OIL PRICE, EXCHANGE RATE FLUCTUATIONS, AND POVERTY RATE IN NIGERIA

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Abstract

The necessity to determine who benefits from growth and to determine the populace's perception of their quality of life underscores the urgency of moving beyond GDP metrics. The overarching objective is to comprehensively evaluate the impact of oil price and exchange rate fluctuations on the pursuit of decreasing the poverty rate in an oil-exporting country, focusing on Nigeria from 1987 to 2023. Time-series data are sourced from the Central Bank of Nigeria's statistical bulletin. Philips-Perron unit root tests indicate that the variables are integrated in a different order. The results of the co-integration test show that there is no long-run connection between pump prices for gasoline, oil rents, exchange rates, inflation rates, and the poverty gap in Nigeria. The results revealed that the official exchange rate and oil rents exert an insignificant positive effect on the poverty gap in the short run. Also, the inflation rate had a negative and significant impact on the poverty gap. Furthermore, the pump price for gasoline exerts an insignificant adverse effect on the poverty gap. Based on these findings, this study recommends that policymakers should prioritize stability in economic variables, diversify the economy, and implement targeted poverty alleviation measures. These actions can reduce poverty and foster economic resilience in Nigeria. Also, policies should focus on diversifying the economy away from oil dependence while ensuring oil revenues are effectively invested in poverty-alleviation programs, such as education, healthcare, and infrastructure development. As gasoline prices have an insignificant adverse effect on the poverty gap, subsidy reforms should be carefully designed to redirect resources toward social safety nets that more directly benefit people experiencing poverty.

Keywords: *Poverty gap; Official exchange rate; Pump price of gasoline; Inclusive growth; Time-Series Models.*
JEL Classification: I32, F31, O13, O10, C22

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1. Introduction

The intricate interplay between oil prices, exchange rate fluctuations, and the pursuit of inclusive growth underscores the dynamics of economic stability and development (Omoregie & Olofin, 2020). These factors constitute significant external shocks, propelling the economy into various trajectories. Oil, a globally traded commodity, holds a pivotal position in driving foreign exchange accumulation and reserves (Darko & Kruger, 2017; Kayalar et al., 2017). The movement of oil prices and exchange rates presents a formidable challenge to economic and business managers because of the ensuing uncertainty and instability (Daddikar & Rajgopal, 2016, as cited by Omoregie & Olofin, 2020). The consequences of oil price fluctuations can be far-reaching, directly impacting the economy or indirectly through exchange rate movements and governmental responses (Darko & Kruger, 2017).

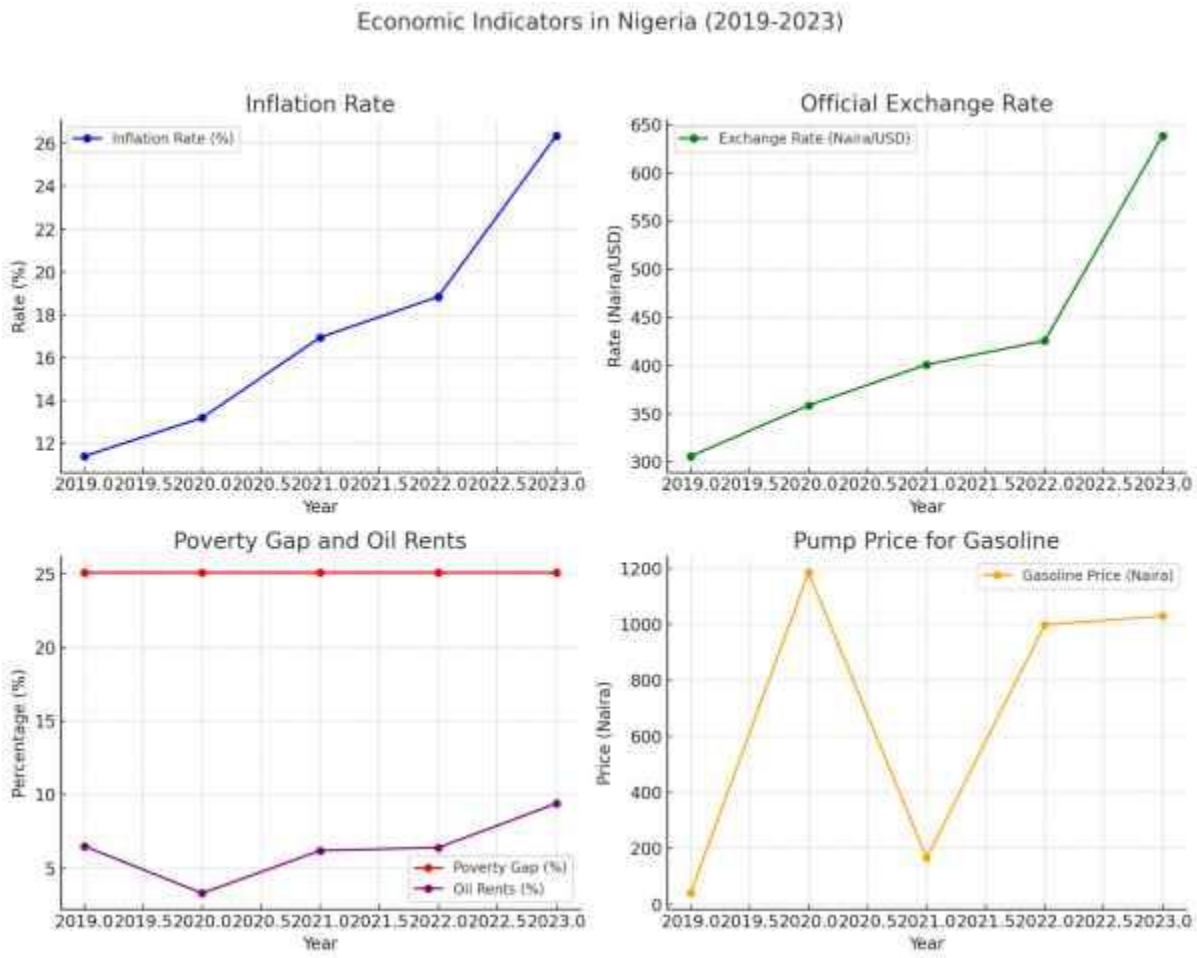
The complexities extend to oil-exporting nations, notably countries such as Nigeria, which heavily rely on oil earnings, importing over 85% of their finished oil products (Ogundipe & Ogundipe, 2013, as cited by Omoregie, 2020). Fluctuations in oil prices thus magnify the challenges faced by policy and management decisions, particularly considering Nigeria's dependence on oil exports. The effects cascade onto the domestic currency, where oscillations in oil prices can negatively affect the Nigerian naira (Ogundipe & Ogundipe, 2013, as cited by Omoregie, 2020). Inclusive growth emerges as a counterbalance, advocating for equitable distribution of economic benefits across society (OECD, 2018). This approach counters the conventional focus on materialistic well-being in favor of a holistic approach (Carmignani, 2010). The concept of inclusive growth has garnered substantial attention from policymakers and economists alike (Lee, 2019; Waite & Roy, 2022). However, growth indicators such as GDP often overlook non-market values, income equality, and overall quality of life. Therefore, the promotion of GDP growth as a national policy calls for a broader perspective (Kamran et al., 2022).

The quest for inclusive growth gained prominence with the launch of the Inclusive Growth initiative in 2012. Global institutions, organizations, and governments echo the need to address income disparity, poverty, and socioeconomic development disparities across multiple domains (Ali & Zhuang, 2007; Paprotny, 2021; Raheem et al., 2018). The translation of economic growth into sustainable development remains a paramount research question and challenge, spanning both developed and developing nations. In the context of this study, the poverty rate serves as a proxy for inclusive growth in Nigeria; recent trends, however, show a stark contrast. Despite high oil prices since 2021, the Nigerian economy's performance has remained lackluster. Macroeconomic stability weakened, with declining oil production, substantial costs of petrol subsidies, exchange rate distortions, fiscal deficit monetization, and soaring inflation rates. This deteriorating economic landscape compounds the challenge of reducing poverty. Current projections widen the gap between population growth and poverty reduction, underscoring the urgency to address this issue (World Bank report, 2023).

Scholarly exploration has revealed the profound impact of oil prices on economic development. Chen et al. (2020) investigated the long-term relationship between oil prices, food prices, exchange rates, and per capita GDP growth. Maipita et al. (2020) examined the influence of price changes of necessities on poverty levels. Moreover, the connection between food prices, production power, employment, purchasing power, poverty, and inequality levels has been established (Reyes et al., 2010). Osintseva (2022) confirmed the correlation between oil

price fluctuations and economic growth in oil-exporting countries. Undoubtedly, the quest to measure economic progress transcends the conventional reliance on gross domestic product (GDP), as it fails to encompass critical indicators that gauge the well-being of nations and societies (Stiglitz et al., 2018). The necessity to determine who benefits from growth and to determine the populace's perception of their quality of life underscores the urgency of moving beyond GDP metrics. This paradigm shift is examined by economists and researchers alike, seeking to embrace a more comprehensive assessment of well-being.

The prevailing literature has primarily delved into the impact of exchange rates on economic growth (Ewubare & Ushie, 2022; Lawali et al., 2020; Kreko & Oblath, 2020; Tule et al., 2020). While these studies have shed light on specific facets of the complex interplay, fundamental questions remain, prompting a deeper investigation. Key questions arise: How does a stable exchange rate contribute to inclusive growth in Nigeria? Do variations in exchange rate valuation exert asymmetric effects on inclusive growth in Nigeria? What are the underlying implications for fostering inclusive growth in the Nigerian context? Considering these inquiries, this study examines the intricate connections among oil prices, exchange rates, inflation rates, oil rents, and poverty in an oil-exporting nation—specifically, Nigeria. The overarching objective is to comprehensively evaluate the impact of oil price and exchange rate fluctuations on the pursuit of inclusive growth. This research endeavor aligns with the broader objective of understanding the dynamic relationships among these variables and their collective influence on Nigeria's socioeconomic landscape. However, this study moves forward the frontiers of knowledge by employing Vector Auto-Regression Estimations and Vector Error Correction Estimates to examine the relationship among the dynamics of exchange rates, oil prices, inflation rates, oil rents, and the poverty rate in Nigeria. How do these relationships manifest, and what insights can be gleaned from their interplay regarding poverty trends and inclusive growth prospects?



The graphs above illustrate key economic indicators in Nigeria from 2019 to 2023: The inflation rate steadily increased over the years, from 11.4% in 2019 to 26.37% in 2023. This sharp rise highlights growing price instability, which may have contributed to economic challenges. The official exchange rate of the Naira to the US Dollar exhibited a consistent upward trend, jumping from 306.08 Naira/USD in 2019 to 638.7 Naira/USD in 2023. This significant devaluation suggests increased pressure on the domestic currency. The poverty gap remained constant at 25.1% throughout the period, despite fluctuations in oil rents. Oil rents declined in 2020 but rebounded by 2023, reaching 9.4%. The lack of change in the poverty gap may imply inefficiencies in translating oil revenues into poverty reduction. Gasoline prices showed significant volatility, peaking in 2020 at 1,184.8 Naira before stabilizing around 1,000 Naira in subsequent years. These fluctuations could reflect global oil market dynamics and domestic pricing policies.

2. Literature Review

Exchange rate, a fundamental economic concept, bears substantial relevance to the study's exploration of the interplay between oil prices, exchange rate fluctuations, and poverty rate in Nigeria. Defined as the relative value at which one currency can be exchanged for another, the exchange rate embodies the intricate dynamics of international trade and economic interactions (Gbosi, 2019, as cited by Omekwe, 2019). In the specific context of this study, the exchange rate is distinctly framed as the value of the U.S. dollar compared to the Nigerian naira. This dimension gains

paramount significance due to Nigeria's economic structure, in which the exchange rate between the Nigerian Naira and the US Dollar carries profound implications for various economic indicators, including trade balances, investment flows, and ultimately, poverty and inclusive growth outcomes. The economic dynamics of exchange rates are of particular pertinence to this study's exploration of inclusive growth and poverty. As the Nigerian naira's value in relation to the U.S. dollar fluctuates, it directly impacts various economic facets, ranging from the cost of imported goods and services to the competitiveness of exports. These fluctuations, as indicated by empirical research (Ewubare & Ushie, 2022; Lawali et al., 2020; Kreko & Oblath, 2020; Tule et al., 2020), have potential implications for the poverty rate in Nigeria.

In the realm of economics, poverty manifests as a condition marked by the insufficiency of financial resources necessary to attain a basic standard of living. It encompasses individuals, households, and communities grappling with the dearth of means to satisfy fundamental requisites such as nourishment, shelter, clothing, and medical care (James, 2023). This state of poverty is caused by a scarcity of income that hampers the fulfillment of these essential needs. The multifaceted nature of poverty intertwines diverse social, economic, and political factors, causing a complex web of causes and consequences.

The empirical contours of poverty find profound illustration in Nigeria's socioeconomic landscape. The National Bureau of Statistics (NBS) issued the 'Poverty and Inequality in Nigeria' report for 2019, unveiling a stark reality. This report highlighted the poignant fact that a staggering 40% of the country's total population, equating to nearly 83 million individuals, grapples with life below the poverty line. This line, set at 137,430 naira ($381.75) annually, demarcates a threshold beneath which the means to a dignified existence become precarious (NBS, 2019).

This report's insights are a culmination of meticulous data collection undertaken through the Nigerian Living Standard Survey, conducted during 2018-2019. This endeavor, fortified by the collaborative efforts of the World Bank's Poverty Global Practice and the technical expertise of the LSMS program (Living Standards Measurement Study, 2020), underscores the gravity of the poverty predicament in Nigeria. It serves as an irrefutable testament to the pervasive impact of economic realities on the lives of millions. In this pursuit of comprehending the depth and breadth of poverty, the concept of the poverty gap assumes salience. The poverty level transcends the traditional purview of the poverty gap, emerging as a valuable proxy. This measure encapsulates the degree of poverty intensity within a nation. By delving into the nuances of the poverty gap, this study seeks to unravel the intricacies that belie the surface understanding of the poverty gap, aiming to capture the true essence of its magnitude and repercussions within Nigeria's socioeconomic milieu.

Effective governance is essential for transparently managing oil revenues and minimizing corruption (van der Ploeg, 2011). Economic diversification away from oil dependency is critical to reducing vulnerability to oil price fluctuations (Mlambo-Ngcuka, 2018). Social protection policies and programs are essential for addressing the poverty and inequality that persist despite Nigeria's resource wealth (World Bank, 2020; Ali & Zhuang, 2017).

Chukwuka and Uduh (2024) seek a solution to Nigeria's major economic problem through a qualitative and exploratory review of the extant literature on monetary policy or policies, Exchange rate stability, and its connection to poverty reduction using

qualitative techniques. The study confirms a connection between poverty and exchange rate volatility, as well as the unfavorable effect of monetary policy. The study associated fiscal dominance with the ineffectiveness of monetary policy. It seems that during the financial system liberalization era, monetary policy had a powerful effect on the stability of exchange rates. Additionally, the study discovered that exchange rate volatility is typically linked to periods of low foreign exchange reserves and vice versa in terms of external balance. Ashraq and Azhar (2024) analyze the Impact of Exchange Rate Changes on the Poverty Index in Iraq using the descriptive analysis method, ARDL, Error correction terms, and the Granger causality test. The results showed that there is no unidirectional causal relationship from imported inflation to the poverty rate. This means that changes in imported inflation cause changes in the poverty rate in the short term, which is quite logical and aligns with economic theory. It also confirms the existence of a long-term relationship between the economic development index and the exchange rate.

Zhang et al. (2022) explored the dynamic effects of oil price shocks on exchange rates by applying the time-varying parameter structural vector auto-regression stochastic volatility (TVP-SVAR-SV) model. From the response at different lag periods, they find that oil price shocks have a significant time-varying impact on the exchange rate, among which the oil demand shock has the most significant effect. The response of the exchange rate market to an oil price shock shows an apparent short-term time-varying effect and is positive and negative alternately, with a certain periodicity. From the response at different time points, the time-varying effect of oil price shock on exchange rates is related to the external shock. It is more intense during the global economic and political turmoil.

Osintseva (2022) examined the influence of oil factors on economic growth in oil-exporting countries. Using statistical and regression techniques, he confirmed that the correlation between oil price fluctuations and economic growth increases with the scale effect. Ewubare and Ushie (2022) examined the relationship between the exchange rate and economic growth in Nigeria between 1981 and 2020. Using descriptive statistics, unit root and bounds co-integration tests, and the ARDL model.

Osintseva (2022) examined the influence of oil factors on economic growth in oil-exporting countries. Using statistical and regression techniques, we confirm that the correlation between oil price fluctuations and economic growth increases with the scale effect. Larger economies (by absolute GDP in oil-exporting nations and hydrocarbon production) might generate more intensive economic growth from positive changes in oil prices than small economies. In addition, the OPEC members show the most substantial structural shifts in the change in the share of oil exports compared with the other countries. Omoregie and Olofin (2020) discuss the separate effects of oil price and exchange rate fluctuations on economic activity and corporate performance in Nigeria. The data series used in this study spans January 1985 to April 2018, using the autoregressive distributed lag (ARDL) bound co-integration test as proposed by Pesaran and Shin (1999).

In addition, Awujola et al. (2020) evaluated the relationship between oil price change and Nigeria's economic growth rate using regression analysis. By checking the time series for steady-state using the advanced Dickie-Fuller test, a regression equation is constructed where the dependent variable is represented as the price of oil and the independent variables are key macroeconomic indicators. Further, Brahmasrene et al. (2014) found that

exchange rates Granger cause oil prices in the short run, but in the medium and long run, oil price shocks were found to impact exchange rate fluctuations significantly.

3 Methodology

3.1 Theoretical Framework

Given the aim of this study, which is to investigate the impact of oil price and exchange rate fluctuations on the pursuit of inclusive growth, the theoretical framework guiding the study draws on the Purchasing Power Parity (PPP) theory and a simplified version of the model developed by Sloman and Hinde (2008) and Blanchard (2004) to explore the intricate relationships between oil price fluctuations, exchange rate dynamics, inflation, and their collective impact on poverty and inclusive growth in Nigeria. This framework is grounded in the understanding that economic variables are interconnected and influence each other in complex ways within an oil-exporting economy. The theoretical framework is based on the following assumptions. Economic variables such as oil prices, exchange rates, and inflation are interdependent and jointly contribute to shaping Nigeria's economic landscape. Government policies and interventions play a role in moderating the effects of economic shocks and shaping inclusive growth. The impact of these economic variables on poverty rates and inclusive growth may vary across different segments of the population and regions, or have heterogeneous effects.
It posits that changes in oil prices and exchange rates can trigger a chain of effects that influence poverty rates and inclusive growth in Nigeria. Higher oil prices can lead to increased government revenue, which, if effectively managed, can be invested in poverty alleviation programs and social services. Exchange rate fluctuations, by impacting import costs, can influence the affordability of essential goods and services. Inflation, driven by various factors, including exchange rate dynamics, can directly affect the cost of living and erode purchasing power.

Ultimately, this theoretical framework serves as the foundation for empirical analysis, guiding the selection of variables, econometric models, and methodologies to assess the relationships between economic factors and inclusive growth in Nigeria.

3.2 Model Specification

Consequently, a model is specified following the conjecture of Sloman and Hinde (2008) and Blanchard (2004). The model is specified as follows:

$$OPS = \beta_0 + \beta_1 GDP + \beta_2 EXCHR + \beta_3 INFL + \beta_4 INV + \mu \quad (1)$$

The study adapted this methodology, which is specified as follows:

$$PG = f(EXR, PPG, INF, OR) \quad (2)$$

$$PG = \beta_0 + \beta_1 EXR + \beta_2 PPG + \beta_3 INFL + \beta_4 OR + \mu \quad (3)$$

Where;

PG is the poverty gap at $3.65 a day (2017 PPP)(%), EXR is the official exchange rate, OILP is the pump price for gasoline (US$ per liter), INFL represents inflation i.e. the annual consumer price index growth rate in the economy, OR is oil rents (% of GDP), μ is white noise or stochastic error term. Equation three postulates that the poverty rate is positively related to the exchange rate, crude oil price, and inflation rate.

4 Discussion of Results

4.1 Preliminary Test Results

- **Descriptive Statistics**

Descriptive information about the study's variables is shown in Table 1. PG has an average value of approximately 35%, with a maximum value of 45% and a standard deviation of 8%. The most excellent INF value was 72.8%, and its typical mean was 20% with a standard deviation of 17%. OEXR also has a maximum value close to #638 and an average mean close to #148 with a standard deviation of 143%. PPG has a maximum value of approximately #1,184 and an average of #117 with a standard deviation of 290%. PG mimics negative skewness and platykurtosis, whereas INF mimics normal skewness and leptokurtosis. Platykurtic and negative skewness are also mirror reflections of OEXR. OR mimics normal skewness and mesokurtic (normal distribution), and PPG mirrors positive skewness and leptokurtic. All the variables under study are usually distributed, except for poverty gap and oil rent, which are not normally distributed. This issue is solved using the autoregressive distributed lag (ARDL) techniques.

Table 1: Descriptive Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max	Skew.	Kurt.	Jarque-Bera
PG	37	34.7622	7.5687	25.1000	45.2000	-0.0575	1.5482	3.2700
OER	37	148.4002	143.1086	4.0160	638.7000	1.4293	5.1472	19.7046
INF	37	19.9848	17.2076	5.3880	72.8355	1.7196	4.7317	22.8587
PPG	37	116.7057	290.3714	0.3199	1184.830	3.0335	10.4551	142.4290
OR	37	12.3313	5.9060	2.6842	28.7054	0.4632	3.0320	1.3239

Source: Authors' computation using E-views 12

4.2 Unit Root Test Results

A stability test determines whether the time series data used in the model is stationary or non-stationary. The outcomes of the Philips-Perron unit root test indicated that the oil rents, inflation rate, and pump price for gasoline were stationary at level at of 5%, and 10% significance levels, while the other variables were stationary at the levels and first difference denoted as I(1) in the integration order. As a result, the null hypothesis was rejected, and the alternative hypothesis was accepted. Consequently, the bound test co-integration test was analyzed. The provided information captures the notion that the Philips-Perron test assesses stationarity, specifically in the context of economic time series data.

Table 2: Philips-Perron Unit Root Test

Philips-Perron at 5% critical value						
	Level			**1st difference**		
	PP	**PROB**	**REMK**	**PP**	**PROB**	**REMK**
PG	-0.4757	0.8845	UR	-5.8607	0.0000	Stationary at 1st difference
INF	-2.9274	0.0520	UR	-7.8642	0.0000	Stationary at level & 1st difference
OEXR	3.6820	1.0000	UR	-2.3511	0.0067	Stationary at 1st difference
OR	-2.6459	0.0935	UR	-7.9439	0.0000	Stationary at level & 1st difference
PPG	-2.8857	0.0569	UR	-11.0090	0.0000	Stationary at level & 1st difference

Source: *Authors Computation, 2022 (Eviews 10) (*UR = Unit Root). Numbers indicate p-values. A maximum of 4 lag was included. Philips-Perron.*

4.3 Co-integration Test

The ARDL bounds test (Table 4.3) shows that there is no long-run relationship among the variables under study; the computed F-statistic is less than the lower bound value.

Table 3: Results of the co-integration test

T-statistics	**Value**	**K**
F-stat	3.0441	4
Critical Value Bounds		
Level of significance	I(0) Bounds	I(1) Bounds
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: Authors' computation using E-views 12

4.4 Autoregressive Distribution Lag (ARDL) Estimated Results

The short-run ARDL result is presented in Table 4. The results reveal that the official exchange rate (OER) and oil rents exert an insignificant positive effect on the poverty gap (PG) in the short run. This indicates that a unit increase in the official exchange rate and oil rents results in 0.48% and 11.68% increases in the poverty gap in the short run. Also, the inflation rate had a negative and significant impact on the poverty gap in Nigeria. This indicates that a unit increase in the inflation rate leads to a 12.34 percent decrease in the poverty gap. Furthermore, the pump price for gasoline exerts an insignificant adverse effect on the poverty gap in Nigeria during the period under study. The adjusted coefficient of determination (R^2) is 0.9349. This indicates that the independent variable jointly explains 93% of the total variation in the dependent variable. Furthermore, the F-statistic (40.6), which is used to measure the overall significance of the estimated models, shows significance. This indicated that the official exchange rate, the pump price of gasoline, the inflation rate, and oil rents can jointly affect the poverty gap in Nigeria.

Table 4: Results of Short-run ARDL Estimate

Variable(s)	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-0.1199	3.2028	-0.0374	0.9704
PG(-1)	0.8332	0.0710	11.7185	0.0000
OER	0.0048	0.0060	0.8054	0.4285
INF(-2)	-0.1234	0.0424	-2.9112	0.0077
PPG	-0.0005	0.0018	-0.2799	0.7820
OR	0.1168	0.0988	1.1830	0.2484
R-squared	0.9527			
Adjusted R-squared	0.9349			
F-statistic	53.6867			

Prob(F-statistic)	0.0000
Durbin-Watson stat	2.0568

Source: Authors' computation using E-views 12

4.3 Post-estimation Tests

The table below summarizes the results of the diagnostic tests to confirm the authenticity of the derived results from the autoregressive distributed lag (ARDL) technique. Conducted tests were four which includes the normality test – to confirm if the series were normally distributed, the linearity test – to confirm the linear assumption of the model, the serial correlation LM test – to be sure there is no serial autocorrelation problem and the heteroskedasticity test – to confirm if the series had constant variance or suffered from functional form misspecification. The Jarque-Bera value of 0.475 with a probability value of 0.789 indicates that the model data were normally distributed, as its probability value is greater than the 10% level. Therefore, the normality assumption is accepted.

The Breusch-Godfrey statistic of the serial correlation LM test showed that the time series data employed in the analyses had no serial correlation problem since the probability value is greater than the 10% level of significance. Furthermore, the Breusch-Pagan-Godfrey heteroskedasticity probability value is greater than the 10% level of significance; therefore, the acceptance of the alternate hypothesis of constant variance. The stability test result, as given by statistic (2.0340) and probability value of the Ramsey RESET test (0.1672), revealed that the series is free from non-linearity as its p-value is greater than the 10% level of significance.

Table 4.9: Summary of Post-Estimation Results

Test	Statistics	F-Stat (Value)	Probability
Linearity	Ramsey RESET	2.0340	0.1672
Serial Correlation LM	Breusch-Godfrey	0.1490	0.8624
Heteroskedasticity	Breusch-Pagan-Godfrey	0.7589	0.6538
Normality	Jarque-Bera	0.4746	0.7888

Source: Authors' computation using E-views 12

Conclusion and Recommendations

In conclusion, the findings of this study underscore the intricate relationship between the poverty gap, official exchange rate fluctuation, inflation rate change, oil rents, and gasoline pump prices in Nigeria. Official exchange rate (OER) and oil rents have an insignificant positive impact on the poverty gap in the short run, indicating that a unit increase in these variables increases the poverty gap by 0.48% and 11.68%, respectively. This suggests that while these factors are positively correlated with poverty levels, their effects are minimal in the short term. Conversely, inflation exerts a significant adverse effect on the poverty gap, with a unit increase in inflation reducing the poverty gap by 12.34%. This implies that higher inflation, within the context studied, correlates with reduced poverty levels. Additionally, the pump price of gasoline has an insignificant negative impact on the poverty gap. This confirms the results obtained in other studies, such as Peter (2022), Kangni and Boya (2021), and Brian et al. (2001), that oil price shocks are positively related to poverty. The measure of the success of the regression in predicting the values of the dependent variable within the sample is reflected by the adjusted R^2 value of 0.9349, demonstrating that the model explains 93% of the variations in the poverty

gap. At the same time, the F-statistic (40.6) confirms the joint significance of the independent variables, underscoring their collective relevance in addressing poverty.

To address these issues effectively, policymakers should prioritize stability in economic variables, diversify the economy, and implement targeted poverty alleviation measures. These actions can reduce poverty and foster economic resilience in Nigeria. Given the insignificant but positive impact of oil rents on poverty, policies should focus on diversifying the economy away from oil dependence while ensuring oil revenues are effectively invested in poverty-alleviation programs, such as education, healthcare, and infrastructure development. Also, the marginal effect of the official exchange rate on the poverty gap highlights the need for exchange rate stabilization policies to prevent adverse shocks that could exacerbate poverty levels. Furthermore, the significant adverse effect of inflation suggests that moderate inflation may stimulate poverty reduction, possibly through increased wages or economic activity. Policymakers should balance inflation control measures to maintain a level that supports economic growth without undermining the purchasing power of low-income households. Finally, as gasoline prices have an insignificant adverse effect on the poverty gap, subsidy reforms should be carefully designed to redirect resources toward social safety nets that more directly benefit people experiencing poverty.

Further research should focus on the effect of fossil fuels and inflation on the poverty gap in Nigeria, exchange rate policies on poverty alleviation in Nigeria, inflation, fuel prices, oil rents, and economic growth.

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