
Impact of Oil and Non-Oil Exports on Nigeria's Economic Growth

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ABSTRACT: This study assessed the influence of oil exports and exports of non-oil products on Nigeria's economic growth between 1981 and 2023. The study was anchored on the Two-Gap Model. The study utilised data obtained from the statistics bulletin of the Central Bank of Nigeria (CBN), the National Bureau of Statistics (NBS), and World Development Indicators (WDI). The data analysis methods utilised, included Phillips-Perron (PP) unit root test, F-Bounds test, and the ARDL technique. The results showed the presence of long-run relationships among the variables (GDP, oil exports, non-oil exports, and inflation rate), indicating that about 11% of the short-run imbalance is corrected every year. Findings from this research indicated a strong positive effect of oil exports on GDP in the short term and in the long term. Non-oil exports have a strong negative impact on GDP in the long term; however, the impact was insignificant in the short term. This research concludes that exports of oil products positively improves Nigeria's economic growth especially in the long-term period. Conversely, non-oil exports negatively influence Nigeria's economic (short term period). The study therefore recommends along with other things, that the government should stabilize and strengthen oil export earnings by investing in upstream oil production and infrastructure, and diversify its non-oil exports by focusing on processed and value-added commodities for increased economic growth.

KEYWORDS: Oil Export, Economic Growth, Non-Oil Export, GDP, *ARDL*

INTRODUCTION

Over time, it has become clear that international trade helps bring more money into an economy, especially exports exceeds imports. Exports are important for helping an economy grow and develop, as shown by Matthew et al. in 2017. Exports have a big effect on growth because they bring in money for the government, and provide foreign currency which may be utilized to build better infrastructure and make the nation more attractive for investors. Also, when exports grow, including both oil and other types of products, companies are encouraged to produce more and cut their costs, resulting in more efficient production and bigger production efficiency at larger scale. Exports also help make the local market bigger and increase competitiveness, which pushes the nation to produce more and use new technologies in its manufacturing (Mohsen, 2015). When export's demand rises, production increases. This brings about more jobs, more revenue for the nation, and better trade and payment balances. This shows how important exports are to growth of a nation (Adenugba & Dipo, 2013)

Before the country became independent, agricultural commodities and some key minerals supported the economy. Since then, the country has become completely dependent oil, mainly because of its large oil reserves, the strong market for oil, and high price of petroleum. Because of this, the country stopped supporting other industries that used to bring in foreign money, which is an instance of de-industrialization that often happens after a surge in natural resource production. Due to deindustrialization, Nigeria now depends mostly on goods imported for everyday use. The country's ability to make its goods is limited because the industrial domain has been neglected (Bature, 2012). Nigeria's high reliance on selling crude oil has serious effects on its economy because the petroleum market is very unstable. Because the economy relies so much on petroleum exports, it is at risk from sudden changes and ups and downs in the international oil market. Because of this, any sudden changes in cost of oil globally can quickly affect the economy. (Omjimite & Akpolodje, 2019).

The problems caused by relying too much on petroleum trade have made it more important to broaden the economic base by departing from petroleum and focusing on other kinds of exports. Many people think that non-oil commerce has a big chance to help Nigeria grow and develop. Using the value chain approach in agriculture could help Nigeria's economy grow. This method can create different kinds of activities, create more jobs, and help develop industries. Because of this, exports that are non-oil remains a key part of creating a robust and lasting economy in Nigeria (Onwualu, 2017). Vincent and Oluchukwu (2013) emphasized that Nigerian leaders have tried again and again to make non-oil exports grow by making good policies. Many different

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laws have been introduced, and they have had some success. Examples include the import substitution policy (1960s), which tried to protect local industries from international competition through things like taxes, help, and limits on imports; the Structural Adjustment Programme in the mid-1980s, which made trade more open; and the export promotion policy in the 1990s, which gave more support to small size and medium size businesses to raise production and make it smooth for goods to go overseas.

The oil and non-petroleum sectors within Nigeria's economy have contributed greatly in the country's progress in the last fifteen years. CBN 2021 report highlights how oil and non-petroleum exports have had a substantial economic impact. Exports do many important things, like creating jobs, increasing spending by consumers, raising tax money, adding to the GDP, supporting the country's foreign currency reserves, and providing energy for businesses & industries. Basically, oil and other commodity exports are important for getting foreign money, which helps reduce pressure on the country's balance in international payment, and creates job opportunities. Export activities involving oil and other commodities that are non-oil are often thought to help growth in many aspects, such as creating links between production & demand, and achieving cost savings through access to greater international markets (Ruba & Thikraiat, 2014).

Statement of the Problem

Over the past few years, oil prices have gone down, which has resulted in less money coming in from Nigeria's oil industry. This makes it more difficult for government to spend more money on public services, which enhances economic performance. This has hindered investment growth, causing more people to be unemployed. These problems have led to lower foreign exchange revenue, delayed economic growth, less money held in reserves, fewer foreign currencies available, and increase in prices for goods (inflation), because the country depends a lot on imported products. All of these issues happened due to a sudden reduction in international oil prices. The weak achievement of the non-petroleum segment of the country, along with how vulnerable the nation's economy is to divergence in the outside economy, shows the necessity to focus more on developing the sectors outside petroleum industry. Researchers have examined how Nigeria's growth is driven by contributions from petroleum and non-petroleum exports. Their findings have been mixed, with some saying these exports help the economy, while others say that they harm it. This study aims to add useful information to the existing research. Some studies, like those by Khayati (2021), Badreldin and Ahmed (2021), Ugwo et al. (2019), and Zafar and Mohammad (2018), suggest that exporting commodities and services, whether oil or not, can help economic development. However, other research by Imoughele and Ismaila (2015) and Onodugo et al. (2013) discovered that both types of exports can slow down economic progress.

Study Objectives

The general objective of this research is to analyse how Nigeria's growth has been impacted by oil exports & exports of non-oil products. The specific goals are:

1. To access how oil exports influence Nigeria's GDP.
2. To evaluate how non-oil exports affects Nigeria's GDP.

Questions such: How has oil exports & exports of non-oil impacted Nigeria's GDP? And what steps can be taken to improve them? will be answered in this research. This study will give a full picture of how oil and other commodity exports affect Nigeria's economy, showing how much they influence growth and suggesting methods to support better growth in country.

Statement of Hypotheses

This research hypotheses are:

H₀₁: Oil exports significantly affect Nigeria's GDP.

H₀₂: Exports of non-oil doesn't significantly affect Nigeria's GDP.

LITERATURE REVIEW

Conceptual Clarification

• Export

An export refers to a commodity or service made in one nation and sold in another nation.

The person or company that sells the product or provides the service is called an exporter. The person that buys the product is called an importer. Countries have a long-standing tradition of exporting to exchange goods and money through trade. These exports come in large scale between different countries. Businesses that send a lot of products to other countries usually face more financial risk. (Bbaale & Mutenyo, 2011).

• Oil Exports

It refers to the aggregate value of oil sold annually. Selling oil to another nation helps increase the country's total output. Oil is usually exported in substantial amounts between countries with few trade restrictions, like tariffs or subsidies. The types of oil

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that Nigeria exports are Bonny Light Oil, Forcados oil, Qua Ibo crude oil, & Brass River oil. The gas & oil sector make up about 35% of Nigeria's GDP, and petroleum export earnings make up more than 90% of all export income (Sani et al., 2020).

• Non-Oil Exports

This refers to the aggregate value of products (not oil), made in a nation like Nigeria, and distributed to other countries. Selling non-oil products to another country helps increase Nigeria's total output. Many countries with few trade rules, such as steep tariffs or government subsidies, export a lot of non-oil goods. Along with oil, Nigeria also has several natural resources (Chinyere et al., 2021).

Economic Growth

growth happens when the GDP of a nation increases. A nation is said to have grown if its total output goes up over a certain time (Adeleye & Eboagu, 2019). Growth is usually calculated by the rise in GDP. According to Adedoyin & Zakari (2020), short periods of growth changes are called business cycles. During these periods, economies often go through recessions. An economy's ability to grow depends upon several long-term factors, such as increasing the capital stock, growth in productivity of labour, human resource utilization, and technological progress (Kartono et al., 2021).

Theoretical Framework

This research is anchored on Chenery and Strout's (1966) Two-Gap model. The theory that argues that the major limitations to growth in developing nations arise from two potential "gaps," namely:

1. Savings Gap: This gap arises when a country's domestic savings are insufficient to finance the investment level needed for growth.
2. Foreign Exchange Gap: This gap arises when a country lacks enough foreign exchange earnings to import the capital goods and inputs required for development.

The model proposed that for developing countries to grow, external assistance such as direct investment foreign countries or persons, foreign aid, or concessional loans is needed to fill either of the two gaps (savings gap or gap in foreign exchange), depending on the one that is more binding at a given time. The model can be presented as:

$$Y = C + I + (X - M) \quad (1)$$

In which $(X - M)$ equals the net export.

Equation (1) can be rearranged as:

$$Y + M = C + I + X \quad (2)$$

Further breakdown of (2) above will result in:

$$S + C + M = C + I + X \quad (3)$$

Deducting C from both sides and defining savings ($S = Y - C$),

$$S + M = I + X \quad (4)$$

Equation can be written as:

$$M - X = I - S \quad (5)$$

(Gap in foreign exchange) = (Savings gap).

Although this model has a realistic contribution, it also has faults. The model's sole concentration on the gap in saving or the gap in foreign exchange for achieving growth leaves it susceptible to certain limitations such as: neglect of other important factors determining economic growth such as technology, institutional quality, political stability, human capital; failure to settle the transformation issue of being a closed economy; ignoring governance issues in developing economies such as corruption and inefficiencies; and failure to address how fluctuation in rate of exchange, tariffs, or trade liberalization might affect the gap in foreign exchange.

The Model's relevance to this Study

The model emphasized how the gaps in saving & foreign exchange can hinder the growth of a developing country. However, this study focused on exports, which directly relate to the gap in foreign exchange. The model provides a framework for understanding how exports increases foreign exchange revenue (by limiting the gap in foreign exchange) in Nigeria, and boosts growth.

Empirical Literature

Atuma et al. (2024) comparatively examined how Nigeria's economic growth was impacted by both oil exports & the exports of non-oil between 1981 to 2019. They used multiple regression analysis, including VECM. Their findings indicated a long-term relationship among the variables, meaning that about 19.48% of the short-run imbalance is corrected each year. The study also discovered that exports of non-oil had a bigger effect (positive) on Nigeria's economy than oil exports. Conversely, non-oil exports contributed around 41.5% to GDP compared to oil exports that only added 2.1%. The researchers urged the Nigerian government

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to work harder to promote non-oil exports, make policies more diverse, and take action in the international exchange market to stabilize the naira's value compared to the currencies of trading partners.

Oladosu et al. (2023) investigated how oil and other exports affected Nigeria's economic growth between 1990 and 2022. To analyse the data, they used ADF test, ARDL method, and the ECM. They discovered that exports of oil & non-oil have positive and substantial effect on GDP in the short term and long run. The researchers came to a conclusion that oil and other commodities exports are important for Nigeria's economic performance (growth). They suggested the government of Nigeria should concentrate on exports diversification, simplifying the process for firms to export, and should also assist local businesses to increase non-oil exports, which can promote economic growth.

Chinyere et al. (2021) studied how non-oil exports influence Nigeria's economic growth, using OLS regression technique. Their findings revealed that non-oil exports have no significant effect on GDP. Also, the influence of agriculture to GDP was not significantly affected by non-oil exports, although, the relationship was positive.

Ugwo et al. (2019) examined how oil exports influence Nigeria's economy. They found that exports of non-oil positively and significantly affected Nigeria's economic performance. They advised that steps should be taken to better the use of crude oil including its by-products. This includes addressing issues like inadequate technology, limited human and manpower resources, financial problems, bureaucracy, poor policies, and weak regulations that prevent the efficient use of petroleum.

Ajayi (2016) studied how oil and other non-petroleum exports affect Nigeria's economy. The result indicated a bigger effect of exports of oil than non-petroleum exports on Nigeria's growth. The findings came from a review of previous research on macroeconomic policies which compared both exports types. The author explained that this happened because the nation has ignored agriculture since the starting of oil boom.

Oruta (2015) studied how non-oil exports influence Nigeria's GDP growth over the period of 1980 to 2010 using OLS method. The model followed a normal distribution. The error term stayed consistent throughout. The research found that non-oil exports played a major role in Nigeria's economic performance in terms of growth, suggesting the country's exchange rate was stable during that time.

The connection between the exports of commodities that are non-oil & Nigeria's economic development (1981 to 2010) was studied by Adenugba and Dipo in 2013. They checked how effective the nation's export promotion laws were in making the country's economy more diverse and less dependent on petroleum for foreign currency. Their findings revealed that exports of non-oil in Nigeria have fallen short of expectations, raising doubts about the efficiency level of the chosen export development tactics. The study also discovered that Nigeria has not diversified enough away from petroleum, which has remained the most crucial of Nigeria's economic structure.

The connection between non-oil exports and the economic performance of Nigeria in terms of growth (1981 to 2018) was examined by Onodugo et al. in 2013. They found that non-oil exports contributed little to the overall pace of Nigeria's growth.

METHODOLOGY

An ex post facto research approach was utilised in this study since the data are already available. This research used secondary data between 1981 to 2023, which are available in WDI (2025), CBN Statistical Bulletin (2023), and NBS (2024). The study used EViews 12 for analysis. The variables used are GDP, oil exports, non-oil exports, and inflation rate. GDP represents dependent variable. The rest are called independent variables.

Model Specification

As a post-Keynesian growth model for closed economies, the Two-Gap Model put out by Chenery and Strout (1966) formed the basis of this study's analytical approach. The empirical examination of Oladosu et al. (2023) on the influence of oil exports & non-petroleum exports on Nigeria's economic growth provided the model for this research. Still, this research objectives informed the changes made to the model.

Hence, the model for this study in its functional version is thus:

$$GDP = (OEXP, NOEXP, INF) \quad (1)$$

More explicitly, the model can be expressed as:

$$GDP = \beta_0 + \beta_1 OEXP + \beta_2 NOEXP + \beta_3 INF + \mu_t \quad (2)$$

Where;

GDP is Gross Domestic Product; NOEXP is Non-Oil Export; OEXP = Oil Export; EXR is Exchange Rate; β_0 = Regression constant; β_1 = oil export parameter; β_2 is non-oil export parameter; β_3 is exchange rate parameter; μ_t = Stochastic or error term. It captures the influence of variables outside the model. A priori expectations are:

$$\beta_1, \beta_2 > 0, \beta_3 < 0$$

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Estimation Technique

This study used the ARDL technique. This method involves first estimating the conditional correction form after specification. The long-run association between two variables (X and Y) can be established using the ARDL method. ARDL model for two variables, say Y_t and X_t (independent variable), is expressed as:

$$Y_t = \alpha_0 + \sum_{i=1}^p \alpha_i Y_{t-i} + \sum_{j=0}^q \beta_j X_{t-j} + \varepsilon_t$$

Where:

Y_t = dependent variable at time t,

X_t = the independent (explanatory) variable at time t,

α_0 = intercept term,

α_i = coefficients of lagged dependent variable Y_{t-i} ,

β_j = coefficients of lagged independent variable X_{t-j} ,

p = the maximum lag length for dependent variable,

q = the maximum lag length for independent variable (X),

ε_t = error term (white noise).

Error correction form is given as:

$$\Delta Y_t = \gamma_0 + \sum_{i=1}^{p-1} \gamma_i \Delta Y_{t-i} + \sum_{j=0}^{q-1} \delta_j \Delta X_{t-j} + \phi (Y_{t-1} - \theta_0 - \theta_1 X_{t-1}) + u_t$$

Where:

Δ denotes **first difference**,

γ_i and δ_j are short-run dynamic coefficients,

ϕ : **error correction coefficient**,

$(Y_{t-1} - \theta_0 - \theta_1 X_{t-1})$ is **error correction term (ECT)**

θ_0, θ_1 are long-run parameters, and u_t is white noise error term

Pre-Estimation Tests

This research conducted the following pre-estimation tests:

1. Unit Root Test

Most time series require stationarity to give valid results. If a series is non-stationary, then the results from the regression may be spurious. This research utilised the Phillips-Perron (PP) test.

1. Cointegration Test

A co-integration test helps in checking whether a stable, long-term relationship exists among non-stationary variables, making it possible to model both short-run dynamics and long-run equilibrium in models involving time series. Since the variables in this research have mixed integration order. [I (0) and I (1)], the F-Bounds cointegration test was adopted.

Lag Selection

This study considered the lag number to be factored into the model. Choosing the right lag's length is very crucial to avoid having correlated error terms or loss of valuable information. This study utilised a systematic process in ascertaining the optimal lag length dynamic model. Specifically, this study used the recommendations from the scientific selection process of either the AIC, SC, or HQ.

PRESENTATION AND DISCUSSION OF RESULTS

Table 1. Descriptive Statistics

	GDP	INF	NOILEXP	OILEXP
Mean	39902.54	20.95326	642110.8	6277286.
Median	31064.27	11.12000	94731.85	1920900.
Maximum	77936.10	219.0000	6961789.	29000604
Minimum	16211.46	0.690000	203.2000	7201.200
Std. Dev.	21651.62	33.93978	1269587.	7352525.
Skewness	0.485004	4.870136	3.347085	1.155001
Kurtosis	1.591566	28.45734	15.82772	3.762241
Jarque-Bera	5.239910	1331.117	375.1073	10.60150
Probability	0.072806	0.000000	0.000000	0.004988
Sum	1715809.	900.9900	27610763	2.70E+08
Sum Sq. Dev.	1.97E+10	48380.16	6.77E+13	2.27E+15

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Observations	43	43	43	43
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Source: Researcher's computation using EViews 12

Table 1 provides the descriptive statistics. From Table 1, average of GDP is 39,902.54; Oil exports (OILEXP) have a much higher average value (6,277,286) than non-oil exports (642,110.8), showing Nigeria's export dependence on oil. Inflation (INF) has an average value of 20.95. The median value of GDP is 31,064.27, and the median value of inflation (INF) is 11.12, which shows skewness since their means are greater than medians (right-skewed). The median value of non-exports of oil (NOILEXP) is 94,731.85, which is highly skewed. Oil exports (OILEXP) with a median value of 6,277,286 also show this pattern, though to a lesser degree. GDP has a maximum value of 77,936.10 and a minimum value of 16,211.46. Inflation (INF) varies widely, with a minimum value of 0.69 and a maximum value of 219. Non-oil exports (NOILEXP) range from 203.2 to 6,961,789 (showing large dispersion). Oil exports (OILEXP) range from 7,201 to 2,900,060.4 (This wide range indicates periods of oil boom and oil bust). Standard deviation values for non-oil exports (NOILEXP) oil exports (OILEXP) are 1.27 and 7.35, respectively, showing high volatility in exports in the country. Inflation (INF) also shows high variability with a standard deviation of 33.93, which indicates macroeconomic instability. From the skewness values, GDP is slightly skewed, with a skewness value of 0.49, which is only slightly skewed. Oil exports (OILEXP) are moderately right-skewed (1.16), while Non-oil exports (3.35) and inflation (4.87) are strongly right-skewed. From the Kurtosis values, Inflation (28.46), non-oil exports (15.83) have very high kurtosis. Oil exports (3.76) are also leptokurtic. GDP (1.59) is platykurtic. From the Jarque-Bera statistics & their probability values, Inflation, non-oil exports & oil exports with p values less than 0.05 are not normally distributed. However, GDP with a p-value of 0.073 is normally distributed.

Table 2. Correlation Matrix

	GDP	INF	NOILEXP	OILEXP
GDP	1	-0.2931	0.7124	0.9218
INF	-0.2931	1	-0.1604	-0.2599
NOILEXP	0.7124	-0.1604	1	0.8625
OILEXP	0.9218	-0.2599	0.8625	1

Source: Researcher's computation using EViews 12

Table 2, shows the pairwise Pearson correlation coefficients. From Table 2, oil exports have strong positive relationship (0.9218) with GDP, implying that as oil exports increase, GDP strongly increases. Exports of non-oil have a strong correlation with GDP (0.7124). Inflation has weak negative correlation (-0.2931) with GDP, suggesting that as inflation increases, GDP tends to decrease slightly.

Table 3. Summary of Phillips-Perron Test for Unit Root

Variables	PP Test Statistic	Test critical value at 5%	P – Value	Integration Order	Conclusion
GDP	-3.262937	-2.935001	0.0234	I(1)	Stationary
OILEXP	-3.822908	-2.935001	0.0056	I(1)	Stationary
NOILEXP	-4.685715	-2.935001	0.0005	I(1)	Stationary
INF	-10.60985	-2.933158	0.0000	I(0)	Stationary

Source: Author's Computation using E-Views 12

Table 3 displays the Phillips-Perron (PP) unit root test. The result indicates that only inflation exhibits stationarity at levels, i.e., I (0) at 5% significance level, while the others exhibited stationarity at first difference, i.e., I (1). Hence, the series are integrated at different orders, I (0) and I (1). Additional proof of stationarity is the p-values of all variables, which are below 0.05 (i.e., at 5% significance level). Since the integrated order are mixed, the F-bounds test was used to ascertain the cointegration status of the variables.

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Table 4. Summary of ARDL Bounds Test Result

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistics	Value	Significance	I (0)	I (1)
F-Statistic	5.074916	10%	2.37	3.2
K	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

The F-Bounds test findings is summarised in Table 4. Result from the table indicates that co-integration exists among the series (GDP, OEXP, NOEX, and INFL) since the F-statistic (5.074916) surpasses the upper bound (3.67) at 5% significance level.

Table 5. Summary of Lag Length Selection Criteria VAR Lag Selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1900.850	NA	2.66e+35	92.91952	93.08669	92.98039
1	-1754.621	256.7917	4.65e+32	86.56690	87.40279	86.87129
2	-1713.063	64.87233*	1.37e+32*	85.32013*	86.82473*	85.86802*

Source: Researcher's computation using EViews 12

From the lag selection results in Table 5, all the criteria (LR, FPE, AIC, SC and HQ) selected 2 as the highest lag length. Therefore, this research used 2 lags for the model estimation

Table 6. Results of ARDL Long-Run Estimates

Dependent Variable: GDP					
Variable	Coefficient	Std.Error	t – Stat.	Prob.	
INF	-120.1945		142.1868	-0.845328	0.4046
NOILEXP	-0.014445		0.005568	-2.594264	0.0145
OILEXP	0.005285		0.000781	6.766841	0.0000
C	27179.27		4518.676	6.014874	0.0000

Source: Author's computation with EViews 12

Table 6 above shows the long run influence of the predictor variables (OEXP, NOEX, and INF) on GDP. Oil exports (OEXP) with a coefficient of 0.005285 and a p-value of 0.0000 have a **strong positive** and statistically significant effect on GDP in the long time period at 5% significance level. This conforms with a priori expectation. A unit rise in oil exports increases GDP by 0.0053 units over the long-time path.

Non-oil exports (NOEXP) with a coefficient of -0.014445 and a p-value of 0.0145 have an **inverse** and statistically significant effect on GDP over the long term. This does not conform to a priori expectation. A unit rise in non-exports reduces GDP by 0.0144 units over the long-time path.

Inflation (INF) with a coefficient of -120.1945 and a p-value of 0.4046 negatively affects GDP, but the impact is **insignificant**. This conforms with a priori expectation. A unit rise in inflation reduces GDP by 120 units.

Table 7. Summary of Short-Run Results (Error Correction Regression)

Dependent Variable: GDP				
Variable	Coefficient	Std.Error	t – Stat.	Prob.
D(GDP(-1))	0.314584	0.113741	2.765800	0.0096
D(INF)	-3.401548	11.46448	-0.296703	0.7687
D(INF(-1))	10.63474	4.608064	2.307854	0.0281

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D(NOILEXP)	-5.51E-05	0.000311	-0.177217	0.8605
D(OILEXP)	0.000292	8.08E-05	3.614308	0.0011
D(OILEXP(-1))	-0.000325	9.00E-05	-3.611295	0.0011
ECM (-1)	-0.113152	0.021100	-5.362635	0.0000
R-squared	0.688290	Mean of dependent var	1451.979	
Adjusted R-squared	0.633282	Durbin-Watson stat	2.095670	
S.D. dependent var	1579.431			

Source: Author's computation with EViews 12

The table above shows the short run effect of the predictor variables on GDP. From Table 7, the R-squared coefficient is 0.688290. The coefficient indicates that about 69% of the total variation in GDP is explained by the predictor variables (OEXP, NOEX, and EXR). The remaining percentage (about 31%) is accounted for by other variables that affect economic growth but were outside the model. The Durbin-Watson statistic of 2.095670 no autocorrelation.

Oil exports having a coefficient of 0.0002920 is significant (p-value = 0.0011). This conforms with a priori expectation. This means oil exports positively and significantly influence GDP in the period of short run at 5% significance level. A unit rise in oil exports increases GDP by 0.0011 units. However, lagged oil exports with a coefficient of -0.0003250 is insignificant (p-value = 0.0011). This shows that past oil exports negatively and significantly influence GDP over the short term. A unit rise oil exports previously (past period) decreases GDP by 0.0011 units.

Non-oil exports a coefficient of 0.00005510 is insignificant (p-value = 0.8605). This reveals that the exports of non-oil negatively but insignificantly affect GDP (short run period) at 5% significance level. A unit in non-oil exports decreases GDP by 0.0001 units (short run period). This doesn't conform to a priori expectation.

Inflation with a coefficient of (-3.401548) is insignificant (p-value = 0.7687). This conforms with a priori expectation. This reveals that inflation negatively but insignificantly influence GDP during short run period at 5% significance level. A unit rise in inflation decreases GDP by 3.40 units. Lagged GDP with a coefficient of 0.314584 is significant (p-value = 0.0096) at 5% significance level. This shows that past GDP positively and significantly affect current GDP over the short-term period. A unit rise in GDP in the previously, increases current period GDP by 0.32 units.

The ECM with a coefficient of -0.113152 is negative & significant as shown by its associated p-value of 0.0000. This implies that about 11% of the short-run imbalance is corrected each year. Any short-term fluctuations in GDP are adjusted at a rate of 11% to get to long-term equilibrium.

Diagnostic Tests Results

The diagnostic or post-estimation test results is summarised in Table 8. These tests are meant to ascertain the appropriateness of our model.

Table 8. Diagnostic Tests Summary

Test	Null Hypothesis	Test Type	Test Statistic	Prob.
Normality Test	Normally Distributed Residuals	Jarque-Bera	JB-statistic (0.751206)	0.686875
Autocorrelation Test	Serial Correlation doesn't exist	Breusch-Godfrey LM Test	F-statistic (0.138563)	0.8712
Heteroscedasticity Test	Homoscedasticity exists	Breusch-Pagan-Godfrey	F-statistic (0.460808)	0.9020

Source: Author's computation with EViews 12

From Table 8, the Jarque-Bera test reveals that the residuals are normally distributed, because the test Statistic's probability (0.686875) is more than 0.05 (significance level). The Breusch-Godfrey LM Test shows no autocorrelation because the F-Statistic's probability (0.8712) exceeds 0.05. Additionally, the Breusch-Pagan-Godfrey test shows no heteroscedasticity since the prob. of the F-statistic (0.9020) exceeds 0.05.

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Stability Tests

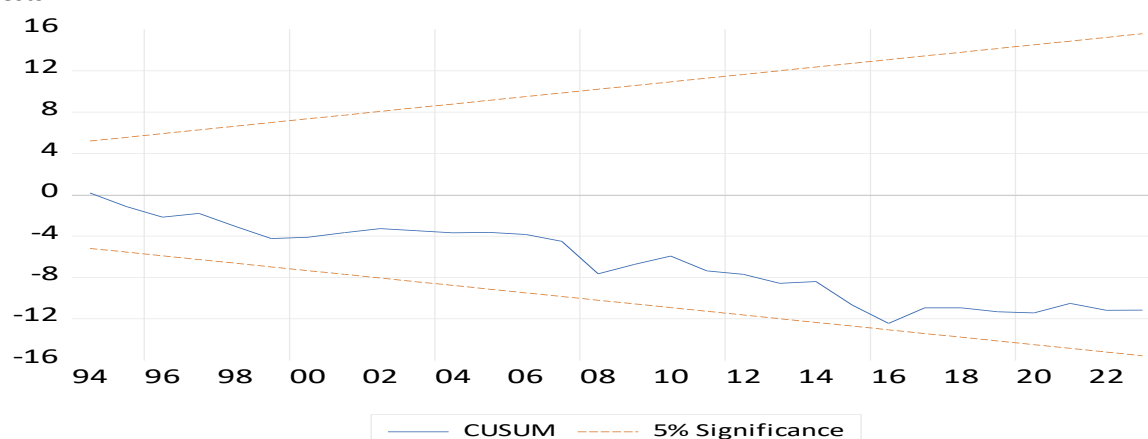


Figure 1: CUSUM Stability Tests

Figure 1 is the CUSUM stability test result. The result indicates a stable model, since the blue line inside the two red lines falls within the 5% boundary level. I.e., it doesn't cross the 5% lines (critical). This implies that the estimated coefficients are reliable and suitable for policy making.

Discussion of Results

This research investigated the contribution of exports of oil & exports of non-oil on Nigeria's economic growth. Findings indicated that exports of oil strongly and positively impact Nigeria's GDP over the short time period. This underscores the importance of oil earnings in Nigeria's overall economic development. Exports of petroleum are Nigeria's primary source of income, government spending, and foreign exchange which supports aggregate investment and production capacity. This finding is consistent with that of Oladosu et al. (2023), who concluded that the exports of oil positively and significantly impact Nigeria's GDP in the period of long run. The finding also reaffirms the conclusions of Ugwo et al. (2019), who discovered that the exports of oil impact Nigeria's economic performance positively and significantly. Ajayi (2016) also concluded that exports of crude had a more substantial influence on Nigeria's growth than non-oil exports. Also, Mgbomene et al. (2025) found that the revenue gotten from the sales of petroleum exports positively and significantly affected Nigeria's economy.

Findings from this study also reveal that the exports of non-oil negatively and significantly impact GDP in the period of long run. Nevertheless, the impact was insignificant over the period of short run. Non-oil exports may have an undesirable long-run effect on GDP in Nigeria as result of structural and economic reasons e.g. a decline in non-oil exports value (particularly agricultural products), bottlenecks in the petroleum sector (Poor infrastructure and limited access to credit), external shocks, and market volatility etc. This finding aligns with that of Chinyere et al. (2021), who concluded that the exports of non-oil do not significantly affect Nigeria's real GDP growth rate. The finding also agrees with that of Onodugo et al. in 2013. They discovered that the exports of non-oil contributed little to the total pace of Nigeria's economic development. This finding is also supported by Adenugba and Dipo (2013), who found that Nigeria's exports of non-oil have fallen short of expectations, raising suspicion about the efficiency of the chosen export development tactics.

Further findings reveal that inflation negatively but insignificantly affects GDP in both runs (short and long). This is in tandem with Owamah and Mgbomene (2025) as they found out that inflation negatively affected the growth of Nigeria's economy. In economic theory, high inflation increases uncertainty, and discourages investment and consumption, which harms economic growth (Ashakah et al., 2025). The insignificant effect of inflation on GDP in the long-term period in Nigeria may be as a consequence of its effect been usually overshadowed by structural issues, weak monetary transmission, & cost-push factors, making it less significant in driving long-run output.

CONCLUSION

This work investigated how the exports of oil as well the exports of non-oil influenced Nigeria's economic growth from 1981 to 2023. The Ex-post factor research design was used. The findings reveal that non-oil exports negatively and significantly impact GDP in period of long run. Although, the influence is insignificant in short time period. Findings also indicated that the exports of oil positively and significantly impact GDP in Nigeria both short and long runs. The study concludes that the exports of oil as well the exports of non-oil significantly boost Nigeria's economic growth (particularly long-term period).

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RECOMMENDATIONS

The recommendations drawn from the research findings are:

- Given that the exports of oil positively & significantly affect GDP **over long time period**, the government should: stabilize and strengthen oil export income by investing in upstream oil production, diversify its oil export markets to reduce over dependence on some trading countries, hedge against global oil price volatility through forward contracts, and Combating oil theft and pipeline vandalism.
- Given that the exports of non-oil negatively and significantly impact GDP over long time period, which may be due to inefficiencies, low quality of exports of non-oil products, or volatile global demand, the government of Nigeria should: diversify from exporting raw goods to processed and value-added commodities, improve the standards and logistics involving non-oil exports so as to make it competitive globally, and support schemes e.g. Nigeria Export Promotion Council.
- Given the that inflation negatively impact GDP (long term period), the government should maintain monetary policy discipline to keep inflation within target, improve food & energy access to lower cost-push inflation, and promote stable exchange rate to support export competitiveness.

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