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Abstract

There is no doubt that crude oil production and exportation is as critical to Nigeria as oxygen is to life. In fact, crude oil notwithstanding current effort of government remains the driver of economic policies of government. But the overdependence on it has created vulnerability to the every sector of the Nigeria economy particularly the general hardship in the country now. Against this backdrop, this study examine oil export and economic growth in Nigeria within the period of 1980-2017. Secondary data was used for the study and data were collected from CBN Statistical Bulletin and National Bureau of Statistic (NBS). The study applied the ADF unit root tests to ascertain the stationary of the time series and also employed Johansen and Juselius (1990) trace and Maximal Eigenvalue tests to ensure long-run relationship among the variables under the study. Finding from the Augmented Dickey Fuller test (ADF) shows that the variables are stationary and reliable for forecasting. The result of the study shows that there is a significant relationship between GDP, oil revenue, government expenditure and government revenue in Nigerias. These findings are consistent with economic theory and aprior expectation. Based on the findings, the study recommends among that there is need for the country to diversify its export revenue base as a means of minimizing reliance on crude oil and petroleum product. This will further shield the economy from the impact of oil price shocks on the economy, and thus prevent the negative effect of the shocks from attaining and achieving significant growth and development in various sectors of the economy.

Keywords: Oil export, Economic Growth, GDP

Introduction

Nigeria economy is basically an open economy with international transactions constituting an important proportion of her aggregate economic activities. Over the years, the degree of openness of the economy has grown considerably high and there has been improvement in its export base resources. Before Nigeria gains her political independence in 1960, agriculture was the dominant sector in the economy, which provides both cash crops and food crops to the economy and accounted for the largest part of the foreign exchange of the country. But, the discovery of crude oil production in commercial quantities changed the structure of the Nigerian economy. This led to the neglect of agricultural product, making the economy to depend heavily on production of crude oil (Nwoba, 2016). Crude oil is a major source of energy in Nigeria and the world in general. Oil being the mainstay of the Nigerian economy plays a vital role in shaping the economic and political destiny of the country. Although Nigeria’s oil industry was founded at the beginning of the century, it was not until the end of the Nigeria civil war (1967 - 1970) that the oil industry began to play a prominent role in the economic life of the country. Nigeria can be categorized as a country that is primarily rural, which depends on primary product exports (especially oil products). Since the attainment of independence in 1960 it has experienced ethnic, regional and religious tensions, magnified by the significant disparities in economic, educational and environmental development in the south and the north. These could be partly attributed to the major discovery of oil in the country which affects and is affected by economic and social components (Anthony, 2015)

Oil production and export have had certain impacts on the Nigeria economy both positively and adversely. On the negative side, this can be considered with respect to the surrounding communities within which the oil wells are exploited. Some of these communities still suffer
environmental degradation, which leads to deprivation of means of livelihood and other economic and social factors (Awujola and Samuel, 2015). Although large proceeds are obtained from the domestic sales and export of petroleum products but its impact on the Nigerian economy as regards returns and productivity is still questionable. Despite the fact that crude oil has contributed largely to the economy, the revenue has not been properly used. Considering the fact that there are other sectors in the economy, the excess revenue made from the oil sector can be invested in them to diversify and also increase the total GDP of the economy. Oil export revenue has continued to account for over ninety percent of the nation’s gross revenue and its impact on other key sector of the economy is yet to be felt. There is no doubt that crude oil production and exportation is as critical to Nigeria as oxygen is to life. In fact, crude oil notwithstanding current effort of government remains the driver of economic policies of government. The overdependence on it has created vulnerability to the every sector of the Nigeria economy particularly the general hardship in the country now. In particular, the place of oil in the mind of the average Nigerian has become more profound since the continuous deregulation of the downstream sector of the Nigeria oil industry in 2003 (Awujola and Samuel, 2015). Thus, the decline in crude oil production in Nigeria and fall in prices at the global markets meant more decreased earnings for Nigeria, but increased expense burden on imported refined petroleum products. It is such contradictions that make the Nigeria economy highly vulnerable and astronomically unstable. Monolithic nature of Nigeria economy is evident now without contradiction. It is indeed on this over dependence on oil export that many of the socio-economic and political problems ravaging Nigeria today took its root. The main objective of this research is to examine the relationship between oil export and economic growth in Nigeria.

Literature Review

Oil prices, just like the prices of any other commodity are not stable. This cyclical behaviour is variably referred to in the literature as oil price volatility or oil price fluctuation. Oil price behaviour is determined by global supply and demand, activities of Organization of the Petroleum Exporting Countries (OPEC), geopolitical events and weather. Oil price shocks are not a new phenomenon; it has been a dominant feature in the oil market during the last two decades (Anthony, 2015). The market has been characterized with erratic movement of oil price since the 1970; moreover, there have been very large and sharp swings in the nominal price of oil since the collapse of oil price in 1986 (Mansour and Fereydoon, 2012). These shocks have been traced to many sources or origins. Understanding these origins will help in policy making against oil shocks. Akpan (2015) highlights political and economic decisions in the oil industry as causes of oil price movements.

From an economic point of view, Anthony (2015) explains that oil price shocks results from low price elasticity of demand and supply. The result of this is that large price variation is required to clear the market, that is, to restore the market to equilibrium. Hamilton (2009) and Javad and Bijan (2015) agree that crude oil price elasticity is very low especially in the short run. This is due to technology lock-up; that is, it takes some time before energy-consuming appliances/capital stocks are replaced with more energy-efficient substitutes. However, substitution takes place in the long run and price elasticity is thus much larger. Notwithstanding, price elasticity is yet less than one (Hamilton, 2009). Anthony (2015) further explain that the demand function is recently getting less elastic (probably due to increasing growth in demand from emerging economies, relative to availability of substitutes such as bio-fuels and green energies), and this explains higher shocks in oil prices. Similarly, supply of crude oil is price inelastic. This results from time lag between exploration and production activities, making supply less responsive to price changes (Nwoba, 2016). Besides the decreasing elasticity of crude oil demand function, Anthony (2015) further posit that shifts in demand for oil explain some of the price volatility. These shifts result from economic growth in oil-importing countries, but Kilian (2015) notes that the shifts in global oil demand, and consequent surges in oil price, in the past few decades have been mostly due to shocks/changes in inventory/precautionary demand planning (against probable future oil scarcity) by oil importers. Hamilton (2009) however disagrees with Kilian (2015) that shifts in global oil demand and price is not due to precautionary demand for oil; rather, he argues that
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Empirical Review

No doubt that series of studies has been carried out by different researcher on the relationship between oil export and economic growth with different and conflicting outcome. For instance Odularu (2016) examine crude oil and the Nigeria economic performance. The study adopts the use of an experimental research design with the use of secondary source of data. Variables employed include labour, capital, crude oil export. Time series data were analyzed using econometric techniques which included Ordinary Least Square (OLS), cointegration, Vector Error Correction Model (VECM), and Granger causality to determine the direction of causality and the magnitude of impacts of the variables. Javad and Bijan (2015) examine the relationship between export and economic growth in the industrial sector in Iran using the Johansen multivariate cointegration techniques as well as the stationary VAR for the period between 1990 and 2014. The study shows that in order to increase the value added of the industry as the most important part of the economy, the development of this sector should be considered. Nwoba (2016) studied the impact crude oil revenue on economic growth in Nigeria using GDP as proxy for economic growth. The study found a long run positive relationship between oil revenue and gross domestic product. Anthony (2015) examine how important is oil in Nigeria’s economic growth? The study adopts the use of vector auto regression model as method of data analysis. Variable employed includes GDP and industrial output. The study shows that oil had adverse effect on the manufacturing sector and construction sector. Awujola and Samuel (2015) in journal article titled oil exportation and economic growth in Nigeria. Using standard vector auto regressive methods to analyze both linear and non-linear models, on the impact of oil exportation on economic growth, the result obtained from empirical analysis shows that there exist a long run relationship between the dependent variable and the explanatory variables.

In the same Nweze and Greg (2016) investigate the relationship between oil revenue and economic growth in Nigeria within the period 1981-2014. The study utilized co-integration techniques and VAR models which included an Error Correction Mechanism (ECM) as the methods of analyses. The findings reveal a positive nexus between GDP and other variables employ. Sayed and Chor (2014) studied the effect of oil and non-oil exports on economic growth in Iran using impulse response functions (IRF) and variance decomposition analysis (VDC) techniques. The variables that generated results for the study includes GDP, industrial growth, oil export. The results show that oil export has an inverse effect on economic. Ahmad and Saleh (2013) Work on the dynamic relationships between oil revenue government spending and economic growth in Oman using the VAR model as a method of data analysis. The study make use of GDP, government expenditure and oil revenue as its dependent and independent variable. The results find out that there is a long-run relationship between these three macroeconomic variables; the real GDP, the real government expenditure and the real oil revenues.

Model Specification

The model employed in this research work is multiple regression models. The model was adopted from Odulura, (2014), is expressed as follows:

\[ RGDP = f (L, k, DC, EX, P) \]  

where, \( L \) = Labour, \( DC \) = Domestic consumption of crude oil, \( EX \) = Crude oil export, \( TP \) = Total production of crude oil.

Thus, in order to achieve objectives of the study, the above model is modified as follow

\[ GDP = f (OILR, GEXP, GOVR) \]  

where, \( GDP \) = Gross domestic product, \( OILR \) = Oil revenue, \( GEXP \) = Government expenditure, \( GOVR \) = Government revenue.

The model is therefore transformed to econometrics form and is stated below:
\[ \Delta(GDP) = F(\beta_0 + \beta_1 \Delta(OILR) + \beta_2 \Delta(GEXP) + \beta_3 \Delta(GOVR) + \beta_4 \Delta(U_{t-1})} \]  

(3)

**A Priori Expectation**

Economic theory explains the nature of the variable used and their relationship with one another especially the explained variable and the explanatory variables. The evaluation therefore is based on whether the coefficient conforms to economic postulation. The expected relationship is that GDP should have significant effect the independent variables. The mathematical form of the relationship between the dependent variable and the explanatory variable is given below:

\[
GDP = F(OILR,GEXP,GOVR)
\]

*GDP > 0* there is a positive relationship between GDP and OILR  
*GDP > 0* there is a positive relationship between GDP and GEXP  
*GDP > 0* there is a positive relationship between GDP and GOVR  
*B0 \neq 0, b1 > 0, b2 > 0, b3 > 0*

**Interpretations of Results**

<table>
<thead>
<tr>
<th>Correlation</th>
<th>GDP</th>
<th>OILR</th>
<th>GEXP</th>
<th>GOVR</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>1.000000</td>
<td>0.991116</td>
<td>0.991453</td>
<td>0.828361</td>
</tr>
<tr>
<td>OILR</td>
<td>0.991116</td>
<td>1.000000</td>
<td>0.987087</td>
<td>0.777931</td>
</tr>
<tr>
<td>GEXP</td>
<td>0.991453</td>
<td>0.987087</td>
<td>1.000000</td>
<td>0.785673</td>
</tr>
<tr>
<td>GOVR</td>
<td>0.828361</td>
<td>0.777931</td>
<td>0.785673</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

*Source: Econometric Views 7*

From the result above, there is 99.1 mutual correlations between gross domestic product and oil revenue, 99.1 mutual correlations between gross domestic product and government expenditure and 82.8 mutual correlations between gross domestic product and government revenue. This means there is a strong correlation between all the independent variables and the dependent variable but specifically correlation between GDP and oil revenue is stronger than the correlation between GDP and government revenue.

**Augmented Dickey Fuller Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Levels</th>
<th>Critical Values</th>
<th>First differences</th>
<th>Critical Values</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>-0.8451</td>
<td>1% -3.6463</td>
<td>-4.1632*</td>
<td>1% -3.6537</td>
<td>Stationary at 1st difference</td>
</tr>
<tr>
<td></td>
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<td>5% -2.9540</td>
<td></td>
<td>5% -2.9571</td>
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<tr>
<td></td>
<td></td>
<td>10% -2.6158</td>
<td></td>
<td>10% -2.6174</td>
<td></td>
</tr>
<tr>
<td>OILR</td>
<td>-0.7103</td>
<td>1% -3.6463</td>
<td>-5.8232*</td>
<td>1% -3.6537</td>
<td>Stationary at 1st difference</td>
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<tr>
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<td>5% -2.9540</td>
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<tr>
<td></td>
<td></td>
<td>10% -2.6158</td>
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<td>10% -2.6174</td>
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<tr>
<td>GEXP</td>
<td>-0.7515</td>
<td>1% -3.6463</td>
<td>-6.3385*</td>
<td>1% -3.6537</td>
<td>Stationary at 1st difference</td>
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<tr>
<td></td>
<td></td>
<td>5% -2.9571</td>
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<td>5% -2.9571</td>
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<tr>
<td></td>
<td></td>
<td>10% -2.6174</td>
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<td>10% -2.6174</td>
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<tr>
<td>GOVR</td>
<td>-0.2529</td>
<td>1% -3.6463</td>
<td>-6.2761*</td>
<td>1% -3.6537</td>
<td>Stationary at 1st difference</td>
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<td>5% -2.9540</td>
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<td>5% -2.9571</td>
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<td>10% -2.6158</td>
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<td>10% -2.6174</td>
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</tbody>
</table>

*Source: Econometric Views 7*

Table above present the results of Augmented Dickey Fuller (ADF) Test both in levels and first differences. In the case of the levels of the series, the null-hypothesis of the non-stationarity
cannot be rejected for all the series. Therefore, the levels of all the series are non-stationary which implies that these series have unit root. This result therefore shows that gross domestic product, oil revenue, government expenditure and government revenue are non-stationary at levels but stationary and they all move together in their first differences. Therefore, we reject the null hypothesis and accept the alternative hypothesis because there is no unit root at first difference. Because the variables are stationary, it is paramount that we check if all the variables are co-integrated

**Johansen Co-Integration Test**
Table below shows the result of Johansen co-integration test of two likelihood ratio test statistics: that is the trace statistic and the Maximum eigen-value which is commonly used to determine the number of co-integration vectors in a study. Therefore, the estimation and the interpretation are shown below.

### Unrestricted Integration Rank Test (Trace Statistics)

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen value</th>
<th>Trace Statistics</th>
<th>0.05 Critical Value</th>
<th>Prob **</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.529241</td>
<td>53.08386</td>
<td>47.85613</td>
<td>0.0149</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.384235</td>
<td>29.72820</td>
<td>29.79707</td>
<td>0.0509</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.284714</td>
<td>14.69661</td>
<td>15.49471</td>
<td>0.0657</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.129782</td>
<td>4.309354</td>
<td>3.841466</td>
<td>0.0379</td>
</tr>
</tbody>
</table>

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values

### Unrestricted Co-integration Rank Test (Maximum Eigenvalue)

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen value</th>
<th>Trace Statistics</th>
<th>0.05 Critical Value</th>
<th>Prob **</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0.529241</td>
<td>23.35565</td>
<td>27.58434</td>
<td>0.1588</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.384235</td>
<td>15.03159</td>
<td>21.13162</td>
<td>0.2867</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.284714</td>
<td>10.38726</td>
<td>14.26460</td>
<td>0.1877</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.129782</td>
<td>4.309354</td>
<td>3.841466</td>
<td>0.0379</td>
</tr>
</tbody>
</table>

Trace test indicates no cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values

According to the rule guiding Johansen Co-integration Test, we make decision by the result of Trace Statistics and the Max-eigen test, but when the result of this two test differs, we make use of the result from Trace Statistics. Recall that all the variables are I(1), as evident from the unit root tests. In order to capture the extent of co-integration among the variables, the multivariate co-integration methodology is conducted. The trace test result that there is one (1) long-run equilibrium relationship of the variables (i.e. \( r = 1 \)) respectively. The co-integration test result as evident in Table above indicates that the dependent variable GDP is co-integrated with oil revenue, government expenditure and government revenue; as such the test statistics strongly reject the null hypothesis.

Model for the normalized co-integrating co-efficient result will therefore be written as:

\[
GDP = 0.3979OILR - 0.2836logGEXP + 0.9566logGOVR
\]

From the result above, there is a positive and significant relationship between GDP and oil revenue in Nigeria. This means that increase in oil revenue will bring about increase in GDP. If there a unit change in oil revenue, the GDP will increase by 39.79%. There is a negative and insignificant relationship between GDP and government expenditure in Nigeria. This means that increase in government expenditure will bring about decrease in GDP. If there is a unit change in government expenditure, the GDP will reduce by 28.36%. The result also suggests that there is a positive and significant relationship between GDP and government revenue in Nigeria. This
means that increase in of government revenue will bring about increase in GDP. If there is a unit change in government revenue, GDP will increase by 95.66%.

Ordinary Least Square Result

Dependent Variable: GDP  
Method: Least Squares  
Sample: 1980 to 2017

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>346434.3</td>
<td>11799.35</td>
<td>29.36045</td>
<td>0.0000</td>
</tr>
<tr>
<td>OILR</td>
<td>1.159312</td>
<td>0.432014</td>
<td>2.683504</td>
<td>0.0152</td>
</tr>
<tr>
<td>GEXP</td>
<td>-0.165234</td>
<td>0.889965</td>
<td>-0.185664</td>
<td>0.8548</td>
</tr>
<tr>
<td>GOVR</td>
<td>0.512619</td>
<td>0.570979</td>
<td>2.649170</td>
<td>0.0163</td>
</tr>
</tbody>
</table>

R-squared 0.964156  Mean dependent var 502716.2  
Adjusted R-squared 0.956191  S.D. dependent var 175185.0  
S.E. of regression 36667.38  Akaike info criterion 24.04682  
Sum squared resid 2.42E+10  Schwarz criterion 24.29367  
Log likelihood -271.5385  Hannan-Quinn criter. 24.10890  
F-statistic 121.0442  Durbin-Watson stat 0.821206  
Prob(F-statistic) 0.000000

From the above OLS regression results of the impact of oil export on economic growth in Nigeria a₁ is 1.159312 and it is the parameter estimate for oil revenue. The result showed GDP is positively related to oil revenue. The magnitude of the parameter estimate is explained by the value of the parameter estimate which states that a percentage increase in oil revenue would result on average to about 1.159312 in GDP. This could be further justified on the ground that the level GDP are majorly determined by its level of income or revenue. An increase of 1% in oil revenue, other thing being constant raised the expenditure on health yearly by 1.15%. However, holding corruption and mismanagement constant high oil revenue bring about high spending within the economy. Thus, based on the result above, it is required that 1% increase in oil revenue will bring about a significant positive change in GDP yearly which will consequently have an attendant effect on the standard of living of its citizen.

The result of the analysis also shows that there is negative relationship between GDP growth and government expenditure. This corresponds with the apriori expectation stated in the previous chapter. This shows that increase in the government expenditure would decrease the growth of GDP. High government spending will increase the interest rate which will reduce the level of investment in capital and consumer goods. Thus, when government increase the level of it spending there will decrease in the level of capital investment which may also include the investment by manufacturing sector on capital equipment needed for high volume of production. However, the magnitude of the direct relationship shows that a percent increase in government spending would cause the total GDP growth to decrease on average by about 1.51%. This is also statistically significant at 5% level of significance using t-test and standard error for decision making, the t-calculated is 2.64 while the t-tabulated is 2.07 also the standard error of the parameter estimate is (0.570) while the half of the parameter estimate ½* 1.512 = 0.756). Since the t-cal is greater than the t-tab and the standard error is less than half of parameter estimate there is sufficient evidence to accept that there is statistical significance relationship between government expenditure and GDP growth.

The R² which measures the overall goodness of fit of the entire regression shows the value as 0.964 = 96.4%. This indicates that the independent variables accounts for about 96.4% of the variation in the dependent variable while the remaining 3.6% is other factors that affect GDP but are not stated in the model but represented by the error term. The adjusted R² which is a penalty
against the $R^2$ shows the value as $0.956 = 95.6\%$. This indicates that the independent variables accounts for about 95.6% of the variation in the dependent variable while the remaining 4.4% is other factors that affect GDP growth but are not stated in the model but represented by the error term. The F-statistics is used to test for simultaneous significance of all the estimated parameters in the model. From the result, $f_{\text{calculated}} \{121.04\}$ is greater that the $f_{\text{tabulated}} \{2.82\}$ that is, $f_{\text{cal}} > f_{\text{tab}}$. Hence, we reject the null hypothesis $\{H_0\}$ and accept that the overall estimate has a good fit which implies that our independent variables are simultaneously significant with GDP. One of the underlying assumptions of the ordinary least regression is that the succession values of the random variables are temporarily independent. In the context of the series analysis, Durbin Watson statistics indicates that there is evidence to show that there is positive autocorrelation in the model as shown with Durbin Watson Statistics which is 0.82.

**Conclusion**

There is no doubt that crude oil production and exportation is as critical to Nigeria as oxygen is to life. In fact, crude oil notwithstanding current effort of government remains the driver of economic policies of government. The overdependence on it has created vulnerability to the every sector of the Nigeria economy particularly the general hardship in the country now. In particular, the place of oil in the mind of the average Nigerian has become more profound since the continuous deregulation of the downstream sector of the Nigeria oil industry in 2003. Thus, the decline in crude oil production in Nigeria and fall in prices at the global markets meant more decreased earnings for Nigeria, but increased expense burden on imported refined petroleum products. It is such contradictions that make the Nigeria economy highly vulnerable and astronomically unstable. Monolithic nature of Nigeria economy is evident now without contradiction. It is indeed on this over dependence on oil export that many of the socio-economic and political problems ravaging Nigeria today took its root. Although large proceeds are obtained from the domestic sales and export of oil products, its effect on the growth of the Nigeria economy as regards returns and productivity is yet to be felt.

**Recommendations**

The oil industry is a vital industry in Nigeria. Its output via oil revenue is generally agreed to be a catalyst to economic growth. Thus, there is need for the country to diversify its export revenue base as a means of minimizing reliance on crude oil and petroleum product. This will further shield the economy from the impact of oil price shocks on the economy, and thus prevent the negative effect of the shocks from attaining and achieving significant growth and development in various sectors of the economy. Since real government expenditure significantly impacted on virtually all the other variables, it is important that government spending is not increased rapidly to levels which may become unsustainable if oil prices fall in future. Fiscal prudence should be expressed through spending plans, with the citizenry’s welfare as its main objective. In addition, the current practice whereby the federal government of Nigeria solely controls exploration rights of mineral resources anywhere and everywhere it may be located within the country should be reviewed with a view to giving states some autonomy. Furthermore, it is recommended that the monetary sector should be more vibrant, as it is the watch dog of the economy, considering the fact that Nigeria is renowned to possess an under-developed capital market, a very large informal sector and a porous/loose financial system. More so, the diversification policy drive of government should not just focus on agriculture alone, rather its rich untapped solid mineral deposits should be exploited.

Additionally, in oil dependent nations, oil rents have failed to promote growth. Oil rents do not filter to growth through democratic governments and institutions, primarily because these do not exist in most oil dependent nations. The most obvious explanation is the fact that most oil rich developing countries are characterized by weak rule of law, malfunctioning bureaucracy and corruption. They often rely on a system of patronage and do not develop a democratic system based on electoral competition, scrutiny and civil rights. The cumulative effect is a retarded economy in the face of increasing revenue generated from crude oil sales in the international
market. Thus, oil exporting dependent nations should ensure enforcement of rule of law and reduce corruption and rent-seeking activities so that oil rents can filter to economic growth.

**Reference**


