The Nexus between Oil and Non-Oil Revenue on Economic Development in Nigeria

iD **Ogunbiyi, Sunday Samuel**[1]
iD **Abina, Praise Adedigba**[2]

[1,2]*Finance & Banking Department University of Port Harcourt, Port Harcourt, Nigeria.*
[1]*Email:* enokelaogunbiyi@gmail.com *Tel: +2348037113809*
[2]*Email:* praise2009@yahoo.com *Tel: +2348032227386*

(Corresponding Author)

ABSTRACT

Revenue generated from oil and non-oil product serves as the main channel trough which the government generate income to service its public goods. The objective of this study is to investigate the role oil and non-oil revenue play in development process in Nigeria. in the stusy economic development was proxied as human development index which served as the dependent variable while oil and non-oil revenue was used as independent variable. The data for the study was gotten from central bank of Nigeria bulletin and index mudi for the period 1981 to 2018. The study made use of Descriptive Statistics, Augmented Dickey-Fuller Unit Root test, Johansen Cointegration and Error Correction Estimates. The error correction estimates result showed that oil revenue has a negative but significant relationship with human development index, the negative contribution arose as a result of the resource curse ideology while non-oil revenue has a positive but insignificant relationship with human development index. Thus, diversification of exportable product is required. There is need to boost security surveillance on the high sea so as to reduce smuggling which will reduce illegal export of crude oil.

Highlights of this paper

- The objective of this study is to investigate the Nexus between Oil and Non-Oil Revenue on Economic Development in Nigeria.
- The study employed Error Correction Model and time series data from 1981-2018 for the analysis.
- The study concludes that non-oil revenue need to be properly channeled for it to continue to contribte to economic development.

1. INTRODUCTION

1.1. Background to the Study

Before Nigeria became independent the primary source of revenue was agriculture. Massive revenue was generated from exporting non-oil goods such as cotton, groundnut, palm kernel, etc. The exportation of this product contributes to reduction in unemployment rate which also added not less than 80% to gross domestic product. A decline was identified in this sector as a result of the discovery of oil in the mid-1970s as oil sector gradually started to take over the non-oil sector in the country. Since then, oil served as the major source of generating energy in the country and began to play a crucial role in the political and economic environment of Nigeria. Odularu (2008) discovered that the prominent role played by the oil industry took effect shortly after the Nigeria civil war ended. The political, social and physical economy is developed by the profit generated from oil revenue. Edame and Efefiom (2013) opined that oil revenue not only increases various capital project that is to be embarked upon by the federal government but also increases capital budget expenditure. The Nigerian economy depends on revenue gotten from hydrocarbon for infrastructural development and other administration expenditure. According to Nwoba and Abah (2017) the oil industry contributes the lion share to foreign exchange earnings, federal government revenue and gross domestic product. The fact still remains that Nigeria is seen as a mono-economy that depends on both revenue from oil and non-oil source since she exports crude oil and also imports petroleum product that is refined regardless of the fact that she is the 6th largest oil producer in Africa. The oil price volatility led to various economic shocks globally which resulted to an increase in cost of production as its supply is necessary for the real economy to thrive.

The precarious fluctuation in the price of oil in the global market is a major concern to countries that produce oil. The immense supply of oil in the global market lead to shock in the global oil market in the year 2014 i.e. price of oil was $112 per barrel which later dropped to as low as $38 per barrel in 2015. The volatility experienced has both negative and positive impact on the economy. Oil revenue was seen as a blessing to Nigeria economy because it contributed massively to income generated in the country, but then it was also seen as a curse as it gave rise to the neglect of the other sectors (Agbaeze and Ukoha, 2018). Meanwhile, the work of Nwosa and Ogunlowore (2013) attested that Nigeria ought to experience an increase in revenue and tax incentives as a result of enormous oil wealth located in the country which is essential in spurring up development in the country but the contrary is the case as the fall in price of global international oil market have led to the decrease in oil revenue in the country. The problem ravaging Nigeria economy is traceable to overdependence on oil product, moreover, the development phase in the country is gradually declining as a result of resource curse doctrine, and overdependence on oil as a major source of energy and revenue. This has impacted negatively on the performance of the macroeconomic variables in the country. Against this background, this paper therefore investigates the nexus between oil and non-oil revenue on economic development in Nigeria.

2. THEORETICAL REVIEW

2.1. The Resource Curse Theory

The resource curse theory was first used in the year 1998 by Auty, who tried to illustrate how rich countries blessed by natural endowment are unable to improve their economy even as this economy witnesses low pace of development compared to countries that are not blessed with natural resources. The resource curse theory also postulates that countries blessed with rich natural resource fail to develop the infrastructural projects and other sectors in their economy which eventually leads to financial problem. Little or no investment is redeployed back to the resource endowed country. Auty (1993) opined that countries with abundant natural resource are outrightly forced to depend on other nations for goods and services which they might eventually end up losing. The basic reason why countries that export their natural resource to foreign country lose is because revenue that is generated from exported product to other countries will eventually be used to purchase finished product at a high cost. According to Hardin (1968) he discovered that over exploitation of natural resource arises as a result of free access to natural resource thus, creating an avenue for socio-political crises and interstate crises which on the long run limits government from actively involving themselves in providing basic amenity.

2.2. Negative Externalities Theory

This theory was introduced by Marshall (1842) and put forward by Pigou (1920) who submitted that negative externalities are contained not just for the benefit but for cost as well. The basic matter that Pigou (1920) pointed out were issues that emanates from smoke emission, and discharge of toxic substance from factories to nearby environment. The externalities theory which explains environmental economics states that pollution is harmful to the environment and people as unhealthy discharge of effluents by factory/firms leads to unintended outcome borne by people who leave around the area where this waste is being discharged. These led to environmental problems most especially those waste discharged into the near-by river. Pigou (1920) suggested that this negative externality (*untreated effluents discharged*) can be corrected by imposing tax on companies that generate the negative externalities, and control mechanisms need to be put in place in order to mitigate the negative consequences that might arise. The tax imposed on the factory generating the negative externality should be per unit tax which is the difference between private marginal cost (PMC) and social marginal cost (SMC) equivalent to the social optimal output (SOO). The tax imposed has a consequential effect on producers and consumers as well as on the prices of goods and services. It also has affected demand and supply of the goods and services ─ a unit increase in tax will result to the proportional increase in the price of purchasing the finished product. Whenever a party is uncompensated as a result of the adverse effect of one party then it results to negative externality.

2.3. Keynesian Theory of Investment

Keynes (1936) propounded the investment theory. This is based on some key assumptions, one of which is on savings and investment, Keynes clearly pointed out that even if savings and investment is equal on the long run this does not necessitate that ex-ante and ex-post will as well be equal. This assumption was also based on the decision to save and the decision to invest. It can be taken by two different persons. This theory brought about accelerator theory of investment (ATI) which sees investment as a linear proportion of change in output, on the assumption that whenever output growth rate is slow then investment will fall alongside and vice versa. This theory disregards the role of cost of capital and profitability. It ignores the factor cost while laying emphasis on marginal efficiency of capital (MEC) or return on interest rate (r). When MEC (*represents project breakeven rate*) is greater than > r then

357

investment in equipment and plant will take place. On the assumption that projects are arranged in a descending manner then the project whose MEC is lower will be rejected while the one with high MEC will be accepted.

2.4. Conceptual Review

2.4.1. The Concept of Dutch Disease

The boom in the oil and gas sector led to the appreciation of Dutch currency. The boom resulted to the massive revenue generated as at late 1950s, which lead to currency appreciation. According to Ross (2002) the boom identified made other sectors to be neglected, this led to a precarious decline in the other sectors' contribution to gross domestic product in the country. Thus, the Dutch economy witnessed economic crises which arose as a result of gas price fluctuation, making the economy fall back to the sectors which were initially neglected but however, the neglected sectors could not sustain the economy as at that period. A country with abundant capital makes it possible for different sectors to thrive and become more lucrative to foreign investors, thereby, making the reward for labour in terms of wages and salary more rewarding and instigating an upsurge in the demand of labour. Competitive edge of sectors declined because of scuffle for available resources and cost incurred in securing production factors which trigger resource movement to more lucrative sector from less lucrative sector. According to Brahmbhatt *et al.* (2010) changes in the structure of production arises as a result of an upsurge in the price of goods and services exported. More so, the change in the structure could also arise when there is a new discovery in product line of natural resources which adversely affects output of the manufacturing sector in the country. Ismail (2010) tested Dutch disease on oil manufacturing exporting countries, the data covered the period 1997-2004 and the result of the study showed a negative relationship between oil price and manufacturing sector output. Secondly, countries that are open to foreign capital are prone to windfall shocks resulting to an increase in the above-mentioned sector output, it was also discovered that as windfall increases manufacturing sectors capital intensity increases alongside.

2.4.2. Non-Oil Sector Reforms in Nigeria

Several programmes were initiated to revitalize the agricultural sector by the government, a few of which includes the Structural Adjustment Programme (SAP) which led to the suspension of National Development Plan framework in 1986, later introduced as National Rolling Plan in the year 1990, Vision 2020 National Economic Empowerment and Development Strategy (NEEDS). This programme was initiated in order to resuscitate the agricultural sector and boost revenue generated in the country. Another advantage the programme brought to Nigeria is making the agricultural product increase with the aim of stabilizing the prices of goods and services in the country. The spur in the volume of commodities exported made it possible for Nigeria to improve in international credit worthiness, making it possible for foreign investors to have confidence and invest in the country. The national rolling plan collaborated with SAP in the year 1990 tackled the fundamental problems that arose from the economy, which includes provision of basic infrastructure/ social amenity and improving the growth of small and medium scale enterprises, with respect to the introduction of National Rolling Plan. It was discovered that the SAP was introduced to rehabilitate/resuscitate the heaps of project that was not yet completed (Yesufu, 1996).

The National Economic Empowerment Development Strategy (NEEDS) took over the rolling plans and that of SAP. It's a five-year medium-term plan which was implemented in the year 2003. This program became pronounced in 2004 with the sole aim of providing technical and structural advice as to how various sectors in the economy can be developed, and prescribing strategies at the state and local government level. At the state level

under the progrmme, titled State Economic Empowerment and Development Strategy (SEEDS) while at the local level under the programme titled Local Economic Empowerment and Development Strategy (LEEDS). All these policies were to provide structural developmental advice to the government at different levels. The medium-term expenditure framework (MTEF) and medium-term fiscal framework (MTFF) were sub programmes under the Structural Adjustment Programme (SAP) while vision 2020 was initiated in year 2010 with the intention of propelling development in Nigeria; the medium-term plan is aimed at making the resource endowment available in the country to be judiciously utilized.

2.5. Empirical Review

Salami *et al.* (2018) evaluated how non-oil revenue affects growth in Nigeria. The study made use of two different models, the first proxied gross domestic product as the endogenous variable while the second proxied real gross domestic product as the endogenous variable while the exogenous variable in the study is non-oil revenue. The study made use of simple regression analysis. In the both model it was discovered that significant relationship is identified between the endogenous variable and the exogenous variable at one percent level of significance. The price of oil and how it affects economic growth was investigated by Gummi *et al.* (2017). The study made use of data gotten from World Bank, OPEC and Central Bank of Nigeria bulletin (CBN). The direction of causality and the stationarity level was ascertained between the data and it was discovered that one-way direction is identified and it flowed from oil price to economic growth, meaning past values of oil price can help to forecast the direction of changes in economic growth. The same direction of causality was identified between human capital and economic growth in Nigeria. Finally, past values of oil price can predict total export but total export cannot be used to predict oil price in Nigeria. The study suggested that the human capital need to be developed and this can be done by increasing budgetary allocation in the educational sector, in order for the proceeds gotten from oil export to be substantial, there is need for policies on how international oil price will become stable this will increase the value of revenue gotten from total export. Time series data on oil proceed from year 1960-2010 was used by Nwoba and Abah (2017) to examine the influence of crude oil proceeds in Nigeria economy, regression analysis was employed as the statistical technique in the study and it was discovered that a positive long run relationship was identified between proceeds from oil and gross domestic product in Nigeria. Likita *et al.* (2018) evaluated the relationship between non-oil revenue and economic growth between the period 1981-2016. The study made use of regression analysis and error correction model. The research therefore recommends economic policies on how the non-oil sector can be explored and diversified in the country. Olayungbo and Olayemi (2018) investigates the long run nexus between government spending, non-oil revenue and economic growth in Nigeria between 1981-2015. It was discovered from the long run analysis that substantial relationship was identified between non-oil revenue and economic growth meanwhile a contrary relationship was identified between fiscal spending and economic growth, the causal test showed that fiscal spending causes a change in economic growth and non-oil revenue, the finding supports the Keynesian hypothesis, the investigation further recommended that diversification is needed into other sectors instead of depending solely on oil revenue.

3. RESEARCH METHODOLOGY

This study made use of time series data gotten from CBN (2019) the sample period for the study is between 1985 to 2018. The endogenous variable is proxied by human development index (HDI) while the exogenous variable is proxied by non-oil revenue (NOR) and oil revenue (OIR). The oil revenue (OIL) includes income gotten

from exporting oil product while the non-oil revenue includes all profit gotten from customs and excise duties, value added tax and company income tax while oil revenue is the total summation of all oil product.

3.1. Method of Data Analysis

The data used for this for the study was sourced from statistical bulletin of Central Bank of Nigeria and index mudi. The unit root test will be used to establish the level of stationarity between the variables under investigation; meanwhile descriptive statistics will also be employed to describe the nature of the data set. After ascertaining if co-integration exists between the variable then error correction (ECM) will be applied.

3.2. Model Specification

To examine the impact of oil revenue and non-oil export, this study adopts a simple modified model developed by Anthony and Mustafa (2011). This model is specified as:

Functional Model

$$HDI = F(OIR, NOIR) \qquad (1)$$

For the purpose of estimation Equation 1 will be re-written as:

Econometric Model

$$HDI_t = \alpha_0 + \alpha_1 OIR_t + \alpha_2 NOIR_t + \varepsilon_t \qquad (2)$$

The Equation 2 above shows the econometric form of equation one (1) by adding constrant, variablre parameter and error-term.

3.2.1. Apriori Expectation

$\alpha 1 > 0$, $\alpha 2 > 0$

Where,

HDI = Human Development Index.

OIR = Oil Revenue.

NOIR = Non-Oil Revenue.

α_0 = constant or intercept.

ε_t = error term.

$\alpha_1, > \alpha_6$ = estimation of parameters for the respective independent variables.

3.2.2. Apriori Expectation

Theoretically, it is expected that non-oil revenue would have a positive effect on human development index (HDI). This is because an increase in revenue from this source is expected to enhance investment in the economy while increase in oil revenue is also expected to boost the investment capability of the government in providing investment-enhancing facilities necessary for development to take place.

4. DATA ANALYSIS AND INTERPRETATION OF RESULT

4.1. Descriptive Statistics

The descriptive statistics of the variables in Equation 1 is presented in Table 1. The standard deviation shows that oil revenue (OIR) is the most volatile variable while non-oil revenue (NOIR) is the least volatile among the variables in the study. The skewness statistic shows that all the variables are positively skewed. The kurtosis statistics reveals that all the variables are platykurtic, suggesting that the distributions are flat relative to normal

distribution. While that of human development index (HDI) is leptokurtic in nature. Lastly, the Jarque-Bera statistic rejects the null hypothesis of normal distribution for non-oil revenue at (5%) five per cent critical value while the null hypothesis of normal distribution for the others variables are accepted at the same critical value.

Table-1. Descriptive statistics.

	HDI	OIR	NOIR
Mean	0.520132	2348.600	932.0092
Median	0.520000	977.6350	269.6250
Maximum	0.670000	8878.970	3664.030
Minimum	0.420000	7.250000	2.980000
Std. Dev.	0.055760	2711.052	1198.764
Skewness	0.382642	0.858722	1.060950
Kurtosis	3.335388	2.438062	2.592484
Jarque-Bera	1.105395	5.170192	7.391842
Probability	0.575396	0.075389	0.024825
Sum	19.76500	89246.81	35416.35
Sum Sq. Dev.	0.115040	2.72E+08	53170292
Observations	38	38	38

Source: Extraction from E-view 10 Output.

4.2. Unit Root

Table-2. Augmented dickey-fuller unit root.

Variable	Test critical values	T-Statistic	Prob.	Stationary
D(OIR)	1% level= -3.626784	-6.17453	0.0000	1(1)
	5% level= -2.945842			
	10% level= -2.611531			
D(NOIR)	1% level= -3.626784	-5.41792	0.0001	1(1)
	5% level= -2.945842			
	10% level= -2.611531			
D(HDI)	1% level= -3.626784	-7.50126	0.0000	1(1)
	5% level= -2.945842			
	10% level= -2.611531			

From the aforementioned Table 2 above, the entire series of the variables were considered to attain stationarity at level I (1). Since OIR has a t-statistics value of -6.17453 while the critical values of -3.626784 and -2.945842 at 1% and 5% were found to be below the critical value this led us to establish if a common trend and long run relationship exist between the variable under investigation.

4.3. Cointegration Test

The co-integration test is carried out using the Johansen co-integration test, this test seeks to empirically define the stochastic drift amongst variables, it is also use to determine the long-run association among a given set of variables. From the result above in Table 3 the trace statistic above showed that there is one (1) co-integrating equations at the 5% percent level of significance since the trace statistics of 47.64647 is greater than 42.91525. The maximum eigenvalue also indicate that equation one-integration equations was attained at five percent (5%) level of significance (Gujarati, 2003).

Table-3. Johansen cointegration test.

361

Date: 08/26/19   Time: 11:25
Sample (adjusted): 1983 2018
Included observations: 36 after adjustments
Trend assumption: Linear deterministic trend (restricted)
Series: HDI OIR NOIR
Lags interval (in first differences): 1 to 1
Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical value	Prob.**
None *	0.541397	47.64647	42.91525	0.0157
At most 1	0.334216	19.58192	25.87211	0.2478
At most 2	0.128163	4.937499	12.51798	0.6054

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon *et al.* (1999) p-values.
Source: Extraction from E-view 10 Output.

4.4. Error Correction Model Estimates

Table-4. Error correction model estimates (ECM).

Dependent Variable: HDI
Method: Least Squares
Date: 08/26/19   Time: 11:26
Sample (adjusted): 1982 2018
Included observations: 37 after adjustments

Variable	Coefficient	Std. error	t-statistic	Prob.
OIR	-1.751405	3.964106	4.409977	0.0001
NOIR	1.621205	8.941206	1.812702	0.0790
ECM(-1)	-0.531294	0.143400	-3.704984	0.0008
C	0.547774	0.008598	63.70818	0.0000
R-squared	0.567416	Mean dependent var		0.520946
Adjusted R-squared	0.528090	S.D. dependent var		0.056300
S.E. of regression	0.038676	Akaike info criterion		-3.565414
Sum squared resid	0.049361	Schwarz criterion		-3.391261
Log likelihood	69.96016	Hannan-Quinn criter.		-3.504017
F-statistic	14.42858	Durbin-Watson stat		2.217507
Prob(F-statistic)	0.000004			

Source: Extraction from E-view 10 Output.

The R-squared of 0.567416 indicates that 57 percent of the total variations in human development index are explained by oil and non-oil revenue while the remaining 43 percent is explained by variables not captured in the model. The F statistic (F = 14.42858, p = 0.000004) shows that the model is statistically significant at 1% and 5% level of significance and shows a goodness of fit.

4.5. Test of Hypotheses

It can be seen from Table 4 above that there is a negative (co-efficient of -1.751405) and significant relationship (p-value of 0.0001) exist between oil revenue and human development index, this finding did not agree with our apriori expectation, for every one percent increase in oil revenue there is a reduction of about -1.751405% in human development index. The result above accept that of Okezie and Azubike (2016) who discovered that corruption, financial indiscipline and improper accountability of oil revenue, led to the negative co-efficient discovered. Nigeria is increasingly degenerating to a state of chaos as petroleum income is brazenly mismanaged which is affecting the basic national institutions such as electricity, energy, road, transportation, the political and financial systems in the country. All this contribute to the decrease identified in the business environment. Secondly, a positive (1.621205) but insignificant relationship (P-value 0.0790) was identified

between non-oil revenue and human development index at 5 percent level of significance. This implies that non-oil revenue has an insignificant influence on human development index. From the interpretation above, the null hypothesis 2 is therefore accepted and the alternative hypothesis is rejected, which mean that there is a significant impact on non-oil revenue and human development index. The empirical result also confirms with the positive apriori expectation earlier stated above, and agrees with the finding of Likita *et al.* (2018).

4.6. Pairwise Granger Causality Tests

Table-5. Causality tests result.

Pairwise Granger Causality Tests Date: 08/26/19 Time: 12:13 Sample: 1981 2018 Lags: 2			
Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
OIR does not Granger Cause HDI	36	2.27481	0.1197
HDI does not Granger Cause OIR		0.02881	0.9716
NOIR does not Granger Cause HDI	36	0.34133	0.7135
HDI does not Granger Cause NOIR		1.15942	0.3269
NOIR does not Granger Cause OIR	36	1.07679	0.3531
OIR does not Granger Cause NOIR		4.89512	0.0142

Source: Extraction from E-view 10 Output.

From the result above in Table 5 it can be seen that OIR does not granger cause HDI, as such HDI does not cause a change in OIR, this means past value of OIR does not cause a change in HDI. Historically Nigeria solely depend on oil as a major source of revenue, from the causality result it was discovered that oil revenue does not cause a change in HDI, this calls for economic diversification, moreover there is need to continuously explore other untapped non-oil sector (manufacturing, telecommunication and agricultural sector) that have the potential to stimulate development, this connote that there is neither uni-nor bi-directional causality between NOIR and HDI neither does HDI cause a change in NOIR. A uni-directional causality is identified between OIR and NOIR, this means past values of OIR cause a change/ can predict that of NOIR.

5. CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The Johansen co-integration test show the existence of long-run relationship among the variables used in this study. Consequently, the granger causality test was applied to test for the causal relationship among the variables, it was discovered that one-way causality runs from oil to non-oil revenue but in other scenarios there is neither uni-nor bi-directional causality identified in the model. The result of the ECM analysis in Table 4 above showed a negative and significant relationship between oil revenue and human development index, the negative contribution underscores the potential of the oil sector from being a strong catalyst to drive development, and this negative contribution identified arises as a result of profound fluctuation in oil prices in the international market. Nigeria covers a vast area with massive space for agricultural activity to take place, this makes it possible for more product to be made available for export purpose rather than import, the enormous space also made Nigeria economy to be import intensive on the long run, the economy is tailing towards the negative externality theory discussed above. In spite of the various effort by the government to revitalize the non-oil sector several factors such as inadequate incentives to farmers, herdsmen hazardous activities, outdated technology, kidnapping, terrorism, evasion of taxes

363

and poor infrastructure all this factor lead to the decline identified which arose because of the resource curse concept discussed above.

5.2. Recommendation

The study recommends thus; downstream oil activities needs to be explored and diversified by the Nigerian National Petroleum Corporation (NNPC), for this to be effectively done there is need to boost security on the high way this will reduce smuggling incidence by doing this the crude oil illegally exported will be reduced to a great extent. There is need for stability in both the internal and the external environment this will give access to the untapped non-oil resources in the country which will eventually increase developmental activity. The study also recommends that there need to explore other avenue to secure revenue since the price of oil revenue is fluctuating, the decline in oil revenue sends a signal that proceeds from oil can no longer be used to sustain the economy but other avenue such as manufacturing, agriculture and mining activity should be accessed. The non-oil sector of the economy can be sustained if the facilities provided to the farmers adequately get to them with little or no bottleneck in securing those facility, on the other hand if power (electricity supply) is provided in the country for manufacturers.

REFERENCES

Agbaeze, E. and K. Ukoha, 2018. Oil a blessing or a curse: The Nigerian experience. European Journal of Social Sciences, 56(3): 262-270.

Anthony, E. and I. Mustafa, 2011. The impact of financial sector reforms on non-oil export in Nigeria. Journal of Economics, 2(2): 115-120.Available at: https://doi.org/10.1080/09765239.2011.11884943.

Auty, R.M., 1993. Sustaining development in mineral economies: The resource curse thesis, London: Routledge. Resource Policy, 20(1): 77-78.

Brahmbhatt, M., O. Canuto and E. Vostroknutova, 2010. Poverty reduction and economic management dealing with dutch disease. Economic Premise, The World Bank Working Paper Series, 16: 1–7. Available from http://documents.worldbank.org/curated/en/794871468161957086/Dealing-with-Dutch-disease.

CBN, 2019. Central Bank of Nigeria Statistical Bulletin.

Edame, G.E. and C. Efefiom, 2013. The trend analysis of oil revenue and oil export in Nigeria. IOSR Journal of Business and Management, 10(3): 01-08.Available at: https://doi.org/10.9790/487x-1030108.

Gujarati, D.N., 2003. Basic econometrics. 3rd Edn., New York: Mcgraw-Hill International Editions.

Gummi, M.U., A.I. Buhari and A. Muhammad, 2017. Oil-Price fluctuations and economic growth in Nigeria. (Evidence from Granger Causality Test). Australasian Journal of Social Science, 3(1): 1-16.

Hardin, G., 1968. The tragedy of the commons. Science, 162(3859): 1243-1248.

Ismail, K., 2010. The structural manifestation of the Dutch disease: The case of oil exporting countries. International Monetary Fund, Strategy, Policy, and Review Department. WP/10/103, 1-37. Available from: https://www.imf.org/en/Publications/WP/Issues/2016/12/31/The-Structural-Manifestation-of-the-Dutch-Disease-The-Case-of-Oil-Exporting-Countries-23801.

Keynes, J.M., 1936. The general theory of interest, employment and money. London: Macmillan.

Likita, J., P. Idisi and B. Mavenke, 2018. The impact of non-oil revenue on economic growth in Nigeria. International Journal of Advanced Research in Accounting, Economics and Business Perspectives, 2(1): 1-14.

MacKinnon, J.G., A.A. Haug and L. Michelis, 1999. Numerical distribution functions of likelihood ratio tests for cointegration. Journal of Applied Econometrics, 14(5): 563-577.Available at: https://doi.org/10.1002/(sici)1099-1255(199909/10)14:5<563::aid-jae530>3.3.co;2-i.

Marshall, A., 1842. The pure theory of foreign trade: The pure theory of domestic values (Privately printed, 1879; reprinted, London: London School of Economics, 1930). An amplified version is reproduced in J. K. Whitaker (ed.), The Early Economic Writings of Alfred Marshall, 1867–1890 (London: Macmillan, 1975).

Nwoba, M.O.E. and E.O. Abah, 2017. Impact of crude oil revenue (COR) on economic growth in Nigeria (1960-2010). Journal of Humanities and Social Science, 7(22): 85-99.

Nwosa, P.I. and A.J. Ogunlowore, 2013. Has oil revenue enhanced non-oil export in Nigeria? A Co-Integration approach. Journal of Economics and Development Studies, 1(3): 41-46.

Odularu, G.O., 2008. Crude oil and the Nigerian economic performance. Oil and Gas Business. World Trade Organization Centre. Willian Rappard, Rue De Lausanne, 3(4): 12-24.

Okezie, S.O. and J.U. Azubike, 2016. Evaluation of the contribution of non-oil revenue to government revenue and economic growth: Evidence from Nigeria. Journal of Accounting and Financial Management, 6(6): 263-276.

Olayungbo, D. and O. Olayemi, 2018. Dynamic relationships among non-oil revenue, government spending and economic growth in an oil producing country: Evidence from Nigeria. Future Business Journal, 4(2): 246-260.Available at: https://doi.org/10.1016/j.fbj.2018.07.002.

Pigou, A.C., 1920. Co-operative societies and income tax. The Economic Journal, 30(118): 156-162.Available at: https://doi.org/10.2307/2223009.

Ross, M.L., 2002. Booty futures: Africa's civil wars and the futures market for natural resources. Paper Presented at the Annual Meeting of the American Political Science Association, Boston Marriott Copley Place, Sheraton Boston & Hynes Convention Center, Boston, Massachusetts.

Salami, G.O., B.O. Amusa and O.F. Ojoye, 2018. Empirical analysis of the impact of non-oil revenue on economic growth: Nigerian experience. International Journal of Economics, Commerce and Management, 4(6): 263-275.

Yesufu, T.M., 1996. The Nigeria economy: Growth without development Benin City, Nigeria: University of Benin.