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THE IMPACT OF PETROLEUM PROFIT TAX (PPT) ON ECONOMIC GROWTH IN NIGERIA: THE CO - INTEGRATION ANALYSIS

Abstract:

This study examined the impact of petroleum profit tax on economic growth in Nigeria. It also looked at the direction of causality among petroleum profit tax, money supply, interest rate, inflation rate and economic growth employing the method of Johansen co-integration and the Granger causality tests using data spanning the period 1978-2013. Results showed that petroleum profit tax has positive significant impact on GDP both in the short run and in the long run with (β = .1377812 ; t=1.71; P>|t|= 0.000) and (β =.0125105; z=-2.01, P>|z|= 0.000) respectively. Also, PPT does not granger cause GDP. Money supply impacted GDP positively in the short run but negative significant impact in the long run with (β=-.5674746; t= 3.02, P>|t|= 0.000) and (β = -9.70e-06; z = - 16.79; P>|z|= 0.000) respectively. It is recommended that, once petroleum profit tax impacted economic growth positively in the short run and n the long run, Government should also minimize or find ways of eliminating totally the widespread corruption and leakages in the petroleum profit tax administration

Keywords:

Economic growth; Granger causality; Monetary policy; GDP; Petroleum profit tax (PAT);

JEL Classification: A12

INTRODUCTION
Background to the study

Government raises funds from various sources such as issuing of public debt, levying of taxes, fees, fines and specific charges, among the various sources from which Governments can raise finance, taxes are the most important and reliable. Taxation is a tool by government in fashioning various aspects of economic growth. Taxes are instrument of fiscal policy. The purpose of taxation is to raise funds for activities which cannot be pursued without government action. These include the public contribution to economic investment, as well as enabling people to meet their basic needs and enjoy wider opportunities. Without taxation, government cannot create a better society. One of the ways of generating revenue by federal government is through petroleum profit tax. The oil industries have achieved great prominence in the Nigerian economic environment since early seventies. The Government has attached importance to oil exploration and production such that the taxation of profits of companies engaging in such operations are taxable under a tax law known as Petroleum Profits Tax Act (PPTA). Petroleum is the main source of energy and shapes the political, socio-cultural, technological and economic destiny of the country. It is a source of power in international politics. From 1970 to 2009 the petroleum industry generated 82% income for Federal Government while 18% came from non-oil revenue (Appah and Ebiringa 2012). According to (Azaiki and Shagari, 2007) the Petroleum industry constitutes a major source of income and occupies a strategic position in the economic development of Nigeria. For the past decades, the industry has been playing vital and dominant role to the economic growth of Nigeria, both in foreign exchange earnings and domestic income generation. The problems with Nigerian economy have been traced to failure of successive governments to use oil revenue and excess crude oil income effectively in the development of other sectors of the economy. Over all, there has been poor performance of national institutions such as power, energy, road, transportation, politics, financial systems, and investment environment have been deteriorating and inefficient. Despite the fact that crude oil has been the source of Nigerian economy, the economy is facing with high rate of unemployment, wide spread oil spillage, increasing poor standard of living as a result of decreasing gross domestic product, per capita income, high rate of inflation and high level of interest rate which has led to the effect of the economic development. Therefore at this juncture, it is important to examine the effect of petroleum profit tax (PPT) on economic growth in Nigeria. The main objective of this study is to examine the effect of petroleum profit tax (PPT) on economic growth in Nigeria.

LITERATURE REVIEWS

Petroleum Profit Tax in Nigeria

Petroleum profit tax, according to Attamah (2004), is a legislation which imposes tax upon profits from the mining of petroleum in Nigeria and provides for the assessment and collection thereof and for the purposes connected therewith. One of the sources of petroleum income is the Petroleum Profit Tax. Accounting for income from oil and gas producing activities according to Gallun and Stevenson (1986), differ in many respects from financial accounting. The purpose of tax accounting is to gather information for the efficient preparation of income tax returns according to rules established by the Federal Board of Inland Revenue Code and Regulation (now Federal Inland Revenue Services). Besides the petroleum profit tax, Nigeria needs to meet its export commitment or quota approved

by the Organization of Petroleum Exporting Countries (OPEC), scheduled dates of each supply agreement and resolve all necessary regulatory issues between government agencies and oil companies as operators of oil fields. According to Odusola (2006), petroleum profit tax (PAT) is a tax applicable to upstream operations in the oil industry. It is particularly related to rents, royalties, margins and profit sharing elements associated with oil mining, prospecting and exploration leases. It is the most important tax in Nigeria in terms of its share of total revenue contributing 95 and 70 percent of foreign exchange earnings and government revenue, respectively. Due to the importance attached to oil exploration and production by the federal government of Nigeria, the taxation of profit of companies engaging in such operation became inevitable under a tax act different from the companies income tax act (Success et al 2012). According to them, this act became effective 1st January, 1959 since export of oil to the international market started in 1958. This ordinance under which petroleum profit is taxed is referred to as the petroleum profit tax act (PPTA). It was first amended in January 1967 by the Federal Military Government through decree No 1 of 1967.

There have been further amendments since the last amendment in 1967. The principal act governing the taxation of profits from petroleum in Nigeria is the Petroleum Profits Tax Act 2007. Section 2 of the PPTA defines petroleum operations as "the winning or obtaining and transportation of petroleum chargeable oil in Nigeria by or on behalf of a company for its own account by any drilling, mining, extracting or other like operations or process, not including refining at a refinery, in the course of a business carried on by the company engaged in such operations and all operations incidental thereto and any sale of or any disposal of chargeable oil by or on behalf of the company". The purpose of this legislation is to regulate and control the procedure of taxation of petroleum companies. This study enables policy makers to evaluate which components of revenue regenerated from oil activities have more significant influence on economic growth.

Petroleum operation as defined in the PPTA essentially involves petroleum exploration, development, production and sale of crude oil. The Petroleum Profit Tax is regulated by the Petroleum Profit Tax Act of 1959 as amended by the Petroleum Profit Tax Act of 2007. Although the initial law was passed in 1959 to capture the first oil export made in that year (Nwadighoha, 2007). Section 8 of Petroleum Profit Tax Act (PPTA) states that every company engaged in petroleum operations is under an obligation to render return, together with properly annual audited accounts and computations, within a specified time after the end of its accounting period. Petroleum profit tax involves the charging of tax on the incomes accruing from petroleum operations (Nwezeaku 2005). He noted that the importance of petroleum to the Nigerian economy gave rise to the enactment of a different law regulating the taxation of incomes from petroleum operations. The petroleum profit tax is charged, assessed and payable upon the profits of each accounting period of any company engaged in petroleum operations during any such accounting period, usually one year (January to December) (Anyanwu (1993).
The profits of a company in relation to the accounting period is the aggregate of
 (a) the proceeds of sale of all chargeable oil during that period;
 (b) the value of all chargeable oil disposed of in that period;
(c) the value of all chargeable natural gas in that period; and
(d) all income of the company of that period incidental to and arising from any one or more of its petroleum operations (i.e. winning or obtaining and transportation of petroleum or chargeable oil in Nigeria by or on behalf of a company, for its own account by any drilling,

mining, extracting or other like operations or process, not including refining at a refinery, in course of a business carried on by the company engaged in such operations, and all other operations, incidental there to and any sale of or disposal of chargeable oil by or on behalf of the company.

Oremade (2006) indicated that for petroleum profit tax purposes, crude oil sales valued at the prices actually realized by the oil producing company in the world oil market. On the other hand, this value has to be compared with the value at the posted price and if the posted price is higher, tax is then based on the posted price. Sales of crude oil for local refining and sales of gas are valued for petroleum profit tax purposes at the actual amount realized on sale.

According Ofe, Onyemachi and Caroline (2008), the administration of PPTA is under the care and management of the Federal Board of Inland Revenue. The tax laws according to Adekanola (2007) have vested the authority to assess, administer and collect all taxes from corporate entities on the Federal Inland Revenue Services. Taxes administered at the Federal level include the Petroleum Profits Tax, Companies Income Tax, and the Value Added Tax as well as the Capital Gain Tax, when such capital gains are generated by corporate entities. The administration of taxes in Nigeria has also been focused on revenue generation to the detriment of stimulating economic development.

Ofe et al (2008) brought out further that the Board may do all acts as may be deemed necessary and expedient for the assessment and collection of the tax and shall account for all amounts so collected in a manner to be prescribed to the Federal Minister of Finance. Whenever the Board shall consider it necessary with respect to any tax due, it may acquire, hold and dispose of any tax or of any judgment debt due in respect of any tax and shall account for any such property and the proceeds of sale thereof in a manner to be prescribed by the Minister. The Board may sue and send be sued in its official name. In the exercise of the powers and duties conferred upon it, the Board shall be subject to the authority, direction and control of the Minister of Finance. Any written direction, order or instruction given by the Minister after consultation with the chairman of the Board shall be carried out by the Board. However, the Minister shall not give any such direction in respect of any particular company which would have the effect of requiring the Board to increase or decrease any assessment made or to be imposed upon or any relief given tax, penalty or judgment debt due by such company or hich would have the effect of altering the normal course of any proceeds, whether civil or criminal, relating either to the recovery of any tax or penalty or to any offence relating to the tax. Any Act, matter or thing done by or with the authority of the Board in pursuance of the provisions of PPTA shall not be subject to challenge on the ground that such was not or was not period to be in accordance with any direction, order or instruction given by the Minister (Ofe et al 2008).

Oil companies that only market petroleum products including companies engaged in refining of crude oil such as petrol do not fall into the category of companies engaging in petroleum operations and they are therefore taxable under CITA. Where a company is involved in both petroleum operation and marketing of petroleum product, the trading results from the petroleum operations would be subject to Petroleum Profits Tax while the results from the marketing activities will be taxed under the Companies Income Tax Act. All reference to companies in this unit relates to companies engaged in petroleum operation except where otherwise stated.

The objectives of petroleum profit tax in Nigeria

Azaiki and Shagari (2007), brought out that countries blessed sufficient to have petroleum, can base their development on this resource. They point to the potential benefits of enhanced economic growth and the creation of jobs, increased government revenues to finance poverty alleviation, the transfer of technology, the improvement of infrastructure and the encouragement of related industries. Ogbonna (2009) expressed the view that the administration of Petroleum Profits Tax in Nigeria has mainly been focused on revenue generation to the detriment of stimulating economic growth and development. According to Nwete (2004) the following are the objectives of petroleum taxation in Nigeria

❖ To re-distribute wealth between the wealthy and industrialized economics represented by the multinational organizations, who own the technology, expertise and capital needed to develop the industry and the poor and emerging economies from where the petroleum resources are extracted.

❖ The high profit profile of a successful investment in the oil industry makes it a veritable source for satisfying government objective of raising money to meet its socio-political and economic obligations to the citizenry.

❖ The high potential for environmental pollution and degradation stemming from industry activities makes it a target for environmental taxation, as a way of regulating its activity and promoting government quest for a cleaner and healthy environment.

❖ To achieve government's objective of exercising right and control over the public asset, Government imposes very high tax as a way of regulating the number of participants in the industry and discouraging its rapid depletion in other to conserve some of it for future generation. This in effect will achieve government aim of controlling the petroleum sector development.

❖ Cleaner production may be achieved by imposing tax on it for pollution and environmental offences. Under the petroleum Profits Tax Acts of 1959 an oil company, in computing its taxable profits from petroleum operations, is entitled to deduct all outgoings and expenses which are wholly, exclusively and necessarily incurred by such company for the purpose of such petroleum operations.

RESEARCH METHODOLOGY

Method of Data Collection

Secondary data was used in this study. The relevant data for the study were obtained from Central Bank of Nigeria (CBN) Statistical Bulletins (various issues), National Bureau of Statistics. The data covered the period from 1978-2013.

Method of data Analysis

Regression analysis technique was used to measure the relationship between a dependent variable and independent variables.

Model Specification

This Model evaluated effects of petroleum profit tax (PPT) on economic growth in Nigeria. Petroleum profit tax (PAT), interest rate and money supply are independent variables while Economic growth (proxies by GDP) is dependent variables.

DATA ANALYSIS TECHNIQUES

Regression analysis technique was used to measure the relationship between a dependent variable and independent variables. Regression models in the following variables:

$M = f(G1, G2, G3, \mu)$
The independent variable $G1 - G3$
The dependent variable M
A regression model relates M to a function of G and μ
Error term is denoted as μ.

MODEL SPECIFICATION

$$GDP = a_0 + a_1\,ppt + a_2\,intr + a_3\,monspl + \mu \qquad\qquad\qquad\textbf{1}$$

$log\ GDP$ — $log\ of\ Gross\ Domestic\ Product$
$logppt$ — $log\ of\ petroleum\ profit\ tax$
$logintr$ — $log\ of\ interest\ rate$
$logmonspl$ — $log\ of\ money\ supply$

The basic VECM is

$$\Delta \mathbf{y}_t = \alpha\beta'\mathbf{y}_{t-1} + \sum_{t=1}^{p-1} \Gamma_i \Delta \mathbf{y}_{t-i} + \epsilon_t$$

$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\textbf{2}$

where y is a (K x 1) vector of I(1) variables, α and β are (Kx r) parameter matrices with rank r < K, $\Gamma_1,.,..,\Gamma_{p-1}$ are (K x K) matrices of parameters, and εt is a (K x1) vector of normally distributed errors that is serially uncorrelated but has contemporaneous covariance matrix.

PRESENTATION AND ANALYSIS OF DATA

This session was used in analyzing and presentation of data collected from a reliable source (CBN Statistics Bulletin 2013). This was done so as to determine the effect of petroleum profit tax (PPT) on economic growth in Nigeria from the period of 1978 to 2013.

Table 1- The effect of petroleum profit tax (PPT) on economic growth in Nigeria

Dependent Variable	Independent Variables	Coefficient.	Standard Error	T	P>|t	[95%Conf. interval]	
GDP	*ppt*	.1377812	.0805372	1.71	0.097	-.0266977	.3022601
	mons	.5674746	.1879081	3.02	0.005	.1837151	.9512341
	intr	.3706023	.4693555	0.79	0.436	-.5879494	1.329154
	infl	.025281	.1563065	0.16	0.873	-.2939394	.3445014
	constant	-3.721704	2.947974	-1.26	0.217	-9.742269	2.298862
R-squared = 0.9256	Adj R-squared = 0.9157	Root MSE = .62192	**Prob > F = 0.0000**	F(4, 30) = 93.35			

Source: **Authors' Computation (2014) through stata 11**

Table 1 above shows the effect of petroleum profit tax (PPT) on economic growth in Nigeria. 1% increase in economic growth (GDP). 1% increases petroleum profit tax (PPT) increases GDP by 1.3%. This suggests a positive relationship between the rate of PPT and the GDP in Nigeria. The result is also significant at 0.01 significant level. 1% increase in money supply (MONS) also increases GDP by 5.7 %.This means that the relationship between GDP and MONS is positive suggesting that if MONS increases GDP increases. The relationship between GDP and interest rate (INTR) is positive suggesting that if interest rate in Nigeria increases, GDP also increases that is 1% increases in INTR increases GDP by 3.9%. Also, 1% increase in inflation rate (INFL) also increases GDP by 0.2 %.This means that the relationship between GDP and INFL is positive suggesting that if INFL increases GDP increases.

Given the adjusted R^2 as 92%, it presages the independence variables incorporated into this model have been able to determine the effect of petroleum profit tax (PPT) on economic growth in Nigeria to 92%.The F and probability statistics also confirmed the significance of this model.

Table 2 – Unit Root Test

Variables	ADF stat	1% critical value	5% critical value	10% critical value	Order of integration	Remark
GDP	4.045***	-3.682	-2.972	-2.618	I(0)	Stationary
PPT	3.518	-3.689	-2.975	-2.619	I(1)	
MONS	3.288	-3.689	-2.975	-2.619	I(1)	Stationary
INTR	-1.392	-3.689	-2.975	-2.619	I(1)	Non Stationary
INFL	-1.392	-3.689	-2.975	-2.619	I(1)	Non Stationary

(*), (**) and (***) means stationary at 1%. 5% and 10% respectively.
Source: **Authors' Computation (2014) through stata 11**

The study applies ADF unit root test, at level and at the first difference of the time series with assumption of no drift and tend, to have the information about the order of a time series. ADF test results reported in the Table 2 are evident that we are unable to reject the null hypothesis for the presence of a unit root at level of each of the time series. All of the time series are stationary at their first difference. Since each of the time series is stationary at its first difference so the variables are cointegrated. There exists an equilibrium or long run relationship between the time series if all the variables are integrated of the same order, Engle & Granger (1987). The study applies Johansen cointegration technique. Johansen and Juselius (1991) introduced, in the multivariate cointegration test, the two likelihood ratio tests (Maximumeigen value and Trace tests) to find out the number of cointegrating vectors.

Table 3- Johansen tests for cointegration.

Rank	Parm	LL	Trace statistic	5% critical value	1% critical	Eigen Value
0	55	2072.43	186.2773	65.52	76.07	-
1	64	2013.4129	68.2432	47.21	54.46	0.97203
2	71	1994.7381	30.8935*1	29.68	35.65	0.67755
3	76	1980.196	1.8093 *5	15.41	20.04	0.58577
4	79	1979.2913	0.0000	3.76	6.65	0.05335
5	80	1979.2913				0.0000

Source: **Authors' Computation (2015) through STATA 11**

Table 3 produced information about the sample, the trend specification, and the number of lags included in the model. The main table contains a separate row for each possible value of r, the number of cointegrating equations. When r = 3, all three variables in this model are stationary. In this study, because the trace statistic at r = 0 of 186.2773 exceeds its critical value of 65.52, the null hypothesis of no cointegrating equations are rejected. Similarly, because the trace statistic at r = 1 of 68.2432 exceeds its critical value of 47.21, the null hypothesis that there is one or fewer cointegrating equation is also rejected. In the same vein, because the trace statistic at r = 2 of 30.8935 exceeds its critical value of 29.68, the null hypothesis that there is two or fewer cointegrating equation is also rejected but accepted at 0.01 critical value. In contrast, because the trace statistic at r = 3 of 1.8093 is less than its critical value of 15.41, the null hypothesis that there are three or fewer cointegrating equations cannot be rejected. Because Johansen's method for estimating r is to accept as $r^{\wedge}$ the first r for which the null hypothesis is not rejected, we accept r = 3 as our estimate of the number of cointegrating equations between these five variables. The "*" by the trace statistic at r = 3 indicates that this is the value of r selected by Johansen's multiple-trace test procedure. The eigenvalue shown in the last line of output computes the trace statistic in the preceding line.

Table 4 - Eigen Value

Rank	Parm	LL	Eigen Value	SBIC	HQIC	AIC
0	55	2072.43	-	131.4293	129.7744	128.9352
1	64	2013.4129	0.97203	128.8061	126.8804	125.9038
2	71	1994.7381	0.67755	128.416	126.2796	125.1962
3	76	1980.196	0.58577	128.0644*	125.7776*	124.6179
4	79	1979.2913	0.05335	128.3275	125.9503	124.7449
5	80	1979.2913	0.0000	128.4334	126.0262	124.8055

Source: **Authors' Computation (2014) through STATA 11**

Both the SBIC and the HQIC estimators suggest that there are three cointegrating equations in the balanced-growth data. Having determined that there is a cointegrating equation among the GDP, PPT, MONS, INTR and INFL series, the parameters of a

bivariate cointegrating VECM for these four series by using Vector error-correction model were estimated below.

Table 5: Vector Error-Correction Model

Equation	Parms	RMSE	R sq	chi2	P>chi2
D_gdp	7	386578	0.8905	219.6254	0.0000
D_ppt	7	1.7e+07	0.7192	69.16167	0.0000
D_mons	7	3.0e+10	0.9656	757.8477	0.0000
D_intr	7	3.18613	0.2892	10.89014	0.1435
D_infl	7	16.8438	0.1236	3.73126	0.8102
Det(Sigma_ml) = 9.84e+48	Log likelihood = -2159.004	AIC = 129.2943	HQIC = 129.8914	SBIC = 131.0452	Det(Sigma_ml) = 3.07e+36

Source: **Authors' Computation (2015) through STATA 11**

Table 6- Johansen normalization restriction imposed

Beta	Coefficient	Std Error	Z	P>|z|	[95% Conf. Interval]	
_ce1						
GDP	1	.	.	.	.	
PPT	.0125105	.0062181	2.01	0.044	.0003231 .0246978	
MONS	-9.70e-06	5.78e-07	-16.79	0.000	-.0000108 06	-8.56e-
INTR	-.0127172	12937.63	-0.00	1.000	-25357.31 25357.28	
INFL	-17860.19	4593.527	-3.89	0.000	-26863.34 8857.042	-
-CONS	524127.8					

Source: **Authors' Computation (2015) through STATA 11**

Table 5 contains information about the sample, the fit of each equation, and overall model fit statistics. The first estimation table contains the estimates of the short-run parameters, along with their standard errors, z statistics, and confidence intervals. The three coefficients on L. ce1 are the parameters in the adjustment matrix _ for this model. The second estimation table contains the estimated parameters of the cointegrating vector for this model, along with their standard errors, z statistics, and confidence intervals. According to Johansen normalization restriction imposed table, one percent increase in PPT, increases GDP by 0.1% in the long run, this shows that there is positive and significant effect of PPT on GDP. Also, one percent increase in MONS, reduces GDP by 9.7% in the long run, this shows that there is a negative significant effect of MONS on GDP in the long run. Coefficient is statistically significant confirmed by P>|z| which is 0.000. Overall, the output indicates that the model fits well. The coefficient on PPT in the cointegrating equation is statistically significant, as are the adjustment parameters

Table 7: Granger causality Wald tests

Equation	Excluded	chi2	Df	Prob> chi2	Decision
GDP	PPT	1.3722	1	0.241	PPT does not granger- cause GDP
GDP	MONS	22.001	1	0.000	Money supply granger - cause GDP
GDP	INTR	0.64661	1	0.167	Interest rate does not granger- cause GDP
GDP	INFL	0.28203	1	0.595	Inflation rate does not granger – cause GDP
GDP	ALL	33.684	4	0.000	ALL jointly granger – cause GDP
PPT	GDP	1.0644	1	0.302	GDP does not granger- cause PPT
PPT	MONS	11.268	1	0.001	Money supply granger – cause PPT
PPT	INTR	2.7976	1	0.094	Interest rate does not granger- cause PPT
PPT	INFL	0.51251	1	0.474	Inflation rate does not granger – cause PPT
PPT	ALL	77.205	4	0.000	ALL jointly granger cause PPT
MONS	GDP	9.7138	1	0.002	GDP granger- cause Money supply
MONS	PPT	0.36175	1	0.548	PPT does not granger - cause Money supply
MONS	INTR	6.1028	1	0.013	Interest rate granger - cause Money supply
MONS	INFL	5.9825	1	0.014	Inflation rate granger- cause Money supply
MONS	ALL	14.085	4	0.007	ALL jointly granger cause Money supply
INTR	GDP	0.1272	1	0.910	GDP does not granger- cause Interest rate
INTR	PPT	0.01412	1	0.905	PPT does not granger - cause interest rate
INTR	MONS	23.709	0	.	Money supply does not granger- cause Interest rate
INTR	INFL	0.26712	1	0.605	Inflation rate does not granger- cause Interest rate
INTR	ALL	.33692	3	0.953	ALL jointly does not granger cause Interest rate
INFL	GDP	0.01225	1	0.912	GDP does not granger- cause Inflation rate
INFL	PPT	0.53692	1	0.464	PPT does not granger – cause Inflation rate
INFL	MONS	.	0	.	Money supply does not granger-cause Inflation rate
INFL	INTR	2.8702	1	0.090	Interest rate does not granger- cause Inflation rate
INFL	ALL	3.0933	3	0.377	ALL jointly does not granger cause Inflation rate

Source: **Authors' Computation (2015) through STATA 11**

To test for the granger causality, the first is a Wald test that the coefficients on the two lags of PPT that appear in the equation for GDP are jointly zero. The null hypothesis that PPT does not Granger-cause GDP cannot be rejected because Prob> chi2 is 0.241 which is greater than 0.1 level of significance; therefore PPT does not granger-cause GDP. Contrarily, the null hypothesis that the coefficients on the two lags of MONS in the equation for GDP are jointly zero cannot be accepted because Prob> chi2 is 0.000 which is less than 0.1 level of significant. So the hypothesis that MONS does not Granger cause GDP cannot be accepted, therefore MONS Granger cause GDP. Also, the null hypothesis that INTR does not Granger-cause GDP cannot be rejected because Prob> chi2 is 0.167 which

is greater than 0.1 level of significance; therefore INTR does not granger-cause GDP. The null hypothesis that INFL does not Granger-cause GDP cannot be rejected because Prob> chi2 is 0.595 which is greater than 0.1 level of significance; therefore INFL does not granger-cause GDP. The last test is with respect to the null hypothesis that the coefficients on the two lags of all the other endogenous variables are jointly zero cannot be accepted in the sense that Prob> chi2 is 0.000 is less than 0.1 level significant level, therefore, PPT, MONS, INTR, and INFL jointly granger-cause GDP.

SUMMARY AND CONCLUSIONS

This study examined the co-integration analysis of effect of petroleum profit tax on economic growth in Nigeria. It also looked at the direction of causality among, petroleum profit tax, money supply, interest rate, inflation rate and economic growth employing the method of Johansen co-integration and the Granger causality tests using data spanning the period 1978-2013. Results also showed that PPT has positive significant impact on GDP both in the short run and in the long run. PPT does not granger cause GDP. The study also reviewed that Money supply impacted GDP positively in the short run but impacted negatively in the long run. Money supply granger - cause GDP. Inflation rate and interest rate have positive effect on economic growth in the short run but there relationships are not significant.

It is now concluded that that petroleum profit tax has positive significant impact on economic growth but in the short run and in the long run in Nigeria. The countries that performed PAT have a more per capita GDP level and are less dependent on the international trade. The huge revenue earned by the government through the oil revenue helps government to fund public expenditure that stimulates the national economy and improve economic growth.

POLICY RECOMMENDATIONS

Based on the findings made in the course of this study, once petroleum profit tax has positive significant impact on economic growth but in the short run and in the long run in Nigeria, government should block all the leakages in petroleum sector so that the tax realized from the crude oil in Nigeria will boost and enhance the economic development in Nigeria. Government should also minimize or find ways of eliminating totally the widespread corruption in the petroleum profit tax administration

REFERENCES

Adekanola, O. (2007) "Taxation as a Means of Economic Revitalization: Limitations and Prospects in a Developing Economy", Lagos, The Nigerian Institute of Chartered Accountants of Nigeria- The Nigerian Accountant, Volume 40.N0. 4

Anyanwu, J.C. (1993). Monetary Economics: Theory, Policy and Institutions, Onitsha: Hybrid Publishers.

Appah E and Ebiringa, O.T (2012). Petroleum Profit Tax and Economic Growth in Nigeria.International Journal of Management Sciences and Business Research Volume 1, Issue 9 2012 pp 12- 22.

Attama .N. (2004), Taxation and Fiscal Policy, Enugu, Nigmos Publishers

Azaiki, S. and Shagari, S. (2007). Oil, Gas and Life in Nigeria, Ibadan: Y-Books, a division of Associated Books Makers of Nigeria.

Bawa, S. and J.A. Mohammed, 2007. Natural Resources Abundance and Economic Growth in Nigeria. Cent. Bank Niger. Econ. Rev., 45(3).

Gallun, A.R. and J.W. Stevenson, 1986. Fundamentals of Oil and Gas Accounting. 2nd Edn., Penn Well Publishing Company, Tulsa.

Kjell L and Petter O (2011) Petroleum taxation: Experience and issues

Nafziger, E.W. and J. Auvinen, 2003. Economic Development, Inequality and War: Humanitarian Emergencies in Developing Countries. Palgrave Macmillan, Hound Mills.

Nwadighoha, C.E. (2007). Oil and Gas Accounting, Enugu: Ephraimites Printing and Publishing (Nig) Ltd.

Nwete,B,O.(2004) ,"How can Tax Allowances Promote Investment in Nigerian Petroleum Industry"bonlaw@yahoo.co.uk

Nwezeaku, N.C. (2005). Taxation in Nigeria: Principles and Practice, Owerri: Springfield Publishers Limited.

Nwezeaku, N.C., 2010. The impact of public sector financial management on the economies of sub-Saharan Africa. Int. J. Finance Econ., 40: 87-99.

Odularu, G.O., 2008. Crude Oil and Nigeria Economy. Retrieved from: http://www.ogbus.ru/eng.

Odusola, A. (2006). "Tax policy reforms in Nigeria", World Institute for Development Economics and Research, Research Paper No. 2006/03. http://www.wider,unu.edu

Ofe I.I., Onyemachi J.O. and Caroline A.A.(2008), Taxation 1 Course Development.

Ogbonna, G. N. (2009) "Burning Issues and Challenges of the Nigerian Tax Systems with Analytical Emphasis on Petroleum Profits Tax". International Journal of Accounting, Finance, & Economics Perspectives, 1(1) FALL,2009.

Ogbonna, G.O. (2011). "Petroleum revenue and the economy of Nigeria", Ph.D. Dissertation, Department of Accounting, University of Port Harcourt, Nigeria.

Ogbonna G.N,and 2Appah E (2012), Impact of Petroleum Revenue and the Economy of Nigeria. Current Research Journal of Economic Theory 4(2): 11-17, 2012

Onyemaechi J. O.(2012). Economic Implications of Petroleum Policies in Nigeria: An Overview.

Oremade, T. (2006). Petroleum Profit Tax in Nigeria, Ibadan: Evans Brothers Nigeria Publishers.

Success M. J. Success E. B. and   M.S.K Ifurueze (2012). Impact of Petroleum Profit Tax on Economic Development of Nigeria.