



EFFECT OF OIL REVENUE DEPENDENCE ON SUSTAINABILITY OF NIGERIA'S ECONOMY

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Abstract

Continuous sustainable economy for growth and development which remains the true essence of governance is threatened in Nigeria due to insufficient fund caused by dwindling oil revenue upon which the country relies for sustainability. This reliance had resulted into lack of sufficient funds for some states government and parastatals to cater for their expenditure needs. This work studied the effect of oil revenue dependence on Nigeria's economy growth with a view to determine the extent to which the country can sustain its economy (meet its recurrent (Rec_Exp_t), capital expenditures (Cap_Exp_t) and external debt servicing (Ext_Deb_t)) from its reliance on oil revenue. Modeling sustainability as the dependent variable, oil revenue (Oil_Rev_t) was the independent variable while non-oil revenue (Non_OilRev_t) and (Ext_Deb_t) served as control variables. Fully Modified Least Square (FMOLS) Regression Technique was used to estimate the model over a 45 years' period (1970-2014) while Augmented Dickey Fuller Unit Root Test and Single Equation Co-Integration Test were carried out. The study reveals that all the variables at 5% are stationery at I(1) with a long run relationships while oil revenue oscillates and dwindles during the period. It was also found that Oil_Rev_t is statistically significant (88% and 80%) respectively in sustaining Nigeria's economy (financing the country's Cap_Exp_t and Rec_Exp_t) while Debt servicing was found to be irregular. Non_OilRev_t could only finance Rec_Exp_t by 20%, Cap_Exp_t by 12% but is negatively related to Ext_Deb_t. Since (Non_OilRev_t) cannot sustain the economy, the downward trend in oil revenue spells doom for the country and as such swift diversification of the economy from oil revenue dependence to a country with multiple revenue sources is recommended alongside implementing strategies for blocking revenue leakage for Nigeria to become a truly independent nation with independence.

Keywords: Oil Revenue, Non-oil revenue, recurrent expenditure, Capital expenditure and Sustainability

Introduction

Nigeria's economy, prior to the discovery of oil in 1956, depended mainly on agriculture. This was in addition to its abundance of other natural resources such as coal, limestone, gold, iron-ore and tine. This agrarian-based economy according to Ogundipe *et al.*, (2014) grew steadily such that by the 1960s, agriculture contributed significantly to the country's GDP and

foreign exchange earnings. However, this trend was reversed in the mid-1970s when oil replaced agriculture as the nation's major source of revenue which was financing areas such as defence, education and health.

The discovery of crude oil in economic quantity gave Nigeria admittance into the prestigious Organization of Petroleum Exporting Countries (OPEC) and also led to

an immense increase in her revenue. This ushered in an unprecedented, unexpected and unplanned wealth for Nigeria such that the government shifted her socio-economic policies from a holistic approach and began benchmarking these policies against the state of its oil revenue. In order to make the business environment conducive and attractive for new investments, the government began investing the new found wealth in socio-economic infrastructure across the country concentrating more of these in the urban areas and the services sector grew as well. The relative attractiveness of the urban centres made many able-bodied Nigerians to abandon their farmlands and migrate to the cities in the hope of partaking in the growing and prosperous (oil-driven) urban economy. This gradually led to the abandonment of the agricultural sector while the rural-urban migration created social problems of congestion, pollution, unemployment and crimes in the urban cities (Aigbedion and Iyayi, 2007)

“Black gold” as crude oil is called initially provides approximately ninety percent (90%) of foreign exchange earnings and about eighty percent (80%) of Federal revenue and contributes significantly to the growth rate (Gross Domestic Product) of the country (Bamisaye and Obiyan, 2006). However, a sudden drop in oil prices at the international market led to shrinkage in government revenue and a collapse of the external reserve. Consequently, fiscal deficits mounted and external borrowing ensued, and as such; satisfying the demand of the populace became a huge task (Iwuchukwu and Ibokwe, 2012).

The result is that the dependence on oil revenue alone made government financing chaotic and extremely difficult due to the need to cater for insurgencies in the Niger Delta (militancy) and Boko-Haram in the North. Other evidences of infrastructural and economic stagnation is reflected in accumulated unpaid salaries in most states while capital projects have ceased tremendously.

To address these issues, an attempt to diversify the economy by refocusing on agriculture gave birth to reforms such as Operation Feed the Nation (OFN), The Green Revolution (GR) and the IMF's Structural Adjustment Programme (SAP) with a view to enhance industrialization; adding more value to agricultural products, and developing the solid minerals potentials and other sectors of the economy (Favour, 2014). However, the shift to agriculture was temporary as it could not be sustained due to lack of incentives including lack of supporting loans, a stable market and/or controlled prices for agricultural outputs (Nwagbo, 2011)

Despite the huge outflow of resources, these schemes did not seem to be successful because of poor implementation and negative political influences and increase in the use of alternative sources of energy such as hydroelectric, biomass, geothermal wind and solar by developed economies. This is why the government is looking for avenues of blocking leakages in revenue as well as reducing expenditure. This is the reverse of what existed in the oil boom era (Baghebo and Atima, 2013).

The main objective of this study is to examine the effect of oil revenue on sustainability of the Nigerian economy. Specifically, the study evaluates the effect of oil revenue on capital expenditure, recurrent expenditure and external debt servicing in Nigeria. Similarly, corresponding hypotheses were formulated to answer the research questions

This study is necessitated on the premise of few empirical studies on the relationship between oil revenue on the sustainability of the Nigeria's economy. Apparently, studies that cover this subject-matter and this period to the best of our knowledge are scarce to come by as most works were on economic growth, diversification, and performance (Ibrahim *et al.*, 2014)

This study differs from others due to the following: first, it is timely and appropriate in determining statistically, the country's

sustainability, exposure to risk or succor rather than relying on political expressions on the faces of newspapers that cannot be substantiated. Second, this study will be of benefit to policy makers, those in academics, and the populace at large as it seeks to empirically substantiate the sustainability of our monolithic economy in the face of the reduction in oil revenue. It will also guide decision makers with regard to investment issues in the search and development of other income generating outlets before the economy becomes unmanageable because of insufficient fund.

This study covers a time frame from 1970 to 2014 with a view to tracing the trend of the effect of oil revenue over the years when increases and reductions occurred. This will enable us get the exact impact of oil revenue in form of trend analysis on the country's economic sustainability during the period of boom and glut and/or price reduction as well as periods of low and high expenditure profiles.

Oil revenue according to Budina and Wijnbergen (2008) refers to the income earned from the sales, taxes and other incidentals associated with crude oil. Oil is the major source of government revenue, accounting for about 90 percent of total exports, and this approximates to 80% of total government revenues. (Adenikinju and Falobi, 2006).

Sustainability according to the Oxford Advance Learners' Dictionary is the ability to provide enough of what somebody or something needs to live or exist. The sustainable development of a state remains the primary objective of governance. Therefore, the need for sustainable development in any given country cannot be overemphasized. The main goal of development is to satisfy human needs and aspirations. It involves the actualisation of human potentialities and proper understanding and management of the environment and the resources therein for sustained human wellbeing (Anyahie and Areji, 2015). Sustainable Development is a

continual enhancement of the quality of human life both for now and the future.

According to Aigheyisi, (2013), capital and re-current expenditure is the broad classification of government expenditure. Government expenditure refers to expenses incurred by the government for the maintenance of itself and provision of public goods, services and works needed to foster or promote economic growth and improve the welfare of its populace. Government expenditure is generally categorized into expenditure on administration, defense, internal securities, health, education, foreign affairs, etc. (Samuel and Kabir, 2012), and has both capital and recurrent components.

According to Lawal *et al.*, (2015), Capital expenditure refers to the amount spent in the acquisition of fixed (productive) assets (whose useful life extends beyond the accounting or fiscal year), as well as expenditure incurred in the upgrade/improvement of existing non-current assets such as lands, buildings, roads, machines and equipment, research, and other intangible assets. Capital expenditure is usually seen as expenditure creating future benefits, as there could be sometime between when it is incurred and when it takes effect on the economy.

Recurrent expenditure on the other hand refers to expenditure on purchase of goods and services, wages and salaries, operations as well as current grants and subsidies (usually classified as transfer payments). Recurrent expenditure, excluding transfer payments, is also referred to as government's final consumption expenditure. The annual budget spells out the direction of the expected expenditure, as it contains details of the proposed expenditure for each year, though the actual expenditure may differ from the budget figures due, for example, to extra-budgetary expenditure or allocations during the course of the fiscal year (Ogundipe and Oluwatobi, 2013).

Debt according to the Oxford Advanced Learners Dictionary, (2014), is generally referred to as something owed by one party (the debtor) to another party (the creditor). Debt is generally a subject of contractual terms regarding the amount and timing of repayments of principal and interest. It is also expressed metaphorically as a moral obligation. However, Adesola (2009) refers debts servicing to as the ability of a debtor nation to continue to repay the principal and interest components of an outstanding loan when due.

As oil revenue dropped, Nigeria's currency depreciated against the dollar, suggesting that the country's ability to balance its budget has been compromised. The Central Bank had tried to buffer the currency's fall by selling foreign exchange reserves and increasing interest rates. Low oil prices (falling government revenue) do not bode well for the Nigerian economy in the short term. Since limited resources is left to manage her political problems, sustain her ever increasing capital and recurrent expenditures and sustain its fight against insurgency, the need to statistically establish the exact effect oil revenue has on government financing/economic sustainability of the country is imperative.

Theoretical Discussions

The two (2) theories upon which this study is rested are the Dutch disease theory and the export instability theory.

The Dutch Disease Theory

Theoretical literature on Dutch disease is quite extensive. Early contributions on this theory were carried out in the 80s which include Corden and Neary (1982); Edwards and Aoki, (1983); Harberger (1983); Corden, (1981); Corden, (1984). Corden and Neary (1982) outlined the core model of the theory comprising the spending effect and the resource movement effect, to describe the mechanisms through which what would initially seem to be an economic boom for a nation inverts and

produces a paradoxically adverse consequence. This clearly reflects the state of the Nigerian economy. The discovery of crude oil though having had favourable contributions to the economy has paradoxically had adverse consequences on the economy also. The theory is also relevant since the proceeds from oil revenue largely accrued directly to the government caused outright neglect of other sectors of the economy, making the economy monolithic and vulnerable to the ever dwindling oil revenue.

Export Instability Theory

This theory bears on the question of whether adverse effects from the variability of oil income are likely to offset the benefits of temporarily high income. Typically, it maintains that exports of developing countries are more concentrated than those of developed countries and consist largely of primary agricultural and mineral commodities.

Empirical Discussions

Muttaka, (2015) examined the effect of Nigeria's oil dependency on its economic growth and found that Nigeria has wasted much of its opportunities to break away from underdevelopment despite its massive natural and human resources. This is as a result of heavy reliance on her huge crude oil resources which was regrettably mismanaged. He identified and discussed on some key drivers of economic diversification such as investment, governance and regional dimensions of economic diversification as well as human and natural resources. He maintained that of all the other drivers, good governance (which is absolutely lacking in Nigeria) remains a prerequisite in building an enabling environment for such diversification.

Uzonwanne, (2015) examined the role of economic diversification in Nigeria in the face of dwindling oil revenue. Descriptive statistical method was employed in analyzing the data collected and the study

showed a positive relationship between economic growth and economy diversification making imperative the call for the diversification of Nigeria's economy.

Ibrahim *et al.*, (2014) examined the impact of oil price shocks on the Nigerian economy, using data from 1981 to 2012. The Generalized Methods of Moment was used to estimate data collected and it was revealed that oil price shocks insignificantly retard economic growth while oil price itself significantly improves it. The study concluded that policy makers should ensure the judicious utilization of the oil revenue; to enable the populace perceive oil as a blessing instead of a curse.

Odularu (2008) examined the effect of crude oil on the Nigerian economic performance using ordinary least square regression estimation technique. The finding showed that crude oil consumption and export have contributed to the improvement of the Nigerian economy. The study concluded that government should implement policies that would enable the private sector to participate actively in the oil sector.

Baghebo and Atima, (2013) examined the impact of petroleum on economic growth in Nigeria using Johansen Cointegration Technique. The study reveals that oil revenue and corruption impacts negatively on GDP, while Foreign Direct Investment and External Debt have positive impact on the growth of the economy. Therefore, the study recommends that if the petroleum industry bill is passed and implemented to the letter, there exists hope for the Nigerian nation

It has been identified that none of the existing studies relate the fallen prices of oil to sustainability of the economy in terms of the ability of the government to maintain its capital and recurrent expenditure as well as servicing its external debt obligations. The task of filling this gap is undertaken in this study.

Material and Methods

Model Specification

The study examines the effect of oil revenue on sustainability of the Nigerian economy over a period of forty five (45) years from 1970 to 2014. A multiple regression equation is set up to investigate the hypothesized relationships between the dependent and independent variable in this study. This relationship in line with theory is modeled as follows:

$$SUSt = f(\text{OilRev}_t + \text{Non-Oil}_t)$$

[1]

Sustainability is measured by government's ability to maintain its capital and recurrent expenditure as well as its external debt obligations. Hence, when specified, it becomes:

$$\text{Cap_Exp}_t = \beta_0 + \beta_1 \text{OilRev}_t + \beta_2 \text{Non_OilRev}_t + \varepsilon_t \quad [2]$$

$$\text{Rec_Exp}_t = \alpha_0 + \alpha_1 \text{Oil_Rev}_t + \alpha_2 \text{Non_OilRev}_t + \mu_t \quad [3]$$

$$\text{Ext_Deb}_t = \psi_0 + \psi_1 \text{OilRev}_t + \psi_2 \text{Non_OilRev}_t + v_t \quad [4]$$

$$\text{Total_Exp} = \lambda_0 + \lambda_1 \text{OilRev}_t + \lambda_2 \text{Non_OilRev}_t + y_t \quad [5]$$

The a prior expectation of the relationship is that $\beta_1, \beta_2, \alpha_1, \alpha_2, \psi_1, \psi_2, \lambda_1$ and $\lambda_2 > 0$

Where:

Cap_Exp_t = Federal Government Capital Expenditure (Dependent Variable);

Rec_Exp_t = Federal Government Re-current Expenditure (Dependent Variable);

Ext_Deb_t = Federal Government External Debt Servicing (Dependent Variable);

OilRev_t = Oil Revenue (Independent Variable);

Non_OilRev_t = Non-oil Revenue (Independent Variable);

μ = Error Term

Study Variables and Sources

Oil Revenue, Non-Oil Revenue, capital and revenue expenditure as well as External Debts were measured by their values as

obtained from CBN Statistical Bulletins for various years. However, Total Revenue was obtained by summing up the capital expenditure and recurrent expenditure of government for respective years. These variables form the study data which are secondary in nature and were obtained from Central Bank of Nigeria Statistical Bulletin, Organisation of Petroleum Exporting Countries Statistical Bulletin, and Nigerian National Petroleum Corporation Annual Statistical Bulletin for period between 1970 and 2014.

Method of Data Analysis

The study adopts time series data analysis research method in which the model was estimated using Fully Modified Least Square (FMLS) Regression Technique. The data were first subjected to unit root test to establish whether the distribution is stationary or not. Further tests carried out include co-integration test as well as multi-collinearity and heteroscedasticity tests to measure the existence and/ or extent of relationship if any among the variables.

The study variables were modeled such that in turn on an individual basis $OilRev_t$ and

Non_OilRev_t were regressed on Cap_Exp_t , Rec_Exp_t , Ext_Deb_t and $Total_Exp_t$ in the reverse order. This enabled the establishment of the effect of oil revenue on economic sustainability (meeting government financing in terms of capital and recurrent/revenue expenditure) while debt servicing was added as means of determining the extent to which these oil revenues and non oil revenue can service Nigeria's debt. It also showed the regularity of repayment of external debt in the country with the aim measuring its credit worthiness.

Results and Discussion

Before going to statistical evidence, the trend analysis of the data was presented in charts and descriptively discussed to measure the behavior of the variables over the years considered. It also provided the opportunity of seeing visually, the extent to which $OilRev_t$ and Non_OilRev_t can finance government expenditure (Cap_Exp_t , Rec_Exp_t , Ext_Deb_t and $Total_Exp_t$). This pictorial representation was later compared with the statistical result for agreement or discord.

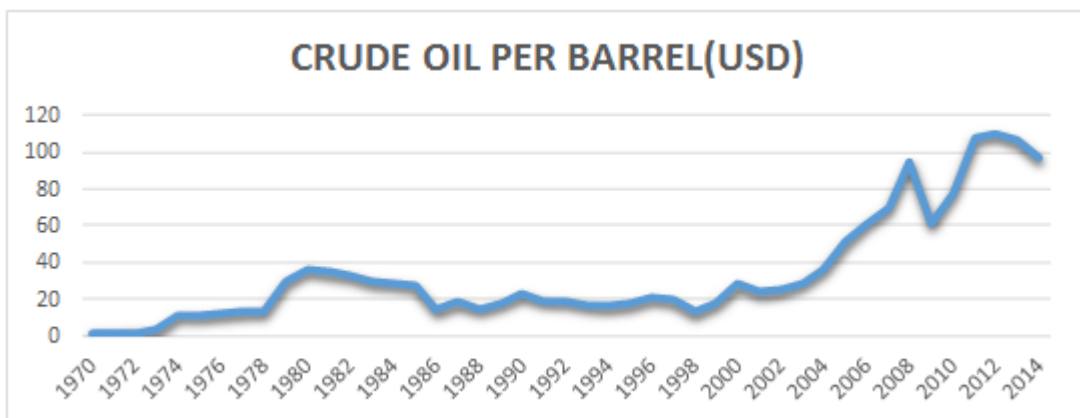


Figure 1: Graphical Representation of the Price of Crude Oil (1970-2014)

Source: Authors' Analysis (2016).

Figure 1 shows the graphical trend of oil prices at the international market. The figure shows increase in prices of oil between 1972 to 1980 followed by an oscillating trend up to 2000 when a

noticeable increment was observed. This scenario was relatively consistent until 2013 and 2014 when a serious fall in price occurred. The dwindling nature had led to revenue shrinkage and had prompted the government to adopt several austerity

measures including blocking loopholes in the revenue generation.

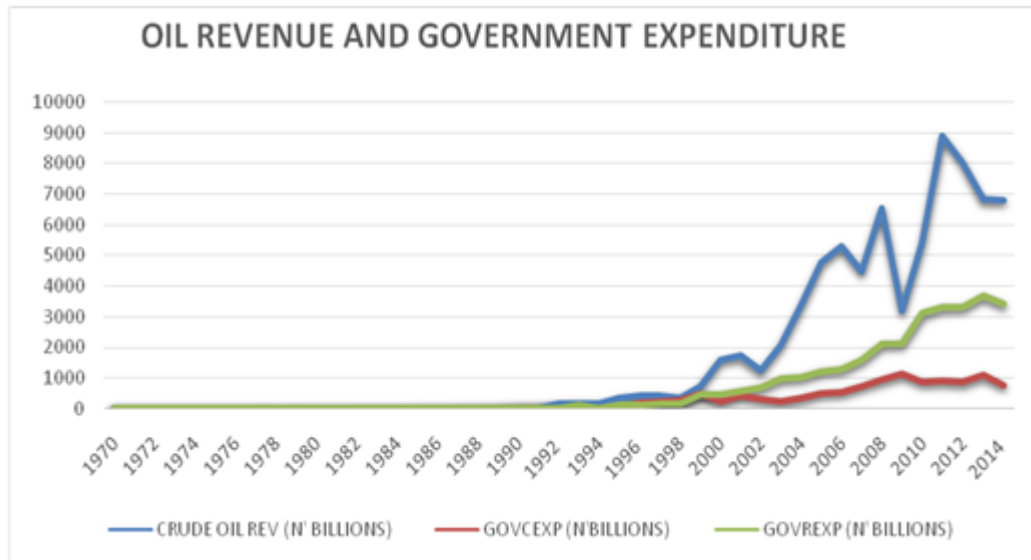


Figure 2: Relationship between Oil Revenue and Government Expenditure. (1970-2014)
Source: Authors' Analysis (2016).

Figure 2 depicts the trend of oil revenue alongside federal government's capital and recurrent expenditure for the period under review. It can be seen that 1990 to 2014 shows an upward trend with recurrent expenditure rising faster than capital expenditure, while oil revenue was unstable going up and down. Summarily, oil revenue dwindled during the period. The figure further reveals that recurrent expenditure exceeded capital expenditure almost throughout the period. Although, oil revenue as indicated in figure 2 was seen to have also been adequate to sustain both capital and recurrent expenditure with the margin between recurrent and capital expenditure widened from year 2000 just after the country returned to democratic rule, if the trend continues this way, there is

the possibility that oil revenue will become insufficient to finance government expenditure.

It may also be inferred that the country's democratic government of 1999 favoured recurrent spending more than capital spending. This may have been due to the astronomical increase in government's purchases of goods, services and grants. Meanwhile, it is a reflection of slow economic growth. It may also be said that for a developing nation, capital expenditure (particularly in capital projects) ought to constitute a significant proportion of her total expenditure in order for her to lay the foundation for economic growth and sustainable development, sadly this has not been the case for Nigeria.

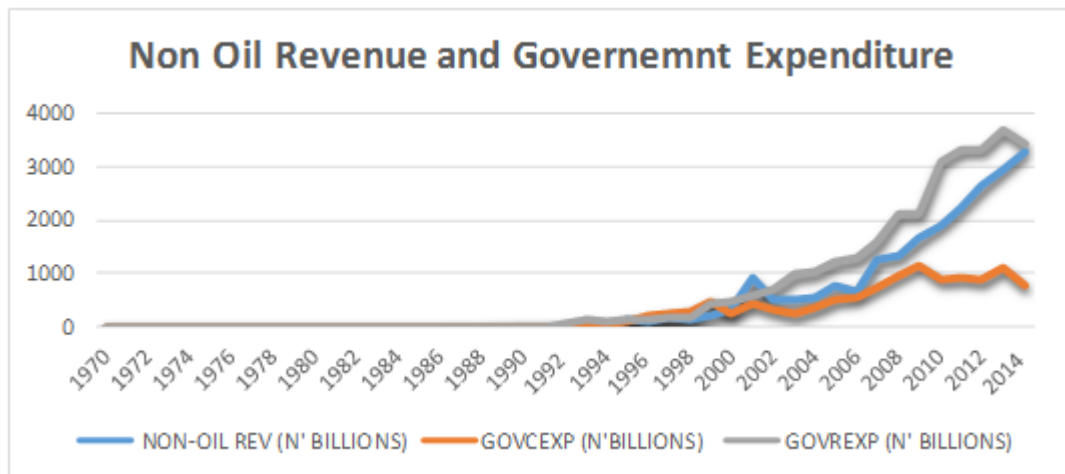


Figure 3: Relationship between Non-oil Revenue and Government Expenditure.

Source: Authors' Analysis, (2016).

Figure 3 reveals the relationship between non-oil revenue and government expenditure. It can be observed that since 2002 to 2014, non-oil revenue has been inadequate in sustaining government

expenditure, especially the re-current expenditure. This is attributable to government inadequacy in diversifying the economy and enhancing other sectors.

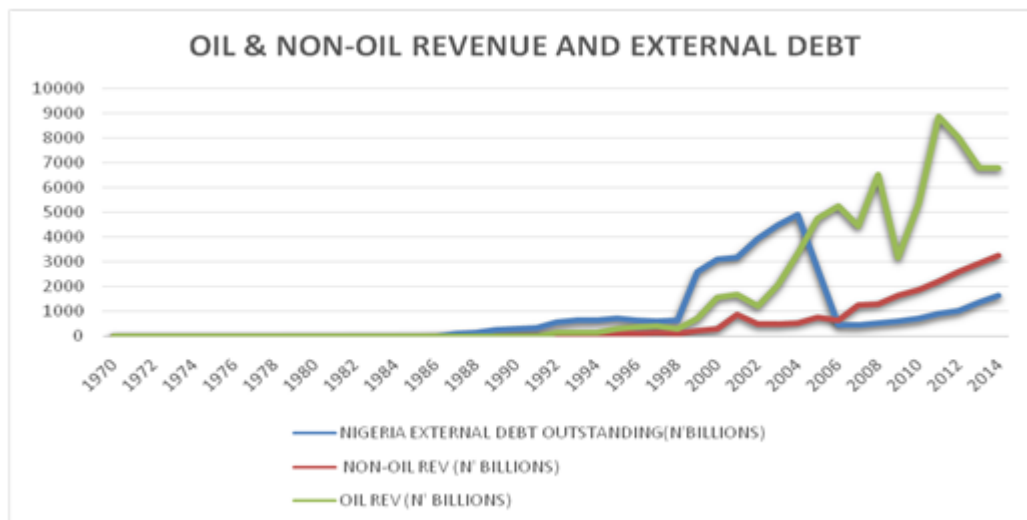


Figure 4: Relationship between oil Revenue, non-oil revenue and Nigeria external debt outstanding (1970-2014).

Source: Authors' Analysis, (2016).

Figure 4 reveals that Nigeria's external debt skyrocketed from 1998 to 2006 when Nigeria's debt with the Paris club was waived. From 2010 to 2014, external debt steadily increased and as such the

government should be wary and pay some attention to debt repayment in order to reduce Nigeria's exposure to liquidity problems and external debt crisis.

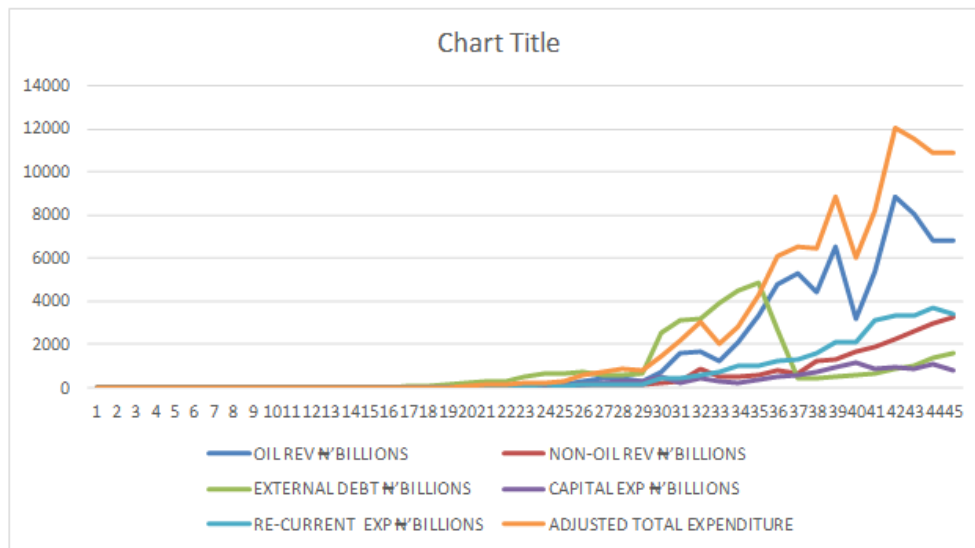


Figure 5: Relationship between Revenue Sources and Expenditure Outlets In Nigeria

Source: Authors' Analysis, (2016).

Evidence from figure 5 reveals that adjusted total expenditure (summation of recurrent expenditure, capital expenditure and external debt servicing) had exceeded both oil and non-oil revenue from 2006. This discovery does not augur well for the country because the major revenue source of the country (oil revenue) determines the trend of total expenditure. This unpleasant trend can be seen from the figure as the shape of total revenue looks exactly like the shape of the oil revenue.

Worse still, the non-oil revenue is inadequate on its own to finance the country's recurrent expenditure; this insufficiency is a pointer to doom if oil revenue wanes. Other things being equal, if in the absence of oil, all non-oil revenue is channeled towards financing capital expenditure, there will be nothing left for the financing of recurrent expenditure. That being the case, the country's operational activities might be grounded to a halt; something close to what is being experienced currently in Nigeria. Indeed, it is a perilous condition, and Nigeria needs

serious revenue generation drive and other revenue diversification strategies if economic sustainability is to be maintained.

Statistical Inferences

One of the properties of time series data is that it contains the history of itself. As a result, the data was subjected to a unit root test. The test as contained in (Table 1) reveals that all the variables are I(1) series, meaning that they are all stationary at first difference.

Consequently, a co-integration test was conducted to see if long-run relationships exist among the study variables. The single equation co-integration result as revealed in appendix (ii) shows that there are at least four (4) co-integrating equations. This implies that the variables have long-run relationship since there is at least more than one (1) co-integrating equation in all. As a result of the variables being I(1) series with long-run relationship, equations 1,2,3, 4 and 5 were estimated using the Fully Modified Least Square (FMOLS) Regression Technique.

Table 1: Augmented Dickey Fuller Unit Root Test Result

Variables Remarks	ADF Stat.	Critical Value	Order of Integration
@5% Confidence Level			
Oil_Rev _t Stationary	-20.2692	-3.51809	I(1)
Non- Oil_Rev _t Stationary	-7.9308	-3.51809	I(1)
Rec_Exp _t Stationary	-7.4044	-3.5180 0	I(1)
Cap_Exp _t Stationary	-8.2205	-3.5180 0	I(1)
Ext_Deb _t Stationary	-3.88744	-3.51809	I(1)
Total_Deb _t Stationary	-7.8262	-3.51809	I(1)

Source: Author's Computation, (2016).

The result in table 1 reveals that Oil Revenue significantly explains government capital expenditure while non-oil revenue does not significantly explain government capital expenditure. As can be seen in table

1, oil revenue is significant at both 5% & 10% significance levels while the non- oil revenue is not statistically significant at any of these conventional significance levels.

Table 2: Result of Breusch-Pagan Test of Heteroscedasticity

Tests	Debt	p-value	capital	p-value	Recurrent	p-value	Log (Debt)	p-value
Heteroscedasticity[BP]	2.4339	0.2961	10.65	0.0049	10.835	0.00444	9.9911	0.006768
Multi-collinearity VIF	6.339309							

Source: Author's Computation, (2016).

The study computed Breusch-Pagan test of heteroscedasticity (table 2) and observed that only debt as dependent variable is suspected to be heteroscedastic (p=0.2961) compared to capital expenditure and recurrent expenditure that have p values of 0.0049 and 0.0044 respectively. Therefore, double logarithm was introduced and no traces of heteroscedasticity was observed. Variance inflation factor was also conducted to test for multicollinearity and it was observed that there is no collinearity in the data since the value of VIF (6.34) is less than 10 (table 2).

Having being satisfied with the preliminary tests, normal regressions analyses were conducted.

The result of the Fully Modified Least Square (FMOLS) Regression as presented in Table 3 where the extent to which oil and non-oil revenue could finance government expenditures on capital, recurrent and external debt servicing was determined. The table reveals that oil revenue is statistically significant (t=0.0015) in financing capital expenditure in Nigeria while non- oil revenue is insignificant when it comes to capital expenditure financing. Precisely, oil revenue could finance 88% of capital expenditure while the remaining 12 % is being financed by non-oil revenue.

Table 3: Fully Modified Least Square (FMOLS) Regression Result.

Dep. Var.	Indep. Variables	Coeff.	Std. Error	t-Stat.	Prob.	Adj.R ²
Cap_Exp _t	Oil_Rev _t	0.88725	0.028987	3.4058	0.0015	R ² = 0.83
	Non-Oil_Rev _t	0.12068	0.86591	0.8900	0.3786	Adj.R ² =0.8165
Rec_Exp _t	Oil_Rev _t	0.803609	0.021369	7.7854	0.0000	R ² = 0.97
	Non-Oil_Rev _t	0.196364	0.063833	12.589	0.0000	Adj.R ² =0.9789
Ext_Deb _t	Oil_Rev _t	0.2264	0.2924	0.7746	0.4430	R ² = 0.08
	Non-Oil_Rev _t	-0.0999	0.8735	-0.1144	0.9095	Adj.R ² =0.0359
Total_Deb _t	Oil_Rev _t	0.6790	0.240325	0.8773	0.3855	R ² =0.78
	Non-Oil_Rev _t	0.21085	0.6699	1.10135	0.3169	Adj.R ² =0.7722

Source: Author's Computation, (2016).

The implication of this which is in agreement with the findings of Adedipe, (2004) is that if the dwindling nature of oil revenue as is being currently experienced continues, there is possibility of economic collapse as governments would be unable to finance capital expenditure.

Both OilRev_t and Non_OilRev_t are statistically significant in financing government recurrent expenditure in Nigeria as indicated by R Squared value of 0.97 (Table 3). However, OilRev_t could single handedly finance 80% of the recurrent expenditures while only 20% could be handled by non-oil revenue (Non_OilRev_t)

Furthermore, the relationship between OilRev_t and Non_OilRev_t and external debt financing reveals that only 3% of external debt servicing is explained by the model while neither OilRev_t nor Non_OilRev_t is significant (p=0.4430 and 0.9095 respectively). This is an indication that external debt servicing has not been regular and might spell doom for the country if OilRev_t has not been deployed to its payment when there was a boom.

Conventionally, in periods of insufficient income, countries go borrowing, but lack of debt servicing renders a country non-credit worthy. By inference, therefore, Nigeria may find it difficult to obtain additional loans. This looming debt overhang problem was experienced between 1986 and 2000. Evidence from Figure 4 shows that as from 2006 to date, Rec_Exp_t has been insufficient in financing external debt servicing in Nigeria. This is a pointer to how dangerous and delicate the country's reliance on oil revenue is. The earlier the country begins to look at other sources of revenue, the better for it.

In the final analysis, the relationship between OilRev_t and total expenditure was examined while Non_OilRev_t was factored in. The result shows that none of them is significant in financing total expenditure (Figure 5). By inference therefore, Nigeria should not rely entirely on either on OilRev_t and Non_OilRev_t individually at a particular point in time as they are insufficient.

The findings of this study contradicts that of Ibrahim *et al* (2014), which pointed out

that oil price shocks insignificantly retards economic growth while oil price itself significantly improves it. However, it bears a partial resemblance with that of Muttaka (2015) that undue reliance on oil revenue has led to underdevelopment in Nigeria as other sectors have been neglected. This negligence is in line with the Dutch Disease Theory because the economic boom from oil revenue had clearly generated adverse consequences of underdevelopment of non-oil revenue generating sectors and the country is suffering for it presently in terms of insufficient fund for its finances.

Conclusion

Economic growth and development are hinged on the ability of government to judiciously utilize her limited resources. Considering the positive and significant relationship between oil and non-oil revenue on one hand and government expenditure on the other hand in Nigeria, there is an urgent need for government to prioritize her needs more so as oil revenue continues to decrease in a period where the country's fight against insurgency and militancy has intensified. Economic growth and sustainability cannot be achieved in a country where vast majority of her populace live in abject penury, as being experienced from the inability of about 20 states to pay salaries.

Thus, from the analysis carried out, it was concluded that oil revenue is dwindles and is continuously on a downward trend due to fall in price of oil per barrel. More so, reliance on oil revenue has led to economic retardation in the form of neglect and underdevelopment of other non-oil revenue generating sectors especially the agriculture sector which was the mainstay of the economy before oil was discovered in Nigeria. The much cherished oil revenue was insufficient in financing the country's capital expenditure, revenue expenditure as well as external debt servicing during the period considered. However, non-oil revenue is only sufficient for meeting the country's recurrent expenditure. Thus, in

the absence of oil revenue, Nigeria will not grow infrastructurally (i.e. no capital project execution). Economic sustenance therefore is doubtful in Nigeria if the current downward trend in oil revenue persists; this may render the country uneconomically sustainable.

Recommendations

In line with the conclusions reached, it is recommended that the government should formulate and implement economic policies that will enable swift diversification of the economy from oil revenue dependence to multiple revenue sources. Specifically, the agriculture sector (which had previously sustained the economy) should be developed since the country has abundant fertile land favourable climate and manpower. Hopefully, if these recommendations are taken, the country's sustainability will be enhanced while ills such as corruption, militancy, un-equitable distribution of the nations' wealth and mass rural-urban migration caused by dependence on oil revenue will be eradicated. In addition, economic diversification will create more job opportunities, satisfy the basic needs of Nigeria's population sustain her quest for development and move her away from the state of being merely politically independent without being economically dependent.

The government must consciously confront challenges such as endemic corruption, mismanagement of resources, poor and unstable educational system, poor corporate governance and poor infrastructure that have hindered Nigeria's quest to reposition herself on the path of productivity. These challenges reduce direct foreign investment in other sectors and make private investment expensive and unattractive. The government should also strategically restructure her expenses in favour of capital expenditure as only through such capital and/or developmental projects can the diversification of the economy be attained. This makes a country attractive for

investors. The government should sustain her austerity measures to curtail the high level of mis-management, embezzlement, and poor accountability among government officials. Sanctions and punishment should be structured into the system such that consequences of default are well entrenched in the constitution as it obtains in the Republic of China where Public office holders are appointed based on competence, good political will and a sincere commitment to economic growth and sustainable development. Finally, the imperative for economic empowerment and diversification of sources of revenue should be upheld and kept on the front burner as the nation seeks to reposition her economy.

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