AN ANALYSIS OF OIL REVENUE AND MACROECONOMICS PERFORMANCE IN NIGERIA

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ABSTRACT

The study examined the impact of oil revenue on economic growth of Nigeria. Two research questions and two hypotheses guided the study. In a quantitative approach, the study adopted causal research design. the data were collected on Gross Domestic Product, Oil Revenue, Exchange Rate and Inflation Rate in the Nigeria economy for a period of 41 years (1981- 2022). Data were analyzed using the Autoregressive Distributed Lag Model technique to examine the relationship between economic growth, oil revenue, foreign domestic investment (domestic investment and external debt) and corruption index. Results indicated positive relationship between Oil Revenue and economic growth in Nigeria. Findings also showed that Gross Domestic Product has a positive relationship with Oil Revenue, Inflation Rate and Exchange Rate in Nigeria. The study concluded that oil revenue has significant impact on economic growth in Nigeria. Based on the findings, the study recommends among other things the need for government to formulate appropriate policy that will ensure a better and judicious used of oil revenue to enhance the growth of the Nigerian economy.

KEYWORDS: Oil Revenue, inflation, Exchange Rate, Economic Growth, ARDL and Nigeria.

1. INTRODUCTION

Nigeria, the most populous country in Africa, needs money or revenue, just like any other country, in order to meet the requirements of its people. Nwaeze (2016) defines public revenue as all of the government's anticipated revenues for the budgetary year, which is typically one year. Recurrent and capital revenue make up the majority of state revenue. Taxes, fees, penalties, licenses, and other regular annual income are examples of recurring revenue. On the other hand, capital revenue is the total amount of grants and bulk loans that the government receives from both domestic and foreign sources. Nigeria's revenue profile is made up of the oil and non-oil industries, with the former providing the federation with more than 70% of its total revenue (Jones, Ihendinihu & Nwaiwu, 2015). Prior to the discovery of oil in Nigeria, the country's economy relied mostly on the agricultural sector, which produced over 60% of employment opportunities, 95% of foreign exchange revenues, and over 56% of gross domestic product (World Bank, 2013). The majority of Nigeria's exports were made up of cocoa, palm products, cotton, ground nuts, rubber, and lumber. Agriculture was the country's main source of economic growth, while oil exports were extremely low, while oil export was very poor. According to the literature on Nigeria's economy that is currently available, the country was essentially an agrarian one, with agriculture serving as the primary source of income. Data from the Federal Bureau of Statistics show that between 1958 and 1969, petroleum's contribution to GDP at current prices was only 0.007 percent. Although it accounted for a larger share of GDP, agriculture served as the backbone of the nation's economy (Nweze & Greg, 2016).

In the meantime, oil has continued to be a significant source of energy and revenue in Nigeria since Shell BP's 1956 discovery of oil in the Oloibiri area of Bayelsa State. Even though Nigeria's oil sector was established at the turn of the century, it wasn't until the end of the country's civil war (1967–1970) that it started to take center stage in the nation's economy. Nigeria's petroleum industry grew to be the country's largest industry following the discovery of oil in commercial quantities. Around 90% of foreign exchange earnings and 80% of federal revenue

came from oil, which also helped Nigeria's GDP develop at a faster rate than other countries (Nweze & Greg, 2016).

There are three main categories or divisions within the Nigerian oil industry: upstream, downstream, and gas. The combined efforts of exploration, development, and the production of oil and gas products make up the upstream activities.

According to Wilset et al. (2012), downstream activities are those that occur from the receipt of crude oil into crude oil tanks or gas into petrochemical tanks to the transportation of refined or processed products to secondary industries or to the final user.

Nigeria is the 13th-biggest oil producer in the world and the largest producer in Africa, with over 90% of exports coming from oil. Since it was discovered in 1956, crude oil has been essential to the Nigerian economy. The Nigerian economy still depends heavily on the oil and gas industry, despite nearly 50 years of exploration. In recent decades, the Nigerian government has received extraordinary money from natural gas and crude oil. They provide 75% of the total income received by the government.

Since oil was discovered in Nigeria, the country's reliance on oil revenue has tended to distort and discourage the government from obtaining finances from other sources. For instance, because of the enormous amounts of oil cash, nations have been less likely to stress income taxes as a source of funding for their governments.

Furthermore, because of the country's reliance on petroleum revenue, the government pays little to no attention to the development of infrastructure, the promotion of private sector investment, or the mechanization of the manufacturing and agricultural sectors of the economy. Low tax ratios and high consumption expenditures, which are usually on imported goods, further exacerbate inflationary tendencies with regard to expenditure. Early in the 1950s, some development economists proposed that an abundance of natural resources would enable underdeveloped states to overcome their capital shortages and generate enough income for their governments to provide public goods and pull people out of extreme poverty. Recently, oil has accounted for 95% of government revenue and 99% of all exports. Experts believed that the "black gold" would ensure long-term economic growth. But they should be much more realistic because Nigeria's economy is still growing more slowly than anticipated, it has weak economic diversification, poor social welfare indicators, terrible environmental effects, high rates of poverty and inequality, widespread corruption, a high frequency of conflict, and exceptionally bad governance. The three conventional barriers to economic development—fiscal revenues, domestic savings, and foreign exchange—should be loosened by the availability of natural resources and any ensuing boom (Gelb et al., 1998). Although the situation in Nigeria is different, it has led to an excessive reliance on oil, which has explained the country's sluggish economic progress (Sachs & Warner, 1995b). increased poverty and inequality for the vast majority of people living in a nation (Ross, 2005). Due to the oil's deliciousness and unstable price, the discovery and boom of the country have left Nigeria's economy highly monocultural and unsustainable. Additionally, the economy is now more susceptible to external shocks and has experienced numerous "fractures" in its development (Ogunleye, 2008 as cited in (Magduba 2016). Therefore, it is more important than ever to determine whether or not oil wealth has benefited Nigeria's economy.

2. LITERATURE REVIEW
OVERVIEW OF THE NIGERIA OIL SECTOR
Nigeria's economy heavily depends on the energy sector due to the country's abundance of natural resources, including coal, oil, gas, and water. Since its discovery in 1958, oil has dominated the economy since the early 1970s. With an estimated production volume of 2.413 million barrels per day, Nigeria is currently the largest oil producer in sub-Saharan Africa and has been a member of OPEC since 1971 (OPEC, 2005). It now ranks as the sixth-largest producer in the world. Nigeria has received oil revenues estimated to be worth US$600 billion since 1960 (Wurthmann 2006).

Large deposits of natural resources have a variety of effects. They could have a significant impact on the nation's political, socioeconomic, and environmental growth. Although reserves of natural resources, such as oil and other minerals, could be advantageous to the nation possessing them, they typically end up being a burden.

One might expect that a growing nation would unquestionably benefit from a bountiful endowment of petroleum. It would appear that selling this resource would present appealing chances to increase national revenue and level of living. Oil is an easy way to accumulate cash because it is a foreign exchange-attracting commodity that is traded internationally. The significant difference in unit production costs between economic rents, royalties,

petroleum taxes, oil exports, etc., results in enormous income. In reality, it has shown to be incredibly challenging to translate the riches of natural resources into widespread advancements in human development and economic performance. It has been demonstrated that an excessive reliance on the export of natural resources has a detrimental impact on the political, social, and economic advancement of a nation.

Oil Revenue
The money received from the sale of crude oil is known as oil revenue. Money received by any business or entity involved in petroleum activities from the sale of petroleum products is referred to as oil revenue (Ogbonna, 2011). For the Nigerian government, it refers to the funds obtained by its agencies—such as the Central Bank of Nigeria (CBN) and the Nigerian National Petroleum Corporation (NNPC)—on behalf of the government in relation to royalties, the sale of gas and crude oil, licensing fees, and other incidentals, as well as the Petroleum Profits Tax. The author also points out that in order to comprehend the oil and gas income generation environment and how it affects the economy, one must acknowledge that it deals with the right income-generating strategies and the imperative investment decision to put money into the right sector of the economy, where it will boost the economy and have multiplier effects. This will encourage economic expansion and make it easier to achieve the crucial economic goals and objectives.

The money received from the sale of crude oil is referred to as oil revenue. According to Budina and Van-Wijnbergen (2008) in Gideon et al. (2018), oil accounts for over 90% of all exports and, consequently, almost 80% of all government revenue, making it the primary source of income for the government. Oil has dominated Nigeria's economy ever since it was discovered in the early 1970s. Nigeria's poor economic performance is not only due to fluctuations in oil sector earnings; it also stems from the government's inability to make effective use of the cash infusion received from the export of crude oil starting in the middle of the 1970s to expand the country's other economic sectors.

Economic Growth
The concept of economic growth is interpreted differently by many academics. Most people agreed that it represented an increase in a nation's level of output and national income. Both the CBN (2010) and the International Monetary Fund (2013) agreed that economic growth was the gradual rise in the quantity of goods and services generated in an economy. The term "economic growth" describes a rise in overall productivity. Increased average marginal productivity is frequently, but not always, correlated with overall productivity growth. Typically, growth is computed in real terms, which are adjusted for inflation, to account for the impact of inflation on the costs of produced goods and services. Economic growth, according to the IMF (2012), is the gradual rise in the market value of the commodities and services that an economy produces, adjusted for inflation. Real GDP, or gross domestic product, is typically assessed as a percentage rate of growth and is expressed typically in terms of per capita GDP. Economic growth was also defined by Obadan and Okojie (2010) as a rise in the average yearly rate of production produced per person. Accordingly, Dewett (2005) defined economic growth as a rise in the net national product over a specific time period. He explained that economic growth is generally refers to as a quantitative change in economic variables over a period of time. He added that the determinants of economic growth are availability of natural resources, capital formation, capital-output ratio, technological progress and entrepreneurship among others.

Brewer (2010) states that there are several ways to describe economic growth, but it can be characterized as a quantitative and physical rise in real GDP, GDP per capita, or gross domestic product. Traditionally, it is expressed as the real GDP growth rate expressed as a percentage. The GDP to population ratio or per-capita income are frequently used to compare the economic growth rates of different countries. According to Maddison (1966), economic growth is "the raising of income levels," i.e., rising personal incomes drive up economic growth. According to this study, economic growth is defined as a consistent, quantitative rise in the volume of goods and services produced over a given time period, usually a year.

The oil boom in Nigeria
Nigeria, which borders Niger, Chad, Cameroon, and Benin, is a tropical country in West Africa that spans 924 000 km2. Minerals, forests, and water resources are some of its natural resources. Nigeria has a federal structure that includes 36 state administrations, 774 Local Government Areas, and Abuja as the federal capital.

With over 137 million citizens, Nigeria is the most populated nation in Sub-Saharan Africa (OPEC, 2005). Since 1991, the country's population has increased at a pace of about 2.8% annually. Nigeria accounts for nearly 25% of the continent's total population. Nigeria's age distribution is typical of a developing nation, with a large

percentage of the population falling into the "dependent" age range. In 2003, the percentage of the population under the age of 15 was projected to be 45.5% of the overall population.

Nigeria's economy is largely dependent on the oil industry, accounting for 44.7% of the country's GDP in 2003. With 26.4% of the GDP coming from it in 2003, agriculture is a major industry in the non-oil sector. Nearly 90% of non-oil foreign exchange revenues come from this industry, which also employs 63.5% of the labor force.

An estimated 70% of Nigeria's impoverished people reside in rural regions and work in smallholder agriculture. The industrial sector contributed 4.7% of GDP in 2003, and the service sector contributed 24.2% (ADB, 2005). The real GDP rose at an average yearly rate of 4.8% between 2000 and 2004. Since 2000, real output has been rising steadily. However, in 2003, it saw especially substantial growth at 10.9% because of a huge rise in oil-to-GDP of 26.5%, which was mostly caused by greater production quotas granted by OPEC. Within the non-oil sector, agriculture grew by an annual average rate of 4.4%, the industry sector by 6.7% and the services sector by 5.0% respectively during 2000-2004 (ADB, 2005).

Theoretical Review
Classical Theory of Economic Growth
The standard classical and neo-classical growth models, which were created in the late 1950s by Solow (1956) and Mincer (1958), demonstrated how an economy expands in response to higher labor and capital inputs (all physical inputs). These models do not account for non-economic elements like human capital or health indicators. According to this idea, capital, including technology, increases worker productivity and efficiency and boosts the output of products and services. This merely indicates that technological advancement is "exogenous" to the system in terms of economic terminology. According to Solow's 1956 model of neo-classical growth theory, economic growth arises from the expansion of labor to be more productive and the accumulation of physical capital. As a result, the impact of neo-classical and economic lexicon on GDP in the Nigerian economy is examined in this study.

Resource Endowment Theory of Growth
This theory's main proponents are David Ricardo's "Comparative Cost Advantage" in 1817 and Adam Smith's "Absolute Cost Advantage" in 1776. They contend that nations should specialize in producing and exporting goods in accordance with their comparative advantages. According to the notion of comparative advantage, a nation produces goods that are readily manufactured or abundantly available at a lower total cost than other nations, hence benefiting economically from this advantage. Therefore, other nations will only gain from trade if they acknowledge the trading nation's cost advantage and concentrate on producing a good at which they excel. Resource endowment economists' views on free trade, specialization, and the global division of labor are shaped by this theory. According to Igbeasere (2013), this explains why certain nations generate industrial goods while others produce agricultural and mineral commodities.

Empirical Literature
Researches and macroeconomists have focused on the importance of oil money for the growth and welfare of several oil-producing nations, most notably Nigeria, for many years. Numerous academic works exist regarding the significance of oil revenue for the overall economic well-being of oil-producing nations. There is a need for more thorough research on this topic because the results on the nature of the relationship between the two ideas are inconsistent, with some showing reverse causality and others yielding inconsequential parameters. Nweze and Greg (2016) investigated Nigeria's economic growth and oil revenue from 1981 to 2014. The primary source of secondary data for the explanatory variables—government spending (GEXP) and oil revenue (OREV), which is used as a surrogate for economic growth—was CBN publications. Several sophisticated econometric procedures, including the Johansen Cointegration Test, Error Correction Mechanism (ECM), and the Augmented Dickey Fuller Unit Root Test, were used during the empirical inquiry. The results show, among other things: showed the variables were not integrated in the same order, supporting the cointegration and error correction mechanism tests, and that all of the variables were stationary at first difference. According to the cointegration result, there are three cointegrating equations that show a long-term link between the variables. The results of the error correction mechanism (ECM) test show that every variable had a significant impact on Nigeria's economic growth, with the exception of the lag in government spending. With the exception of government spending, which has a positive link with economic growth in both the short and long terms, all the variables, however, showed their predicted sign in the short run but a negative relationship with growth in the economy over the long run.

Using augmented dickey fuller (ARDL), Akinleye et al. (2021) investigated the relationship between oil revenue and economic growth in Nigeria between 1981 and 2018. The exchange rate, oil revenue, petroleum profit tax, and inflation are the factors that were considered in this study. The outcome demonstrates that oil revenue has a long-term and short-term positive and significant impact on GDP.

The results corroborated those of Aminu and Raifu (2019), who found that oil earnings significantly boost economic growth over the long and short terms. In a similar vein, Fasina and Adegbite (2016) studied how the petroleum profit tax (PPT) affected the Nigerian economy between 1970 and 2010. The exchange rate, inflation, petroleum profit tax, and GDP (gross domestic product) were the variables utilized in this study. Multiple regression analysis was employed for data analysis. The study found that the Nigerian economy benefited greatly from crude oil revenue during the study period and that there was a strong correlation between natural resources and economic growth and development. Odularu (2018) also found that the Nigerian economy has improved greatly as a result of both domestic consumption and crude oil exports. This result was in line with the data presented by Olatunji and Adegbite (2018) and Abdul-Rahamoh et al. (2017), which show that petroleum earnings had a favorable impact on Nigeria's economic expansion.

While some research has demonstrated the beneficial impacts of oil money on economic growth, other studies have found the opposite. In a long-term study on the effect of the petroleum gains tax on economic growth in Nigeria, Gopar et al. (2017) discovered no causal relationship between the tax and real gross domestic products. Using the OLS technique, Abimbola and Onazi (2018) look into the relationship between oil revenue and economic growth in Nigeria. Therefore, based on its data, the report finds that oil revenue is negatively associated to Nigeria's economic growth.

Akinlo (2019) looked into how crucial oil was to the growth of the Nigerian economy between 1960 and 2016. VAR model multivariate was employed in the study. The findings showed that although oil has a detrimental impact on the industrial sector, it can also lead to potential growth in non-oil industries.

A study on the impact of oil revenue on economic growth in 83 oil-producing nations was conducted by Jabir et al. (2020) between 1990 and 2015. Ex post and correlational research designs were used in the study. The government's investment of oil profits had a favorable effect on economic growth through the development of the banking sector, according to the study, which used the financial markets development mechanism.

The development of the stock market was not affected. The study also found that the private investment of oil income, which had been shown to have a detrimental impact on the growth of the banking industry, had no effect on the development of the stock market.

Nigeria's economic growth and the petroleum profit tax were examined by Inimino et al. (2020) from 1980 to 2017. Ex post facto and correlational research designs were used in the study. The Central Bank of Nigeria (CBN) and the National Bureau of Statistics provided time series secondary data for the study's period of analysis. Using pertinent econometric models, including the unit root test, the generalized method of moments (GMM), and Granger causality tests, the secondary data was analyzed. The petroleum profit tax has a favorable and considerable impact on Nigeria's economic growth, according to the GMM analysis's findings. Bidirectional correlation between the petroleum profit tax and Nigeria's economic growth was revealed via the Granger causality test.

Gideon, Johnson, and Samson (2021) looked at how Nigeria's economic growth was affected by oil revenue (1981-2018).

The National Bureau of Statistics and the Central Bank of Nigeria Statistical Bulletin provided the secondary data on the economic variable that was used in the study. For the investigation, the Autoregressive Distributive Lag (ARDL) approach, the ARDL bound test for co-integration with different additional diagnostic tools, and the Augmented Dickey Fuller unit root test were utilized. The results showed that the inflation rate (INF) was stationary at level (I(0)), and that the exchange rate (EXCR), real gross domestic product (RGDP), petroleum profit tax (PPT), and oil revenue (OREV) were stationary at first difference (I(1)); on the ARDL, the results indicated that the prior values of the economic growth (RGDP (-1)) and oil revenue were directly related with the economic growth (RGDP) in Nigeria; Additionally, it was shown that, in both the short and long terms, the economic growth (RGDP) was inversely correlated with the petroleum profit tax (PPT), the inflation rate (INF), and the exchange rate (EXCR). In order to examine the effects of oil revenue and other specified economic variables on economic growth in Nigeria throughout the study period, the fitted ARDL model was statistically

significant, reliable, and adequate. In order to promote the expansion of the Nigerian economy, the government had to develop suitable policies that may lead to the better and wiser use of oil revenue.

3. METHODOLOGY

The information obtained from optional sources, such as periodicals, books, journals, documents, reports, websites, and more, is referred to as secondary data. The World Bank development indicators and the Central Bank of Nigeria Statistical Bulletin provided the secondary data for this study. The data was annual and covered the years 1981–2022. Data were gathered on the Nigerian economy's GDP, oil revenue, exchange rate, and inflation rate during the course of twenty-five (25) years, from 1981 to 2022.

MODEL SPECIFICATION
the model below:
RGDP = F (OREV, EXCR, INF)
Equation (i) can be transformed and expressed in log-linear form stated below:
$LOGRGDP_t = \beta_0 + \beta_1 LOGOREV_t + \beta_2 EXCR_t + \beta_3 INF_t + u_t$
Where:
GDP = Real Gross Domestic Product
OREV = Oil revenue
EXCR = Exchange rate
INF = Inflation rate
u_t = stochastic error term
t = subscript t
While, β_0, β_1, $\beta_{2 \text{ and}}$, β_3 are parameters to be estimated in the course of this study.
 A Priori Expectations
The *a priori* expectations are as follows:
$\beta_1 > 0$, $\beta_2 > 0$, and $\beta_3 < 0$

Estimation Technique
The data were collected on the identified variables and were analysed using ARDL techniques. The ARDL was adopted because there was no imposition of restrictive assumption on the variables to be integrated of the same order. In other words, the ARDL approach can be applied regardless of whether the underlying regressors were integrated of order I(1), order zero I(0) or fractionally integrated. Also, ARDL technique generally provided unbiased estimates of the long-run model and valid t-statistics even when some of the regressors were endogenous.

Unit Root Test
The specification of ADF test is given as follows;
$Y_t = \alpha + \beta t + \rho Y_{t-1} + \Sigma \delta \Delta Y_{t-1} + u_t$
Where, Y_t was the level of the variable under consideration, t denotes time trend and u_t was error term assumed to be normally and randomly distributed with zero mean and constant variance. The optimal lag length was chosen on the basis of Akaike Information Criterion (AIC) and Swartz Criterion. Before using the Autoregressive Distributed lag (ARDL) approach model, we tested the time series properties of the data to check whether the univariate series were either I(0) but not I(2), which was a precondition before one can employ the ARDL approach

Auto Regressive Distributed Lag (ARDL) technique
An ARDL representation of the model was represented as follows:
$\Delta LNRGDP_t = \beta0 + \Sigma \beta1 \Delta LNOREV_{t-i}$
ni
$=1 + \Sigma \beta2 \Delta LNPPT_{t-i}$
ni
$=1 +$
$\Sigma \beta3 \Delta LNEXCR_{t-i}$
ni
$=1 + \Sigma \beta4 \Delta LNINF_{t-i}$
ni
$=1 + \beta5 LNRGDP_{t-1} + \beta6 LNOREV_{t-1} +$
$\beta7 LNPPT_{t-1} + \beta8 LNEXCR_{t-1} + \beta9 INF_{t-1}$
This technique provided an analysis that help in achieving the long run relationship and effect of this study.

4. RESULT PRESENTATION AND DISCUSSION

Unit root test

This study applied unit root test to determine if the data is stationary before any analysis can be conducted. Economic theory requires that variables be stationary (that is, the variables should have long-term or equilibrium relationship between them) before the application of standard econometric technique (Gujarati 2004). It is recommended that the unit root test is conducted to validate the data for analysis. The unit root was tested using Augmented Dickey-Fuller test at 5% level of significance. The critical values are based on the assumption that variables should be I(1) or I(0). Therefore, applying the unit root test is still necessary to make sure that none of the variables is integrated at I(2) and beyond (Sahbaz and Feridun, 2012; Yusuf et al., 2011). For unit root test, the Augmented Dickey-Fuller (ADF) is exercised to check the order of integration of model variables, using intercept without trend option with automatic AIC lag selection criteria. The result is shown in the table below:

Table 1: Summary of the Augmented Dickey-Fuller Test

Variables	ADF Statistics	5% Critical value	Order of integration	Remark
EXCR	-3.679488	-2.963972	1(1)	Stationary
INF	-4.511443	-2.963972	1(1)	Stationary
LOGDP	-8.330245	--2.967767	1(1)	Stationary
LOGOREV	-5.116894	-2.963972	1(1)	Stationary

Source: Author's computation from E-view 10

Following Pesaran and Pesaran (1997) procedure. However, ADF unit root test for this study confirmed that all the variables in the research model is stationary at 1(1).

The result in table 1 above indicates that when the variables are tested at levels, all are not stationary. Moving forward, differencing the respective variables and performing the unit root test on each of the resultant time series. The rationale behind this procedure is as Box and Jenkins (1976) have argued that differencing non-stationary time series will make it attain stationarity. The result of the unit root test on these variables first differencing showed that Gross Domestic Product, Oil Revenue, Exchange Rate and Inflation Rate are stationary all. With these results, these variables are adjudged to be stationary at 5% critical value. This implies that the variables are integrated of order one 1(1). The findings indicated that the null hypothesis couldn't be rejected for the variables but after differencing the data, the absolute ADF statistic is all significant and above 5% critical values respectively. Unit root of this nature, where the variables are stationary at first difference warrant the use of cointegration in estimating the equation. Given the unit root properties of the variables, we proceed to test the long run relationship among them using Johansen co-integration test as presented in the table 2 below:

Co-integrating Test Result

Co-integrating test was carried out to determine the long run relationship between the dependent variable (LOGGDP) and the independent variables (LOGOREV, EXCR and INF). The Johansen test result is presented in tables 2 and 3 below:

TABLE 2 AND 3

Date: 18/8/23 Time: 04:52
Sample (adjusted): 1992 2021
Included observations: 30 after adjustments
Trend assumption: Linear deterministic trend
Series: EXCR INF LOGGDP LOGOREV
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.778826	77.30861	47.85613	0.0000
At most 1 *	0.530882	32.04447	29.79707	0.0271
At most 2	0.247802	9.337432	15.49471	0.3351
At most 3	0.026144	0.794757	3.841466	0.3727

Trace test indicates 2 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 Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.778826	45.26414	27.58434	0.0001
At most 1 *	0.530882	22.70704	21.13162	0.0298
At most 2	0.247802	8.542676	14.26460	0.3262
At most 3	0.026144	0.794757	3.841466	0.3727

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

The Maximum Eigenvalue co-integration test result showed that the null hypothesis of no co-integrating relationship among the variables is rejected at 5% level of significance. This is because the test indicates two co-integrating equation among the variables of the model. The two tests confirm the presence of a co-integrating equation. Therefore, it means that there exists a long run relationship between economic growth and Oil Revenue in Nigeria. The Trace statistic and the maximum Eigen Statistics are all greater than the critical values at 0.05 critical values.

Table 4. The ARDL Model on Oil Revenue and Economic Growth
Dependent Variable: LOGGDP
Method: ARDL
Date: 18/8/23   Time: 04:04
Sample (adjusted): 1994 2021
Included observations: 28 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (4 lags, automatic): EXCR INF LOGOREV
Fixed regressors: C
Number of models evalulated: 500
Selected Model: ARDL(3, 4, 4, 4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
EXCR	0.001571	0.000826	1.901393	0.0897
INF	0.000313	0.002247	0.139294	0.8923
LOGOREV	0.150696	0.031337	4.808831	0.0010
C	1.223521	0.462434	2.645831	0.0267

R-squared	0.999774	Mean dependent var	10.22041
Adjusted R-squared	0.999321	S.D. dependent var	1.383320
S.E. of regression	0.036044	Akaike info criterion	-3.586015
Sum squared resid	0.011692	Schwarz criterion	-2.682019
Log likelihood	69.20421	Hannan-Quinn criter.	-3.309655

| F-statistic | 2208.937 | Durbin-Watson stat | 1.682671 |
| Prob(F-statistic) | 0.000000 | | |

*Note: p-values and any subsequent tests do not account for model selection.

Source: Data Analysis, 2023

The coefficient of the constant intercept β_0 is 1.223521 which show that if all the explanatory variables were held constant, the GDP will be 1223521, an increase in economic growth in the economy. In relation to our apriori expectation, it is expected that there should be a direct positive relationship between Gross Domestic Product and the independent variables (EXCR, OREV, and INF) in Nigeria. The coefficient conforms to the apriori expectation. The coefficient (β_2=0.150696, P=0.0010) shows a positive and significant relationship between OREV and economic growth in Nigeria. Its shows that a unit change in OREV will lead to 20% increase in economic growth in Nigeria.

Consequently, the coefficient of Exchange Rate shows that its conformed to the apriori expectation of a positive relationship. This is proving by the coefficient of (β_1=0.001571, P=0.8923). The result is positive and insignificant at 5%. This shows that a unit change in EXCR will lead to a proportional change in GDP in the economy by 0.02%.

Lastly, the coefficient of Inflation Rate also does not conform to the apriori expectation of a negative relationship. This is shown by the coefficient (β_3=0.000313, P=0.8923) which indicates that a unit increase in Inflation Rate will lead to a 0.0313 unit increase in economic growth.

The coefficient of determination (R^2) showed the percentage of variations in the dependent variable that can be explained by the independent variables. The R^2 of 0.999774 or 99% showed that Economic growth can be explained by changes in the explanatory variables as shown in the model and the remaining 1% is explained by the dummy variable. The F-statistic which measures the overall significance of the model indicated that it is significant at 5%. This is indicated by the F-statistics and its probability (2208.937 and 0.000000) respectively. We therefore conclude that there is a significant relationship between economic growth and Oil Revenue in Nigerian Economy. The Durbin Watson statistics of 1.682671 which is approximately 2 shows that there is no serial correlation. This means that the value of the random term in any particular period is uncorrelated with its preceding values which indicate the absence of autocorrelation.

DISCUSSION OF FINDINGS

Based on this result, the ARDL shows that a positive and a significant relationship existed between economic growth and Oil Revenue in Nigeria at 5%. It shows that a unit rise in Oil Revenue will lead to an increase in economic growth by 20%. This is because Nigerian government is depending on oil as it main sources of income. The percentage of change in economic growth is low, though significant. The money that is generated from the oil sector in Nigeria, is diverted to some individual pocket and that affect the development of the country as well as the growth of the economy slowly. It is therefore important to put up measures that will eliminate corruption in the sector. The result is inconsistence with Gideon, Johnson and Samson (2021) who found out that inflation rate (INF) and exchange rates (EXCR) were inversely related with the economic growth (RGDP) in both the short and long run in Nigeria.

The result conforms with Nweze and Greg (2016), who found a positive relationship between economic growth and oil revenue in Nigeria. The result shows that there exists a positive relationship between the variables and economic growth in Nigeria. All conform with the apriori expectation with the exception of inflation which shows a positive relationship instead of negative relationship.

The regression result shows that there exist a positive and a significant relationship between Oil Revenue and economic growth in Nigeria. This is indicated by the goodness of fit of 99% growth in GDP which is as a result of a change in the independent variables and the remaining 1% is by the disturbance variables. The overall significance is measured by the value of the probability F-statistic which is 0.000000 and is less than 0.05 significant levels. We, therefore, reject the null hypothesis and conclude There is a significant impact of oil revenue on economic growth in Nigeria.

5. CONCLUSION AND RECOMMENDATIONS

The research made an attempt to investigate the impact of Oil Revenue on economic growth in Nigeria. This study provided empirical justification for the impact of Oil Revenue on economic growth in Nigeria. The study used Gross Domestic Product as the dependent variable with Oil Revenue, Exchange Rate, and Inflation Rate as the independent variables to ascertain the impact of Oil Revenue on economic growth in Nigeria. These have been achieved using analytical techniques (Augmented Dickey-Fuller, Co-integration, Autoregressive Distributed Lag Model and Recursive of Squares). The findings of the study are as follows: The regression result showed that there exists a positive relationship between Oil Revenue and economic growth in Nigeria. This is shown by the coefficient of determination. The co-integration indicated the presence of two co-integrating equations. The result showed that Gross Domestic Product has a positive relationship with Oil Revenue, Inflation Rate and Exchange Rate.

CONCLUSION

The role of Oil Revenue in economic growth cannot be undermined since it is the main source of income that powered the Nigerian economy. The result showed that there is a positive and significant relationship between oil revenue and economic growth in Nigeria, therefore, the government need to put more effort in the production of oil in the oil region. The coefficient of exchange rate is positive and insignificant which conform to the apriori expectation, that of inflation does not conform to the apriori expectation, and we therefore, conclude that the is need for government to diversify it sources of revenue.

RECOMMENDATIONS

Base on the result of the study, the following recommendations were suggested:

(a) Oil Revenue impacted positively on economic growth. But there is a need for government to formulate appropriate policy that could engender better and judicious used of oil revenue to enhance the growth of the Nigerian economy. The entire loopholes to oil revenue generation should be blocked to ensure that fund is properly channel for the growth of the economy

(b) Government should take a bold step towards the diversification of the economy from oil in order to encourage the growth of the economy from other sectors of the economy.

(c) Proper monitoring of the Oil sector should be done to reduce corruption and mismanagement of the funds generated from the oil sector. This could be done by any of the anti-graft agencies. Anyone found diverting national resources for his personal use should be executed by hanging

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