing inter-country comparisons. It is measured consistently in that the technical definition of GDP is relatively consistent among countries. The major disadvantage is that it is not a measure of standard of living. GDP is intended to be a measure of total national economic activity—a separate concept. The argument for using GDP as a standard-of-living proxy is not that it is a good indicator of the absolute level of standard of living, but that living standards tend to move with per-capita GDP, so that changes in living standards are readily detected through changes in GDP.

The rebasing of the country's gross domestic product, GDP, has thrown a challenge to the Federal Inland Revenue Service, FIRS, to step up its tax revenue collection efforts. With the rebasing exercise, Nigeria's GDP of over $500 billion puts the country's economy as the largest in Africa and 26th in the world (Okonjo, 2014)

Mashi (2014) stated that GDP rebasing was posing a challenge to the country's tax system, requiring the revenue agency to raise its game to ensure that the tax revenue to GDP ratio improved. He reminded the staff of FIRS not to rest on their oars as there is still much work to be done. The rebasing of the country's GDP forced the total tax ratio to GDP to drop to about 12 per cent and non-oil tax to GDP ratio at about four per cent. This, he said, has further placed the service in the full public glare of analysts, which the staff must reflect on as they cannot afford to disappoint.

Ibekwe (2009) stated that GDP gives important clues as to how well a country is doing. He said "clues", because wellbeing and standard of living are only partially a matter of financial or monetary wealth. GDP is the inflation-adjusted market value of all goods and services produced within a country in a given period (or, alternatively, the value of the income generated in terms of profits and wages). Increased production of goods and services does benefit the wellbeing and standard of living of the average person in some ways: higher average incomes and increased consumption are often beneficial. But not always: GDP numbers do not answer essential questions such as whether we are consuming too much of the

wrong things, whether we have better quality consumption, or whether we are saving too little. Furthermore, other elements of wellbeing not related to consumption and financial income are not measured by GDP: leisure time, longevity, social equality, quality of education, capabilities etc. In the words of Robert (2012)

> "The Gross National Product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile. And yet, many good things happening in or being experienced by people living in a certain country are actually strongly *correlated* with the level and/or growth rates of that country's GDP per capita. Some of those good things are also directly or indirectly connected to human rights issues. For example, when a country's level or growth rate of GDP increases, its average standard of living, the quality of education and the health of its population also increase. And standard of living, education and health are all human rights".

So, economic growth is indeed a wonderful thing because it's correlated with many good outcomes. But growth will not automatically or inevitably bring about those outcomes. It takes the actions and hard work by a lot of people. If growth brings more income, people still have to decide to invest the money in education, redistribution, institution building etc. then the famous "correlation does not equal causation" warning. Sometimes, economic growth combined with purposeful action by individuals does bring about good things. Sometimes, it's those good things

that bring about economic growth. Sometimes it's an invisible third factor that brings about both good things and growth.

2.1.2.3 Distinction between Taxation and other components of Revenue

A further but brief discussion may be necessary on the distinction between taxes and other internal revenue items such as charges, levies and penalties. Such other revenue items are not usually income or transaction based, but may be imposed for the use of utilities or infrastructure, or the right of way or simply imposed on certain category of persons, activities or persons within a particular area. Okonkwo (2012) provided a working definition of similar items below:

(i) Charge – a charge is an amount paid for the use of goods, services or infrastructure provided by the Government;

(ii) Fee – a fee is a payment for the labour or services provided by a public body, such as a Government entity or agency. Examples of fees include payments for use of utilities and for obtaining Government documents such as passports and visas.

(iii) Fines – these are sums of money imposed by the Government as penalties for an offence or indiscretion by a person within the jurisdiction of the Government.Examples of fines include Court fines, fines imposed for traffic violations,Unauthorized usage of Government property e.t.c.

(iv) Penalty – this is similar to a fine and is usually an amount paid or forfeited for not meeting a particular condition or fulfilling an undertaking. Examples of penalties include payments for late filing of revenue, or the late or non-provision of information at the time required to Government agencies.

(v) Rates – these are usually imposed on property or other assets and are usually determined with reference to the value of the property or in relation to some other thing. Examples of rates include tenement rates and rates on shops and kiosks.

Jang (2009) noted, that in Nigeria, taxes at the Federal and State levels are usually more efficiently collected and utilised than most of the other revenue sources highlighted above. However, unlike other revenue items, tax officials do not exercise custody or control over taxes, which they collect and are not involved in the allocation or expenditure of the taxes. This distinction between those who collect and those who utilise is important for control purposes and also because the manner of utilisation of revenue collected impacts directly on the ease with which such revenue are collected.

Heneith (2009) stressed that sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. In this context sustainable development refers to the pattern of revenue generation, which is able to meet the needs of the present generation of Nigerians, without negatively impacting the ability of future generations to meet their own needs. Generally, taxation is looked upon as

a sustainable source of Government revenue due to the stability and certainty of the tax system. Unlike other sources of revenue, taxes are constantly available in so far as economic activity is carried on in the society. Recent developments in the global and local economy which have significantly impacted Government revenue has directed focus on taxation as a sustainable source of income.

It is in line with this that the National Tax Policy intends to create awareness on the importance of the role, which taxation can play in securing a stable flow of revenue for the Government. Olukoya (2009) maintained that the main reason why Nigerians especially businessmen evade tax is because of corruption on the side of Government of Nigeria since funds realized from taxes are not judiciously used. Nigeria is currently viewed as a mono-product economy with significant reliance on oil revenue due to historical developments in the Nigerian economy therefore, the researcher disagrees with Olukoya because the main reason why Nigerian's evade taxes is because of government laxity on implementation of tax laws since they realize huge amount of money from oil. However, taxation has been identified as an alternative to oil revenue and a more reliable source of revenue. The tax policy shall therefore promote and encourage a shift in focus from non-tax revenue to tax revenue by Governments at all levels of the Nigerian economy.

The focus of the competition amongst the three tiers of government shall be to maximize tax revenue within the jurisdiction of each Government in line with Constitutional and statutory

provisions. It is expected that there would be increased collaboration as a result of the need to grow tax revenue by each level of Government and that improved collaboration would enhance tax yield amongst Federal, State and Local Government authorities.

The concept of sustainable development and healthy competition shall be upheld as underlying philosophies in the development of Nigeria's tax system. It is however important to note that even as healthy competition is encouraged, this should be balanced with the need to have an effective and efficient tax system. Several jurisdictions have different ways of striking that balance. Kayode (2003) maintained that in Nigeria, that balance will be achieved by ensuring that those ratios that drive allocation of revenue collected from any source has built-in mechanisms for rewarding and recognizing arms of government that demonstrate effective utilisation of revenue, investment promotion, infrastructural development and economic activity amongst others.

2.1.2.4 The role of Fiscal Federalism

Fiscal Federalism is expected to play a major role in Nigerian tax revenue drive. Aruma (2009) stressed that there should be strict adherence to the tenets of fiscal federalism, which will include the basic understanding of which revenue functions and agencies are best centralised, which should run concurrently and which are better placed under the sphere of decentralized levels of Government.

In this regard, it is expected that the government would resolve the issue, of who collects what, how it is collected, who controls what is collected, how is what is collected shared, who is responsible for spending what is collected and who is ultimately responsible and accountable to the tax payers for the revenue collected and its expenditure.

Okumade (2012) stated that the Nigerian Constitution generally allows the state and local government's broad discretion in establishing fees, charges, or fines as previously defined. These revenues (fees, charges, or fines) should be seen as collected:

(1) For the privilege of engaging in certain activities; or

(2) In order to regulate a particular activity or

(3) For the purpose of imposing penalties.

In some situations, the payment may not relate to direct regulation per se, but rather to broad social costs associated with particular activities. For example, environmental mitigation fees. Ideally, some link must exist between these payments and the related cost to governments in order to avoid it progressing to a "tax." Fees or charges must be based on some established relationship between the amount of the payment, on the one hand, and the costs associated with the regulation of an activity or the provision of a good or service, on the other. Similarly, penalties must be considered reasonable given the specific incident of non-compliance. If a sufficient relationship, or "nexus," is not established between the fee and costs of provision or

regulation, the charge is considered a tax. This is an area for which legislation is required to conclusively make this distinction.

An example of this difference lies in the distinction between the tenement rate and the property tax. They are not and should not be confused as one and the same thing. Tenement rates are typically linked to charges by the local authorities for the provision of public services to residential dwellings including multi storey, multi flat dwellings with multiple owners which may be owner occupied or rented. Property tax on the other hand is a tax based on the value of a house or other property. Okon (2002) stressed that in Nigeria, the constitution provides for tenement rate, while Property tax is still a new concept in the tax system.

Ifueko (2008) stressed that "we live in countries where poor, petty thieves get imprisoned for several years, while businessmen who evade taxes in millions of dollars or a politician who misappropriates millions of state funds escape punishment. These inequalities are recipes for the retrogression of our economy and we cannot allow the negative tide to continue. An economy that cannot provide socio-economic justice cannot be a healthy one and will remain vulnerable and fragile."

2.1.2.5 Importance of Total tax Revenue to the Economy

Oshinowo (2001) asserts that the tax revenue are expected to contribute to the well-being of all Nigerians and taxes, which are collected by Government should directly impact on the

lives of the citizens. This can be accomplished through proper and judicious utilisation of the revenue collected by government. In line with the above, there are certain objectives, which the Tax System is expected to achieve. These objectives include:

(i) To Promote Fiscal Responsibility and Accountability

Okoye (2003) insists that one of the primary objectives of taxation is to create a platform which ensures that Government transparently and judiciously accounts for the revenue it generates through taxation by investing in the provision of infrastructure and public goods and services. Where this is in place, Nigerians would have a tax system that they can fully relate to and which is a tool for National Development.

(ii)To facilitate economic growth and development.

The overriding objective of tax revenue should be to achieve economic growth and development. As such, the system should allow for stimulation of the economy and not stifle growth, as it is only through sustained economic growth that the potential ability to offer improvements in the well-being of Nigerians will arise. According to Nwankwo (2001) "The tax system should therefore not discourage investment and the propensity to save. Taxes should not be a burden, but should be applied proactively with other policy measures to stimulate economic growth and development".

(iii)To provide the government with stable resources for the provision of public goods and services

For Nigeria to pursue an active development agenda and carry out the basic functions of government, revenue generated from taxes should provide basic public goods and services (e.g. education, healthcare, infrastructure, security etc.), (Bulus, 2010). It is therefore a primary objective of taxation to provide the government with resources that it shall invest in judicious expenditure that will ultimately improve the well-being of all Nigerians.

(iv)To Address Inequalities in Income Distribution

Revenue accrue from taxes should seek to narrow the gap between the highest and lowest income groups. Those with the highest incomes should pay the highest percentage of tax and tax revenue should be utilised to provide Nigerians with affordable social amenities, basic infrastructure and other utilities.

(v)To Provide Economic Stabilisation

Nigeria should use its tax revenue to minimise the negative impacts of volatile booms and recessions in the economy and also to help complement the efforts of monetary policy in order to achieve economic stability.

In addition, any ambiguity or conflicting provisions in the law shall be resolved in a manner as to ensure fairness to the taxpayers and the tax authorities.

2.1.2.6 The Role of Taxation on Economic and Social Development Sustainability

Adeyemi (2012) stated that in achieving sustainable development in the social and economic sectors of a country, the government must consider the trade-off involved in attracting foreign direct investment (FDI) in terms of giving incentives and the impact of these on the country's sustainable development.

Tax is a fiscal instrument used to encourage or discourage specific production or consumption behaviours that affect the economic, environmental or social sustainability. Taxation has the following impacts on the sustainability of economic development.

(i) Tax system provides a fiscal platform that encourages foreign direct investment (FDI) and also fosters bilateral, regional and international trade relations among countries. The tax policies of a nation determine whether foreign direct investment would be attracted or not. If investors are brought into a country, it means that the investors will bring their stable and free capital, their technology, efficiency and contribution to a nation's capital accumulation and job/wealth creation.

(ii) Taxation fosters a fair relationship between development and developing countries so as to ensure that developing countries get a fair allocation of tax base and tax room in emerging trade relations. Consequently, the developed countries would not take undue advantage of the development needs in developing countries as a reason not to work out the international tax regime and mechanism against third world countries.

(iii) Taxation helps developing countries in formulating effective policies and collection system that foster the funding of sustainability. Effective and well-functioning tax system and administration are essential foundation blocks for financing sustainable development. Therefore, if there is no adequate tax structure or tax collection system in place, it limits the ability of implementing any policy meant to enhance sustainable development goals and this may make developing countries to keep relying on foreign support which are usually attached with strings.

2.1.2.7 Government Revenue Generation

Olotu (2012) mentioned that today, taxation is already sowing seed of transformation in many states of the federation of Nigeria. She pointed out that more and more states across the country are now turning to taxation to shore up their revenue to finance critical infrastructural projects. Abiola and Asiweh (2012) highlighted the contribution of Lagos State to government revenue generation in Nigeria. They stated that Lagos state is among a few states in Nigeria that have left a landmark in terms of financial independence and use of internally generated revenue. He observed that in 2007, Lagos state achieved a gross domestic product of N3.68trillion an equivalent of $29.028 Billion making it the biggest contributor to the federal government.

2.1.2.8 Nigeria Major Taxes

In order to avoid multiple collections of taxes from the same taxpayer, at least in theory, taxes of each tier of government in Nigeria have been clearly defined by the Joint Tax Board (JTB) as follows:

(a) Federal Taxes: They include

- (i) Companies Income Tax
- (ii) Custom and Exercise Duties
- (iii) Value Added Tax
- (iv) Education Tax
- (v) Personal Income Tax in respect of armed forces, police etc, non-resident individuals and companies as well as staff of Nigeria Foreign Service.

(b) **States Taxes**

- (i) Personal Income Tax
- (ii) Road Taxes
- (iii) Pools betting
- (iv) Business premises registration
- (v) Development levy
- (vi) Naming of street registration in state capitals
- (vii) Right of occupancy on land owned by state

(viii) Market taxes on state financed taxes

(c) **Local Government Taxes**

(i) Shops and Kiosks rates

(ii) Tenement rates

(iii) On and Off liquor

(iv) Slaughter slab fees

(v) Marriage, Birth and Death Registration Fees (Rural Areas)

(vi) Right of Occupancy on land in rural areas

(vii) Market Taxes and Levies

(viii) Motor park levies

(ix) Domestic Annual License Fees

(x) Bicycle, Truck, Canoe, Wheelbaorw, and Cart Fees

(xi) Cattle tax payable by cattle farmers only

(xii) Merriment and road closure levy

(xiii) Radio and Television License (other than radio and television transmitter)

(xiv) Vehicle radio license (Local Government Registration of the Vehicle)

(xv) Wrong Parking Charges

(xvi) Public convenience and Refuse Disposal, customary burial ground permit fees.

(xvii) Religious place establishments permit fees

(xviii) Signboard and advertisement permit fees.

2.1.2.9 Problems of Tax Administration in Nigeria

According to Soyode and Kajola (2006), the problems of tax administration in Nigeria are as follows:

(1) **Tax Evasion**: Tax evasion is a deliberate and wilful practice of not disclosing full taxable income so as to pay less tax. In other words, it is a contravention of tax laws whereby a taxable person neglects to pay the tax due or reduces tax laws whereby a taxable person neglects to pay the tax due to reduces tax liability by making fraudulent or untrue claims on the income tax form. Tax is evaded through different methods some of which include the following:

- Refusing to register with the relevant tax authority
- Failure to furnish a return, statement or information or keep records required.
- Making an incorrect return by omitting or understanding an income liable to tax refusing or neglecting to pay tax.
- Overstaying of expenses so as to reduce taxable profit or income, which will also lead to payment of less tax than otherwise have been paid.
- A taxpayer hides away totally without making tax return at all.
- Entering into artificial transactions.

(2) **Tax Avoidance:** Tax avoidance has been defined as the arrangement of tax payer's affairs using the tax shelters in the tax law, and avoiding tax traps in the tax laws, so as to

pay less tax than he or she would otherwise pay. That is, a person pays tax less than he ought to pay by taking advantage of loopholes in a tax levy

Tax can be avoided in various ways:

- Incorporating the tax payer's sole proprietor or partnership into a limited liability company.
- The ability to claim allowances and reliefs that are available in tax laws in other to reduce the amount of income or profit to be charged to tax.
- Minimizing tax liability by investing in capital asset (for instance through the new form of corporate financing by equipment leasing), and thus sheltering some of the tax payers income from taxation through capital allowance claims.
- Sheltering part of the company's taxable income from income tax by capitalizing profit through the issue of bonus shares to the existing members at the (deductible) expenses to the company.
- Converting what would ordinarily accrue to the tax payer (employee) as income into capital gain (i.e Compensation for loss of office which is the advantage of the employer and employee
- Manipulation of charitable organisations whose affairs are controlled and dominated by its founders thus taking advantage of income tax exemption

Nwike (2009) enumerated other problems militating against Effective Tax Administration in Nigeria. They include.

i. **Identifying the person to be assessed**. Due to the poor rate of voluntary compliance, and the very low degree of honesty, most taxable persons hide from tax authorities, and if possible would give fake addresses to conceal their identity. Persons who are of the whereabouts of other taxpayers evading tax would not volunteer any information to the Tax Authorities. Our postal system and services are so inadequate and inefficient that even letters with proper addresses are not delivered let alone those with no proper addresses. Many businessmen and women do their business without any registration or any fixed addresses. It is therefore difficult to track down such persons for tax purposes. There is also the fact that a lot businesses involved money, are still carried out in this country without reducing anything in writing, what is in writing may not accurately reflect what has transpired, either for fraudulent reasons or for tax purposes.

ii. **Identifying Income for Tax Purpose**

The ascertainment of world income tax purpose most of the time proved difficult. World income embraces all sources of income, including employment income, income from business, profession or vocation interest, rents, dividends etc earned in or brought into Nigeria. Taxpayers often flout notices to file return of income forms and either they fail to render any returns at all or even when they do, they

render virtually useless returns, in the pretext that they are illiterates or do not know what to do.

People engage in artificial transactions to conceal or dodge the burden of tax and conceal income yielding transactions e.g people build houses in other people's name, may be in the name of people who are otherwise non-existent or are so insignificant in the society that they are not likely to be called at any time to pay tax. Let alone to be asked to account for house(s) they are supposed to own.

(iii) **Personnel problem and Low Image of Tax Officials**

Lack of experienced personnel to man the various relevant tax authorities hinders the effective tax administration in Nigeria. In some states, the Board of internal revenue is poorly staffed both in terms of quality and quantity of staff. The image of a tax man is that of a corrupt person. They are seen in the eyes of the public as not only corrupt but also lacking personal integrity.

(iv) **Inadequate penalties for tax defaulters**

Low penalties, sometime ridiculous for tax defaulters do not serve as deterrent for others. They are also not strict enough to encourage compliance.

(v) **Attitudinal Problem**

Most people do not know that it is part of their civic duties or responsibilities to pay tax and except a few enlightened individuals, corporate organisations and salaried employees whose income are subjected to tax, some adult Nigerians do not eagerly and regularly pay tax.

(vi) **Cumbersome Process of Payment**

The procedure for paying certain taxes are too cumbersome and do not encourage prompt payment of tax by payers. In some instances they go free by bribing tax officials.

2.1.3.0 Taxation as a major source of funding to the Government of Nigeria

According to Nwoke (1993), taxation can be defined as the imposition of an obligatory levy or contribution of an individual or corporation by recipient or public authority. Two important attributes of taxation are that the levying authority possesses the legal capacity to do so since taxation is a legal policy and it evolves an element of compulsion as opposed to voluntaries.

The bedrock of industrialization and economic development of any country is government revenue. How much of this revenue is contributed by tax? According to Nwoke (1993) in all, taxes constitute about (75%) seventy five percentage of regular government revenue and about ¾ of public expenditure is funded from tax revenue. As a major instrument of

public policy, taxation can be used as protective, allocation, and distributive or stabilization instrument. Taxation may be employed to expand, stimulate, restrict, or regulate the economy depending on the direction the government wants to. One may be tempted to question the rationale behind government intervention in the economy especially the capitalist economy. Where the invisible hands of market forces should have been allowed to arbitrate as it deems fit. The simple reason for time to time government intervention is that it's necessary to bring in some form of administrative control in the economic system. The market mechanism above cannot perform all the economic functions.

Government intervention is therefore needed to guide, correct and supplement it in certain aspects. Through the intervention, a necessary condition for the functioning of the market mechanism is secured. The issue of " market failure" is addressed and prevented. It has been observed that the market system, no matter how technologically developed and efficient, does not, of its own lead to goals of full employment, price level stability and socially acceptable rate of economic growth. Experience has shown that the economy needs to be guided to attain these goals.

If for instance the government want to raise more funds for the execution of some additional projects, it may increase personal income tax and impose a super profit tax on corporate. It may reduce or withdraw subsidies on Agriculture or petroleum products as we well as taxes on some luxury products.

2.1.3.1 Importance of Taxation In Nigeria

Tax as a major source of revenue in Nigeria content calls for greater attention in both state and federal Government Budget.The tax collected from all sources comes back to taxpayers in form of social amenities provided for them. Income tax has definitely private sector depending upon whether the policy of the government is gingered towards discouraging or encouraging such companies. It reduces the net return on investment and also decreased balance available for unnecessary private saving.

Taxation is an all-pervading subject which affects the lives of nearly everybody and no major accountancy or legal problem can be satisfactory without consideration of its tax aspect. Franklin (1991)observed that nothing is certain but death and taxes.

Taxation is particularly important to businessmen who enjoy the benefits of these essential amenities provided by the government.Income case has its own merits in the personal relief granted to taxpayers. Tax is also used to allocate resource for the production of social goods.Social goods are goods whose benefits are not limited to the particular consumer who purchases it as in the case of private goods. Through taxes, funds can be allocated or denied for the production of certain private goods. These corrections are done through tax policies, tax holidays, and acceleration capital allowance in excess profit tax.

Other forms of tax are used to alleviate the social burden of poverty on the poor. It may be achieved by a tax transfer scheme, which progressively taxes high income in order to provide some form of subsidy to the low-income earners. Under this, the rate of taxation increases with

income, thus the higher the income, the higher the percentage paid as tax. Through tax transfer scheme the government identifies some goods and services largely enjoyed by the low-income group and transfers the extra income from progressive taxation to finance subsidy on such goods and services.

Other ways the social burden of poverty can be alleviated include progressive taxation for the funding of public services financing public service particularly those most beneficial to low-income earners of the society may also be obtained from tax proceeding. Public services such as Government mass Transit system, public housing schemes, free or subsidized health care delivery system and a lot of others are all accomplished through tax.

Mostly the high-income earners at times deliberately directed towards the re-alignment of income by taxing those goods purchase taxation. While at the same time subsidizing those goods enjoyed mainly by low-income group. By progressive tax matter the redistribution of income is perfectly done through taxation. The Nigeria taxation policy heavily taxed such luxury items like satellite dishes, Mercedes Benz cars, 'V' boot brand part-finder etc. simultaneously the import duties on Mass Transit cars or spare parts for buses used for mass transportation attracts little or no tax in a bid to help the poor.

Another important follow up in the newly introduced value Added Tax in Nigeria where all essential goods are zero rated while their luxury goods attract 5% flat rated tax as value added

reasoned that " the have" enjoy the luxury items while the " wretched of the earth" mostly enjoy the essentials. This objective is to help the poor and not to stop the rich.

Taxation is also an instrument for the stabilization of the economy. Directing taxation policy toward achieving a socially acceptable rate of economic growth, maintaining a stable price level, and achieving full employment does this.

Unemployment as under employment are other economic disability often fought by the government through the use to taxation policy. For instance, a reduction of taxation rates and factor imports effectively tackles unemployment problem caused by high cost of factor imports. Similarly unemployment caused by an enlighten unavailability of the factors in the regular market cannot be resolved by tax relieves rather tax measures that encourage attentive sourcing of the materials are most desirable.

Such tax measures are granting of tax holidays, accelerated capital allowance on depreciation. One can equivocally say that if the government can achieve the aforementioned objectives through taxation policy, they have achieved all economic development in-toto. Taxation policy is also used to protect local industries and thus ensure their growth.

Government may achieve this through the imposition of high tariffs on imported substitutes to locally manufactured goods in order to make the price of the former very repellent to local consumers. Tax system is also selectively employed to influence private investment and

may remove taxes on agricultural implement such as tractors fertilizers etc in order to encourage investment in agricultural sectors and this increase food production. Government may grant tax holidays to agro-allied industries in favour of the populace.

On the other hand, high tax rate can be used to stifle the growth of industries considered to be little or no social relevance to the society. Instances are tobacco and alcohol industries. On a general note therefore, the stimulation of total demand and supply leads to general economic growth whereas the contradiction of total demand and supply through tax policies slows down the growth of the economy.

Generally, tax adjustments are used to influence consumption and investment. Tax rates may be used to affect the overall level of demand and supply or to direct and channel demand and supply to achieve flamed targets.

2.2 Theoretical Review

Solow theory of Growth and Development

Solow (1981) maintained that increase in total tax revenue of countries has a somewhat direct effect on economic growth. It stated that as tax revenue increases, government will have enough resources to build infrastructures and maintain external reserves. If there are adequate infrastructures and strong external reserves, there will be increase in foreign direct investment, single digit inflation, single digit interest rate, employment opportunities and currency stability.

This theory decomposed the growth rate of economy's output into different components:

$yi=inv+ki+mi+ai\beta i+int+Tri$

Where the real GDP growth rate in a country *i*is denoted *yi*and the net investment rate(*inv*) expressed as a fraction of GDP. Equivalently the change over time in the capital stock, is given by *ki.* The percentage growth rate in the effective laborforce over time is written *mi,* while the variable *mi* measures the economy's overall productivity growth and tax revenue.

There are two other relevant variables in the above equation, which are the coefficients measuring the marginal productivity of capital, αi, and the output elasticity of labor, βi. For example, if there is a one percentage point increase in tax revenue and is equal to 0.75; this implies that increase in the economic growth rate would be 0.75 percentage point. Alternatively, if the investment rate were to risen by one percentage point and*Tri* were 0.10, the growth rate of output would rise by 0.10 percentage point.

This theoretical framework has implications for tax Revenue and economic growth; First, higher taxes can discourage investment rate, or the net growth in the capital stock (*ki*in equation above), through high statutory tax rates on corporate and individual income, high effective capital gains tax rates, and low depreciation allowances. Secondly, high tax revenue may attenuate interest rate since commercial banks can easily borrow from Central Bank with little interest rate. Third, low tax revenue has the potential to discourage productivity growth

(*mi)*by attenuating research and development (R&D) and the development of venture capital for "high-tech" industries, activities whose spillover effects can potentially enhance the productivity of existing labour and capital.

Fourth, tax revenue can also influence the marginal productivity of capital by distorting investment from heavily taxed sectors into more lightly taxed sectors with lower overall productivity. Fifth, heavy taxation on labour supply can distort the efficient use of human capital by discouraging workers from employment in sectors with high social productivity but a heavy tax burden.

In other words, highly taxed countries may experience low investment which tends to retard economic growth, and increase interest rate and inflation. The theory concluded that economic diversification and efficient tax system should be employed by countries so as to ensure sound macro-economic variables.

It considers macro-economic indicators like GDP/capital and inflation in the analysis of tax revenue and maintained that tax rates reductions and general macroeconomic problems common to transitional economies play an important role in the declining tax revenue. According to the theory, total tax revenue is negatively correlated with savings and investment, personal income tax, corporate tax, sales tax (consumption tax) and other taxes are highly significant.

The Solow model introduces the concept of a steady state and demonstrates that revenue accumulation is not sufficient to ensure continuing growth if not matched by technological progress or equal increases in other inputs. The appeal to technological progress as the source of growth illustrates the need for an understanding of the source of technical progress. The Solow theory provides the basis for undertaking growth accounting exercises that provide key insights into the sources of growth.

According to Solow theory, human capital development approach helps to match increase in revenue and expertise with equal growth in other inputs. One way to do this is to replace labour time as an argument in the revenue function with a more general concept of human capital. Assuming that tax collectors are well trained and are equipped with the necessary tools which makes their work easy, then the amount of tax which government collects will be adequate. A model including human capital involves two investment processes: One for investment in physical capital and another for investment in human capital. The human capital variable can be entered into the revenue function in two different ways. The first treatment is to view the level of human capital as the product of the quality of labour, H_t, and the quantitiy of labour time, L_t. human capital development is then given by $H_t = h_t L_t$. In this approach, accumulation of revenue through taxes or any other means is made more productive by investment in education and training which raise the quality of labour. Technical progress is then embodied in the quality of labour. The standard form of tax revenue function for such a model would be

$Y_t = f(K_t, H_t)$,

Where H_t is the level of human capital development. If the revenue function has constant returns to scale in human capital and physical capital jointly, then investment in both can raise output without limit even if the quantity of labour time is fixed. The perfect substitutability implies that in equilibrium the two factors must have the same rate of return. Combining this with the assumption of constant returns to scale in the revenue function implies the two factors are always employed in the same proportions. Therefore the ratio H_t/K_t is constant for all t. denoting this constant value by H/K, the revenue function becomes

$$Y_t = K_t F\frac{H}{K} = AK \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

The second treatment is to consider human capital development as a distinct variable to revenue generation. This gives the revenue function of the form

$$Yt = F(K_t, Ht, L_t) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 2$$

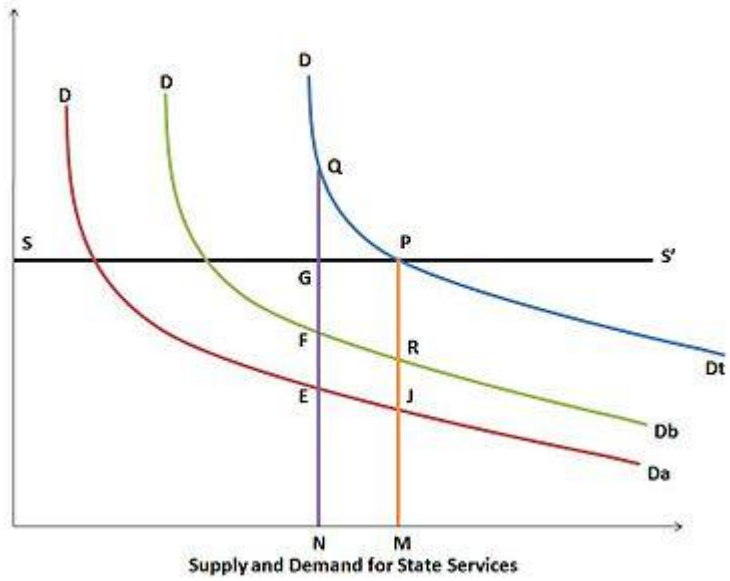
Over the centuries, writers of public finance have developed two important approaches to taxation. These are:

- the benefit theory and
- the ability theory

The benefit approach has two merits. First, it is considered fair. The beneficiaries of government expenditure pay proportionately for these benefits through taxation. Second, the benefit approach determines simultaneously the tax levels and public services of different governments. In other words, how extensive the individual benefits from the government should determine, along with

taxation, who should pay for these services. In analyzing the benefit approach, several theories have been discussed; the Lindahltheory and the Bowen theory.

Lindahl'stheory



Lindahl's model

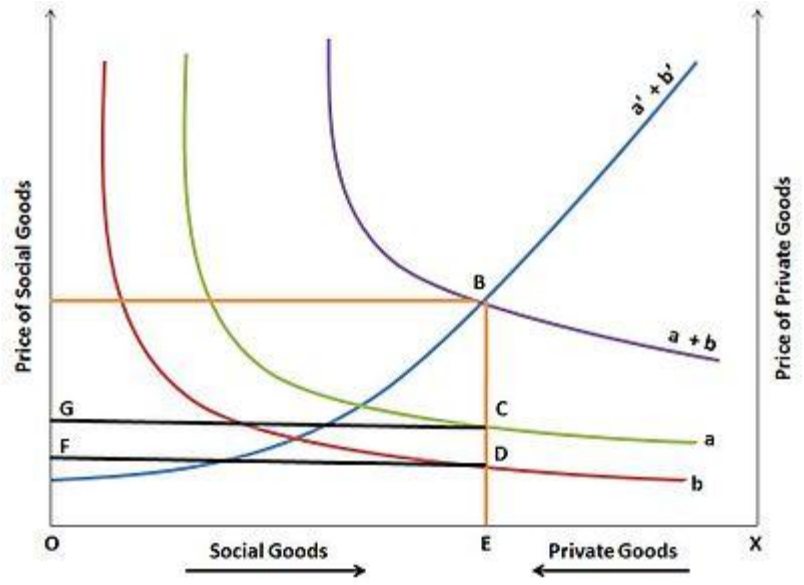
This theory is discussed in the context of two tax payers who are free to reveal their preferences for state services against corresponding tax liability. It is a kind of voluntary exchange between the taxes paid and state services received. Lindahl tries to find out a solution for the following three problems:

- the decision regarding the extent of state activity
- allocation of the total expenditure amongst various goods and services

- allocation of tax burden among tax payers

SS is the supply curve of the state services. Lindahl assumes production of social goods as linear and homogenous. DDa is the demand curve of A, and DDb is the demand curve of B. By vertical summation of two demand curves we get the community's demand schedule for state services. Both A and B pay different proportions of the cost of the good. When QN amount of the state services is produced, A contributes NE and B contributes NF. Now, the cost of supply is NG. Since the state is not a profit maker, it increases its supply up to QM. At this level, A contributes MJ and B contributes MR which when combined, equals the cost of supply. So equilibrium is obtained at point P on a voluntary exchange basis. The Lindahl model gives simultaneous determination of the extent of the provision of social goods and the tax shares of the individuals.

Bowen's model



Bowen's model

Bowen’s approach is favoured for having the most operational significance. It has the virtue of easy adaptation to show what happens when social goods are produced under conditions of increasing costs, the opportunity cost of private goods foregone. We have one social good and two tax-payers A and B. The demand of A and B for social goods are represented by ‘a’ and ‘b’ and a+b is the total demand for social goods. The supply curve is shown by a’+b’ indicating that these goods are produced under the conditions of increasing cost. But the cost of producing of social goods is the value of private goods foregone. This means, a’+b’ is also the demand curve of private goods. The intersection of the cost and demand curves at B gives us the determination of how a given national income should, according to tax-payers desire be divided between social and private goods. Hence there should be OE social goods and EX private goods. Simultaneously, the tax shares of A and B are also determined through their individual demand schedules. Total tax requirement is area(ABEO) out of which A is willing to pay GCEO and B is willing to pay FDEO.

Advantages and limitations

The benefit principle has the advantage of directly relating the revenue and expenditure sides of the budget. Basically it involves an approximation of market behaviour in the allocative procedures of the public sector. A person, voluntarily exchanges purchasing power in the form of

taxes for the acquisition of public goods. Though the benefit approach is simple in its application, it is not without several difficulties.

- The benefit approach limits the scope of government activities
- The government can neither support the poor nor take steps to stabilise the economy
- This theory can be applied only when the beneficiaries can be observed directly. This test is not true for most public services
- Taxation in accord with the benefit principle would leave the distribution of real incomes unchanged

2.3 **Empirical Review**

Many researchers, locally and internationally have tried, through various rigorous econometrics and empirical analyses, to explain the effect of total tax revenue on macro-economic variables in the economy. The following are the results of some empirical works, which have been divided according to their location, beginning with the works carried out in the Nigerian economy, extending to some other African countries and lastly some countries beyond Africa.

2.3.1 Tax and Economic Growth

Anya (2007) studied ‘Tax Revenue and Economic Growth in Nigeria’ The study identified some factors militating against adequate tax revenue in Nigeria. Those problems

include; inefficient Central Data Base where Federal Inland Revenue Service will use as a benchmark for ascertaining tax defaulters and the inability of Nigerian government to punish tax evaders as obtainable in developed countries. The study used secondary data as the main source of data collection and analysed the data collected with Pearson Moment Correlation Coefficient. The study found out that there is a significant relationship between efficient utilization of tax revenues and macro-economic variables in Nigeria. In other words, if revenues generated from taxes and other sources are utilized, it will reduce inflation, interest rate and ensure substantial growth of Gross Domestic Product as well robust exchange rate mechanism.

Vito and Howell (2005) while studying 'Economic growth and tax components in Nigeria' agreed that Nigeria has a wonderful tax policy but it's fairly implemented in the urban areas only. They adduced that the most prevalent form of taxes in Nigeria is pay as you earn (PAYE). Thus many rural farmers as well as small scale business owners in rural areas hardly pay tax which denies the government a lot of revenue. They used primary data as the only source of data collection. Many rural people were interviewed and questionnaires were equally administered to them. The study used percentage tables and chi-square to analyse the data collected. They found out that Nigerian economy has been witnessing growth without development owing to inadequate comprehensive tax policy plan for rural dwellers since they constitute 45% of the country's population.

Mouka (2005) studied "The Relationship between Revenue and Economic growth", A study of Nigerian Economy" He identified the major problem facing adequate tax revenue in Nigeria as inadequate awareness or poor information dissemination to tax payers as regard to tax policies in the country. He maintained that most tax payers know the importance of paying tax but they don't know how the tax revenue collected by government is utilized. Primary data was used as the only source of data collection. A total of 77 out of 80 administered questionnaires responded thus representing 96% of the respondents. Tables and percentages, pie charts, histograms and bar charts were used to analyse the data collected. He found out that most respondents generally felt that tax rate in Nigeria is high. There is also the need to exempt housing allowance from taxation since many people cannot afford their own houses. On the other hand, most business respondents express the need to have a fair tax system which collects from everyone else in business and not from a few compliant.

Richard (2008) studied "Tax Policy Design, Revenue Generation and Macroeconomic Variables in Nigeria". Both primary and secondary data were used for data collection. Ordinary Least Square estimation model was used for data analysis. The study found out that the inability of various levels of government in Nigeria to fully channel revenues generated through taxation has adversely affected macro-economic variables thus leading to excessive importation of foreign goods into the country.

Ifueko (2011) studied “Tax administration in Nigeria: Problems and Prospects” she maintained that there is a large informal sector in Nigeria that is not within the tax net. She equally stated that there is a high incidence of tax evasion which is estimated at over 40%. There is poor awareness of the tax laws and transfer pricing. Taxing multinational corporations is difficult. Due to their size, they are able to adopt transfer pricing mechanisms to reduce their tax liabilities and shift profits to countries with lower tax burdens. She made use of secondary data as the only source of her data collection. She used regression statistics to determine the relationship between Tax awareness and Tax evasion. The study found out that large fines are a more effective deterrent for tax evasion than being jailed. In some situations, appeals to conscience and civic responsibility are more effective than legal sanctions; Persons perceiving gross inequities in the tax system have a higher propensity to evade; etc.

Ifedi (2010) studied “Problems of Taxation in Nigeria”. He highlighted that in spite of the laws’ intention, the opportunity of using the personal income tax (PIT) to improve vertical and horizontal equity in practice is more limited in Nigeria than in developed countries. According to the study, there are two main reasons for this. First, the tax base is typically non-comprehensive due to the large untaxed informal sectors in the country. Second, there are challenges in properly administering the tax. A recurring problem with PIT is the non-compliance of employers to register their employees and to remit such taxes to the relevant authorities. Further, capital income, predominantly earned by relatively wealthy individuals, either faces low effective rates

or escapes taxation altogether. The study made use of only secondary data. The Ordinary Least Square (OLS) multiple regression technique was used for the analysis. The result shows that serious awareness is lacking in Nigeria which made tax payers to see payment of tax as extortion.

Helly(2001) examined "The Effect of Total Annual Tax Revenue on Macro-economic Variables in Ghana". Both primary and secondary data were used for data collection. Various components of macro-economic variables such as GDP, Inflation, Interest, Exchange Rate and Government Expenditure were used as dependent variables while Total Annual Tax Revenue was used as independent variable. The hypotheses were tested using Ordinary Least Square Estimation Technique. The study found out that the Ghanaian economy had attracted a lot of foreign direct investment in recent years owing to government sincerity in utilizing tax revenue for the benefit of the masses.

Junko and Vitali (2008) investigated the impact of tax revenue on economic growth in Azerbaijan. Their study became necessary because of the temporary oil production boom (2005-2007) in the country. Their main objective was to determine how increase in tax revenue affects expenditure in the country owing to government's desire to improve infrastructures and raise workers' salaries and wages. Their analysis shows that the initial growth performance largely depends on the efficiency of the scale-up expenditure. The study also sheds light on the risk associated with a sudden scaling-down of expenditure, including the political difficulties to

undertake an orderly expenditure, reduction strategy without undermining economic growth and crowding effect of large government domestic borrowing.

Josaphat (2000), investigated “the impact of government total tax revenue spending on economic growth in Tanzania (1970-2002) using time series data for 32 years. They formulated a simple growth accounting model, using Ram (2001) model in which total expenditure is disaggregated into expenditure on investment, consumption spending and human capital investment. It was found out that increase in tax revenue have a negative impact on growth, and which in particular appears to be associated with increased private consumption. The result revealed that expenditure on human capital investment was insignificant in their regression analysis and confirms the view that public investment in Tanzania has not been productive.

Arnold (2008) examines the relationship between tax revenue and economic growth for 20 OECD countries over the period (1971-2003). The study investigated the relationship between the variables; physical capital accumulation, population growth, stock of human capital, direct and indirect taxes and GDP by entering indicators of the tax structure into a set of panel growth regressions for 20 OECD countries. Results of the analysis suggest that income taxes are generally associated with lower economic growth than taxes on consumption and property. The study recommended that a revenue neutral growth-oriented tax reforms would be to shift part of the revenue base towards recurrent property and consumption taxes and away from income taxes, especially corporate taxes.

Ikpeh and Nteegah (2013), examine the economic impact of Value Added tax on the level of total prices, using partial equilibrium analysis. The analysis was carried out by applying multiple regression analysis in static from to data for the 1994-2010 period. The results reveal that VAT exerts a strong upward pressure on price levels most likely due to the burden of VAT on intermediate inputs. Gillingham and Greenlees (1987), in their study carried out using the U.S. economy, investigate the impact of direct taxes on the cost of living. The study defines a cost-of-icing index including direct taxes and shows its relationship to the traditional index, as well as how consumption costs are properly treated using federal, state, local and social security tax rates for 1967-1985, they construct annual tax and p[rice index (TPI) series based on household data. The result show that inclusion of direct taxes has sizable impacts on the estimated rate inflation.

Gabriel and Reiff (2006) examine the effect of the change of VAT rates on the consumer price index. They employed store-level price quotes used for the Hungarian Central Statistical Office (CSO) consumer price index calculation as a basis for the study. As a first step, the study examined how earlier changes in VAT rates (the VAT increase in January 2004 and the VAT cut in January 2006) influenced the prices of product and service. Findings show that while larger part of the VAT increase was transmitted into consumer prices, within a few months, the VAT cut reduced consumer prices to a much smaller extent, thus adding to the profit of stores at least in the short run. Subhani and Ali (2010), investigate the relationship between tax rates, inflation rates and the balance of trade in Pakistan by utilizing the economic survey and current scenario

of increasing tax rates because of increasing inflation rates and decreasing of balance of trade to represent the economic position of Pakistan. The study used annual time series data for the variable of study and the direct and indirect tax rates for the period 1979- 2009. The research implement regression model to test of tax rate progression on inflation rates and other 2- stage least square test of tax rate on balance of trade. Result show that there was no significant association between tax rates and inflation rates in Pakistan, while the impact of tax on balance of trade was significant.

Keleiman (1993), examine the extent to which international differences in taxation may explain departure of national price level data were available from stage IV of the project on the international comparison of purchasing powers and the real product for 1980. The study suggests that the overall burden of central government taxation, especially of indirect domestic taxes raise the general price level. Consistent with the accepted view that direct tax cannot be shifted forward; no such effect is associated with the direct tax burden. Contrary to expectation, however, the burden of domestic indirect taxes expresses itself in the prices of tradable rather than of non tradable.

Olatunji (2013), determine the impact of VAT on the revenue generation in Nigeria and the perception of the citizen on VAT and inflation. Primary data were obtained by the use of oral interviews and structured questionnaire and analyzed using Pearson and Spearman rank correlation analysis. Findings showed that VAT ha no impact on the inflation rate in Nigeria.

Koutsouvelis and Papastathopoulos (2013), examine the effects of indirect taxes on consumer prices, with evidence for Greece. The empirical investigation, based on simple log linear regression technique with dummy variable showed that although after the imposition of the indirect taxes at the beginning of 2010, the harmonized index of consumer price with constant taxes (CT HICP) exhibited a downward kink, this is rather the outcome of the recession during this period than of any absorption of the imposed indirect taxes on the part of the producers. The empirical investigation showed that the contribution of indirect taxes to the inflation represented by HICP is at least 82% in 2010 and 60.7% in 2011.

Adegbite, (2013) analysed "The effect of tax revenue on economic development of Lagos State". One of the specific objectives of the study was to determine how Lagos State was ranked as the richest state in Nigeria without being an oil producing state. Both primary and secondary data were used for data collection. Out of the One thousand Five hundred questionnaires distributed to companies and government officials, One thousand three hundred Questionnaires were returned. The data collected were analysed using Pearson Moment Correlation. The study found out that Lagos State government sees tax as their major source of revenue instead of federal allocation which is the bedrock of revenue generation for other states.

The study equally found out that tax structure of Lagos State government is more comprehensive, flexible and efficient than other states. In other words, private accounting firms

were contracted to collect tax on behalf of the state government so as to ensure efficiency and accountability.

Ocran (2009) examined the effect of fiscal policy variables on economic growth in South Africa. The fiscal policy variables considered in the study included government gross fixed capital formation, tax expenditure and government consumption expenditure as well as budget deficit. The study covered the period 1990 to 2004. Quarterly data was used in the estimation with the aid of vector regressive modelling technique and impulse response functions. The outcome supports four key conclusions. First, government consumption expenditure has a significant positive effect on economic growth. Gross fixed capital formation from government also has a positive impact on output growth but the size of the impact is less than that attained by consumption expenditure. Tax receipts also have a positive effect on output growth. However, the size of the deficit seems to have no significant impact on growth outcomes.

Dinca and Dinca (2013), investigated the correlation between fiscal policy and economic growth. Using the multiple regressions the study examined the effect of the fiscal pressure, gross capital formation, exchange rate, labour productivity and economic openness upon the growth rate of the Gross Domestic Product per capital. The study grouped the countries into two categories: old member countries and new member countries of the European Union, gathering the data for the 2001-2011 periods. The study divided the member countries into these categories taking into consideration the existing disparities in the economic development

between the European Union member countries. The results obtained have shown that the economic growth rate is positively influenced by fiscal pressure, gross capital formation in the private sector, degree of economy openness and labour productivity. The variables government expenditures, exchange rate and public debt likely exerted a negative influence upon the economic growth.

Audu (2012), investigated the impact of money supply, fiscal deficits and exports on the growth of the Nigerian economy between 1970 and 2010. The study employed the Co-integration Error Correction Mechanism (ECM), a two band recursive least square to test for the stability of the Nigerian economy as well as determine the effect of money supply, fiscal deficits, and exports on the relative effectiveness of fiscal policies in the Nigerian economy. The study revealed that there is a significant causal relationship between gross domestic product (GDP) and the variables used in the study. The study concluded that there was a significant causal relationship between exports and gross domestic product and hence fiscal policies.

Ekeocha, Malaolu, and Onyema (2012) examined the Revenue Implications of Nigeria's tax system with reference to the properties (tax bases) of the Company Income Tax, Value Added Tax and Personal Income Tax over the period 1970 to 2008. The study employed the Ordinary Least Square (OLS) method for the purpose of analyzing the research data. Results showed that Company income tax base is not persistent, volatile, but sensitive or pro-cyclical to the state of the economy. The Value Added Tax base is not sensitive to the current state of the economy, not

persistent and relatively volatile. Finally, the base of the Personal Income tax is so volatile and not persistent, but sensitive to state of the economy. The study recommended a shift from direct to indirect taxation in Nigeria.

Arnold (2008) examines the relationship between tax structures and economic growth for 21 Organisation for economic co-operation and development (OECD) countries over the period 1971-2004. The study investigated the relationship between the variables; physical capital accumulation, population growth, stock of human capital, direct and indirect taxes and GDP by entering indicators of the tax structure into a set of panel growth regressions for 21 OECD countries. Results of the analysis suggested that income taxes are generally associated with lower economic growth than taxes on consumption and property. The study recommended that a revenue neutral growth-oriented tax reforms would be to shift part of the revenue base towards recurrent property and consumption taxes and away from income taxes, especially corporate taxes.

Baranova and Lenka (2012) used a sample of EU member states for the period 1998 to 2010 and employed a panel regression methodology and related methods of data analysis to verify the expected negative relationship between corporate taxation and long term economic growth. Findings showed an inverse relationship between tax burden and economic growth. The study concluded that a reduction of the tax burden will have a greater effect in EU 15 countries rather than in the EU new member countries.

Umoru and Anyiwe (2013) investigated the empiricism behind the new National tax policy in Nigeria and the relationship between tax structure and economic growth. They use annual data from 1975 to 2011 and employed the co-integration and error correction as methods of empirical estimation with an empirical strategy of disaggregation. Results indicate that while the policy of direct taxation is significantly and positively correlated with economic growth, indirect taxation proved insignificant with its negative impact on economic growth in Nigeria. It was recommended that rather than expand the indirect tax structures, the government should expand the structure of direct taxes in Nigeria.

Johansson, Heady, Arnold, Brys, and Vartia (2008) investigated the effect of total tax revenue on macroeconomic variables of OECD countries using data on industrial sectors and individual firms. The estimation sample includes 13 OECD countries and 21 industries over the period 1981-2001. Findings from the panel growth regressions showed that reduced rates of corporate tax for small firms do not seem to enhance growth and high top marginal rates of personal income tax can reduce productivity growth by reducing entrepreneurial activity. The study recognized that practical tax reform requires a balance between the aims of efficiency, equity, simplicity and revenue raising.

Engen and Skinner (1996) consider the evidence of taxation and growth for a large sample of developing countries and uses evidence from micro level studies of labour supply, investment demand and productivity growth to find out whether tax cuts has had any effect on

growth. Results suggest modest effects on the order of 0.2 to 0.3 percentage point differences in growth rates in response to a major tax reform. The study recommended a broad based tax structures with efficient administration and enforcement. It also recommended improved design of the tax systems.

Karras and Furceri (2009) used annual data from 1965 to 2003 for a panel of 19 Europe economies to investigate the effect of changes in taxes on economic growth. The study employed OLS random effect and fixed estimation. Results show that the effect of an increase in taxes on GDP per capita is negative and persistent. The findings also imply that increases in social security contributions or taxes on goods and services have larger negative effects on per capita output than increases in income tax.

Keho (2013) investigates the relationship between taxation and economic growth in Cote di' voire, using annual data from 1961 to 2006. The study used a two-stage modelling technique to control for unobserved non-tax growth determinants. Results show that increases in the tax burden and the share of direct tax to total tax revenue are strongly associated with decreases in economic growth. The study recommended that government should try to return taxes back to the economy in an efficient manner so that they contribute to growth and also a switch from direct to indirect taxes.

Scarlett (2011) examines the effect of total tax revenue on macro-economic variables in Ghana. The study used a general auto regressive distributed-lag model with quarterly data for

the period 1990 to 2010. Findings indicate that increasing revenue from indirect taxes is more conducive to economic growth in the long-run, while increasing the shared taxes from personal income (PAYE) tax has the greatest harm on per capita GDP overtime. The study recommended that greater benefit would be derived by reducing the taxation on personal income if the objective is to stimulate demand. With the country currently in a recovery phase, tax policy strategy aimed at stimulating demand is important.

Tosun and Abizadeh (2005) examined empirically the changes in the tax mix of the OECD countries in responses to economic growth from 1980 to 1990. They conduct Housman specification test for random effects to check the robustness of the fixed effects specification and employed the regression analysis to test the relationship between the variables. Results show that while the shares of personal and property taxes have responded positively to economic growth, shares of the payroll and goods and services tax have shown relative decline.

Ramot, Apricano, and Ichihiashi (2012) in their study covering the period 1970 to 2006 investigate how tax system affect a country's economic growth rate and distribution of income. They use a panel data set of cross sectional data consisting of countries (low tax and high tax countries) and applied the OLS random effect and fixed effect estimations, using top statutory corporate and personal income tax rate. The study found out that statutory corporate income tax rate are strongly negatively associated with economic growth and income inequality, while personal income tax rates have no impact on economic growth and on income inequality.

Recommendations include; enhancing tax enforcement and broadening their tax base by minimizing tax incentives exemptions and allowances, which would reduce the administration costs of taxation and lead to an increase in tax revenue, reducing tax evasion, and increase in margined tax rates for very high earners.

Chiumia and Simwaka (2012) used data envelop analysis (DEA) and transcendental logarithm (translog) to examine the effect total tax revenue on amcro-economic variables in Malawi. The study covered the period 1970 to 2012 and employed the Engle and Yoo three step estimation process. Results indicate that reduction in tax burden is more potent in influencing economic growth than fine tuning the proportion in which income and consumption taxes are collected in Malawi. Also reversal in donor funding reduces economic growth.

Myles (2000) used a combination of analytical predictions and numerical predictions developed from calibrated models to assess whether a consensus arises as to how taxation affects the rate of economic growth in the UK. The empirical evidence points very strongly to the conclusion that the tax effect is very weak.

Chigbu, Akujiobi, and Ebimobowei (2012) examined the effects of taxation on economicgrowth in Nigeria for the period 1970 to 2009. Data collected was analysed using relevant econometric models such as Augmented Dick fuller, Granger causality and Johansson co-integration and Ordinary least square method. The result of the analysis show that increase in tax revenue does not necessarily increase the Gross Domestic Product in Nigeria rather what

increases the Gross Domestuic Product is rise in the volume of good and services within a fiscal year. Recommendations include; a transparent, efficient and effective tax administration to reduce corruption and tax evasion; a restructuring of the tax system and the Nigerian economy.

Ogbonna and Ebimobowei (2012), used data collected for the period 1994 to 2009 to investigate the impact of tax reforms on economic growth of Nigeria. Data collected was analysed using relevant econometric models such as the ordinary least square (OLS), the co-integration test, and the error correction method. Results showed that tax reforms is positively and significantly related to economic growth and that tax reforms granger cause economic growth. The study was of the opinion that sustainable economic growth cannot be attained with tax reforms processes except obsolete tax laws and rates are reviewed in line with macroeconomic objectives, corrupt free and efficient tax administrative machinery with accountability and transparency of government officials in the management of tax revenue.

Dackehag and Hansson (2012) investigate the impact of income taxation on economic growth, using panel data from 1975 to 2010 for 25 rich OECD countries and employing the OLS fixed effect estimation. Results showed that both taxation of corporate and personal income negatively influence economic growth. Xing (2011), estimates the effects of revenue-neutral tax structure changes on the long-run level of income per capita for the OECD countries. The study used a panel data set for 17 OECD countries over the period 1970 to 2004. Results showed that shifts in tax revenue towards property taxes are associated with a higher level of income per

capita in the long-run. The study suggested that it may be premature to draw concrete conclusions about the superiority of taxes on consumption over taxes on income, or about the superiority of taxes on personal income over taxes on corporate income, in terms of their effect on long run income levels. Therefore caution is advisable when making policy recommendations concerning "growth promoting" revenue-neutral tax structures reforms, especially for individual countries.

Caucutt, Imrohoroglu, and kumar (2000), investigates the growth effects of change in the tax structure, in particular, in the progressivity of taxes for the Nigerian economy. They construct a general equilibrium model of Endogenous growth, in which there is heterogeneity in income and in the tax rates. Results show that changes in the progressivity of tax rates can have positive growth effects even in situations where changes in flat rate taxes have no effect.

Schwellnus and Arnold (2008) analyse the effects of corporate taxes on productivity and investment, using a stratified sample of firms across OECD economies over the period, 1996-2004. They apply a difference in–differences estimation strategy which exploits differential effects on productivity at the firm level with different profitability. The effect is negative across firms of different size and age classes, except for the small and young which may be attributable to the relatively low productivity of small and young firms. In the investment analysis, the results suggests that corporate taxes reduce investment through an increase in the user cost of capital.

Clark and Lawson (2008) investigate the role of tax policy in determining economic growth and the distribution of income for the period of 1990-2000 for Ghana. The metric for the degree of income equality is the Gini coefficient, which takes a value between 0 and 100, with higher values indicative of greater income inequality. Results show that progressive taxation as measured by high top marginal tax rates does in fact appear to work in the direction of increased income equality. Measures of private property rights, sound money, trade openness and government size, correlate very strongly with increased income equality.

2.3.2 Total Tax Revenue and Inflation

Anichebe (2013) examined the implications of tax policy on inflation in Nigeria (1981-2012). Some of the estimation techniques adopted in the study include Johnasen Co-integration test technique, Ordinary Least square technique and Granger causality/Block exogeneityWalid test. The results of the estimates showed that ; tax policy has a long run relationship with inflation in Nigeria. Personal income tax rate has a negative impact on inflation in the long run, while company income tax rate and consumption and property tax have significant positive relationship with inflation in the long run.

Ayanwale and Omoke (2010) examined the effect of tax revenue on inflation using simple regression model for data analysis. The study considered a vector of development indicators such as savings, consumer price index and per-capita income as dependent variables and regressed each on total tax revenue. The result shows that increase in total revenue cannot necessarily increase or decrease inflation in Nigeria. They maintained that government can fight

inflation using monetary policy instruments such as open market operation, cash reserve ratio and liquidity ratio. On the other hand, they suggested that mis-management of funds generated through tax can lead to inflation especially when those revenues are channelled towards re-current expenditure and importation of foreign goods.

Adegbie and Fakile (2011) concentrated on "the increase in company Income Tax and Nigeria Inflationary Pressure". They used Chi-square and Multiple Linear Regression analysis in analysing the primary and secondary data respectively and concluded that decrease in company income tax may not necessarily increase inflation because the company may not raise the salaries of its workers or it may ploughed back the profit. If there is inflation in the economy, government can increase taxes thereby reducing the amount of money in circulation and vice-versa.

Indeed, empirical literature has provided evidence that tax revenue is negatively affected by inflation, (Gordon, 2008). This inverse relationship is usually explained by the fact that the real value of tax revenue is eroded by inflation, since it exists for some tax categories, a time-lag between the date of imposition and the effective collection of these taxes. Therefore, by theoretically maintaining inflation at low levels, and therefore by increasing the real value of tax revenue, Inflation Targeting may attenuate the government's tax collection effort.

Guatier and Lalliard (2014) make an empirical assessment of the direct inflationary impact of VAT changes in France since 1995. Their empirical measure of the pass-through of changes of VAT rates after-tax prices is based on a "difference in differences" method. The use of this

method was illustrated by applying it to the effect on the harmonized index of consumer prices (HICP), excluding energy food and tobacco of the increase in the standard rate from 18.6% to 20.6% in August 1995. Result show that the price like in August 1995 caused inflation to go up by just under one percentage point, while the VAT reduction in April 2000 had a modest impact on inflation.

Gelardi (2014) uses graphs and statistical methods to ascertain whether inflation in the UK and Canada was affected by the introduction or changes in rate of the value Added tax. Result showed that the introduction of VAT in the UK showed no significant effect on the rate of change of CPI, whereas the introduction of General Sales Tax (GST) in Canada did have a significant increase in the rate of CPI. It was also found that when the tax rates were changed substantially, inflation. Atan (2013) examines the attempts by successive government in Nigeria to use taxation to influence macro economic aggregates, especially inflation and unemployment. The study used secondary data, covering the period 1970 to 2008. Data gathered was analyzed by means of both descriptive and inferential statistical techniques. The ordinary least square (OLS) method was used for the estimations result indicated that taxes have a negative effect on the inflation rate in line with theory, but with insignificant coefficient. The effect of tax policy on unemployment was insignificantly negative. The study concluded by stating that tax policy was not effective in controlling inflation, and lacking unemployment problems in the country over the period covered by the study.

Benkovskis and Fadejeva (2013) evaluate the inflation effect of recent VAT rate changes in Latvia by using CPI micro data. The findings suggest that the pas-through of the tax rate to consumer prices is strong in case of upward tax adjustment especially, when there are no demand restriction, while pass-through is weaker for tax reduction. The frequency of price changes peaks a the moment of VAT adjustment, while however, is partially compensated by lower average size of price revisions. The level of pass-through exhibits a high degree of heterogeneity with higher pass through for goods, especially food, and lower, for services.

Carara and Danninger (2008) examine inflation smoothing and the modest effect of VAT in Germany. Increases in German core inflation following the 2007 VAT hike were smaller than expected, leading to speculation about delayed inflationary effects. The study argues to the contrary that price increase in advance of the VAT hike explain the small increase upon implementation. Result showed that core inflation rose by 0.36 percentage point in the run up, and by a further 0.40 percentage point at the time of the VAT hike. Cumulatively, the tax hike contributed to two thirds of the increase in core inflation in 2006-07 at an estimated pass-through of 73 percent.

2.3.3 Interest Rate and Government Tax Revenue

Ogbonna and Ebimbowei (2012) assessed the impact of total annual revenue on interest rate in Nigeria. They dis-aggregated tax revenue into its various components such as; excise duties, personal income tax, petroleum profit tax, company income tax, value added tax and

education tax. The study made use of time series data which spanned from 1990-2012. The data collected were regressed and the result showed that increase or decrease in tax revenue can only affect interest rate if government refuses to use the necessary monetary policy instruments for the control of money supply in the economy. They stressed that no matter how much tax revenue collected by the government; they can still increase or decrease the monetary policy rate which affects interest rate.

Okunde and Adewoyin (2009) examined the effect of total tax revenue on interest rate in Nigeria. The study aggregated some variables such as personal income tax, company income tax and excise duties into a model. These variables were granger-caused. The study shows that increase or decrease in total tax revenue does not have a significant effect on interest rate. In other words, what majorly determines the interest is the policies of the Central bank. If there is an increase in monetary policy rate, then there will be increase in interest rate and vice versa.

2.3.4 Government Expenditure and Tax Revenue

Nwofor and Gordon (2013) studied "Tax revenue and government expenditure in Nigeria". They explore how revenues generated from taxation affects Nigeria's expenditure. Secondary data was used for data collection and hypotheses tested using Pearson Moment Correlation coefficient. The study found out that the volume of expenditure incurred by government can negatively affect total tax revenue especially when those expenditures are mainly a recurrent expenditure.

Ozoh (1993) in his study of the effect of local government expenditure on tax revenue in Nigeria found a negative relationship between government's expenditure and economic growth and concluded that government expenditure has an adverse effect on growth but maintained that if tax revenues are judiciously utilized, it will stimulate economic growth.

Mbanefo (1987) in his own study explained the growth of government expenditure in Nigeria by testing Peacock and Wiseman's hypothesis. He focused on the expenditure of federal and state government and was concerned more with war years (1966-1970) and less with oil boom era (1971-1980). He tested the displacement effect of the civil war combined with expenditure of federal and state government; he approached the problem by drawing inference from the tax structure in the wars years and the trend of expenditure. The study found out that there was massive decrease in tax revenue during that period which negatively affected both all the economic indicators in Nigeria negatively.

Most empirical work provides multivariate time series method in estimating the response of consumption and the number of other variable to an exogenous increase in government spending. Jordi (2001) argued with many authors that government spending leads to a significant increase in consumption with an attendant fall in capital formation which would not lead to economic growth.

Adzadoli and Gray (1998) used panel data for 55 countries divided them into three groups which is in accordance to their level of development from (1963-1979). Using five regressions, they upheld Wagner's law for developing countries which states that increase in tax

revenue brings about increase in consumption but disagreed in developed world where many infrastructures have been provided and less corruption witnessed.

Ahmad and Wajid (2013) employed the auto-regressive distributed lag (ARDL) model to investigate the impact of various fiscal policy variables such as productive expenditure, non-productive expenditure, distortionary taxes and non-distortionary taxes on economic growth in both the long-run and short-run. Productive expenditures affect growth in both the long-run and short-run. Productive expenditures affect economic growth positively and significantly, while distortionary taxes retard economic growth. Human capital proxied by secondary school enrolment enhances per capita GDP while labour force has both negative and insignificant impact on GDP per capita. The study therefore recommended that government should utilise its revenue in improving health education and infrastructural facilities that in turn will encourage private investors.

2.3.5 Tax Revenue and Exchange Rate

Okeke (2013) while analyzing the effect of total annual revenue on government expenditure, found out that lack of budget implementation makes it easy for government to divert tax payers money meant for the provision of infrastructural facilities to other frivolous ventures which doesn't add to national growth and development. He cited Ajaokuta Steel Industry as an example.

Kalu (2012) examined the behaviour of real exchange rate and total annual tax revenue in Nigeria: An econometric exploration. The study made use of secondary data collected from CBN Statistical Bulletin and National Bureau of Statistics. The study involved time series data which spanned between 2000-2012. Various exchange rate management regime in Nigeria were analysed. The study found out that wholesale Dutch Auction System is the best for the Nigerian economy because it allows the forces of demand and supply to determine the exchange rate of a country's currency. The study equally found out that total tax revenue has a positive but insignificant effect on exchange rate of a country.

Babaloola (2012) examined the relationship between total annual tax revenue and exchange rate in Nigeria. A small macroeconomic model was formulated to capture the interrelationships. The study estimated the system equation using the three stage least square (3SLS) regression framework. The study found out that efficient utilization of tax revenue and other revenues by the government is key to robust exchange rate mechanism. This implies that if Nigeria can transform her economy from consumption economy to manufacturing economy, then the value of naira will significantly appreciate against other international currencies owing to the forces of demand and supply of currencies.

2.3.6 Tax Revenue and Gross Domestic Product

Springfield (2011) evaluated "The relationship between Total Total Annual Tax revenue and Gross Domestic Product" using Augmented Dickey Fuller (ADF) and Philips-Perron (PP) to

test the unit root. After which the study analysed the short-run model system using the three stage least square (3SLS) regression framework. The study found out that increase in tax revenue will not ostensibly bring about increase in GDP because there are many factors that affect effective computation of GDP which include unpaid labour like house chores etc. It equally found out that GDP can increase without commensurate increase in standard of living of people. Which means that there can be economic growth without development.

Ahmed (2007) studied "Tax Revenue and Gross Domestic Product: Nigeria Experience". They lamented that too much emphasis on oil revenue has downplayed the importance of taxation in Nigeria. They used secondary data as the source of data collection. The Statistical Package for Social Science (SPSS) was used to analyse the data collected. They found out that tax revenue will continue to suffer a serious setback if the government continues to rely on oil revenue to the detriment of tax revenue in the country. They equally found out appropriating 70% of our national budget to re-current expenditure has been the bane of budgeting in Nigeria which affects macro-economic variables such as Gross Domestic Product adversely.

2.4. **Critique of Literature**

Okoduwa (2008) while analyzing the relationship between inflation and tax revenue in Nigeria postulated that inflation in Nigeria is a direct result of the policies of the Nigerian government which favours re-current expenditure instead of capital expenditure. He failed to understand that there can still be inflation in a country even when the policies of the government

favours capital expenditure because inflation can only be minimized through prudent management of available resources and the use of monetary policy measures like open market operation, cash reserve ratio etc.

Okoye (2001) while analyzing the effect of tax revenue on interest rate opined that revenues from taxation can increase or decrease interest rate in Nigeria since decrease in tax revenue means that there will be insufficient funds within the disposal of Central Bank of Nigeria to lend to commercial banks. The author failed to understand that Central Bank of Nigeria can deliberately decide to increase or decrease the monetary policy rate (MPR) even when there is increase in tax revenue. If there is excess money in circulation, the CBN can increase MPR so as to reduce money supply in the economy.

Some authors like Arpaia and Turrini (2008), Herbert (2002), Nwofor and Gordon (2009) believed that increase in government tax revenue brings about commensurate increase in government expenditure. However, some countries like Finland, Denmark and Luxembourg have on some occasions engage in surplus budgeting meaning that they deliberately decided to spend little in the midst of plenty. Over the years, Nigerian government have engaged in deficit budget meaning that they spend more than they earned.

Furthermore, Obaseki (1993), Agbasi (2003) and Kalu (2012) agreed that the flexible Dutch Auction System of exchange rate is best for the country because it will bring out the true value of currency against other major currencies. The authors failed to realized that a countries

exchange rate system can only be strong against other currencies if the country is not largely import oriented and doesn't believe in exportation of only one product like Nigeria.

Springfield (1999) while analyzing the relationship between total total annual tax revenue and gross domestic product using augmented Dickey Fuller and Philips-Peron to test the unit root. His study was carried out in England. Therefore, the environment is different from Nigeria where GDP computation is still difficult owing to dearth of statistics and inadequate central data base in different sectors of the economy.

2.5 Summary of Literature Review

Nigeria is a large country with both human and material resources which projects it to the outside world as investor's heaven due to its population and massive mineral resources. Over the years the country has been battling to entrench an efficient tax system which will stimulate economic growth and development. The major business of any government is the provision of conducive environment where business can thrive. Owing to this, many authors have discussed the effect of total annual revenue on macro-economic variables. There general argument was that Nigeria is still operating an inefficient tax system which made it impossible to realize adequate revenue for the development of the country. Some of the authors argued that there has been considerable improvement in tax revenue in recent years but has not reflected in the standard of living of Nigerians.

However, majority of the authors believed that the major reasons why the economy is not performing creditably was because of the inability of different levels of government in Nigeria to channel revenues from taxes to productive sectors of the economy thereby affecting adversely all the macro-economic variables in Nigeria. But available statistics from Central Bank

of Nigeria statistical Bulleting (2012) and Bureau of National statistics hand book (2012) show that all the economic fundamentals are sound and working very well. The rebasing of GDP in Nigeria which projects Nigeria as the largest economy in Africa is pointer to the fact that there can be economic growth without development.

The gap in knowledge is that some authors studied the effect of tax revenues on macro-economic variables in Nigeria, Ghana, Malawi and OECD countries but this study specifically and carefully related the effect of total tax revenue on selected macroeconomic variables in Nigeria so as to know whether increase or decrease in taxes can affect the economy significantly or not.

CHAPTER THREE

RESEARCH METHODOLOGY

The section deals extensively with methods and procedures adopted by the researcher in the conduct and advancement of this study.

Behling (1990) postulates that the greater the detail and care in the preparation of methodology the more efficient and easy the research will be completed. According to Ozongwu (2002) research methodology is the authority base for the research. It is a straight, clear and vivid road which anyone who takes it will not fail to reach his destination. This chapter will succinctly explain the methodology adopted which include; the area of the study, methods of data collection, data presentation and analysis of the hypotheses earlier stated.

3.1 Research Design

A research design is a planned sequence of activities that guides the researcher in his investigation and analysis on the subject matter (Okuno, 1995). The time serial ex-post-fact and analytical research designs were used to investigate the effect of total tax revenue on the selected macroeconomic variables.

3.2 **Area of Study**

This study is specifically on the effect of total total tax revenue on macro-economic variables such as inflation, GDP, interest rates, exchange rates and government expenditure in Nigeria. These variables were chosen based on the research done by Ade (2009) where he listed them as the major variables that affects tax revenue. The focal point is Federal Inland Revenue Service which acts as tax collector to the federal government of Nigeria.

3.3 **Sources of Data**

Data are the basic raw materials for statistical investigation and research analysis, (Okonkwo, 1994). This study was based on secondary data. A sample of annual observations on time series covering the period from 2000 to 2013 was employed. The main source of data collection for this research is drawn mainly from the Federal Inland Revenue Quarterly Statistical Books, CBN Statistical Bulletin and Annual Accounts of various editions.

3.4 Model Specification

The specification of the model involves the determination of the dependent and independent variables that will be included in the model. It expresses the mathematical effect that exists between the dependent and the independent or explanatory variables.

3.5 Tax revenue and Economic Growth Model

Essentially, this study adopts the models specified by Anya (2007) while studying the effect of tax revenue on economic growth. The original model was specified as

GDP = f(FDI, PIT, TR,)

Where GDP = Gross Domestic Product

FDI = Foreign Direct Investment

PIT = Personal income tax

TR = Tax revenue.

The above model was modified so as to incorporate other types of taxes for easy understanding. This model was used to address hypothesis one using the following function.

GDP = f (TTR, PIT, CIT, CPT).

The equation from the model becomes

$LnGDP = a_1 + a_2LnTTR_t + a_3LnPIT_t + a_4LnCPT_t + E_t$

Where:

GDP = Gross Domestic Product Per capita

TTR = Total Tax Revenue

PIT = Personal Income Tax

CIT = Company Income Tax

CPT = Consumption and Property Taxes

E_t = Random Error Term

a = Constant

a_1, a_2, a_3, and a_4, are the coefficients of the regression equation.

For us to accurately estimate the effect oftotal tax revenue on economic growth, we first divide total tax revenue into two broad categories; total income taxes and total consumption and property taxes. We then estimate how changes in the composition between the two affect growth. We also consider a further disaggregation of each broad category to analyse the effects on growth of changes in the different sub-components.The final regressors are; Economic growth as a dependent variable. This is proxied by GDP

The explanatory variables include:

The total tax revenue: The total tax revenue comprises of all tax collected at the Federal, state and local government levels.

Personal Income tax expressed as a share of total tax revenue: This tax is collected both at federal and state levels. It represents taxes on income or profits of individuals and unincorporated bodies.

Company income tax expressed as a share of total tax revenue: Company income tax represents taxes on profits of incorporated business organizations.

Indirect or consumption and property tax: expressed as a share of total tax revenue. The indirect taxes include the custom and excise duty and the value added tax revenue. Property taxes are collected at the local government level.

3.6 Tax revenue and Inflation Model

Specifically, this study adopts the model specified by Ayanwaleand Omoke (2010) where they studied the effect of total tax revenue on inflation. In their model, inflation was the dependent variable while the independent variables include, total tax revenue, exchange rate and interest rate. Their original model was specified as

INF = f(TTR, EXCH,INT)

Where INF = Inflation

TTR = Total Tax Revenue

EXCH = Exchange Rate

INT = Interest rate

The above model was modified so as to incorporate other types of taxes and money supply for comprehensive analysis. This model was used to address hypothesis two using the following function.

INF = f (TTR, PIT, CIT, CPT, EXCH, MS, INT).

The equation from the model becomes

$LnINF = a_1 + a_2LnTTR_t + a_3LnPIT_t + a_4LnCPT_t + a_5LnExch + a_6LnMS + a_7LnINT + E_t$

Where:

INF = Inflation

TTR = Total Tax Revenue

PIT = Personal Income Tax

CIT = Company Income Tax

CPT = Consumption and Property Taxes

EXCH = Exchange Rate

MS = Money Supply

INT = Interest Rate

E_t =Random Error Term

a =Constant

a_1, a_2, a_3, a_4,a_5,$a_6$and a_7 are the coefficients of the regression equation.

Inflation: Inflation is defined as a persistent and appreciable increase with the general price level of goods and services in the economy. Inflation has been the "clog in the wheel" that motivates economy. It has made export products to become expensive in the international market and this impeded the expansion of the export market which affects house hold income.

Interest rate: This is the cost of fund. It is the lending interest rate adjusted for inflation as measured by the GDP deflator. The terms and conditions attached to lending rates differ by country, however, limiting their comparability.

Exchange rate: This is the rate at which a countries currency exchanges to other currencies of the world**.** Real effective exchange rate is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs.

Money Supply: This can be defined as the stock of money in the economy. It can be in form of M_1, M_2 and M_3.Parry (1984) stressed that economic expansion brings about increase in money supply but should be carefully monitored to avoid inflation.

3.7 Tax revenue and Interest Rate Model

Specifically, this study adopts the model specified by Ogbonna and Ebimbowei (2012) where they studied the effect of total tax revenue on interest rate. In their model, interestrate was the dependent variable while the independent variables include, total tax revenue and inflation rate. Their original model was specified as follows:

INT = f(TTR, ,INF)

Where INT = Interest rate

TTR = Total Tax Revenue

INF = Inflation Rate

The above model was modified so as to incorporate other types of taxes and money supply for comprehensive analysis. This model was used to address hypothesis three using the following function.

INT = f (TTR, PIT, CIT, CPT, MS, INF).

The equation from the model becomes

$LnINT = a_1 + a_2LnTTR_t + a_3LnPIT_t + a_4LnCPT_t + a_5LnMS + a_6LnINF + E_t$

Where:

INF = Inflation

TTR = Total Tax Revenue

PIT = Personal Income Tax

CIT = Company Income Tax

CPT = Consumption and Property Taxes

MS = Money Supply

INF = Inflation Rate

E_t = Random Error Term

a = Constant

a_1, a_2, a_3, a_4, a_5, and a_6 are the coefficients of the regression equation.

The specification of the econometric model adopted in this study, including control variables and the classification of taxes, builds on theoretical propositions.

3.8 Tax revenue and Exchange Rate Model

Specifically, this study adopts the model specified by kalu (2012) where he studied the effect of total tax revenue on exchange rate. In his model, exchange rate was the dependent variable while the independent variables include, total tax revenue and money supply. His original model was specified as follows:

EXCH = f(TTR, MS)

Where EXCH= Exchange rate

TTR = Total Tax Revenue

MS = Money Supply

The above model was modified so as to incorporate other types of taxes and interest rate for comprehensive analysis. This model was used to address hypothesis four using the following function.

EXCH = f (TTR, PIT, CIT, CPT, MS, INT).

The equation from the model becomes

$LnEXCH = a_1 + a_2LnTTR_t + a_3LnPIT_t + a_4LnCPT_t + a_5LnMS + a_6LnINT + E_t$

Where:

EXCH = Exchange Rate

TTR = Total Tax Revenue

PIT = Personal Income Tax

CIT = Company Income Tax

CPT = Consumption and Property Taxes

MS = Money Supply

INT = Interest Rate

E_t = Random Error Term

a = Constant

a_1, a_2, a_3, a_4, a_5, and a_6 are the coefficients of the regression equation.

3.9 Tax revenue and Government Expenditure Model

Specifically, this study adopts the model specified by Nwofor and Gordon (2013) where they studied the effect of total tax revenue on government expenditure. In their model, government expenditure was the dependent variable while the independent variables include, total tax revenue and Gross Domestic Product. Their original model was specified as follows:

GEXP = f(TTR, GDP)

Where GEXP= Government Expenditure

TTR = Total Tax Revenue

GDP = Gross Domestic Product

The above model was modified so as to incorporate other types of taxes and government expenditure for comprehensive analysis. This model was used to address hypothesis five using the following function.

GEXP = f (TTR, PIT, CIT, CPT, RE, CE).

The equation from the model becomes

$LnGEXP = a_1 + a_2LnTTR_t + a_3LnPIT_t + a_4LnCPT_t + a_5LnRE + a_6LnCE + E_t$

Where:

GEXP = Government Expenditure

TTR = Total Tax Revenue

PIT = Personal Income Tax

CIT = Company Income Tax

CPT = Consumption and Property Taxes

RE = Recurrent expenditure

CE = Capital Expenditure

E_t = Random Error Term

a = Constant

a_1, a_2, a_3, a_4, a_5, and a_6 are the coefficients of the regression equation.

- **Recurrent expenditure**: It refers to the usual continuous cost of running the government machinery. It involves payment of salaries and wages and other miscellaneous expenses.
- **capital expenditure**: It refers to funds allocated to viable and relevant projects that can generate employment and may make some profits to repay the capital source

3.1.0 Estimation Procedures

The summary statistics of the various tax revenue variables, economic growth, inflation, Interest rate, exchange rate and government expenditure in Nigeria are estimated. The statistical properties of the variables provide information about the means, medians, standard deviations, skewness, kurtosis and jarque-Bera statistics of each variable. Mean is the average value of the series, median is the middle value of the series when the values are ordered from smallest to the largest of the two, the median is a robust measure of the centre of the distribution that is the less sensitive to outliers. Max and Min represent the maximum and minimum values of the series in the employed sample. Standard deviation measures dispersion in the series. Skewness measures asymmetry of the distribution of the series around its means and it is expected to be zero for normal distribution. Positive/negative skewness means that the distribution has a long right/left tail. Kurtosis measures the peakedness or flatness of the distribution of the series while Jarque-Bera is a test statistic for testing whether the series is normally distributed. The test statistic measures the difference of the skewness and kurtosis of the series with those from the normal distribution. The correlation analysis that shows the extent of linear relationship that exist among variables is employed to estimate the nature of linear association among tax revenue variables, economic growth, inflation, Interest rate, exchange rate and government expenditure in Nigeria. Heteroskedasticity test and Ramsey RESET test were performed in order to validly test the hypotheses and estimate

the coefficient. Regression analysis is carried out using E-views8.0.Thereafter, long run analysis is estimated using Ordinary Least Square (OLS) estimation technique.

3.1.3 Apriori Criteria

This refers to the supposed relationship/effect between and or among the dependent or independent variables of the model as determined by the postulations of economic theory. The result or parameter estimates of the models is interpreted on the basis of the supposed signs of the parameters as established by financial theory.

Regressor	*Regressand*	*Effect*
TTR	**GDP**	**+**
TTR	**INF**	**+**
TTR	**INT**	**+**
TTR	**EXCH**	**+**
TTR	**GEXP**	**+**

Note that: a '+' indicates that the regressand and the regressor increase (or decrease) together. In other words, they move in the same direction; they have a direct relationship. On the other hand, a '–' depicts the fact that the regressand and regressors do not increase (or decrease)

together. They move in opposite/different directions – they have an indirect/inverse relationship according to theory.

CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS

4.0 Data Presentation

In this section, the data used in estimating the models as developed and explained in chapter three are presented. The main source of data collection for this research were drawn mainly from the Federal Inland Revenue Quarterly Statistical Books, CBN Statistical Bulletin and Annual Accounts of various editions. Table 4.1a presents the data for gross domestic product (GDP), inflation rate, interest rate, exchange rate and their

corresponding data on government expenditure for the period 2000 to 2013. Table 4.1b presents the data for total tax revenue, personal income tax, company income tax, consumption and property tax, recurrent expenditure and capital expenditure for the period 2000 to 2013.

Table 4.1a: Gross Domestic Product, Inflation Rate, Interest Rate, Exchange Rate and Government Expenditure from 2000 to 2013.

Year	Gross Domestic Product ₦'Million	Inflation Rate (%)	Interest Rate (%)	Exchange Rate	Government Expenditure ₦'Billion	Money Supply ₦'Billion
2000	4,537,637.2	06.9	17.98	85.98	1,011,677.3	637,731.1
2001	4,685,912.2	18.9	18.29	106.00	1,017,996.5	816,707.6
2002	5,403,006.8	12.9	24.40	113.00	1,017,378.1	946,253.4
2003	6,947,819.9	14.0	20.48	127.00	1,225,988.2	1,225,559.0
2004	11,411,066.9	15.0	19.15	130.00	1,384,000.0	1,330,658.0
2005	14,610,881.5	17.9	17.85	136.00	1,748,200.0	1,725,396.0
2006	18,564,594.7	08.2	12.25	131.80	1,842,587.7	2,280,649.0
2007	20,657,318.0	05.4	08.75	125.00	2,348,593.0	3,116,272.0
2008	24,296,329.0	11.6	09.81	120.00	3,078,300.0	4,857,312.0
2009	24,712,670.0	12.5	06.00	145.00	3,284,702.6	5,017,116.0
2010	29,108,024.4	13.7	06.25	151.52	3,653,242.8	5,571,270.0
2011	31,837,360.2	10.8	70.51	162.29	3,946,457.1	3,210,300.0
2012	32,156,787.6	12.2	12.00	155.92	4,697,000.0	7,420,946.0
2013	64,567,897.8	08.5	12.00	160.38	4,987,000.0	7,568,768.0

Source: Central Bank of Nigeria (CBN)

Table 4.1b: Total Tax Revenue, Personal Income Tax, Company Income Tax, Consumption and Property Tax, Recurrent Expenditure and Capital Expenditure From 2000 to 2013.

Year	Total Tax Revenue ₦'B	Personal Income Tax ₦'B	Company Income Tax ₦'B	Consumption Property Tax ₦'B	Recurrent Expenditure ₦'Billion	Capital Expenditure ₦'Billion
2000	758,031.36	37,788.5	51,100	7,152.9	461,600.00	23,945.00
2001	979,942.28	59,416.0	88,700	6,020.4	579,300.00	438,696.50
2002	8,004,671.20	89,606.9	89,100	10,420.8	696,800.00	321,378.10
2003	1,151,461.20	118,753.5	114,800	20,175.5	984,300.00	241,688.30
2004	1,738,323.10	134,195.3	130,100	22,407.8	1,032,700.00	351,300.00

2005	2,383,555.76	122,737.8	162,200	24,042.5	1,223,700.00	519,500.00
2006	2,048,280.10	125,228.9	244,900	23,225.1	1,290,201.90	552,385.80
2007	2,469,151.76	30,570.3	327,000	21,300.0	1,589,270.00	757,323.00
2008	4,009,425.10	35,303.7	416,800	22,731.4	2,117,362.00	1,123,458.00
2009	2,791,197.10	461,224.5	568,100	20,454.2	2,300,194.30	1,152,796.50
2010	4,595,863.17	420,454.8	600,000	26,150.0	3,310,343.38	883,874.50
2011	4,915,599.00	509,290.9	659,596	27,329.5	3,564,248.31	1,856,371.50
2012	5,278,710.61	548,120.3	816,520	26,615.5	3,685,210.20	1,195,251.30
2013	4,856,732.78	568,251.6	876,500	27,221.3	3,786,264.50	1,230,567.50

Source: Federal Inland Revenue Service (IFRS) and Central Bank of Nigeria (CBN)

4.1 Summary of Descriptive Statistics

Table 4.2a and 4.2b shows the descriptive statistics of the variables. It shows the total number of observations, mean, median, maximum, minimum, standard deviation and sum of mean deviation. As presented in Table 4.2a, the average value of the dependent variables which are gross domestic product, inflation, interest rate, exchange rate and government expenditure are 20964093, 12.03, 13.76, 132.13 and 2517366 respectively. The maximum and minimum value of the dependent variables are64567898, 18.9, 24.4, 162.29, 4987000 and 4537637, 5.4, 6.0, 85.98 and 1011677 respectively. They deviated by 16045995, 3.89, 5.86, 21.9, 1410909 from their mean values of 20964093, 12.03, 13.76, 132.13 and 2517366 respectively.

Table 4.2a: Summary of Descriptive Statistics for the Variables in the Models

	GDP	INF	INT	EXCH	GEXP	TTR
Mean	20964093	12.03571	13.76571	132.1352	2517366.	2805075.
Median	19610956	12.35000	12.12500	130.9000	2095590.	2426354.
Maximum	64567898	18.90000	24.40000	162.2999	4987000.	8004671.
Minimum	4537637.	5.400000	6.000000	85.98000	1011677.	49155.99
Std. Dev.	16045995	3.895285	5.866037	21.90549	1410909.	2288136.
Skewness	1.348890	0.045708	0.220176	-0.399316	0.451745	0.751768
Kurtosis	4.872912	2.343448	1.814522	2.560439	1.803991	2.838857
Jarque-Bera	6.291728	0.256327	0.932907	0.484766	1.310594	1.333842
Probability	0.043030	0.879710	0.627223	0.784756	0.519288	0.513287

Sum	6.291728	0.256327	0.932907	0.484766	1.310594	39271049
Sum Sq. Dev.	0.043030	0.879710	0.627223	0.784756	0.519288	6.81E+13
Observations	14	14	14	14	14	14

Source: Computer output data using E-views

Table 4.2b: Summary of Descriptive Statistics for the Variables in the Models

	PIT	**CIT**	**CPT**	**MS**	**RE**	**CE**
Mean	232924.5	367529.7	20374.78	3036783.	1901535.	760609.7
Median	123983.4	285950.0	22569.60	2003023.	1439736.	654854.4
Maximum	568251.6	876500.0	27329.50	7568768.	3786265.	1856372.
Minimum	30570.30	51100.00	6020.400	321.3000	461600.0	23945.00
Std. Dev.	213164.1	287847.1	7230.577	2574777.	1224386.	502966.1
Skewness	0.593254	0.512057	-1.070122	0.617089	0.469362	0.541009
Kurtosis	1.557856	1.821031	2.736643	1.965855	1.675332	2.609163
Jarque-Bera	2.034422	1.422621	2.712500	1.512380	1.537635	0.772051
Probability	0.361602	0.491000	0.257625	0.469452	0.463561	0.679753
Sum	3260943.	5145416.	285246.9	42514959	26621495	10648536
Sum Sq. Dev.	5.91E+11	1.08E+12	6.80E+08	8.62E+13	1.95E+13	3.29E+12
Observations	14	14	14	14	14	14

Source: Computer output data using E-views8.0

It is confirmed in the Table 4.2a that the average total tax revenue is about ₦2,805,075 billion (mean = 2,805,075.0) with a maximum of ₦8,004,671 and a minimum of ₦49,155.99 billion. The standard deviation indicates that total tax revenue varies by ₦2,288,136 billion from the average value of ₦2,805,075 billion. In terms of personal income tax, the mean of 232924.5 suggests that tax revenue from personal income of citizen averaged ₦232,924.5 billion. The maximum and minimum value of the personal income tax are ₦568,251.6 billion and ₦30,570.3 billion respectively. It deviates by ₦213,164.1 billion from the average value of fund generated through citizen's personal income.

The mean value of company's income tax is ₦367,529.7 billion with having a maximum value of ₦876,500 billion and a minimum value of₦51,100 billion. The

standard deviation of company's income tax is ₦287,847 billion. On the other hand, consumption and property tax revenue in Nigeria is ₦20,374.78 billion on average with a range of ₦27,329.5 billion to ₦6,020.40 billion. The deviation is ₦7,230.57 billion, from the mean revenue from company income tax.

The recurrent and capital expenditure are averaged ₦1,901,535 billion and ₦760,609.7 billion respectively. Recurrent expenditure has a maximum and minimum values of ₦3,786,265 billion and ₦461,600 billion while capital expenditure has a maximum and minimum values of ₦1,856,372 billion and ₦23,945 billion. The standard deviation for recurrent and capital expenditure are₦1,224,386 and ₦502,966.1 respectively. This suggests that the government spends more on recurrent expenditure when compared to capital expenditure within the period covered by the study. Nevertheless, money supply averaged ₦3,036,783 billion and deviated by ₦2,574,777 from its mean value. Its maximum and minimum values are ₦7,568,768 billion and ₦321.3 billion.

4.3 Correlation Analysis

Correlation indicates the degree of association between variables.Itassesses the extent and strength of the association between two variables. The correlation matrix of the variables employed in this study is present in Table 4.3a. The table presented all insight into understanding the econometric results and other analyses that are later carried out in this study. The result as presented in Table 4.3a showed that most of the variables

employed are highly correlated. The directions of the correlation for some are positive, while some variables are negative.

4.3 Diagnostic Test of the Data Set

Before running the models, the data sets were tested for the classical linear regression model assumptions. Heteroskedasticity test and Ramsey RESET test were performed in order to validly test the hypotheses and estimate the coefficient.

Test of Heteroskedasticity

One important assumption for classical linear regression model is that the disturbances appearing in the population regression are homoskedastic, which means the variance of the error term is consistent. If errors do not have a constant variance (not homoscedastic), they are said to be Heteroskedastic (Brooks, 2008). To check the problem of heteroskedastisty, the researcher used Breusch-Pagan test for heteroskedastisty based on the null that there is no hetroskedasticty problem in the model. It was obtained from Breusch-Pagan test for heteroskedastisty that the p-value for model 1, 2, 3, 4 and 5 were 0.139672, 0.064226, 0.138416, 0.072502 and 0.529379 respectively (see Appendix 1). These values are greater than 5% (0.05) level of significance thus, unable to reject null hypothesis. Subsequently, there is no hetroskedasticity problem in the models.

Ramsey RESET test

The result of the Ramey RESET test shows that the p-value of about 10.3% (0.1030), 6.49% (0.0649), 5.71% (0.0571), 56.56% (0.5665) and 35.41% (0.3541) are greater than the critical value of 0.05 for model 1, 2, 3, 4 and 5 respectively (see appendix 2). This shows that there is no apparent non-linearity in the regression equations and it would be concluded that the linear models are appropriate.

4.4 Result of Hypothesis One

Restatement of Research Hypotheses

H_0: There is no significant effect of Total Tax Revenue on Gross Domestic Product in Nigeria

Table 4.3 presents the result on the effect of total tax revenue on gross domestic product of Nigeria. The result shows that total tax revenue and consumption and property tax have positive but insignificant effect on gross domestic product while company income tax has positive and significant effect on gross domestic product. Personal income tax has insignificant negative effect on gross domestic product. The coefficient of the constant -997915.8 signifies that holding total tax revenue, personal income tax, company income tax and consumption and property tax constant, Nigeria gross domestic product would stand at -997915.8.

Table 4.3: Effect of Total Tax Revenue on Gross Domestic Product

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-997915.8	7440802.	-0.134114	0.8963
TTR	0.006026	1.006741	0.005985	0.9954
PIT	-15.10968	23.22204	-0.650661	0.5315
CIT	56.85628	20.15887	2.820410	0.0200

CPT	224.2061	429.0730	0.522536	0.6139
R-squared	0.843504	Mean dependent var		20964093
Adjusted R-squared	0.773950	S.D. dependent var		16045995
S.E. of regression	7629027.	Akaike info criterion		34.80527
Sum squared resid	5.24E+14	Schwarz criterion		35.03351
Log likelihood	-238.6369	Hannan-Quinn criter.		34.78414
F-statistic	12.12733	Durbin-Watson stat		1.809513
Prob(F-statistic)	0.001138			

Source: Computer output data using E-views8.0

The total tax revenue coefficient of 0.006026 implies that a unit increase in total tax revenue would increase Nigeria gross domestic product by 0.60%. The personal income tax coefficient of -15.10968 suggests that a unit increase in personal income tax would decrease Nigeria gross domestic product by a factor of 15.109. The company income tax coefficient of 56.85628 means that a unit increase in company income tax would increase Nigeria gross domestic product by a factor of 56.86 while the consumption and property tax coefficient of 224.2061 signifies that a unit increase consumption and property tax would decrease Nigeria gross domestic product by a factor of 224.21.

The value of the Adjusted R-squared which has the predisposition of eradicating the influence of the number of independent variables involved is 0.773950. This suggests that 77.39% variation in Nigeria gross domestic product was due to changes in total tax revenue, personal income tax,company income tax and consumption and property tax. This suggests that changes in total tax revenue, personal income tax,company income tax

and consumption and property tax have to a high extent improved Nigeria gross domestic product from 2000 to 2013.

The critical value of F-distribution at 5% level of significance and 5 degree of freedom, i.e. F (2, 5) is 3.48. F-statistic calculated as indicated in Table 4.3 is 12.12. These value is greater than tabulated F-statistic of 3.48, and by implication, the model in statistical term has a goodness of fit. Furthermore, the probability of the F-statistic is 0.001138 and less than 0.05 (5% level of significance). The Durbin Watson statistic value is 1.80 quite close to 2.0. This suggests that there is no autocorrelation problem in the model.

The OLS estimation in Table 4.3 depicts that total tax revenue has positive effect on Nigeria gross domestic product. However, the effect is not statistically significant. In the light of this, the null hypothesis that there is no significant effect of total tax revenue on gross domestic product in Nigeria is rejected since the Probability of 0.001138< 0.05

4.5 Result of Hypothesis Two

Restatement of Research Hypothesis

H_0: There is no significant effect of total Tax Revenue on inflation in Nigeria

Table 4.4 reveals the outcome on the effect of total tax revenue on inflation rate in Nigeria. The result depicts that total tax revenue, personal income tax, company income tax and consumption and property tax have negative but insignificant effect on inflation while exchange rate, money supply and interest rate have insignificant positive effect on

inflation. The coefficient of the constant -21.42878 entails that if total tax revenue, personal income tax, company income tax, consumption and property tax, exchange rate, money supply and interest rate are kept constant, inflation rate would stand at -21.42878.

The total tax revenue coefficient of -1.55E-07 denotes that a percentage increase in total tax revenue would decrease inflation by a factor of 1.55. This contradicts the findings of Anichebe (2013) that total tax revenue has positive effect on inflation in Nigeria. The personal income tax coefficient of -4.37E-06 infers that a percentage increase in personal income tax would decrease inflation by a factor of 4.37. This agrees with the result of Anichebe (2013). The company income tax coefficient of -1.82E-05 indicates that a percentage increase in company income tax would decrease inflation by a factor of 1.82 while the consumption and property tax coefficient of -0.000603 signifies that a percentage increase consumption and property tax would decrease inflation by 0.060%. The negative effect of company income tax and consumption and property tax on inflation also refutes the work of Anichebe (2013). Exchange rate, money supply and interest rate coefficients of 0.376733, 8.62E-07 and 0.106897 implies that a percentage increase in exchange rate, money supply and interest rate would respectively result in 0.37, 8.62 and 0.11 appreciation in the level if inflation rate in Nigeria.

Table 4.4: Effect of Total Tax Revenue on Inflation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-21.42878	22.81212	-0.939359	0.3838
TTR	-1.55E-07	7.65E-07	-0.202564	0.8462
PIT	-4.37E-06	2.20E-05	-0.199104	0.8488

CIT	-1.82E-05	1.77E-05	-1.026433	0.3443
CPT	-0.000603	0.000535	-1.126870	0.3028
EXCH	0.376733	0.254148	1.482334	0.1888
MS	8.62E-07	9.77E-07	0.882849	0.4113
INT	0.106897	0.371504	0.287740	0.7832
R-squared	0.481880	Mean dependent var		12.03571
Adjusted R-squared	-0.122594	S.D. dependent var		3.895285
S.E. of regression	4.127153	Akaike info criterion		5.968612
Sum squared resid	102.2003	Schwarz criterion		6.333787
Log likelihood	-33.78028	Hannan-Quinn criter.		5.934808
F-statistic	0.797189	Durbin-Watson stat		2.419174
Prob(F-statistic)	0.617257			

Source: Computer output data using E-views8.0

The value of the Adjusted R-squared which has the predisposition of eradicating the influence of the number of independent variables involved is -0.122594. This suggests that -12.25% variation in inflationary rate in Nigeria was due to changes in total tax revenue, personal income tax,company income tax, consumption and property tax, exchange rate, money supply and interest rate. This suggests that changes in total tax revenue, personal income tax,company income tax, consumption and property tax, exchange rate, money supply as well as interest rate have not in any way reduced inflationary rate in Nigeria during the period of the study.

The critical value of F-distribution at 5% level of significance and 5 degree of freedom, i.e. F (2, 5) is 3.48. F-statistic calculated as indicated in Table 4.4 is 0.79. These value is less than tabulated F-statistic of 3.48, and by implication, the model in statistical term has no goodness of fit. Furthermore, the probability of the F-statistic is 0.61 and

higher than 0.05 (5% level of significance). The Durbin Watson statistic value is adequate at 2.4 suggesting no autocorrelation problem in the model.

The regression result in Table 4.4 reveals that total tax revenue has negative effect on inflation. Nevertheless, the effect is not statistically significant. To this effect, the null hypothesis that there is no significant effect of total Tax Revenue on inflation in Nigeria is accepted since Probability of 0.617257> 0.05.

4.6 Result of Hypothesis Three

Restatement of Research Hypothesis

H_0: There is no significant effect of total Tax Revenue on Interest Rate in Nigeria.

From the model estimation in Table 4.5, total tax revenue, personal income tax and inflation rate have negative but insignificant effect on interest rate while company income tax, consumption and property tax and money supply have positive but insignificant effect on interest rate in Nigeria. The coefficient of the constant 17.12915 denotes that holding total tax revenue, personal income tax, company income tax, consumption and property tax, inflation rate and money supply constant, interest rate would stand at 17.12915.

The total tax revenue coefficient of 9.92E-07 entails that a unit increase in total tax revenue would increase interest rate by a factor of 9.92. The personal income tax coefficient of 1.63E-05 suggests that a unit increase in personal income tax would increase interest rate by a factor of 1.63. The company income tax coefficient of -2.70E-

05 means that a unit increase in company income tax would decrease interest rate by a factor of 2.70 while the consumption and property tax coefficient of -1.68E-05 exhibits that a percentage increase consumption and property tax would decrease interest by a factor of 1.68.

The coefficient of the Adjusted R-squared in Table 4.5 indicates that only 48.49% of changes in interest rate was attributed to fluctuations in total tax revenue, personal income tax, company income tax, consumption and property tax, inflation rate and money supply. This suggests that total tax revenue, personal income tax, company income tax, consumption and property tax, inflation rate and money supply improved interest rate by a magnitude of 48.5% within the period under review.

Table 4.5: Effect of Total Tax Revenue on Interest Rate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	17.12915	5.786042	2.960426	0.0211
TTR	9.92E-07	6.43E-07	1.541409	0.1671
PIT	1.63E-05	1.57E-05	1.043225	0.3315
CIT	-2.70E-05	1.65E-05	-1.634580	0.1462
CPT	-1.68E-05	0.000240	-0.070059	0.9461
MS	-9.76E-08	9.40E-07	-0.103776	0.9203
INF	0.050815	0.355766	0.142834	0.8904
R-squared	0.722649	Mean dependent var		13.76571
Adjusted R-squared	0.484919	S.D. dependent var		5.866037
S.E. of regression	4.210006	Akaike info criterion		6.019658
Sum squared resid	124.0691	Schwarz criterion		6.339187
Log likelihood	-35.13761	Hannan-Quinn criter.		5.990080
F-statistic	3.039789	Durbin-Watson stat		0.805619
Prob(F-statistic)	0.085862			

Source: Computer output data using E-views8.0

The critical value of F-distribution at 5% level of significance and 5 degree of freedom, i.e. F (2, 5) is 3.48. F-statistic calculated as exhibited in Table 4.5 is 3.039. These value is less than tabulated F-statistic of 3.48, and by implication, the model in statistical term has no goodness of fit. Furthermore, the probability of the F-statistic is 0.085 is higher than 0.05 (5% level of significance). The calculated Durbin Watson (d*) statistic in Table 4.5 is 0.805. The tabulated Durbin Watson for lower limit (dL) and upper limit (du) are nil. In this circumstance no decision is made thus, there is no element of autocorrelation between the dependent and independent variables.

The regression outcome in Table 4.5 unveils that total tax revenue has positive effect on interest rate. However, the effect is not statistically significant. To this end, the null hypothesis that there is no significant effect of total Tax Revenue on interest rate in Nigeria is accepted since F-statistic of 0.085 is higher than 0.05 (5%) level of significance)

4.7 Result of Hypothesis Four

Restatement of Research Hypothesis

H_0: There is no significant effect of total Tax Revenue on exchange rate in Nigeria.

From the regression result in Table 4.6, total tax revenue, personal income tax and consumption and property tax have positive but insignificant effect on exchange rate, money supply and interest rate have negative but insignificant effect on exchange rate.

The coefficient of the constant 84.49460 infers that holding total tax revenue, personal income tax, company income tax, consumption and property tax, interest rate and money supply constant, interest rate would stand at 84.49460.

The total tax revenue coefficient of 9.46E-07 implies that a percentage increase in total tax revenue would increase exchange rate by a factor of 9.46. The personal income tax coefficient of 6.29E-05 denotes that a unit percentage in personal income tax would increase exchange rate by a factor of 6.29. The company income tax coefficient of -6.42E-06 signifies that a percentage increase in company income tax would decrease exchange rate by a factor of 6.42 while the consumption and property tax coefficient of 0.001895 depicts that a percentage increase consumption and property tax would increase exchange rate by 1.89%.

The coefficient of the Adjusted R-squared in Table 4.6 signifies that only 92.14% of changes in exchange rate was attributed to fluctuations in total tax revenue, personal income tax, company income tax, consumption and property tax, interest rate and money supply. This suggests that total tax revenue, personal income tax, company income tax, consumption and property tax, inflation rate and money supply have to a very high extent contributed to exchange variability by 92.14% within the study period.

Table 4.6: Effect of Total Tax Revenue on Exchange Rate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	84.49460	11.44771	7.380919	0.0002
TTR	9.46E-07	1.08E-06	0.875809	0.4102

PIT	6.29E-05	2.24E-05	2.811375	0.0261
CIT	-6.42E-06	2.62E-05	-0.245098	0.8134
CPT	0.001895	0.000345	5.487211	0.0009
MS	-1.35E-06	1.36E-06	-0.994444	0.3531
INT	-0.131947	0.550238	-0.239799	0.8174
R-squared	0.957726	Mean dependent var		132.1352
Adjusted R-squared	0.921490	S.D. dependent var		21.90549
S.E. of regression	6.137820	Akaike info criterion		6.773669
Sum squared resid	263.7099	Schwarz criterion		7.093198
Log likelihood	-40.41568	Hannan-Quinn criter.		6.744091
F-statistic	26.43083	Durbin-Watson stat		2.368519
Prob(F-statistic)	0.000180			

Source: Computer output data using E-views8.0

The critical value of F-distribution at 5% level of significance and 5 degree of freedom, i.e. F (2, 5) is 3.48. F-statistic calculated as evidenced in Table 4.6 is 26.43. These value is higher than tabulated F-statistic of 3.48, and by implication, the model in statistical term has a goodness of fit. Furthermore, the probability of the F-statistic is 0.000180 is less than 0.05 (5% level of significance). The Durbin Watson statistic value is adequate at 2.3 suggesting no autocorrelation problem in the model.

The regression estimation in Table 4.6 reveals that total tax revenue has positive but insignificant effect on exchange rate. Consequently, the null hypothesis that there is no significant effect of total Tax Revenue on exchange rate in Nigeria is rejected sinceF-statistic of 0.000180 is less than 0.05 (5%)level of significance

4.8 Result of Hypothesis Five

Restatement of Research Hypothesis

H_0: There is no significant effect of total Tax Revenue on government expenditure in Nigeria.

Table 4.7 depicts the outcome of the effect of total tax revenue on government expenditure. Total tax revenue, personal income tax and capital expenditure have negative but insignificant effect on government expenditure while company income tax, consumption and property tax and recurrent expenditure have positive but insignificant effect on government expenditure. The coefficient of the constant 555623.0 entails that if total tax revenue, personal income tax, capital expenditure, company income tax, consumption and property tax and recurrent expenditure constant, government expenditure would stand at 555623.

The total tax revenue coefficient of -7.83E-05 implies that a percentage increase in total tax revenue would decrease government expenditure by a factor of 7.83. The personal income tax coefficient of -0.964091 indicates that a unit percentage in personal income tax would decrease government expenditure by a factor of 96.41%. The company income tax coefficient of 4.552245 depicts that a percentage increase in company income tax would increase government expenditure by a factor of 4.55 while the consumption and property tax coefficient of 5.930242 shows that a percentage increase consumption and property tax would increase government expenditure by a factor of 5.33. The recurrent expenditure coefficient of 0.214180 is an indication that a unit increase in recurrent expenditure would result in 21.42% in government expenditure while the capital expenditure coefficient of -0.019276 is assertion that a unit increase in capital expenditure would lead to 1.93% reduction in government expenditure.

Table 4.7: Effect of Total Tax Revenue on Government Expenditure

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	555623.0	120573.5	4.608167	0.0025
TTR	-7.83E-05	0.016860	-0.004642	0.9964
PIT	-0.964091	0.383646	-2.512969	0.0402
CIT	4.552245	0.626253	7.269017	0.0002
CPT	5.930242	7.871362	0.753395	0.4758
RE	0.214180	0.169267	1.265339	0.2462
CE	-0.019276	0.149981	-0.128523	0.9013
R-squared	0.996198	Mean dependent var		2517366.
Adjusted R-squared	0.992938	S.D. dependent var		1410909.
S.E. of regression	118563.3	Akaike info criterion		26.51113
Sum squared resid	9.84E+10	Schwarz criterion		26.83066
Log likelihood	-178.5779	Hannan-Quinn criter.		26.48156
F-statistic	305.6575	Durbin-Watson stat		2.083251
Prob(F-statistic)	0.000000			

Source: Computer output data using E-views8.0

The critical value of F-distribution at 5% level of significance and 5 degree of freedom, i.e. F (2, 5) is 3.48. F-statistic calculated as illustrated in Table 4.7 is 305.6575. These value is greater than tabulated F-statistic of 3.48, and by implication, the model in statistical term has a goodness of fit. Furthermore, the probability of the F-statistic is 0.000000 is lower than 0.05 (5% level of significance). The Durbin Watson statistic value is adequate at 2.0 indicating no autocorrelation problem in the model.

The regression result in Table 4.7 exhibits that total tax revenue has negative but insignificant effect on government expenditure. Subsequently, the null hypothesis that there is no significant effect of total Tax Revenue on government expenditure in Nigeria is rejected since F-statistic of 0.000000 is lower than 0.05 (5%) level of significance.

4.9 Discussion of Results

In the model, total tax revenue was modelled against five variables to determine its effect on the variables in Nigeria. The variables were proven to have insignificant effect on total annual tax revenue in Nigeria. Some of the variables have negative effect while others have positive effect on total tax revenue. This implies that the theoretical postulation that these variables influence tax revenue truly holds in Nigeria. This empirical reality is not surprising because GDP ought to have an effect on total tax revenue but insignificant. This finding corroborates the findings of Chigbu, Akujiobi, and Ebimbowei (2012) that were of the view that GDP has an insignificant effect on total tax revenue.

They stressed that what increases the Gross Domestic Product significantly is rise in the volume of goods and services produced within a fiscal year and not necessarily the total tax revenue.

Total tax revenue and Inflation

The regression result in Table 4.4 reveals that total tax revenue has negative effect on inflation. Nevertheless, the effect is not statistically significant. To this effect, the null hypothesis that there is no significant effect of total Tax Revenue on inflation in Nigeria is accepted.

The findings of this study is in line with the studies conducted by Owolabi and Okwu (2011). Their result shows that increase in total tax revenue cannot necessarily increase or decrease inflation in Nigeria because government can fight inflation using monetary policy instruments such as open market operation, cash reserve ratio and liquidity ratio. On the other hand, they suggested that mis-management of funds generated through tax can lead to inflation especially when those revenues are channelled towards re-current expenditure and importation of foreign goods.

Total Tax Revenue and Interest Rate

The regression outcome in Table 4.5 unveils that total tax revenue has positive effect on interest rate. However, the effect is not statistically significant. To this end, the null hypothesis that there is no significant effect of total Tax Revenue on interest rate in Nigeria could not be rejected. This is in line with empirical postulations of Okunde and Adewoyin (2009) where they examined the effect of total tax revenue on interest rate in Nigeria. The study shows that increase or decrease in total tax revenue does not have a significant effect on interest rate. In other words, what majorly determine the interest are the policies of the Central bank. If there is an increase in monetary policy rate, then there will be increase in interest rate and vice versa.

Total tax revenue and exchange rate

The regression estimation in Table 4.6 reveals that total tax revenue has positive but insignificant effect on exchange rate. Consequently, the null hypothesis that there is no significant effect of total Tax Revenue on exchange rate in Nigeria is accepted.

This result agrees with the empirical submission of Kalu (2012) where he examined the behaviour of real exchange rate and total annual tax revenue in Nigeria: An econometric exploration". The study found out that wholesale Dutch Auction System is the best for the Nigerian economy because it allows the forces of demand and supply to determine the exchange rate of a country's currency. It equally found out that total tax revenue has a positive but insignificant effect on exchange rate of a country.

Total Tax Revenue and Government Expenditure

The regression result in Table 4.7 shows that total tax revenue has negative but insignificant effect on government expenditure. Subsequently, the null hypothesis that there is no significant effect of total Tax Revenue on government expenditure in Nigeria could not be rejected.This study supports the work of Nwofor and Gordon (2013) where they studied "Tax revenue and government expenditure in Nigeria". The study found out

that the volume of expenditure incurred by government can affect total tax revenue especially when those expenditures are mainly a recurrent expenditure.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

- The result of hypothesis one shows that total tax revenue and consumption and property tax have positive but insignificant effect on gross domestic product while company income tax has positive and significant effect on gross domestic product. Personal income tax has insignificant negative effect on gross domestic product. The OLS estimation in Table 4.3 depicts that total tax revenue has positive effect on Nigeria gross domestic product. However, the effect is not statistically significant. In the light of this, the null hypothesis that there is no significant effect of total tax revenue on gross domestic product in Nigeria could not be rejected.
- The result of hypothesis two shows that total tax revenue, personal income tax, company income tax and consumption and property tax have negative but insignificant effect on inflation while exchange rate, money supply and interest rate have insignificant positive effect on inflation. The regression result in Table 4.4 reveals that total tax revenue has negative effect on inflation. Nevertheless, the effect is not statistically significant. To this effect, the null hypothesis that there is no significant effect of total Tax Revenue on inflation in Nigeria is accepted.
- Findings from hypothesis three shows that total tax revenue, personal income tax and inflation rate have negative but insignificant effect on interest rate while company income tax, consumption and property tax and money supply have positive but insignificant effect on interest rate in Nigeria. The regression outcome in Table 4.5 unveils that total tax revenue has positive effect on interest rate. However, the effect is not statistically

significant. To this end, the null hypothesis that there is no significant effect of total Tax Revenue on interest rate in Nigeria could not be rejected.

- Findings from hypothesis four shows that total tax revenue, personal income tax and consumption and property tax have positive but insignificant effect on exchange rate, money supply and interest rate have negative but insignificant effect on exchange rate. The regression estimation in Table 4.6 reveals that total tax revenue has positive but insignificant effect on exchange rate. Consequently, the null hypothesis that there is no significant effect of total Tax Revenue on exchange rate in Nigeria is accepted.
- Findings from hypothesis five shows thattotal tax revenue, personal income tax and capital expenditure have negative but insignificant effect on government expenditure while company income tax, consumption and property tax and recurrent expenditure have positive but insignificant effect on government expenditure. The regression result in Table 4.7 exhibits that total tax revenue has negative but insignificant effect on government expenditure. Subsequently, the null hypothesis that there is no significant effect of total Tax Revenue on government expenditure in Nigeria could not be rejected.

5.2 Conclusion

The study has explored the link between selected macroeconomic variables and total tax revenue. The statistical result offer tantalizing evidence that total tax revenue is an instrument of economic growth. It was established in this study that total tax revenue affects the selected

macroeconomic variables studied either negatively or positively . The implication is that if those variables are neglected by the government in their quest to increase tax revenue, it might be difficult for government to achieve its fiscal policy target.

5.3 Recommendations

- The findings revealed that personal income tax affects gross domestic product negatively. Therefore, it behoves on the Nigeria government to remove the problem of multiple taxation. These include the withholding taxes on dividends, interest etc. The presence of multiple taxes also discourages entrepreneurship as businesses are subjected to different kinds of taxes (which in most cases are not approved). These taxes are levied across the 3 different tiers of government (ie at the Federal, State and Local Government levels). These multiple taxes negatively affect business performance and sometimes lead to closure of business organizations. This impact negatively on Economic growth of the country.
- Since total tax revenue, personal income tax and inflation rate have negative effect on interest rate; Central Bank of Nigeria should not hesitate to use the necessary monetary policy instruments such as reducing the monetary policy rate, cash reserve ratio and liquidity ratio thereby reducing the interest rate charged by banks so as to attract investment in Nigeria.

- Having established that total tax revenue, personal income tax and capital expenditure have negative but insignificant effect on government expenditure, it is the duty of Nigerian government to pay more attention on capital expenditure than recurrent expenditure so as to ensure economic growth and development through the provision of basic infrastructures.

5.4 **Contribution to Knowledge**

Models used by Anya (2007), Ayanwale and Omoke (2010), Ogbonna and Ebimbowei (2012), Nwofor and Gordon (2013) and Kalu (2012) were modified to effectively suit the Nigeria tax system. Instead of lumping the models together as many authors did, the models were instead analysed differently and showed how they affected each other so as to give a clearer picture of Nigerian tax revenue vis a vis the selected macroeconomic variables.

REFERENCES

Abiola, A.,&Asiweh, G.T. (2012).Taxation and growth.*Journal of Management and Humanities,* 37(2), 1-19.

Ade, N.P. (2009) Macro-economic variables; its effect on tax revenue.*Arabian Journal of Economics and Humanities*,5 (1), 35-50.

Adam, S. V. (1910).*Theories of Taxation*.London:Precinton Hall.

Adams, W.T. (2012).Effects of total revenue on macro-economic variables.*American Academy of Financial Management*,8(3), 56-78.

Adegbie, W.Y.,&Fakile O.H. (2011).The increase in company income tax and Nigeria inflationary pressure.*Oman Journal of Business Studies,6 (4), 12-38.*

Adefeso, R.U., Hakeem, O.B., &Salawu., T.B. (2010).*Taxation principles and practice in Nigeria*. Ibadan, Nigera: Silon Publishing Company.

Adegbite, E.I. (2013). Impact of tax reforms and economic growth of Nigeria: A time series analysis. *Journal of Social Sciences, 4(1), 62-98.*

Adelabu, C.U. (2014). Measurement of macro-economic variables for economic growth. *ABI/INFORM Global Journal,3(3), 23-40.*

Adeyemi, L. (2012). The political economy of taxation.*Asia-Pacific Development Journal*, *1(1), 19-41.*

Adzadoli, U.I.,&Gray J. O. (1998).An economic analysis of the relative potency of taxation and fiscal policy in Nigeria. *CBN Economic and Financial Review,36 (2), 56-85.*

Agbasi, A.I. (2003).*Research methods in Educational Management.*Buckingham, England:Open University Press.

Agbor, E.C. (2008).Distortionary taxation of human capital acquisition costs. *Journal of Social Science Research Network, 2(3), 21-40.*

Aggrey, P. M. (1989). What determines adequate taxation in a democracy*?World Bank Working Paper, 2(4), 73-104.*

Aguolu, G.C. (2011).The relationship between tax and macro-economic variables in Nigeria, *Journal of Humanities,3(5), 409-421.*

Ahmed, E.O.,&Wajid, F.C. (2013).Tax policy for economic recovery and growth.*International Journal of Economics, 1(5), 59-80.*

Akingbade, E.O. (1997). Challenges of tax authorities and tax payers in the management of tax reform processes. *Journal of Accounting and Finance*, 5(2), 36-42.

Akintola, A.E. (2009).*Implementing efficient tax policy in Nigeria*.Ibadan, Nigeria: HoundmillsPress.

Alghamedi, H.U. (2012).Efficiency of the Nigerian capital market: Implications on investmentanalyses and performance. *Journal of Transnational Corporations Review*, 2 (1), 42-51.

Anichebe, A. S. (2013).Implication of tax policy on inflation in Nigeria (1981-2012).*Journal of International Institute of Management,5(21),15-39.*

Anon, N.U.,&Adegbenro, I.L. (2006).Revenue sharing in Nigeria: A retrospective evaluation. *Journal of Management*, 1 (3),123-146.

Anya, H.N (2007).The effect of tax revenue on economic growth".*National Tax Journal*, 49 (4), 617-642.

Anyanwale, G.O.,&Omoke, A.N (2010) The effect of total tax revenue on inflation. *Journal of Humanities*, 1(6),23-41.

Aralu, O.T (2001). Boosting revenue generation by state governments in Nigeria: The tax consultants option revisited. *European Journal of Social Sciences*, 8(4), 532-539.

Arnold, R.C. (2008). Economic growth, taxation and market structure in Nigeria banking.*Journal of African Economic Research Consortium (AERC), 3(2), 78-99.*

Arpaia, R.O.,&Turrini, T.U (2008).Efficient tax system; A panacea to economic growth and development in Nigeria.*Arabian Journal of Management Sciences*, 2(3), 102-134.

Aruma, N.T (2009)Tax evasion problems in Nigeria: A critique. *ANAN Journal*, 40(2), 40-63.

Atan, Y.O (2013)Generational accounting: A meaningful way to evaluate fiscal policy.*Journal of Economic Perspectives,8: 73–94. doi:10.1257/jep.8.1.73*

Audu, A.H (2012).Analysis of the effect of petroleum profit tax on Nigerian economy.*Asian Journal of Humanities and Social Sciences, 1(4),25-41.*

Ayanwale, E.I., &Omoke, E,Y (2010). The effect of total tax revenue on inflation: An empirical analysis. *Journal of Management, 2(1),67-83.*

Babalola, G.H (2012). The relationship between total annual tax revenue and exchange rate in Nigeria.*European* Journal of *Finance, 2(5), 23-50.*

Baranova, O.U.,&Lenka, H.I (2012).Empirical analysis of the impact of fiscal policy and economic growth of Nigeria.*International Journal of Economics and Finance, 2(6),203-218*

Behling, E.T (1990). *Tax policy reforms in Nigeria*. Enugu, Nigeria:Johncross Press.

Benkovskis, F.O.,&Fadejeva, E. (2013).*Taxation and tax administration in Nigeria*. Lagos, Nigeria: TriumphPublishing Coy Limited.

Bowen, A. O. (1958). Growth, distortion and patterns of taxation among countries.*Journal of International Finance, 3(5), 123-140.*

Brooks, W.T (2008).*Test of heteroskedastic*. London, England:Price water press.

Bulus, A.O (2010).Economic growth and tax components: An analysis of tax change in OECD. *International Journal of Economics, 37(2),2251-2269.*

Buti, R.U., &Vanden, N.O (2003).Taxation and economic development.*National Tax Journal, 49 (4), 617-642.*

Cancutt, C.C. (2000).Consolidating the Nigeria tax policies to meet the development challenges of the 21st century.*Asian Journal of Humanities, 2(5), 124-141*.

Carneiro, C.O.,Dubois, A.,&Gadde, L. E. (2002).Systematic combination of total tax revenue and external debt in Nigeria.*Journal of Business Research*, 55(1), 553-560.

Carara, C.L.,&Danminger, G.O.(2008).Taxation and economic growth.*National Tax Journal,49(4),617-642.*

CBN, (2013). Further empirical analysis of tax revenues in Nigeria. *CBN Economic and Financial Review, 34(1), 65-90.*

Chigbu, O.E., Akujiobi, N.U.,&Ebimbowei, G.T. (2012). The relationship between government revenue and gross domestic product.*Journal of Humanities 3(4), 21-34.*

Chiumia, F.U.,&Simwaka, W.S. (2012).Using elasticities to derive optimal income tax rates. *Review of Economic Studies,5(68), 105–229.*

Clark, E.J.,& Lawson, R.I. (2008).Re-examination of tax incidence. *American Economic Review 79(5), 325–340.*

Cutt, S. (2009).Taxation, trade liberalization, and growth in developing countries.*Journal of Economic Literature, 31(4), 1358-1393.*

Dackehag E.O., & Hansson, R.G. (2012).Performance evaluation of Nigeria tax policies before and after reforms.*IJEMR*,2 (2), 23-41.

Dinca, I.O.,&Dinca, V.Y. (2013). Petroleum income and Nigerian economy: Empirical evidence.*Arabian Journal of Business & Management Review,34(1), 76-99.*

Dor, T. B. (2003). Taxation, economic growth and poverty reduction strategies,*National Centre for Development Studies Journal*, 2(12), 85-101.

Eckeston, S. (2011).Taxation, distortions and growth in developing countries.*Journal of Development Economics*, 39(4), 31-57.

Egbuonu, K.H. (2012).Links between taxes and economic growth.*World Bank Staff Working Paper 605. The Word Bank, Washington, D.C*

Ekeocha, P.O., Malaolu., I.K.,&Onyema, P.U .(2012). Tax revenue generation and Nigeria economic development.*European Journal of Business and Management, 19(4), 49-64.*

Egwuonwu, I.O.(2001). Analysis of government revenues and expenditures in Nigeria.*Journal of Management, 45(3), 23-51.*

Ejim, M.D (2012) *Recursive Macroeconomic Theory*.Sweden: MIT Press.

Ejoor, W.U (2013) Theimpact of taxes on economic behaviour. *Arabian Journal of Management, 4(2), 203-221.*

Ekuno, E.U. (2011).*Introductory Econometrics: A modern Approach*. Lagos: JJ Publishers Ltd.

Engen, W.U.,& Skinner, P.U. (1996).Tax revenue on sub-saharan Africa: Effects of economic policies on corruption.*International Monetary Fund Journal, 24(8), 98-101.*

Engle, W.I.,& Granger, T.U. (1987). Research methods and error correction model analysis.*European Journal of Humanities*,23(4), 231-248.

Gabriel, R.,&Reiff, I.T. (2006). The effects of personal and corporate income taxe changes in the united states of America. *American Economic Review Journal,2(1), 102-125.*

Gali, E.I.,&Perotti, T.Y. (2003).Tax evasion and avoidance problems in Nigeria: A critique.*ANAN Journal*,2(2), 40-43.

Gelardi, E.Y. (2014).Tax base elasticities: A multi-state analysis of long-run and short-run dynamics. *Southern Economic Journal 73 (2), 315–341. doi:10.2307/20111894.*

Gillingham, W.E.,&Greenlees, T.O.(1987). Macroeconomics effects of government purchases and taxes.*Quarterly Journal of Economics, 23(8), 51-102.*

Gordon, E.B. (2008). National income and gross domestic product: Nigeria experience. *Journal of Management,* 2(4),120-141.

Guatier, M.O.,&Lalliard, K.T. (2014).State corporate tax revenue trends: Causes and possible solutions*, National Tax Journal 55(4), 491–508.*

Fatas, E.U.(2003). Tax policies in Nigeria.*Journal of Banking and Finance, 5(4), 45-68.*

Harry, M. (2005). Towards an alternative perspective on tax and economic growth.*Development and Change Journal*, 36(6), 143-162.

Heady, W.U. (2009).Tax reform and its impact on the Nigeriaeconomy.*Journal of Management and Behavioural Sciences*, 23(5), 123-142.

Hakeem, R.I. (2009).Optimal taxation and optimal tax systems.*Journal of Economic Perspectives4 (1), 158.doi:10.3386/w3038.*

Herbert, Z.G. (2012).Macro-economic variables: its relationship with tax. *Journal of Banking and Finance*,21(3) 73-94.

Helly, R.I. (2001) Theeffect of total annual tax revenue on macro-economic variables in Ghana. *Journal of Humanities and Accountancy. 12(1), 20-45.*

Heneith, K.I .(2009). The effect of tax evasion on inflation in Nigeria.*International Journal of Management and Economics.11(9), 35-56.*

Herrith, E.T.(2001*).*Realizing the gains from total annual tax revenue in Nigeria.*Journal of Money, Credit, and Banking*, 33(2), 216-234.

Hoffein E.Y. (1999).Realizing efficient tax system in developing economies. *Afro-American Journal of Economics. 12(5), 120-162.*

Hyman, O.T. (2013*).* Increase in total revenue and gross domestic product per capita. *European Scientific Journal*, 12(5), 201-231.

Ibekwe, E.O. (2009).A contribution to the theory of taxation. *Economic Journal 37(5), 47–61*.

Ilaboya, T.O.,&Mgbame, V.I. (2012).Leading issues in macroeconomic management and development.*Journal of Nigeria Economics Society of, 8(*4), 21-42.

Jang, R.O. (2012). Tax revenues and infrastructural development; A study of Federal Inland Revenue Service.*Journal of Management and Social Sciences*,23(4), 34-60.

Jhingan, E.U. (1997).Economic review of revenues and expenditures of China.*Asian Journal of Humanities*, 12(5), 23-45.

Josephat. S.U.(2000).The Macroeconomic effects of tax changes: Estimates based on a new measure of fiscal shocks. *American Economic Review, 21(6)*, 763-801.

Junko, W.S., &Vitali, A.S.(2008). *Economics: Principles and Policies*. New York: Harcourt Bruce Jovanovish, Inc.

Kalu, W.U (2012). The Effect of tax revenue on exchange rate in Nigeria. *Journal of Business Studies*, 3(5), 34-60.

Karras, Z.I., &Furceri, T.B. (2009).The relationship between tax structures and economic indicators.*Journal of International Accounting, Auditing and Taxation, 8(5), 102-123.*

Kayode, T.Y (2003). Tax policies and its challenges in Nigeria,*Journal of Financial Studies*.*23(3), 30-40*.

Keho, T.U.(2013). Tax structures in developing countries: Many puzzles and possible explanation,*Journal of Public Economics, 12(6), 105-126.*

Ibekwe, A. A. (2010). Analysis of inflation and its determinants in Pakistan.*Pakistan Journal of Social Sciences, 8(7),97-100.*

Ifedi, U.M. (2010).*Taxation.*Lagos*:* Macmillan Publishers.

Ifueko, N.O. (2008). Progress report of federal inland revenue service.*American Journal of Management, 21(4), 76-99.*

Ifueko, N.O .(2011).*Tax administration in Nigeria*.Lagos, Nigeria: Afric Publishers.

Ijenu, M.O. (2012). Taxation in Nigeria: A cross-country analysis.*Journal of Money, Credit, and Banking,*28(11), 914-39.

Ikpeh, N.,&Nteegah, H. (2013).Do tax structures affect total economic growth? Empirical evidence from a panel of oecd countries. *OECD Economics Department Working Papers No. 656*

Islahi, E. (2006). Theories of taxation and economic growth in developing countries.*Journal of Interdisciplinary Studies,* 23(6), 123-140.

Iyoha, H.I.,&Ekanem, O.L. (2002).*Public finance theory and practice*.London: E.L.B.S. Publishers

Johansson S.O. (2008).Assymetric Tax Competition.*Journal of Urban Economics,12(5), 204-219*

Jang, E.I. (2009).Gross domestic product and economic growth in Nigeria.*Journal ofFinancial Services Research,* 17(5), 17–39.

Kalu, O.J. (2012).Effect of total tax revenue on exchange rate in Nigeria.*Journal of Humanities*, 13(9), 34-51.

Keleiman (1993) Thetiming and persistence of fiscal policy impacts on growth: Evidence from south american countries. *American Journal of Financial Inclusion and Derivatives, 8(6),*201-228.

Keynes, P. (1936). Tax revenue and growth in developing countries.*Journal of Development Economics*, 67(1), 229-244.

Koutsonvelis,N.,&Papastathopoulos, T. (2013).Public finance in focus.Greece: Justice Jeco Press and Publishers Ltd.

Laffer, E. (2004). *Nigeria Tax System and Growth in the World Economy*. Cambridge: MIT Press.

Lindaht, V.U (1990)Interest rate and total tax revenue in Nigeria: An empirical analysis.*American Academy of Financial Management, 50(6), 34-60.*

Lindahl, Z. F. (1981). Macro-economic theory.*Journal of Economics and International Finance*, 2(8), 175-182.

Mashi, A. L. (2004). Tax administration and economicperformance: An overview.*The Economic Journal, 12(9), 114-131*

Mbanefo, J. O. (1987). An econometric analysis of the nature and causes of inflation in Nigeria.*CBN Economic and Financial Review*, (29)3, 120-142.

Morgan, E.W. (2003).*Review of revenues and expenditures of federal government of nigeria*. Lagos: Africana Fep Publishers.

Mouka, T.U .(2005) *Principles of taxation*. Enugu:JohnJacobs Publishers.

Musgrave, R.O. (1990).*Principles of Taxation*. London, England:Prentice Hall.

Musgrave, P.U.,& Peacock, C. (1984).Globalization, economic growth and taxation.*The Quarterly Journal of Economics*, 121 (2), 541-585

Myles, S.O. (2000). Tax reform and economic growth in nigeria; An empirical analysis. *Euro Journals.Com, 23(8), 24-45.*

Nelson, L.B.,&Plosser, R.E. (1982).Tax administration in Nigeria.*CITN Quarterly Review*, 10(6), 43-65.

Nwankwo, R.U. (2001). Total tax revenue and inflationary pressure in Nigeria.*Journal of Economics and Finance*, 5(6), 21-48.

Nwike, A. (2009). The unequal effects of tax administration: Evidence from India.*Harvard Journal of Humanities and Social sciences*, 2(5), 78-101.

Nwofor, E.U.,& Gordon, T.O. (2013).Tax revenue and government expenditure in Nigeria.*Journal of Management Sciences*, 4(6), 23-45.

Nwoke, D. O (1992).Trade protection and economic growth in Nigeria.*Journal of Interdisciplinary Studies*, 23(5), 121-145.

Nwoke, D. O. (1993).The effect of tax policy on economic growth: A skeptic´s guide to the cross national evidence.*Journal of Economics*, 23(8), 56-82.

Obaseki, T.U. (2013). Tax reforms in Nigeria. *Journal of World Institute for Development and Economic Research, 21(9), 34-62.*

Ocran V.J. (2009).*Managerial Economics*.New Delhi, India: PVT Ltd.

Ogbonna, T.I.,&Ebimobowei, A.D, (2012).The effect of total tax revenue on interest rate in Nigeria*. World Journal of Economics, 23(8),12-35.*

Ojo, A.O (2008*)* Exchange rate regime in Nigeria.*ABI/INFORM GlobalReview*, 5(7), 45-67.

Okeke, R.U.(2013*).* Total annual revenue on government expenditure. *Arabian Journal of Management, 4(6),56-78.*

Okodo, W.U (2001). Theories of money as propounded by Irving Fisher and Marshall.*Journal of Economics and Accounting.3(7), 156-178.*

Okoduwa, T.U.(2008).Gross domestic product and total annual revenue in Nigeria.*Journal of Financial Studies*, 34(8), 120-146.

Okon, E.O.(2012*).* Revenue generation in Nigeria; Problems and prospects.*Journal ofFinancial Services Research, 9(10),* 17–40.

Okon, E.O. (2002).*Nigeria financial system*. Ibadan:University Press.

Okonkwo, T.O (1994).*Financial accounting*.Owerri: Wisdom Publishers Limited.

Okonkwo, R.U. (2012).*Introduction to cost and management accounting*. Benin City: Pegasis Printers.

Okonjo, R.O. (2014).Financing public capital through land rent taxation.*Journal of Management*, 2(8), 23-49.

OkonE.G .(2012).*Public Sector Economics*.New Jersey: Pearson.

Okowa, F.U (2009). The impact of macroeconomic policies on the level of taxation and fiscal balance.*Journal of Economics, 8(2), 19-38.*

Okoye, E. (2003).*Public Sector Accounting*.Lagos:Africana Fep Publishers.

Okoye, A.U (2001).Effects of taxes on economic behavior. *NBER Journal, 12(9), 56-89.*

Okuno, E.T. (1995).*The Nigerian Accounting Standard*: London: Prentice Hall International Inc.

Okugba, E.U.(2003).Taxation in Nigeria; Problems and prospects. *Journal of Finance and Banking, 2(6), 56-89.*

Okumade, O.M. (2012).*The Nigeria financial system*. Lagos: Macmillan International Publishers.

Okunde, D.O.,&Adewoyin, H.Y.(2009).Taxation and economic growth.*Journal of Interdisciplinary Studies*, 22(2), 265-289.

Okuno, H.O.(1995).An evaluation of the relevance of the pioneer income tax relief as an alternative investment incentive to companies in Nigeria.*ICAN Students' Journal*, 23(6), 15-39.

Olatunji, R.U. (2013). Assessment of the long-run equilibrium relationship between tax revenue and economic relationship.*The Standard International Journals 2(2), 39-47.*

Olotu, R. E. (2012). *Principles of Taxation*.Enugu, Nigeria: Joe Best Publishers.

Olukoya, A.U.(2009). Tax exemption and penalties; An in-depth analysis. *Journal of Humanities and Accountancy,12(8), 20-35.*

Oluoha, J.O. (2012).The level and composition of tax revenue in developing countries.*International Review of Economic Finance.4(1), 234-256.*

Olusola, K.S. (2012).Tax consolidation in Nigeria issues and challenges.*Journal of Banking*,2(2), 45-70.

Oshinowo, R.E (2001) Public private partnership;a panacea for economic development.*Arabian Journal of Management. 8(3), 24-36.*

Owen, E.U, (2003).Effects of macro-economic indices on Nigeria economy.*Federal Reserve Bank Journal*, 26(8), 32-48.

Owolabi, T.U and Okwu, H.I, (2011*)* Effect of tax revenue on inflation. *Journal of International Business and Humanities*, 34(7), 23-51.

Ozoh, E. O. (1993). Inflation in Nigeria: causes, consequences and control. *CBN Bullion,* 1(1), 34-60

Ozougwu, A.U.(2002). New distribution channels in banking services. *Banker's Journal Malaysia*, 110(2), 48-56.

Parry , I.T.(1984).Classics in the theory of public finance. New York: Macmillan.

Philips, R.T.,&Perron, T.I.(1988). Research methods: an analytical approach. London:Princeon Hall.

Prest, Y.,& Barr, A. C. (2012). Taxation and economic development: evidence from Pakistan. *Journal of Economics,*4(7),19-34.

Raja, H.K (2003) Taxation and developing economies; a study of Nigerian economy.*International Journal of Finance,45(7), 32-46.*

Ramot, R.O., Aprocano, B.C.,&Ichihiashi, D.O. (2012).The effect of tax revenue on inflation; an empirical analysis, *International Journal of Business and Management*, 5(5), 201-210.

Remy, R.T (2001).Empirical analysis of trends in macro-economic dynamics in developing country.*Journal of Banking and Finance,*20(2), 1573-1624.

Richard, E.O (2008). Tax policy design, revenue generation and macro-economic variables in Nigeria, .*Journal of Banking and Finance,* 4(6), 45-68.

Roberts, V. A. (2012). *Principles of macroeconomics*. Lagos: Concept Publication Ltd.

Scarlett, H.I (2011).*Essentials of econometrics.* New York: McGraw Publishers.

Schwellnus, R.O.,& Arnold, R.C. (2008).The performance of American revenue service in curbing tax related offences in USA; an empirical review, *European Journal of Economics, Finance and Administrative Sciences,*14(6), 123-149.

Shawn, T.I, (2011). New growth theory and economic development of developing countries.*European journal of Business.*1(9), 45-69.

Smith, W.U (2009). *Wealth of nation*.London:Precinton Publishers.

Solow, W.T.(1981). Total tax revenue and economic growth: an empirical analysis. *American Journal of Humanities,*3(6), 23-56.

Somorin, A. V. (2011). Taxation and economic expansion: a sensitivity analysis.*Journal of Economics and Business*, 4(3), 71-88.

Soyode, G.,&Kajola, T. (2012).Tax derivatives and macro-economic variables.*Journal of Development Economics*, 12(8), 59-73.

Springfield, F.U (2011) Therelationship between total annual tax revenue and gross domestic product. *Academic Journal of Interdisciplinary Studies*, 4(8), 67-90.

Straus, A.C, (2001).Macro-economic variables; its effect on inflation in Nigeria.*Journal of Business Research*, 55(3), 553-560.

Subhani, E.,& Ali, E. (2010). Corporate dividend and capital gains taxation: a comparison of the United States to other developed nations. *Oman Journal of Management*, 43(8), 45-69.

Summerfield, W.R.(2011). Tax revenue and macro-economic indices.*Journal of Development Economics*, 35(5), 93-116.

Tosun, E.H.,&Abizadeh, H.I (2005).Optimal taxation and public production, *American Economic Review*,61(2), 8–27.

Umoru, E.I.,&Anyiwe, O.B (2013).The impact of tax on investment and business decisions,*Journal of Humanities,6(8),234- 250.*

Utomi, P.E (2013). Economic indices and tax policies in Nigeria,*Journal of Accounting and Finance*,3(6), 34-67.

Uzoagu, D.O. (2008) *Taxes and business strategy: aplanning application.*New Jersey: Prentice-Hall.

Vito,A.I.,& Howell, W.E. (2005). Economic growth and tax component in Nigeria.*CanadianJournal of Finance and Accounting*,8(9), 19-34.

Wajid, L.O. (2006). Transformation of tax system in Nigerian Economy.*Journal of Management*,23(8), 47-54.

Xing, I.K. (2011). An empirical investigation of the level of users acceptance of tax identification number (TIN) in China". *Journal of Internet Banking and Commerce*, 12(6), 23-56.

APPENDIX 1

Heteroskedasticity Test for Model 1
Effect of Total Tax Revenue on Gross Domestic Product

GDP = TTR + PIT + CIT + CPT
Breusch-Pagan test for heteroskedasticity
OLS, using observations 2000-2013 (T = 14)
Dependent variable: scaled uhat^2 (Koenker robust variant)

coefficient	std. error	t-ratio	p-value
const	-6.08408e+013	7.49026e+013	-0.8123	0.4376
TTR	5.51591e+06	1.01343e+07	0.5443	0.5995
PIT	1.72724e+07	2.33764e+08	0.07389	0.9427
CIT	2.21353e+08	2.02929e+08	1.091	0.3037
CPT	-1.96364e+09	4.31925e+09	-0.4546	0.6601

Explained sum of squares = 5.20191e+028

Test statistic: LM = 6.929301,
with p-value = P(Chi-square(4) > 6.929301) = 0.139672

Heteroskedasticity Test for Model 2
Effect of Total Tax Revenue on Inflation
INF = TTR + PIT + CIT + CPT + EXCH + MS + INT
Breusch-Pagan test for heteroskedasticity
OLS, using observations 2000-2013 (T = 14)
Dependent variable: scaled uhat^2 (Koenker robust variant)

coefficient	std. error	t-ratio	p-value	
const	-2.42916e+014	1.17573e+014	-2.066	0.0843	*
TTR	-1.19499e+07	3.94378e+06	-3.030	0.0231	**
PIT	-9.32450e+07	1.13169e+08	-0.8239	0.4415	
CIT	3.71447e+08	9.11951e+07	4.073	0.0066	***
CPT	-7.54046e+08	2.75600e+09	-0.2736	0.7936	
EXCH	-3.49877e+011	1.30987e+012	-0.2671	0.7983	
MS	1.47955e+07	5.03438e+06	2.939	0.0260	**
INT	1.29526e+013	1.91471e+012	6.765	0.0005	***

Explained sum of squares = 5.4906e+028

Test statistic: LM = 13.340398,

with p-value = P(Chi-square(7) > 13.340398) = 0.064236

Heteroskedasticity Test for Model 3
Effect of Total Tax Revenue on Interest Rate
INT = TTR + PIT + CIT + CPT + MS + INF
Breusch-Pagan test for heteroskedasticity
OLS, using observations 2000-2013 (T = 14)
Dependent variable: scaled uhat^2 (Koenker robust variant)

coefficient	std. error	t-ratio	p-value	
const	-4.96724	13.5813	-0.3657	0.7254	
TTR	-6.35944e-07	1.50992e-06	-0.4212	0.6863	
PIT	7.30336e-05	3.67389e-05	1.988	0.0872	*
CIT	-5.26592e-05	3.87611e-05	-1.359	0.2164	
CPT	-0.000123949	0.000563632	-0.2199	0.8322	
MS	4.87045e-06	2.20739e-06	2.206	0.0631	*
INF	-0.263503	0.835071	-0.3155	0.7615	

Explained sum of squares = 1535.86

Test statistic: LM = 9.688099,
with p-value = P(Chi-square(6) > 9.688099) = 0.138416

Heteroskedasticity Test for Model 4
Effect of Total Tax Revenue on Exchange Rate
EXCH = TTR + PIT + CIT + CPT + MS + INT
Breusch-Pagan test for heteroskedasticity
OLS, using observations 2000-2013 (T = 14)
Dependent variable: scaled uhat^2 (Koenker robust variant)

coefficient	std. error	t-ratio	p-value	
const	103.221	43.2562	2.386	0.0484	**
TTR	-1.04012e-05	4.08213e-06	-2.548	0.0382	**
PIT	-5.15415e-05	8.45631e-05	-0.6095	0.5614	
CIT	9.64826e-05	9.90077e-05	0.9745	0.3623	
CPT	-0.00618024	0.00130508	-4.736	0.0021	***
MS	4.04232e-06	5.13811e-06	0.7867	0.4572	

INT	1.17292	2.07912	0.5641	0.5903

Explained sum of squares = 17850

Test statistic: LM = 11.561315,
with p-value = P(Chi-square(6) > 11.561315) = 0.07250

Heteroskedasticity Test for Model 5
Effect of Total Tax Revenue on Government Expenditure
GEXP = TTR + PIT + CIT + CPT + RE + CE
Breusch-Pagan test for heteroskedasticity
OLS, using observations 2000-2013 (T = 14)
Dependent variable: scaled uhat^2 (Koenker robust variant)

coefficient	std. error	t-ratio	p-value
const	-3.09690e+09	9.68889e+09	-0.3196	0.7586
TTR	-201.805	1354.79	-0.1490	0.8858
PIT	-26984.0	30828.5	-0.8753	0.4104
CIT	1386.05	50323.6	0.02754	0.9788
CPT	596214	632516	0.9426	0.3773
RE	564.520	13601.7	0.04150	0.9681
CE	-4972.84	12052.0	-0.4126	0.6922

Explained sum of squares = 3.65586e+020

Test statistic: LM = 5.113196,
with p-value = P(Chi-square(6) > 5.113196) = 0.529379

APPENDIX 11

Ramsey RESET Test for Model 1

EFFECT OF TOTAL TAX REVENUE ON GROSS DOMESTIC PRODUCT
GDP = TTR + PIT + CIT + CPT

Ramsey RESET Test
Equation: UNTITLED
Specification: GDP C TTR PIT CIT CPT
Omitted Variables: Squares of fitted values

	Value	Df	Probability
t-statistic	1.840269	8	0.1030
F-statistic	3.386589	(1, 8)	0.1030
Likelihood ratio	4.941926	1	0.0262

Ramsey RESET Test for Model 2
EFFECT OF TOTAL TAX REVENUE ON INFLATION
INF = TTR + PIT + CIT + CPT + EXCH + MS + INT

Ramsey RESET Test
Equation: UNTITLED
Specification: INF C TTR PIT CIT CPT EXCH MS INT
Omitted Variables: Powers of fitted values from 2 to 4

	Value	Df	Probability
F-statistic	7.597580	(3, 3)	0.0649
Likelihood ratio	30.12073	3	0.0000

Ramsey RESET Test for Model 3
EFFECT OF TOTAL TAX REVENUE ON INTEREST RATE
INT = TTR + PIT + CIT + CPT + MS + INF

Ramsey RESET Test
Equation: UNTITLED
Specification: INT C TTR PIT CIT CPT MS INF
Omitted Variables: Powers of fitted values from 2 to 6

	Value	Df	Probability
F-statistic	16.81763	(5, 2)	0.0571
Likelihood ratio	52.67114	5	0.0000

Ramsey RESET Test for Model 4
EFFECT OF TOTAL TAX REVENUE ON EXCHANGE RATE
EXCH = TTR + PIT + CIT + CPT + MS + INT

Ramsey RESET Test
Equation: UNTITLED
Specification: EXCH C TTR PIT CIT CPT MS INT
Omitted Variables: Squares of fitted values

	Value	Df	Probability
t-statistic	0.606427	6	0.5665
F-statistic	0.367753	(1, 6)	0.5665
Likelihood ratio	0.832821	1	0.3615

Ramsey RESET Test for Model 5
EFFECT OF TOTAL TAX REVENUE ON GOVERNMENT EXPENDITURE
GEXP = TTR + PIT + CIT + CPT + RE + CE

Ramsey RESET Test
Equation: UNTITLED
Specification: GEXP C TTR PIT CIT CPT RE CE
Omitted Variables: Squares of fitted values

	Value	Df	Probability
t-statistic	1.004162	6	0.3541
F-statistic	1.008341	(1, 6)	0.3541
Likelihood ratio	2.174781	1	0.1403

APPENDIX III

EFFECT OF TOTAL TAX REVENUE ON GROSS DOMESTIC PRODUCT
GDP = TTR + PIT + CIT + CPT

Dependent Variable: GDP
Method: Least Squares
Date: 06/13/15 Time: 11:33
Sample: 2000 2013
Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-997915.8	7440802.	-0.134114	0.8963
TTR	0.006026	1.006741	0.005985	0.9954
PIT	-15.10968	23.22204	-0.650661	0.5315
CIT	56.85628	20.15887	2.820410	0.0200
CPT	224.2061	429.0730	0.522536	0.6139

R-squared	0.843504	Mean dependent var	20964093
Adjusted R-squared	0.773950	S.D. dependent var	16045995
S.E. of regression	7629027.	Akaike info criterion	34.80527
Sum squared resid	5.24E+14	Schwarz criterion	35.03351
Log likelihood	-238.6369	Hannan-Quinn criter.	34.78414
F-statistic	12.12733	Durbin-Watson stat	1.809513
Prob(F-statistic)	0.001138		

EFFECT OF TOTAL TAX REVENUE ON INFLATION
INF = TTR + PIT + CIT + CPT + EXCH + MS + INT

Dependent Variable: INF
Method: Least Squares
Date: 06/13/15 Time: 11:36
Sample: 2000 2013
Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-21.42878	22.81212	-0.939359	0.3838
TTR	-1.55E-07	7.65E-07	-0.202564	0.8462
PIT	-4.37E-06	2.20E-05	-0.199104	0.8488
CIT	-1.82E-05	1.77E-05	-1.026433	0.3443
CPT	-0.000603	0.000535	-1.126870	0.3028

EXCH	0.376733	0.254148	1.482334	0.1888
MS	8.62E-07	9.77E-07	0.882849	0.4113
INT	0.106897	0.371504	0.287740	0.7832

R-squared	0.481880	Mean dependent var	12.03571
Adjusted R-squared	-0.122594	S.D. dependent var	3.895285
S.E. of regression	4.127153	Akaike info criterion	5.968612
Sum squared resid	102.2003	Schwarz criterion	6.333787
Log likelihood	-33.78028	Hannan-Quinn criter.	5.934808
F-statistic	0.797189	Durbin-Watson stat	2.419174
Prob(F-statistic)	0.617257		

EFFECT OF TOTAL TAX REVENUE ON INTEREST RATE
INT = TTR + PIT + CIT + CPT + MS + INF

Dependent Variable: INT
Method: Least Squares
Date: 06/13/15 Time: 11:38
Sample: 2000 2013
Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	17.12915	5.786042	2.960426	0.0211
TTR	9.92E-07	6.43E-07	1.541409	0.1671
PIT	1.63E-05	1.57E-05	1.043225	0.3315
CIT	-2.70E-05	1.65E-05	-1.634580	0.1462
CPT	-1.68E-05	0.000240	-0.070059	0.9461
MS	-9.76E-08	9.40E-07	-0.103776	0.9203
INF	0.050815	0.355766	0.142834	0.8904

R-squared	0.722649	Mean dependent var	13.76571
Adjusted R-squared	0.484919	S.D. dependent var	5.866037
S.E. of regression	4.210006	Akaike info criterion	6.019658
Sum squared resid	124.0691	Schwarz criterion	6.339187
Log likelihood	-35.13761	Hannan-Quinn criter.	5.990080
F-statistic	3.039789	Durbin-Watson stat	0.805619
Prob(F-statistic)	0.085862		

EFFECT OF TOTAL TAX REVENUE ON EXCHANGE RATE

EXCH = TTR + PIT + CIT + CPT + MS + INT

Dependent Variable: EXCH
Method: Least Squares
Date: 02/13/16 Time: 11:39
Sample: 2000 2013
Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	84.49460	11.44771	7.380919	0.0002
TTR	9.46E-07	1.08E-06	0.875809	0.4102
PIT	6.29E-05	2.24E-05	2.811375	0.0261
CIT	-6.42E-06	2.62E-05	-0.245098	0.8134
CPT	0.001895	0.000345	5.487211	0.0009
MS	-1.35E-06	1.36E-06	-0.994444	0.3531
INT	-0.131947	0.550238	-0.239799	0.8174

R-squared	0.957726	Mean dependent var	132.1352
Adjusted R-squared	0.921490	S.D. dependent var	21.90549
S.E. of regression	6.137820	Akaike info criterion	6.773669
Sum squared resid	263.7099	Schwarz criterion	7.093198
Log likelihood	-40.41568	Hannan-Quinn criter.	6.744091
F-statistic	26.43083	Durbin-Watson stat	2.368519
Prob(F-statistic)	0.000180		

EFFECT OF TOTAL TAX REVENUE ON GOVERNMENT EXPENDITURE

GEXP = TTR + PIT + CIT + CPT + RE + CE

Dependent Variable: GEXP
Method: Least Squares
Date: 06/13/15 Time: 11:42
Sample: 2000 2013
Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	555623.0	120573.5	4.608167	0.0025
TTR	-7.83E-05	0.016860	-0.004642	0.9964
PIT	-0.964091	0.383646	-2.512969	0.0402
CIT	4.552245	0.626253	7.269017	0.0002

CPT	5.930242	7.871362	0.753395	0.4758
RE	0.214180	0.169267	1.265339	0.2462
CE	-0.019276	0.149981	-0.128523	0.9013

R-squared	0.996198	Mean dependent var	2517366.
Adjusted R-squared	0.992938	S.D. dependent var	1410909.
S.E. of regression	118563.3	Akaike info criterion	26.51113
Sum squared resid	9.84E+10	Schwarz criterion	26.83066
Log likelihood	-178.5779	Hannan-Quinn criter.	26.48156
F-statistic	305.6575	Durbin-Watson stat	2.083251
Prob(F-statistic)	0.000000		

CORRELATION MATRIX

	GDP	INF	INT	EXCH	GEXP	TTR	PIT
GDP	1.000000	-0.337972	-0.607159	0.775491	0.915974	0.273494	0.780443
INF	-0.337972	1.000000	0.370627	0.005647	-0.261621	0.041482	-0.064024
INT	-0.607159	0.370627	1.000000	-0.591604	-0.734146	0.095147	-0.552399
EXCH	0.775491	0.005647	-0.591604	1.000000	0.832960	0.166752	0.863358
GEXP	0.915974	-0.261621	-0.734146	0.832960	1.000000	0.303046	0.871471
TTR	0.273494	0.041482	0.095147	0.166752	0.303046	1.000000	0.230285
PIT	0.780443	-0.064024	-0.552399	0.863358	0.871471	0.230285	1.000000
CIT	0.910901	-0.262258	-0.728854	0.840708	0.995093	0.306226	0.901278
CPT	0.701381	-0.142880	-0.600024	0.881528	0.737485	0.064613	0.610940
MS	0.759051	-0.198376	-0.543516	0.558490	0.797934	0.530303	0.612196
RE	0.880409	-0.203984	-0.721763	0.877825	0.982267	0.274421	0.897028
CE	0.746739	-0.170683	-0.767347	0.790436	0.870393	0.095073	0.753510

CIT	CPT	MS	RE	CE

0.910901	0.701381	0.759051	0.880409	0.746739
-0.262258	-0.142880	-0.198376	-0.203984	-0.170683
-0.728854	-0.600024	-0.543516	-0.721763	-0.767347
0.840708	0.881528	0.558490	0.877825	0.790436
0.995093	0.737485	0.797934	0.982267	0.870393
0.306226	0.064613	0.530303	0.274421	0.095073
0.901278	0.610940	0.612196	0.897028	0.753510
1.000000	0.708795	0.793594	0.979665	0.865113
0.708795	1.000000	0.540253	0.766230	0.669924
0.793594	0.540253	1.000000	0.718453	0.473384
0.979665	0.766230	0.718453	1.000000	0.878142
0.865113	0.669924	0.473384	0.878142	1.000000

SUMMARY OF DESCRIPTIVE STATISTICS

	GDP	INF	INT	EXCH	GEXP	TTR	PIT
Mean	20964093	12.03571	13.76571	132.1352	2517366.	2805075.	232924.5
Median	19610956	12.35000	12.12500	130.9000	2095590.	2426354.	123983.4
Maximum	64567898	18.90000	24.40000	162.2999	4987000.	8004671.	568251.6
Minimum	4537637.	5.400000	6.000000	85.98000	1011677.	49155.99	30570.30
Std. Dev.	16045995	3.895285	5.866037	21.90549	1410909.	2288136.	213164.1
Skewness	1.348890	0.045708	0.220176	-0.399316	0.451745	0.751768	0.593254
Kurtosis	4.872912	2.343448	1.814522	2.560439	1.803991	2.838857	1.557856
Jarque-Bera	6.291728	0.256327	0.932907	0.484766	1.310594	1.333842	2.034422
Probability	0.043030	0.879710	0.627223	0.784756	0.519288	0.513287	0.361602
Sum	2.93E+08	168.5000	192.7200	1849.893	35243123	39271049	3260943.
Sum Sq. Dev.	3.35E+15	197.2521	447.3351	6238.056	2.59E+13	6.81E+13	5.91E+11
Observations	14	14	14	14	14	14	14

CIT CPT MS RE CE

367529.7	20374.78	3036783.	1901535.	760609.7
285950.0	22569.60	2003023.	1439736.	654854.4
876500.0	27329.50	7568768.	3786265.	1856372.
51100.00	6020.400	321.3000	461600.0	23945.00
287847.1	7230.577	2574777.	1224386.	502966.1
0.512057	-1.070122	0.617089	0.469362	0.541009
1.821031	2.736643	1.965855	1.675332	2.609163
1.422621	2.712500	1.512380	1.537635	0.772051
0.491000	0.257625	0.469452	0.463561	0.679753
5145416.	285246.9	42514959	26621495	10648536
1.08E+12	6.80E+08	8.62E+13	1.95E+13	3.29E+12
14	14	14	14	14