

THE IMPACT OF OIL REVENUE ON ECONOMIC GROWTH OF NIGERIA FROM 2000 TO 2022

¹MRS EZEObELE IFEOMA B and ²UCHIME UZOMA A.

Department of Accountancy, School of Financial Studies, Federal Polytechnic, Oko, Anambra State.

Email: ¹ifyb353@gmail.com; ²uzomauchime@yahoo.com

DOI: <https://doi.org/10.5281/zenodo.13881832>

Abstract: This paper examined the impact of oil revenue on economic growth of Nigeria from 2000 to 2022. Specifically, the objective of the study includes to: examine the impact of oil revenue on gross domestic product in Nigeria, ascertain the impact of petroleum profit tax on gross domestic product in Nigeria. The data utilized for the study were extracted from the Central Bank of Nigeria statistical bulletin. The study adopted ordinary least square multiple regression approach for the analysis of the data. The findings of the study revealed that oil revenue had positive and significant effect on gross domestic product in Nigeria, petroleum profit tax had positive and significant effect on gross domestic product in Nigeria. Thus, the study concludes that oil revenue has a positive and significant impact on economic growth in Nigeria. The study recommends that oil revenue and petroleum profit tax should be channeled for the advancement of the economy and for capital investments.

Keywords: Oil revenue, petroleum profit tax, gross domestic product.

Introduction

Before the discovery of oil in Nigeria, agriculture was the backbone of Nigeria economy, contributing around 95% of foreign exchange earnings, creating north of 60% of work limit and contributing roughly 56% to the gross domestic earnings (World Bank, 2013). The major exportable harvests were cocoa, palm items, cotton, ground nut, wood and elastic, with these items comprising the greater part of Nigeria's commodities, Farming was the main area of the Nigerian economy while oil export was not as attractive as it is witnessed today. As a matter of fact, literature on the Nigerian economy has it that Nigeria was basically an agriculture economy, whose income age depended on farming. Data records from the Nigerian National Bureau of Statistic showed that in the range of 1958 and 1969, the commitment of petrol to GDP at current variable was simply 0.007 percent. On the other words, agriculture could be referring to as the mainstay of the country's economy, accounting for higher percentage of gross domestic product at the time. However, after the discovery of oil in commercial quantity, petroleum industry in Nigeria became the largest industry. Oil gave roughly 90% of foreign exchange and around 80% of country's income which contributed monstrously to the GDP as a deliberate of the Nigerian economy. Unrefined petroleum turned into the predominant assets during the 1970s. Onshore oil investigation represents

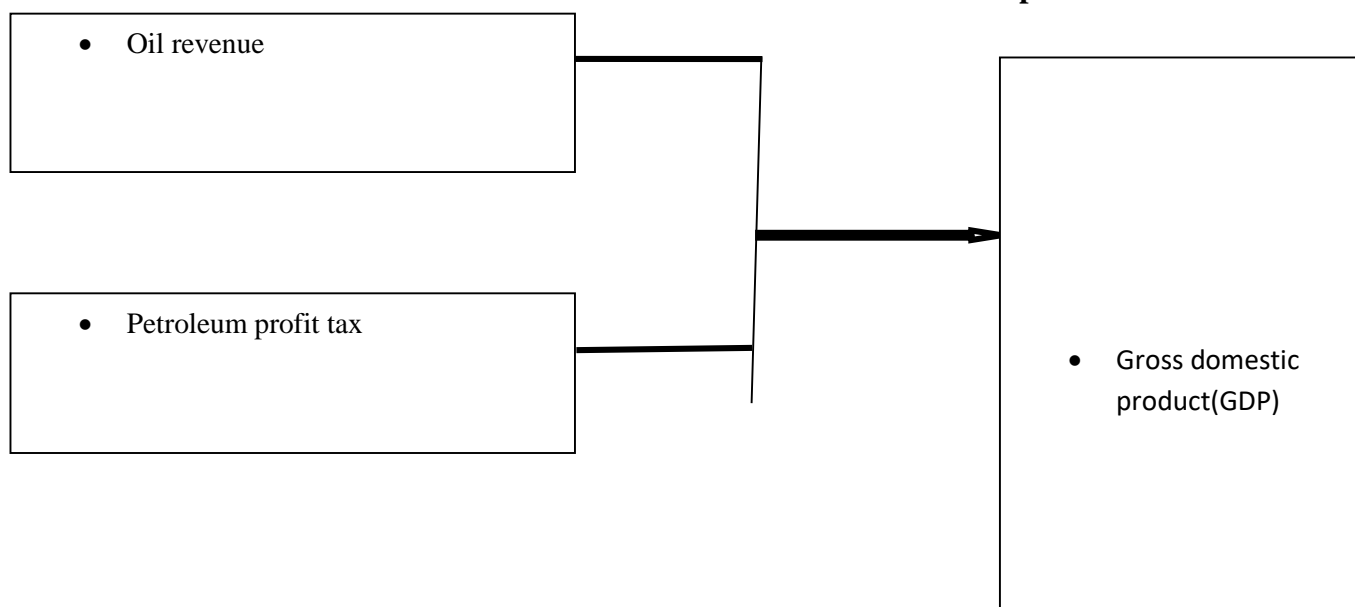
around 65% of the all-out creation and it is tracked down primarily in the damp region of the Niger Delta, while the leftover 35% addresses seaward creation includes boring for oil in the profound waters of the mainland rack. The gigantic expansion in oil income as an outcome of the Center East conflict of 1973 made exceptional, unforeseen and spontaneous abundance for Nigeria and as such prompted the emotional change in strategies to guarantee an all-encompassing way to deal with benchmark of the condition of oil area (Oladipo and Fabayo, 2012; Ogunmakin, Adebayo and Dada, 2014). Nigeria is said to have an oil creation limit of around 2.45million bbI/day, while utilization is around 310,000 bbI/day (2005 EST). As at 2006, the degree of utilization expanded to 312,000 bbI/day with creation level of 2.352 million bbI/day (2006 EST). Nigeria, as at 2007 positioned 38th situation on the planet as for oil utilization. From these realities, it is very clear that Nigeria, notwithstanding the diminishing in oil creation in 2006, still has an increment of oil utilization rate. There is quick development in oil utilization in Nigeria, which as of now remained at 7% and oil costs which keep on being unpredictable, because of this, there is a lot of on how to be guaranteed nonstop development no matter what the worldwide market. This unpredictability has come from global shocks brought about by monetary emergencies, strikes, wars and diminished oil creation. It is a result of this unpredictability in oil costs and Nigeria's reliance on oil that numerous financial specialists raised worry about the fate of the economy. As elective powers become more famous and oil bringing in nations keep on finding oil stores, there is a requirement for the Nigerian economy to focus on other, more reasonable wellsprings of unfamiliar trade and government income to prod monetary development (Igberaese, 2013). The tremendous incomes from oil, obviously, introduced net abundance and consequently gave an open door to expanded homegrown speculation; be that as it may, the immense incomes convoluted macroeconomic administration and made the economy exceptionally oil subordinate. In spite of the colossal income from oil, the economy actually couples with numerous issues including high and increasing joblessness rate, declining fabricating creation, carelessness of agricultural focus, high and rising degree of destitution, low per capital pay and poor infrastructural improvement. The horrid exhibition of the Nigerian economy even with immense lease from oil has revived interest on oil income and monetary development process in Nigerian. In this manner, even in the oil area and its related income, an inquiry is then posed, where are we going? What will be our future and taking into account the every one of the possibilities of the oil area and it income drives, is oil liable for the blast or destruction of the Nigeria economy? The study established an empirical relationship on the role that oil revenue has plays on the Nigerian economic growth. Ends and suggestions drawn from this study can be taken on by the public authority to alter the deformities experienced through the disappointment of oil spending in Nigeria to convert into significant financial turn of events and significant commitments to the nation's GDP. This study act as a significant reference device for oil organizations and similarly valuable for the public authority and her offices in figuring out strategies as well as decision-making document for private associations working in the oil field.

2. LITERATURE REVIEW

2.2 CONCEPTUAL FRAMEWORK

Figure 2.2.1 Conceptual Framework

Independent Variables



Source: Researcher's Diagram

2.3 THEORETICAL LITERATURE/REVIEW.

2.3.1 Theories of Fiscal Policy

There are series of theories propounded to explain the reasoning behind people's actions and reactions to tax compliance and tax rules which invariably impact the pool of available revenue to the government for the execution of policies and programs. This section explains alternative theories of fiscal policy and these theories are explained below;

2.3.2 Classical Theory of Economic Growth

The traditional classical and neo-classical growth models developed by Solow (1956) and Mincer (1958) in the late 1950's, showed that an economy grows in response to larger inputs of capital and labour (all physical inputs). Non-economic variables such as human capital or human health variables have no function in these models. This theory revealed how capitals including technology leads to increase in productivity and efficiency of workers and

expand production of goods and services. In economic lexicon, this simply means that the technological progress is “exogenous” to the system. The neo-classical growth theory as modelled by Solow (1956) emphasized the view that economic growth is a result of the accumulation of physical capital and an expansion of the labour to be more productive. Therefore, this study considers the role of economic Lexicon and neo-classical impacts on the gross domestic products (GDP) in the Nigerian economy.

2.3.3 Benefit Received Theory:

The cost of service hypothesis states that, the cost acquired by the government in providing services must be met collectively by individuals who are receiving the services (Jhingan, 2009). The limitations of the cost service theory led to the birth of the benefit received theory of fiscal policy. Citizens, according to this notion, should pay taxes with the same percentage to the benefits a person receives the greater the state's actions, the more he/she should pay to the government. This theory states that there is an exchange relationship between the tax payer and the government. The failure This idea has been rendered obsolete by the inability to quantify the advantages obtained by an individual from government services inapplicable. (Ahuja,2012).

2.4 EMPIRICAL LITERATURE

Idebi, and Adesina-Uthman (2022) investigated the implications of fiscal policy on economic growth in Nigeria for the period 1982 to 2020. The variables used were government expenditure, tax revenue, public debt, corruption and gross domestic product. Data was sourced from Central Bank of Nigeria (CBN) yearly statistical bulletin. The researchers used Augmented Dickey-Fuller (ADF) and Autoregressive Distributed Lag (ARDL) techniques to analyze the data. The empirical results showed that total government expenditure had a positive effect on economic growth, while total tax revenue, public debt and corruption had a negative effect on economic growth. Also, it was found out that corruption negatively affected the impact of government expenditure on economic growth, while total tax revenue and public debt are not affected by corruption.

Chinedu and Okafor (2022) examined the effect of fiscal policy's components on economic growth in Nigeria over a period of 1980 to 2017. This study made use of ex-post facto research design. The data was subjected to Augmented Dickey-Fuller Unit Root test statistic, Engle-Granger Co-integration test, error-correction mechanism, Heteroscedasticity White Test, Ramsey Reset and Durbin-Watson test.

The empirical result showed that the coefficient of government capital expenditure had 25% positive significant effect on Real GDP, government recurrent expenditure had 25% positive significant effect on Real GDP, Public external Debts had 6% negative significant effect on Real GDP and government Taxes revenue had 41% negative significant effect on Real GDP. Real GDP has long-run negative relationship with public external debts. Hence, the component of fiscal policy has long-run relationship with economic growth.

Adegboye et al (2021) examined the impact of fiscal, monetary and trade policies on Nigerian economic growth from 1985 to 2020. The study adopted endogenous growth model (AK model) as its theoretical framework. The independent variables were money supply, interest rate, public spending, public revenue and trade openness, while gross domestic product per capital was the dependent variable. The unit root test results revealed that there

is mixed level of stationarity in the variables. The bound test result showed that the variables co-integrate. The ARDL long-run result showed that fiscal policies stimulate economic growth, while on the contrary, trade policies deter Nigerian economic growth. The short-run result showed that the fiscal policies had an inconsistent impact on Nigerian economic growth and thus differed from the long-run result; while government spending continues to drive economic growth in Nigeria, government revenues have no effect on the growth of the economy. The result of the impact of monetary policies shows that interest rate impels growth of the economy while money supply deters growth of Nigeria's economy; lastly, the trade policies maintain her negative influence on the economy in both the long run and short run.

3. Research Method

3.1 Model Specification

The adopted model for this study were Akinleye, Olowookere and Fajuyagbe (2021) which was stated to examine the impact of oil revenue and economic growth. However, this study is modified and specified to capture the specific objectives whose data was sourced from Central Bank of Nigeria Statistical Bulletin for several years. Thus, exchange and inflation rate is adopted as control variables. The following symbols are used to denote variables used in writing the model equations which is in line with the objectives:

The study functional model is stated thus,

$$\text{GDP} = F(\text{OREV}, \text{PPT}, \text{EXR}, \text{INFR}) \quad (1)$$

Equation (1) can be transformed and expressed in log-linear form stated below:

$$\log \text{GDP} = b_0 + b_1 \log \text{OREV} + b_2 \log \text{PPT} + b_3 \text{EXR} + b_4 \text{INFR} + \mu \quad (2)$$

Where;

GDP= Gross domestic product, OREV= Oil revenue, PPT= Petroleum profit tax, EXR= Exchange rate, and INFR= Inflation rate.

b_0 = the intercept

b_1 = the slope

μ = the error term

Based on the above model, the study further expresses it in the following ways:

Hypothesis One

H0₁: Oil revenue has no significant effect on gross domestic product in Nigeria is represented by the equation:

$$\log \text{GDP} = b_0 + b_1 \log \text{OREV} + \mu \quad (4)$$

However, incorporating the control variables in the above equation we have;

$$\log \text{GDP} = b_0 + b_1 \log \text{OREV} + b_2 \text{INFR} + b_3 \text{EXR} + \mu \quad (5)$$

Hypothesis Two

H0₂: Petroleum profit tax has no significant effect on gross domestic product in Nigeria is represented by the equation:

$$\log \text{GDP} = b_0 + b_1 \log \text{PPT} + \mu \quad (6)$$

However, incorporating the control variables in the above equation we have;

$$\log\text{GDP} = b_0 + b_1 \log\text{PPT} + b_2 \text{INFR} + b_3 \text{INTR} + \mu \quad (7)$$

3.2 Pre-Test Analysis

Descriptive Statistics

The test of descriptive statistics is meant to reveal the mean, the median and the standard deviation, and other statistical properties of the dataset.

Unit Root Tests

Unit root test is conducted to establish the stationarity of this study.

Decision rule

The null of the Augmented Dicky Fuller unit root test is “the series has a unit root”

- If the P-value is less than its chosen critical value of significant (0.05 in this study) reject the null
- If the Augmented Dicky Fuller (ADF) value is more negative than its critical value at the chosen level of significance reject the null hypotheses.

3.3 Method of Data Analysis

This study employs the ordinary least square multiple regression analysis. The ordinary least squares method is one of the most popular and widely used methods for regression analysis. It is mainly used to establish whether one variable is dependent on another or a combination of other variables. It entails establishing the coefficient(s) of regression for a sample and then making inferences on the population. The simple regression equation is stated thus;

$$Y = b_0 + b_1 X_1 + \mu.$$

Where:

Y = the variable been predicted

b_0 = the intercept

b_1 = the slope

X = the variable used to predict Y

μ = the error term

The *intercept* (b_0) is the value of the dependent variable when the independent variable is equal to zero while the *slope* of the regression line (b_1) represents the rate of change in Y as X changes. Because Y is dependent on X, the slope describes the predicted values of Y given X.

4.1 Presentation of Data

Data are presented and interpreted in line with the objectives and models of the study. The data used to test the hypotheses are presented in **appendix 1**. The raw series data was log-transformed by the author and the log transformed series are presented in the table below.

	GDP	OREV	PPT
2000	8.862590	7.372558	14.57712
2001	9.016087	7.442844	14.54646
2002	9.350228	7.115501	14.51422
2003	9.514656	7.637379	15.03694
2004	9.804996	8.118147	15.38571
2005	10.04853	8.468507	15.88716
2006	10.32138	8.573120	15.88260
2007	10.45380	8.403554	15.99917
2008	10.59549	8.784254	16.22940
2009	10.67963	8.068372	16.03191
2010	10.92359	8.593432	16.38489
2011	11.06215	9.091444	16.67007
2012	11.19272	8.990442	16.66762
2013	11.30233	8.826030	16.62257
2014	11.40909	8.823766	16.47031
2015	11.46350	8.250646	16.10903
2016	11.53835	7.898745	16.17289
2017	11.65181	8.321105	16.55820
2018	11.76824	8.620760	16.85851
2019	11.88889	8.535858	16.82308
2020	11.94634	8.291947	16.43838
2021	12.07867	8.322734	16.94338
2022	12.21783	8.442894	NA

Source: Transformed by author using E-views.

Note: GDP= Gross domestic product, OREV=Oil revenue, PPT= Petroleum profit tax, EXR= Exchange rate, and INFR= Inflation rate.

Table 4.3 Descriptive Statistics

	GDP	OREV	PPT	INFR	EXR
Mean	68668.36	4521.832	11447265	12.69591	188.8223
Median	59591.36	4289.650	10870298	11.99000	152.0800
Maximum	176075.5	8879.000	22825185	23.80000	400.2400
Minimum	7062.750	1230.900	2011156.	6.600000	102.1100
Std. Dev.	51509.02	2062.973	6316126.	3.988632	89.10433
Skewness	0.549541	0.286042	0.050435	0.882387	1.132877
Kurtosis	2.160477	2.450694	2.009316	3.890519	2.871283
Jarque-Bera	1.753383	0.576599	0.908994	3.581833	4.721022
Probability	0.416157	0.749537	0.634767	0.166807	0.094372
Sum	1510704.	99480.30	2.52E+08	279.3100	4154.090
Sum Sq. Dev.	5.57E+10	89373050	8.38E+14	334.0929	166731.2
Observations	22	22	22	22	22

Source: Researcher’s Eview 9.

Note: GDP= Gross domestic product, OREV=Oil revenue, PPT= Petroleum profit tax, EXR= Exchange rate, and INFR= Inflation rate.

Table 4.2 present the descriptive statistics for the period of 2000 to 2022. The table explains the aggregative averages of the mean, median and standard deviation, a measure of spread and variation which were used for consistency and robustness checks of the results. The skewness, kurtosis and Jarque-Bera probability values demonstrated the series normality test. The minimum row showed the lowest values of each variable and the maximum row gave the highest values of each variable. Gross domestic product, oil revenue, Petroleum profit tax, exchange rate, and Inflation rate were positively skewed. Inflation rate exhibited leptokurtic behaviour while Gross domestic product, oil revenue, Petroleum profit tax and exchange rate exhibited platokurtic behaviour.

4.2 Stationary Test Results

Since, most time series data exhibit a non-stationary characteristic, the individual variables are passed through stationary test, specifically unit root, in order to make the variables stationary and amendable for further analysis.

The results are summarized on table below.

Table 4.3 Augmented Dickey-Fuller (ADF) Unit Root Test

Variables	ADF Statistic.	Critical value @ 5%	Order of integration	Inference
GDP	-4.202743	-3.004861	I(0)	Stationary
OREV	-4.697101	-3.012363	I(1)	Stationary
PPT	-4.536189	-3.029970	I(1)	Stationary
EXR	-1.986301	-1.958088	I(1)	Stationary
INFR	-7.305158	-3.012363	I(1)	Stationary

Source: Researcher’s Eview9, 2024

Table above presents the summary results of the ADF unit root tests. The result in table 4.3 indicates that oil revenue, petroleum profit tax and exchange rate are stationary at order 1 while Gross domestic product are stationary at level.

4.2.1 TEST OF HYPOTHESIS ONE

Decision Rule: Accept null hypothesis if P-value is greater than 0.05 and reject null hypothesis if P-value is less than 0.05.

Restatement of the Hypothesis in Null and Alternate forms:

H₀: Oil revenue has no significant effect on gross domestic product in Nigeria.

H_a: Oil revenue has a significant effect on gross domestic product in Nigeria.

Table 4.4: Regression Result of Hypothesis One

Dependent Variable: GDP

Method: Least Squares

Date: 03/31/24 Time: 23:45

Sample: 2000 2022

Included observations: 23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OREV	0.870155	0.173666	5.010516	0.0001
EXR	0.007662	0.000884	8.669185	0.0000
INFR	-0.025852	0.022413	-1.153425	0.2630
C	2.416353	1.549459	1.559482	0.1354
R-squared	0.895459	Mean dependent var	10.83004	
Adjusted R-squared	0.878953	S.D. dependent var	1.006436	
S.E. of regression	0.350158	Akaike info criterion	0.895907	
Sum squared resid	2.329602	Schwarz criterion	1.093384	
Log likelihood	-6.302925	Hannan-Quinn criter.	0.945572	
F-statistic	54.24898	Durbin-Watson stat	0.775676	
Prob(F-statistic)	0.000000			

Source: Researchers' E-view 9, 2024

Table 4.4 presents the regression results for hypothesis one and it reveal that oil revenue for the period of this study had positive and significant effect on gross domestic product in Nigeria. The coefficient of oil revenue is 0.87; indicating that a unit increase in gross domestic product in Nigeria is due to 87% increases in oil revenue. Again, this was confirmed by the p-value < 0.05 level of confidence. The coefficient of determination (R^2) is

0.89, suggesting that the model is moderately fitted. Specifically, the coefficient of determination (R^2) indicates that 89% of the variation in the dependent variable (gross domestic product) is explained by changes in the independent variable (oil revenue). The adjusted coefficient of determination (R^2) value is 0.88, it implies that 88% of the total variation in the dependent variable is explained by changes in the explanatory variables when the coefficient of determine is adjusted for degree of freedom. For the control variables, it was revealed that inflation rate had negative and insignificant effect on gross domestic product while exchange rate had positive and significant effect on gross domestic product in Nigeria.

Decision: Based on the results above, since the p-value is less than 5% level of significant the null hypothesis is rejected while the alternative which states that oil revenue has a significant effect on gross domestic product in Nigeria is accepted.

4.2.1 TEST OF HYPOTHESIS TWO

Decision Rule: Accept null hypothesis if P-value is greater than 0.05 and reject null hypothesis if P-value is less than 0.05.

Restatement of the Hypothesis in Null and Alternate forms:

H₀2: Petroleum profit tax has no significant effect on gross domestic product in Nigeria.

H_a2: Petroleum profit tax has a significant effect on gross domestic product in Nigeria.

Table 4.5: Regression Result of Hypothesis Two

Dependent Variable: GDP

Method: Least Squares

Date: 03/31/24 Time: 23:54

Sample (adjusted): 2000 2021

Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PPT	0.895700	0.110587	8.099482	0.0000
EXR	0.004042	0.000930	4.345652	0.0004
INFR	-0.010130	0.017069	-0.593502	0.5602
C	-4.231799	1.776206	-2.382494	0.0284
R-squared	0.942589	Mean dependent var	10.76696	
Adjusted R-squared	0.933020	S.D. dependent var	0.982480	
S.E. of regression	0.254271	Akaike info criterion	0.262130	
Sum squared resid	1.163764	Schwarz criterion	0.460502	
Log likelihood	1.116565	Hannan-Quinn criter.	0.308861	
F-statistic	98.50885	Durbin-Watson stat	0.928221	
Prob(F-statistic)	0.000000			

Source: Researchers' E-view 9, 2024

Table 4.5 presents the regression results for hypothesis two and it reveals that petroleum profit tax for the period of this study had a positive and significant effect on gross domestic product in Nigeria. The coefficient of petroleum profit tax is 0.89; indicating that a unit increase in gross domestic product in Nigeria is due to 89% increases in petroleum profit tax. Again, this was confirmed by the p-value < 0.05 level of confidence. The coefficient of determination (R^2) is 0.94, suggesting that the model is moderately fitted. Specifically, the coefficient of determination (R^2) indicates that 93% of the variation in the dependent variable (gross domestic product) is explained by changes in the independent variable (petroleum profit tax). The adjusted coefficient of determination (R^2) value is 0.93, it implies that 93% of the total variation in the dependent variable is explained by changes in the explanatory variables when the coefficient of determination is adjusted for degree of freedom. For the control variables, it was revealed that inflation rate had a negative and insignificant effect on gross domestic product while exchange rate had a positive and insignificant effect on gross domestic product in Nigeria.

Decision: Based on the results above, since the p-value is less than 5% level of significance, the null hypothesis is rejected while the alternative which states that petroleum profit tax has a significant effect on gross domestic product in Nigeria is accepted.

Discussion of findings

The study evaluated the impact of taxation on economic growth in Nigeria. The study revealed that oil revenue had a positive and significant effect on gross domestic product in Nigeria, petroleum profit tax had a positive and significant effect on gross domestic product in Nigeria. These findings indicate that the increase in oil revenue and petroleum profit tax will bring about a corresponding increase in gross domestic product. Thus, the increase in oil revenue will bring about an increase in economic growth in Nigeria. This finding is in consonance with the similar study of Ubesie (2016).

5.2 Conclusion

The study examined the impact of oil revenue on economic growth in Nigeria. The objectives include to ascertain the effect of oil revenue on gross domestic product in Nigeria, to determine the effect of petroleum profit tax on gross domestic product in Nigeria. The study revealed that oil revenue had a positive and significant effect on gross domestic product in Nigeria, petroleum profit tax had a positive and significant effect on gross domestic product in Nigeria. These findings indicate that the increase in oil revenue, and petroleum profit tax will bring about a corresponding increase in gross domestic product. Hence, the increase in taxation will bring about an increase in economic growth in Nigeria. Thus, the study concludes that oil revenue has a positive and significant impact on economic growth in Nigeria. The study recommends that oil revenue and petroleum profit tax should be channeled for the advancement of the economy and for capital investments.

Appendix 1

Year	GDP	OREV	PPT	EXR	INFR
2000	7,062.75	1,591.7	2,141,718.09	102.11	14.50
2001	8,234.49	1,707.6	2,077,052.08	111.94	16.50
2002	11,501.45	1,230.9	2,011,155.83	120.97	12.20
2003	13,556.97	2,074.3	3,392,032.26	129.36	23.80
2004	18,124.06	3,354.8	4,807,586.91	133.50	10.00
2005	23,121.88	4,762.4	7,937,877.86	132.15	11.60
2006	30,375.18	5,287.6	7,901,768.64	128.65	8.50
2007	34,675.94	4,462.9	8,878,727.22	125.83	6.60
2008	39,954.21	6,530.6	11,177,365.98	118.57	15.10
2009	43,461.46	3,191.9	9,174,200.04	148.88	12.00
2010	55,469.35	5,396.1	13,057,662.52	150.30	11.80
2011	63,713.36	8,879.0	17,366,751.38	153.86	10.30
2012	72,599.63	8,026.0	17,324,246.83	157.50	12.00
2013	81,009.96	6,809.2	16,561,219.19	157.31	8.00
2014	90,136.98	6,793.8	14,222,131.08	158.55	8.00
2015	95,177.74	3,830.1	9,909,705.44	193.28	9.60
2016	102,575.42	2,693.9	10,563,230.42	253.49	18.60
2017	114,899.25	4,109.7	15,528,695.64	305.79	15.40
2018	129,086.91	5,545.6	20,968,131.07	306.08	11.40
2019	145,639.14	5,094.2	20,238,224.32	306.92	11.98
2020	154,252.32	3,991.6	13,775,162.11	358.81	15.80
2021	176,075.50	4,116.4	22,825,184.53	400.24	15.63
2022	202,365.03	4,641.97	na	425.98	21.34

Appendix 2

Null Hypothesis: D(OREV) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.697101	0.0014
Test critical values: 1% level	-3.788030	
5% level	-3.012363	

10% level -2.646119

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

Appendix 3

Null Hypothesis: D(PPT) has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.536189	0.0023
Test critical values: 1% level	-3.831511	
5% level	-3.029970	
10% level	-2.655194	

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

Warning: Probabilities and critical values calculated for 20 observations

and may not be accurate for a sample size of 19

Appendix 4

Null Hypothesis: D(EXR) has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 1 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.436044	0.0113
Test critical values: 1% level	-4.498307	
5% level	-3.658446	
10% level	-3.268973	

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

Appendix 5

Null Hypothesis: D(INFR) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.305158	0.0000
Test critical values: 1% level	-3.788030	
5% level	-3.012363	
10% level	-2.646119	

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

Dependent Variable: GDP

Appendix 6

Method: Least Squares

Null Hypothesis: GDP has a unit root Date: 03/31/24 Time: 23:45

Exogenous: Constant Sample: 2000 2022

Lag Length: 0 (Automatic - based on SIC, maxlag=4) Included observations: 23

Variable	Coefficient	Std. Error	Prob.*	t-Statistic	Prob.
Augmented Dickey-Fuller test statistic	0.870155	0.173666	0.00038	5.010516	0.0001
Test critical values: 1% level	0.007663	0.000884		8.669185	0.0000
5% level	-0.025853	0.022413		-1.153425	0.2630
10% level	2.416353	1.549459		1.559482	0.1354

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

R-squared Mean dependent var 10.83004

Adjusted R-squared 0.878953 S.D. dependent var 1.006436

S.E. of regression 0.350158 Akaike info criterion 0.895907

Sum squared resid 2.329602 Schwarz criterion 1.093384

Log likelihood -6.302925 Hannan-Quinn criter. 0.945572

F-statistic 54.24898 Durbin-Watson stat 0.775676

Prob(F-statistic) 0.000000

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-1.986301	0.0471
Test critical values: 1% level	-2.679735	

5% level	-1.958088
10% level	-1.607830

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

References

- Adegboyo, O. S; Keji, S. A. & Fasina, O. T. (2021). The impact of government policies on Nigeria economic growth. *Future Business Journal*, 7(59).
- Chinedu, U., and Okafor, A. (2022). Impact of fiscal policy on economic growth in Nigeria: An approach of time series Econometric model. *International Journal of Advanced Multidisciplinary Research and Studies*.
- Idebi, A. A., & Adesina-Uthman, G. A. (2022). A critical evaluation of the implications of fiscal policy on economic growth in Nigeria: 1982-2020.
- Igbeasere, T. (2013). The Effect of Oil Dependency on Nigeria's Economic Growth. *Journal of International Institute of Social Science*, 3(1), pp. 23-32.
- Odularu, G. O. (2008). Crude oil and the Nigerian economic performance. World Trade Organization (WTO), Centre William Rappard, Rue de Lausanne, 3(4), pp. 12-20.
- Oladipo & Fabayo, (2012). Global Recession, Oil Sector and Economic Growth in Nigeria. *Asian Transactions on Basic and Applied Sciences*, 1(6), pp. 9-17.
- Solow, R. M. (1956). A contribution to the theory of economics growth. *Quarterly Journal of Economics (Oxford Journals)*, 70 (1), pp. 65-94.
- World Bank (2013). Nigeria economic report (No. 1). Washington, DC: World Bank. World Bank (1994) Indonesia: Sustaining Development. *Washington, DC: World Bank*.