

# Impact of Tax Reforms on Economic Growth In Nigeria Using Descriptive Statistics

Oluwatosin Destiny Biletiri<sup>1</sup>, Joseph E. Ekpenyong<sup>\*2</sup>

<sup>1</sup>Department of Accounting, University of Benin, Benin City, Nigeria

<sup>\*2</sup>Department of Petroleum Marketing and Business Studies, Petroleum Training Institute, Effurun, Nigeria

\*Corresponding Author: Joseph Ekpenyong

## Abstract

This study uses time series data from 2000 to 2016 to study the impact of tax reforms on Nigeria's economic growth using the enhanced Dickey-Fuller test to analyze and check the unit root of data collected from second-hand sources. The residuals are found to be stable, while all other variables, such as Stamp Duty (SD), Mineral and Mining Tax (MMT), Capital Gains Tax (CGT), and Value Added Tax (VAT), except for the Real Gross Domestic Product (RGDP) which remains unchanged on the second difference, which indicates a long-term relationship. This study uses an error correction model to evaluate the impact of PIT, CIT, CED, PPT, ET, SD, MMT, CGT, and VAT on RGDP. The results show that VAT, CGT, SD and ET are significantly positively correlated with RGDP, while CIT, PPT, CED, MMT and PIT are negatively correlated with RGDP but significant. From these results it can be deduced that tax reform plays a crucial role in generating government revenue to implement plans and measures that outperform economic growth. It is recommended that the tax authorities maintain friendly relations with the relevant actors in the tax system and are responsible for providing timely and up-to-date information on the development of the tax system. However, the government must act cautiously to find any administrative loopholes to ensure that tax reforms contribute to economic growth and maximize their contribution.

**Keywords:** Descriptive Statistics, Economic growth, Tax Reforms, Real Gross Domestic Produce (RGDP).

Date of Submission: 20-09-2021

Date of Acceptance: 05-10-2021

## I. Introduction

The generation of income is a great concern for governments around the world. The government uses different fundraising means, which include fees for the implementation of objectives and objectives. Nigeria is no exception to the generation of income. Regardless of the good and attracting the economic plan of a nation is, it is not useless without the resources necessary for implementation. Any good system, which is not administered as expected becomes unmissable. Therefore, a good tax system is able to finance the necessary level of public expenses effectively and fairly possible (Micha and Ebere, 2012).

A good tax system is necessarily promoted by good economic policies established by the government of the day. These policies could be monetary or prosecutors. Fiscal policy is the means with which a government regulates its levels of spending to monitor and influence the economy of the nation, is the strategy corresponding to monetary policy, with which a central bank influences the monetary provision of the nation (Rena and Kefela, 2011). These two policies are used in different combinations in an attempt to direct the economic goals of a country, provide the necessary stability platform to achieve the economic goals of the government, centrally and subordinate. Taxes are the most essential tools of the fiscal policy used to manage the economy (Adudu and Simon, 2015), as a tax policy tool, is the driving force of any economy that gives the government and its agencies a sense of the address of the income must be generated in a way and how it is supported at the expenses.

Revenues are mainly generated by the government in the form of a fiscal policy to improve, control and strengthen economic and social policies. The level of income generated through taxes to stabilize the economy depends on the prevailing fiscal structure and the strong that is to evaluate, charge and inform effectively and efficiently for collections. Therefore, governments establish tax reforms. In Nigeria, tax reforms led to: the introduction of the Tax Identification Number (TIN) which has become effective from February 2008, Automatic Tax System (ATS) that facilitates the monitoring of tax positions and problems by the single tax payer of the E-payment system (EPS) which improves the soft payment procedure and reduces the incidence of the tax hype, the conformity program (tax agents for special use), in collaboration with other safety agencies in order to guarantee rigorous respect for tax payment (Olaseyitan and Sankay, 2012). These reforms are an intentional and continuous effort by the government to modify the existing laws and tax policies for a position

able to positively improve the tax administration and the collection process, with a minimum cost, which must be planned and executed carefully (Jones and Chikezi, 2016). Therefore, the search for not only reduced variance of economic signals from the tax system, but also creates less obstacles for the generation of income and other growth drivers Economic.

### ***Statement of the Problem***

The economic condition of each nation will go a long way to determine its level of development, the quality of life of its citizens, return on investment and respect for other nations. Removing the high dependence on the oil sector with price reduction as an important source of income in Nigeria is a problem that needs urgent attention. To ensure independence on the oil sector, it is urgently needed for the diversification, reforms and implementation of governmental economic policies and laws. Connection to a highly possible source of income requires dependence on the mobilization of local resources through tax relief and broadening tax base, including (African Development Bank Group, 2015). Despite the various tax reforms by the Nigerian Government annually carried out by its budget and at certain times by formed committees, Nigeria is still weak in the tax responsibility, transparency system and a non-sector contribution to economic activities, caused by wastage, politicalized spending, high level misappropriation, corruption, unemployment and high deficits (Osuala and Jones, 2014; Odusola, 2006).

### ***Purpose of the Study***

The empirical analysis in this study would be based on the following hypotheses:

- H<sub>01</sub>: Personal income tax does not affect economic growth in Nigeria.
- H<sub>02</sub>: Value added tax does not affect economic growth in Nigeria.
- H<sub>03</sub>: Company income tax does not affect economic growth in Nigeria.
- H<sub>04</sub>: Custom and exercise duties do not affect economic growth in Nigeria.
- H<sub>05</sub>: Petroleum profit tax has no effect on economic growth in Nigeria.
- H<sub>06</sub>: Educational tax has no impact on economic growth in Nigeria.
- H<sub>07</sub>: Capital gains tax have no impact on economic growth in Nigeria.
- H<sub>08</sub>: Stamp duties do not have impact on economic growth in Nigeria.
- H<sub>09</sub>: Minerals and mining act do not affect economic growth in Nigeria.

This study shall go a long way in assisting government in policy formulation as it relates to tax reforms. Also, it will help the tax authorities in Nigeria to broaden the nation's revenue base thereby making it less dependent on oil export by exploring other sectors of the economy. The study will also add to the existing literature in making tax system simple and understandable to the public, in order to generate more income for infrastructural development and economic growth.

## **II. Literature Review**

Tax is a financial charge or levy imposed upon an individual or legal entity by a State or a legal entity of a State (Jones and Chikezi, 2016). Thus, it is a pecuniary burden laid upon individuals or institutions or their property to support government expenditure. Onwuchekwa and Aruwa (2014) assert also that, tax is a compulsory payment made by all concerned individuals and entities to the government of a country from which essential services are rendered, without necessarily offering an explanation on how the money generated are spent nor equating the services with the money collected (Bello, 2014). Therefore, it is an important tool in the hand of government, as it is often acclaimed as the oldest and the only sustainable source of finance for development, especially for developing countries like Nigeria, as it is meant to facilitate economic growth, which can only be achieved with effective tax policies through tax reforms. Tax reform is simply the series of action taken by government to promote the tax system, which is design to broaden the tax base, reduce the tax burden on tax payers, restore the confidence of the tax payer on the tax system, as well as, promote voluntary compliance on the part of the tax payer (Omesì and Nzor, 2015).

### ***Historical antecedent of tax reforms in Nigeria***

Tax chronicles in Nigeria dates back to the pre-colonial era. Before the colonization of Nigeria, there were several existing tax systems in the form of mandatory services, contribution of goods, money and works, among the various kingdoms and ethnic groups controlled by traditional rulers to support their sovereignty (Ibadin and Oladipupo, 2015). The first introduction of Taxes in Nigeria, can be traced to the issue of the proclamation of land revenue, No. 4 of 1904, from the High Commissioner Lord Lugard. Other proclamations were made in 1906, in 1918 and in 1927 to the provinces that existed then. The introduction of taxes to some of the provinces has led to oppositions and alterations in the areas, especially in the eastern part of Nigeria, which led to the famous Aba Riot of 1929. However, the tax system prevailed in the country. Furthermore, in 1940

and 1943, the order of income tax and direct tax ordinance was issued to consolidate previous tax laws and the introduction of different assessments and the collection process, which provided the basis of Existing tax laws according to what is practiced today (Anyaduba, 1999, Olaseyitan and Sankay, 2012).

#### **Theoretical Review**

There are several theoretical frameworks on taxation but only those that relates to the study are reviewed as reported by Ogbonna and Ebimobowei (2012); Jones and chikezi (2016).

#### **The Socio-Political Theory**

This theory states that the social and political objectives must be the main factors in the selection of taxes. The theory has argued that a tax system should not be designed to serve individuals, but should be used to treat society's menace as a whole.

#### **The Expediency Theory**

The theory assumes that every tax proposal must pass a practical test and must be the only consideration when choosing a tax proposal. The benefits of taxation are an integral part of any tax proposal because the collection of taxes that cannot be collected is incredible

#### **Cost of Service Theory**

This theory emphasizes the semi commercial relationship between the state and the citizens to a greater extent. It is to reliably recover the cost of the services and therefore this theory implies a balanced budget policy.

#### **Ability to Pay Theory**

This theory is on the assumption that citizens are to pay taxes just because they can and their relative share in the total tax burden are to be determined by their relative paying capacities. This is to ease the effect of tax burdens.

#### **Benefit received Theory**

The theory is based on the ideal that taxes should be levied in proportion to the benefit received. This theory seems fair, however, in practice the benefit is difficult to measure.

### **Empirical Review**

The impact of tax reforms on economic growth was examined separately from different researchers with alternate results. This study examines the previous literature of internal studies, with Nigeria as the main objective.

Engen and Skinner, (1996) studied taxes and the economic growth of the United States economy, used a wide sample tests micro-level studies of labourwork, demand investments and productivity growth. Its result suggests modest effects in the order of 2.0% and 0.3% point differences in growth rates in response to a great reform. They stated that these small effects can have a great cumulative impact on the standards of life.

Ogbonna and EbimoBowe, (2012) examined the impact of tax reforms and the economic growth of Nigeria for an analysis of the historical series 1994-2009, using relevant descriptive statistics and econometric analysis. They concluded that the diversified test used, demonstrated that tax reforms refer positively and significantly with economic growth and that tax reforms lead to economic growth.

William and Andrew (2014) examined how changes in the income tax of individuals influence long-term economic growth. They have discovered that, the structure and financing of a tax change are fundamental to achieving economic growth, the tax rates cuts can encourage people to work, save and invest, but if tax cuts are not financed by immediate expense cuts, it is likely that it will also increase the deficit of the Federal budget, which in the long term will reduce national savings and increase interest rates. However, the results suggest that not all fiscal changes will have the same impact on growth.

Afubero and Okoye, (2014) studied the impact of taxation on the generation of income in Nigeria, with reference to the territory of the Federal capital and some states selected in the country. The primary data were analyzed using a simple regression analysis. It was discovered that taxes had a significant contribution to the generation of income and Gross Domestic Product (GDP).

Aduduand Simon (2015) with the data of the time series between 1990 and 2011, have the line of thought, when Nigeria is made a case of study with the main objective of identifying tax policy on the country's economic growth. The application of the integration of the Granger-Causality, the study found statistical tests that efficient tax reforms are the necessary conditions for greater sustainable economic growth.

Onakoya and Afintinni (2016) in their study they studied the relationship between the cointegrating tax revenues and economic growth in Nigeria from 1980 to 2013. There are several preliminary tests that include descriptive statistics, trend analysis and stationary tests. The results indicated that there was a long-term relationship between taxation and economic growth in Nigeria. The result also revealed a significant positive relationship at a level of importance of 5% between oil profit tax, the company's income tax and economic growth, but a negative relationship between economic and customs growth and customs and special taxes.

Jones and Chikezi, (2016) evaluated the impact of tax reforms on the economic growth of Nigeria from 1985 to 2011. The time series data were extracted and the base of multi-regression ordinary squares was adopted to analyze the data. The study found that 0.999 regulated R-square implies that 99% of total variation of

the internal product (economic growth) gross was due to oil-earnings tax variations, company income tax, costumes and excise duties, tax On value added, personal income taxes, taxes on education and fiscal reforms in Nigeria. Customs duties and special taxes, value added tax, personal and tax income tax education did not have a significant statistical impact on economic growth at a level of importance of 5%. However, the tax profit tax and the Company's income tax had a significant positive impact on the economic growth of 0.35% and a level of importance of 0.35% and 2.87% respectively. Therefore, they concluded that fiscal reforms in general had a significant impact on Nigeria's economic growth.

### **III. Methodology**

In this study a sample size of 16 years ranging from 2000-2016, was obtained through the simple random selection techniques. Data are obtained from Government bulletin and agencies in Nigeria. However, personal income tax, stamp duties and capital gains tax were collected from World Statistics on Nigeria Economy, while Real Gross domestic products, company income tax, custom, exercise duties, petroleum profit tax, educational tax, minerals, mining tax, and value added tax were collected from Central bank of Nigeria statistical bulletin. The study uses the Error correlation method (ECM) on the regression in analyzing the relationship of the behavior between the variables over time. The Augmented Dickey Fuller (ADF) for unit root test was employed, in order to test for stationary associated with time series data.

In this study, a 16-years sample size ranging from 2000-2016, by simple random selection techniques was employed. The data was obtained from the Government bulletins and agencies in Nigeria. However, personal income taxes, Stamp duties and capital gains taxes have been collected from global statistics on Nigeria's economy, while Real Gross domestic products, company's income tax, costume, operating rights, Tax on petroleum profits, educational taxes, minerals, fiscal mines and value. Aggregate taxes from the central bank of the Nigeria Statistical Bulletin were collected. The study uses the Error correlation method (ECM) on regression by analyzing the relationship of the behavior between the variables over time. The Augmented Dickey Fuller (ADF) was used for the root test of the unit, to verify the fixed data associated with the data of the time series.

#### ***Method of data analysis***

In this study, the descriptive statistical method was employed, the technique aid in the summarization of the data. The ordinary least square (OLS) based multiple regression was adopted to analyze the data.

#### ***Model specification***

In order to achieve the purpose of this study, the model specification for this study is given as:

$$\text{RGDP} = F(\text{PIT}, \text{CIT}, \text{CED}, \text{PPT}, \text{ET}, \text{SD}, \text{MMT}, \text{CGT}, \text{VAT},) \quad 1$$
$$\text{RGDP}_t = \beta_0 + \beta_1 \text{PIT}_t + \beta_2 \text{CIT}_t + \beta_3 \text{CED}_t + \beta_4 \text{PPT}_t + \beta_5 \text{ET}_t + \beta_6 \text{SD}_t + \beta_7 \text{MMT}_t + \beta_8 \text{CGT}_t + \beta_9 \text{VAT}_t + U_t \quad 2$$

Where:

RGDP= Real Gross domestic product

PIT=personal income tax

CIT=company income tax

CED=custom and exercise duties

PPT=petroleum profit tax

ET=Education tax

SD=stamp duties

MMT=minerals and mining tax

CGT=capital gain tax

VAT= Value added tax

#### ***Operationalization of Variable***

In our analysis the real gross domestic produce(RGDP) is taking as the dependent variable and the independent variables are Personal Income Tax (PIT), Company Income Tax (CIT), Custom and Exercise Duties (CED), Petroleum Profit Tax (PPT), Educational Tax (ET), Stamp Duties (SD), Minerals and Mining Tax (MMT), Capital gains Tax (CGT) and Value Added Tax (VAT).  $\beta_0$  is the Intercept term (parameter). This gives the average effect on RGDP of all the variables excluded from the model. In other words, it is the average value of RGDP when PIT, CIT, CED, PPT, ET, SD, MMT, CGT and VAT are sets equal to zero.  $\beta_1$ - $\beta_{10}$  are parameters known as partial regression coefficients or partial slope coefficients (Osuala and Jones, 2014; Jones and Chikezi, 2016).  $U_t$  is the stochastic disturbance term or error term. It represents the residual term of all the other variables not included in the model and it follows normal distribution with mean zero and constant variance. "t" denotes the value of the variable at time t, which is a period of 16years ranging from 2000-2016.

#### IV. Finding And Discussion

This study entails application of both mathematical and statistical techniques to provide the bases for the research hypothesis. The results, analysis, and interpretation are presented below.

##### *Descriptive statistics*

The result of descriptive statistics carried out is presented in Table 1 below which gives a description of the variables with respect to the mean, standard deviation and JarqueBera statistics. From the result in Table 1, the mean value of RGDP which is a proxy for economic growth stood at a value of 3.4. The standard deviation measuring the spread of the distribution stood at a value of 0.93. The JarqueBera statistics that measures the normality of the distribution stood at a value of 2.4. The mean value for petroleum profit tax stood at a value of 5.8. The standard deviation value stood at 0.83 while the JarqueBera statistics measuring the normality of the distribution stood at a value of 13.5 with an associate probability value of 0.0011, therefore, indicating that the variables are normally distributed. Personal income tax was found to have a mean value of 5.8, mineral and mining right was found to have a mean value of 3.42. Capital gain tax revealed a mean value of 5.37. Custom and excise duties stood at a mean value of 5.18, stamp duties was found to have a mean value of 5.08, value added tax stood at a mean of 4.9, and education tax revealed a mean value of 4.41. An examination of the standard deviation of all the variables reveals that they are well spread. A further look at the JarqueBera statistics reveals that the variables are normally distributed.

**Table 1.** Result of Descriptive statistics

	RGDP	PPT	PIT	MMT	CIT	CGT	CED	SD	VAT	EDU
Mean	3.471967	5.844773	3.48079	3.42845	5.3403	5.3798	5.18234	5.08426	4.91378	4.419995
Median	2.827499	6.099162	3.54446	3.41007	5.3869	5.4275	5.25863	5.29114	5.25066	4.340444
Maximum	4.814644	6.505329	4.01271	5.39646	5.9838	5.7892	5.38273	5.38273	5.90454	5.444605
Minimum	2.615213	3.729758	2.79631	2.42822	4.7084	4.6543	4.67394	4.36712	2.58122	3.175717
Std. Dev.	0.931830	0.837030	0.39554	0.81568	0.4156	0.3851	0.21325	0.39293	1.15666	0.670781
Skewness	0.464671	1.868524	-0.34874	0.66872	0.1415	-0.7277	-1.39842	-1.11963	-1.39218	0.306826
Kurtosis	1.369155	5.279870	1.84139	2.96997	1.6113	2.2791	3.89066	2.40512	3.37977	2.372487
JarqueBera	2.495694	13.57403	1.29543	1.26770	1.4227	1.8688	6.10276	3.80249	5.59370	0.545658
Probability	0.287122	0.001128	0.52323	0.53054	0.4909	0.3928	0.04729	0.14938	0.06100	0.761223

##### *Unit Root Test*

In order to determine the steady state of our time series variables, a unit root test with ADF statistics was carried out; the results are shown in Table 2. According to the results of the unit root test for each variable (Table 2), it can be observed in the model for determining their degree of stationarity that all variables appear to be stable at the level of their P-values. So this indicates that the model contains two or more cointegration equations, so we continue to run the Engle and Granger cointegration test given below.

**Table 2.** Result of Unit root test

VARIABLES	ADF	PROBABILITY VALUE	REMARK	VARIABLE	ADF	PROBABILITY VALUE	REMARK
RGDP	-1.627984	0.4463	Non-stationary	D(RGDP,2)	3.958487	0.0119	Stationary
CIT	-1.7614	0.3843	Non-stationary	D(CIT,2)	-5.194034	0.0015	Stationary
PPT	-1.570162	0.4740	Non-stationary	D(PPT,2)	-5.903830	0.0004	Stationary
VAT	-1.588729	0.4651	Non-stationary	D(VAT,2)	-3.920695	0.0127	Stationary
CED	-2.274266	0.1909	Non-stationary	D(CED,2)	-5.371201	0.0011	Stationary

CGT	-0.562997	0.8534	Non-stationary	D(CGT,2)	-6.594187	0.0001	Stationary
SD	-1.009950	0.7160	Non-stationary	D(SD,2)	-5.838496	0.0004	Stationary
PIT	7.061058	1.0000	Non-stationary	D(PIT,2)	-5.582265	0.0006	Stationary
EDUT	-2.087895	0.2512	Non-stationary	D(EDUT,2)	-4.681999	0.0035	Stationary
MMT	-3.719850	0.5147	Non-stationary	D(MMT,2)	-4.996880	0.0021	Stationary

**Regression result**

From the result of the regression carried out using the error correction model (Table 3), it has been observed that the company's income tax has had a negative impact on economic growth. However, it was found that it was statistically significant during the test with a critical level of 5%. It was found that the Mineral law would have a negative impact on economic growth, which indicates that the average resources generated by the use of solid mineral, which will have an impact on the growth of the economy. Furthermore, it was found that this was statistically significant during the test at a critical level of 5%. It was found that education has had a positive impact on economic growth, and it was also found that it was statistically significant compared to the 5% threshold value, therefore, indicating that, on average, a unit change in education tax will lead to a 16% increase in the internal product of the raw which is a proxy for economic growth. It has been found that the capital acquires the economic growth affected positively. Therefore, this indicates that, on average, a change of unity in the capital earning fee will lead to an increase of 8% in economic growth. It was found that the sealing functions and special taxes had a negative impact on economic growth. Therefore, indicating that in the average change of unit in the seal and in the characteristics of the specialty will result in a decrease in a unit of 13% in economic growth. It has been found that value added tax has had a positive impact on economic growth. Therefore, this implies that, average, an increase in consumer fee quotas, which is an indirect tax, will lead to a unified increase of 14% in economic growth.

It was also noted that this was statistically significant if tested at a critical level of 5%. It was observed that personal income tax has had a negative impact on economic growth as representing the positive value of the coefficient. It has also discovered that this was statistically significant when tested at a critical level of 5%. Furthermore, an examination of the error term (ECM) indicates that the model has the ability to leave it the status of imbalance to equilibrium at a rate of 1% per year. An examination of the summary statistics indicated that the determination coefficient of the determination represented as R2 was positioned at a value of 0.98, while the rectified R2 regulated for the subsequent inclusion of all other variables in the model remained at a value of 0.99 Therefore, this implies that, average, the model represents 99% of the variation of the system exposed by the dependent variable.

The F-Stat explaining the general importance of the model was at a value of 2588 with an associated probability value of 0.00, therefore, which indicates that the model is highly significant with 5% critical levels. The statistics of Durbin Watson which represent the presence of the serial correlation of the first order in the model are at a value of 2.0, therefore, which indicates that the presence of the serial correlation of the first order does not exist in the model.

**Table 3.** Result of Regression analysis

Dependent Variable: D(RGDP,2)  
 Method: Least Squares  
 Sample (adjusted): 2002 - 2016  
 Included observations: 15 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CIT,2)	-0.010058	0.006448	-1.559855	0.1938
D(PPT,2)	-0.012419	0.000370	-33.57627	0.0000
D(VAT,2)	0.095346	0.012864	7.411968	0.0018
D(CED,2)	-0.119460	0.024376	-4.900758	0.0080
D(CGT,2)	0.061749	0.003137	19.68119	0.0000
D(SD,2)	0.028691	0.016009	1.792212	0.1476
D(PIT,2)	-10.76820	2.351811	-4.578684	0.0102
D(EDUT,2)	0.016576	0.013278	1.248436	0.2800
D(MMT,2)	-0.157147	0.004184	-37.56333	0.0000
ECM(-1)	-1.979789	0.092681	-21.36136	0.0000
C	78.78537	197.2564	0.399406	0.7100

  

Mean dependent	
R-squared	0.999846
Adjusted R-squared	0.999459
S.E. of regression	689.0020
Sum squared resid	1898895.
Log likelihood	-109.3996
F-statistic	2588.885
Prob(F-statistic)	0.000000

  

Mean dependent	
S.D. dependent var	29631.00
Akaike info criterion	16.05328
Schwarz criterion	16.57251
Hannan-Quinn	16.04775
Durbin-Watson stat	2.067381

**Diagnostic test**

The Lagrang multiplier (LM) test for higher order autocorrelation is utilized in this study holding to the fact that it tests for higher order autocorrelation and is relatively more powerful than the Durbin Watson test. From the hypothesis, zero autocorrelation in the residuals were not rejected. This was because the probability (prob. F, chi square) were greater than 0.05. The LM test did not therefore reveal the problem of first order serial correlation in the model

**Table 4.** Result of autocorrelation test  
 Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.060415	Prob. F(	1,3)	0.8217
Obs*R-squared	0.296112	Prob. Chi-Square(1)	0.5863	

**Co-Integration test**

From the co-integration result presented in Table 5, it was observe that both maximum eigenvalue and trace statistics indicates the variables are co-integrated when measured at 5%. This implies the presence of a long run relationship among the variables.

**Test for misspecification**

As a result of various specification errors such as omitted variables incorrect functional form and correlation between independent variables and error term lead to the performance of this test, the test is performed to determine whether there were specification errors. The result revealed that high probability values that were greater than 0.05 meaning that there was no significant evidence of misspecification (Table 6).

**Table 6.** Result of misspecification test

Ramsey RESET Test  
 Equation: UNTITLED  
 Specification: D(RGDP,2) D(CIT,2) D(PPT,2) D(VAT,2)  
 D(CED,2) D(CGT,2)  
 D(SD,2) D(PIT,2) D(EDUT,2) D(MMT,2) ECM(-1) C  
 Omitted Variables: Squares of fitted values

	Value	of	Probability
t-statistic	1.239533	0.3033	3
1.536441	(1,3) 0.3033		F-statistic
Likelihood ratio	6.202957	1	0.0128

**Table 5.** Result of co-integration test

Series: LNRGDP LNPPT LNCIT LNMMT LNCGT LNCED LNEU  
 LNSD LNVAT LNPIT  
 Sample: 1 17  
 Included observations: 17  
 Null hypothesis: Series are not co-integrated  
 Cointegrating equation deterministic: C  
 Automatic lags specification based on Schwarz criterion (max-lag=3)

Dependent	statistic	Prob.*	z-statistic	Prob.*
RGDP	3.036011	0.9759	20.34249	0.0000
PPT	6.899482	0.1026	23.85794	1.0000
CIT	4.228091	0.7582	14.97426	0.0044
MMT	5.205459	0.4322	19.43197	0.1365
CGT	5.721211	0.3321	20.80179	0.0022
CED	4.473530	0.6708	17.19637	0.7429
EDU	7.057267	0.0879	24.43945	1.0000
SD	4.794718	0.5640	18.55194	0.0640
VAT	3.678987	0.8916	14.45454	0.9376
PIT	4.960747	0.5094	18.69898	0.4226

\*MacKinnon (1996) p - values.

Warning: p-values may not be accurate for fewer than 35 observations.

## V. Discussion

The results of descriptive statistics (Table 1) show that the impact of corporate tax on economic growth is negative. However, it has not been shown to be statistically significant. The study found that Petroleum profit tax is negatively correlated with economic growth (Table 1). The results show that Value added tax and economic growth are positively correlated (Table 1). This observation is consistent with the results of Ibadin and Oladipupo (2015). It is found that Custom and excise taxes are negatively correlated with economic growth (Table 1), which is consistent with the findings of Onakoya and Afintinni (2016). The study found that capital gains tax is positively correlated with economic growth (Table 1). The study found that stamp duty is positively correlated with economic growth. The study found that education tax is positively correlated with economic growth. This observation is consistent with the results of Ogbonna and Ebimobowei (2012). It turns out that Mining and mineral rights correlate negatively with economic growth (Table 1). It turns out that income tax has a negative impact on Nigeria's economic growth (Table 1).

## VI. Conclusion

The hypothesis that the company's income tax does not have an impact on economic growth because it has been observed that the influence of income tax on the company on economic growth was negative, however, has not been statistically significant. Therefore, the null hypothesis is accepted and the alternative rejected.

Furthermore, the hypothesis that Petroleum profits tax has no relationship with economic growth that was true because petroleum profit tax has had a negative relationship with economic growth. Therefore, this indicates that on average, an economy since Nigeria can still experience economic growth without the inclusion of the tax on oil profits if the diversification of the country's practice to explore other sectors of the economy. Therefore, the null hypothesis has been accepted and the rejected alternative. In the same vein, it was found that Personal income tax has had a negative relationship with economic growth and consequently, hypothesis nothing has been accepted and the rejected alternative. This implies that the income tax of two years ago, has a tendency to reduce the growth of the economy due to the fact that taxation as a tax weapon must not be used during the period of economic recession. Therefore, it will be important that the creators of the laws take into consideration the harmful impact of taxes for the economy during the recession period. Furthermore, it was found that the hypothesis of personalized rights and special taxes does not have an impact on economic growth due to the fact that it was established that customs activities and excise duties have been negatively related to the growth of the economy. However, the value added tax assumption has not found that the relationship with economic growth is not correct because it has been found that value added tax has had a positive relationship with economic growth. This implies that the added value tax that is actually a consumption tax will have an impact on the growth of the economy. The null has been rejected and the alternative accepted. Similarly, the hypothesis of the capital increase tax does not have an impact on economic growth, as found that the result of the regression that stated that this capital gain fee has had a positive relationship with economic growth. Therefore, the null hypothesis has been rejected and the alternative accepted. Similarly, Stamp duties had a positive relationship with economic growth. The null hypothesis has been rejected and the alternative accepted. The Education tax has had a positive relationship with economic growth. The null has been rejected and the alternative accepted. Mining and mineral law has had a negative relationship with economic growth. The null has been accepted and the alternative rejected.

## VII. Recommendation

Tax revenue constitutes a major component of national income in a modern economy. It is the dominant source of government recurrent revenue in most developed countries. As a recommendation for further studies it will be of almost importance if all other studies look at petroleum profit tax administration and economic growth in Nigeria taking into account all other variables that will affect the economic growth of a country.

## Acknowledgement

The authors profoundly acknowledge the management of the Central Bank of Nigeria for providing statistical bulletin from which data from 16 years sample was extracted and used. Also the Federal Inland Revenue Service and other relevant government agencies are acknowledged.

## FUNDING

There was no grant or financial support provided from any agency in the public, commercial and not for profit organization for this research work.

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**Appendix –Data Extract**

YEAR	RGDP (# M)	PPT (# M)	CIT (# M)	VAT (# M)	EDUT (# M)	SD (# M)	MMT (# M)	CGT (# M)	PIT (# M)	CED (# M)
2000	412.3	525,100	51,100	58,500	7,258.70	101,500	5,517.6	59,964.9	625.62	101,500
2001	431.8	639,200	68,700	91,800	16,213.60	170,600	707.9	48,661.8	762.74	170,600
2002	451.8	392,200	89,100	108,600	10,284.20	181,400	7,653.1	45,118.6	916.83	181,400
2003	495	683,500	114,800	136,400	17,100	195,500	1,617.4	150,080.2	1,094.64	195,500
2004	527.6	1,183,600	113,000	159,500	17,100	217,200	3,082.9	165,395.9	1,484.42	217,200
2005	561.9	1,904,900	140,300	178,100	21,900	232,800	6,523.4	213,463.2	1,930.78	232,800
2006	595.8	2,038,300	244,900	221,600	28,400	177,700	15,294.6	267,656.7	2,741.79	177,700
2007	634.3	1,500,600	275,300	289,600	51,800	241,400	11,296.4	143,800.0	3,044.77	241,400
2008	672.2	2,812,300	416,800	404,500	47,200	205,250	25,228.0	247,800.0	3,503.18	205,250
2009	719	1,256,500	568,100	468,400	139,500	223,325	249,154	363,003.7	4,082.35	223,325
2010	54204.8	1,944,700	657,300	562,900	114,500	214,287	396.161	532,958.9	4,648.70	214,287
2011	56964.1	3,070,591	659,596	659,154	130,740	23,287.4	500.25	421,757.2	5,385.82	51,800
2012	60755	3,201,319	816,519	710,555	188,436	25,087.9	268.05	497,993.5	6,284.92	47,200
2013	65259.5	2,666,370	963,551	802,684	278,359	214,288	371.79	527,370.2	7,287.99	139,500
2014	12,290.25	639,200	91,800	388.85	10,284.20	26,888.4	281.45	556,747.0	8,291.05	114,500
2015	18,533.75	5,990.42	243,778	381.27	1,498.71	28,688.9	1,273.4	586,123.8	9,294.11	130,740
2016	17,555.44	5,367.32	88,142	397.06	1,518.93	214,289	2,570.8	615,500.5	10,297.18	188,436

**Sources:** SD, PIT & CGT are from World statistics on Nigeria Economy.  
 RGDP, PPT, CIT, VAT, MMT, EDUT & CED are from Central Bank of Nigeria (CBN) Statistical Bulletin.

Joseph Ekpenyong. "Impact of Tax Reforms on Economic Growth In Nigeria Using Descriptive Statistics." *IOSR Journal of Economics and Finance (IOSR-JEF)*, 12(05), 2021, pp. 49-58.