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Oil Price Shock and Inflation in Nigeria

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ABSTRACT
This study investigates the impact of oil price shocks on inflation in Nigeria over the period 1990 to 2025. Oil price shock is proxied using crude oil price, oil price volatility, and oil price shock indicators, while inflation is measured by the consumer price index (CPI). Exchange rate is incorporated as a control variable. Data were sourced from the World Bank's World Development Indicators (WDI) and analyzed using the Augmented Dickey-Fuller (ADF) unit root test and the Auto-Regressive Distributed Lag (ARDL) framework to establish stationarity and long-run relationships. The bounds test results confirm the existence of a long-run relationship between oil price dynamics and inflation. Empirical findings reveal that oil price volatility and exchange rate exert a positive and statistically significant influence on inflation, indicating that fluctuations in oil prices and currency depreciation are key drivers of price instability in Nigeria. In contrast, crude oil price shows a positive but insignificant relationship with inflation, while oil price shock exhibits a negative and insignificant effect on the consumer price index. The study concludes that although oil price shocks are relevant in explaining long-run inflationary trends, their direct short-run impact is limited. Consequently, the study recommends that the Central Bank of Nigeria should adopt a balanced and forward-looking monetary policy framework, focusing more on domestic monetary conditions, such as money supply and interest rates rather than overreacting to temporary oil price shocks.
Keywords: *Oil Price Shock, Crude Oil Price, Oil Price Volatility, Consumer Price Index Exchange Rate*

1. INTRODUCTION
Nigeria's economy remains heavily dependent on oil, which accounts for over 90% of total export revenue and approximately 70% of government revenue (NNPC, 2022). This reliance renders the country highly vulnerable to fluctuations in global oil prices, which can trigger macroeconomic instability. Oil price shocks, whether upward or downward, can significantly influence key economic variables, particularly inflation, through both direct and indirect channels. Sudden increases in oil prices often lead to higher production and transportation costs, which are subsequently passed on to consumers, generating cost-push inflation. Conversely, sharp declines in oil prices can reduce government revenue, potentially weakening fiscal capacity and affecting domestic demand, which also has implications for price stability. Oil price shock is defined by Hamilton (2022) as "an unexpected change in the global price of crude oil that disrupts domestic economic equilibrium and affects macroeconomic outcomes such as output, employment, and price levels." Similarly, Kumar and Singh (2023) describe oil price shocks as "volatile movements in international oil prices that translate into domestic price adjustments, especially in economies heavily reliant on oil exports or imports." Inflation, on the other hand, represents the sustained increase in the general price level of goods and services in an economy over time.

The link between oil price shocks and inflation is particularly pronounced in Nigeria due to the economy's structural dependence on oil, high import content of essential goods, and energy-intensive production sectors. For example, between 2015 and 2022, crude oil prices ranged from $28 per barrel in January 2016 to $80 per barrel in July 2018, while Nigeria's annual consumer price index (CPI) inflation oscillated between 9.0% in 2016 and 18.7% in 2017 (NBS, 2022). The sharp increase in inflation in 2017 coincided with rising oil prices, which increased fuel costs, electricity tariffs, and transportation expenses, highlighting the sensitivity of domestic prices to oil market shocks. Similarly, the global oil price crash in 2020 saw prices drop from $64 per barrel in January to $20 per barrel in April, triggering fiscal stress and influencing domestic inflationary trends through reduced government expenditure and exchange rate volatility. Previous studies have also highlighted the significant relationship between oil price shocks and inflation in Nigeria. Akinola and Adeyemi (2023) found that a 10% increase in global oil prices led to an average 1.8% rise in consumer prices in the short run, while Bello and Nwosu (2024) demonstrated that oil price shocks accounted for nearly 35% of the variance in inflation rates between 2000 and 2022. These findings underscore the critical role of oil price dynamics in shaping macroeconomic stability in Nigeria and the importance of designing policies that mitigate inflationary pressures arising from global oil market volatility.

Statement of Problem

Nigeria's heavy reliance on oil revenue exposes the economy to frequent shocks from global oil price fluctuations, which have far-reaching effects on macroeconomic stability. Despite efforts to diversify the economy, crude oil still accounts for over 90% of export earnings and approximately 70% of government revenue (NNPC, 2022), making the country highly susceptible to both upward and downward oil price shocks. These shocks have historically manifested in volatile domestic inflation rates, creating challenges for consumers, businesses, and policymakers. Between 2015 and 2022, crude oil prices ranged from $28 per barrel in January 2016 to $80 per barrel in July 2018, during which Nigeria's annual inflation oscillated between 9.0% in 2016 and 18.7% in 2017 (NBS, 2022). The surge in inflation in 2017 corresponded with rising oil prices, which increased production, transportation, and energy costs, driving up the Consumer Price Index (CPI). Similarly, the oil price collapse in 2020—from $64 per barrel in January to $20 per barrel in April—exacerbated fiscal deficits, depreciated the naira, and indirectly affected inflationary trends through higher import costs. These statistics demonstrate that oil price volatility is a key determinant of domestic price instability in Nigeria.

The Nigerian economy continues to grapple with the challenges of translating oil price movements into sustainable macroeconomic policies (Uford, 2017). While previous studies (Akinola & Adeyemi, 2023; Bello & Nwosu, 2024) have established a link between oil price shocks and inflation, there remains a gap in the literature regarding the magnitude, channels, and short-run versus long-run effects of these shocks in the post-2015 economic context. Most studies have either focused on pre-2015 data or have applied limited econometric techniques, leaving room for updated analyses that capture recent structural adjustments, monetary policies, and global oil market volatility. This study, therefore, seeks to address these gaps by examining the impact of oil price shocks on inflation in Nigeria using recent data and robust econometric methods.

Objectives of the study

The main objective of this study is to investigate the impact of oil price shock on inflation in Nigeria. The specific objectives are to:

i. analyzes the effect of oil price volatility on inflation in Nigeria.

ii. examine the effect of oil price shock on inflation in Nigeria.
iii. evaluate the effect of crude oil price on inflation in Nigeria.
iv. investigate the effect of exchange rate on inflation in Nigeria.

Hypotheses

In alignment with the research objectives, the study posits the following null hypotheses for empirical testing:

H_{01}: Oil price volatility has no significant impact on inflation in Nigeria.
H_{02}: Oil price shock has no significant impact on inflation in Nigeria.
H_{03}: Crude oil price has no significant impact on inflation in Nigeria.

Significance of the Study

The findings of this study are expected to offer substantial contributions to policy formulation, economic planning, and investment decision-making in Nigeria, particularly by providing insights into how oil price shocks influence domestic inflationary trends. Understanding this relationship is critical for mitigating the adverse effects of global oil market volatility on the Nigerian economy.

For the Central Bank of Nigeria (CBN), the study provides evidence to guide monetary policy interventions aimed at maintaining price stability, controlling inflation, and stabilizing the naira amid oil price fluctuations. The Federal Ministry of Finance (FMF) can utilize the findings to design fiscal policies that cushion the economy from revenue shortfalls during periods of declining oil prices. Similarly, the National Bureau of Statistics (NBS) will benefit by aligning its inflation monitoring and data dissemination strategies with real-time global oil price dynamics, enhancing the accuracy of economic indicators.

The Nigerian National Petroleum Corporation (NNPC) can use this study to understand the macroeconomic consequences of production decisions and oil price changes, thereby optimizing strategies for oil exploration, export, and revenue management. The Budget Office of the Federation (BOF) will find the results useful for forecasting revenue streams and planning government expenditures in scenarios of oil price volatility. For investors, particularly the Nigerian Investment Promotion Commission (NIPC), the study offers insights into the risk assessment and expected returns on investments influenced by inflationary pressures tied to oil prices.

Additionally, the Bank of Industry (BOI) and Nigeria Deposit Insurance Corporation (NDIC) can leverage the findings to design credit, lending, and risk management strategies that account for inflation fluctuations, thereby protecting both financial institutions and borrowers from macroeconomic shocks. Finally, the Federal Ministry of Industry, Trade, and Investment (FMITI) can benefit by using the study to align industrial production and trade policies with oil market realities, ensuring sustainable economic growth despite external shocks.

2. LITERATURE REVIEW

Concept of Oil Price Shock

Oil price shock refers to sudden and significant changes in the global price of crude oil, which can be either upward or downward, and which disrupt domestic and international economic equilibrium. Hamilton (2022) defines oil price shock as “an unexpected change in crude oil prices that creates macroeconomic disruptions, affecting output, employment, and general price levels.” Similarly, Kumar and Singh (2023) describe it as “volatility in international oil prices that translates into domestic economic adjustments, particularly in

economies that heavily rely on oil exports or imports." These shocks can arise from global supply constraints, geopolitical tensions, OPEC production decisions, natural disasters, or fluctuations in global demand for oil. In general terms, oil price shocks are categorized into positive (upward) shocks, which increase oil prices and production costs, leading to higher inflation, and negative (downward) shocks, which reduce oil prices, potentially lowering government revenues and affecting domestic demand. For resource-dependent economies like Nigeria, which earns over 90% of export revenue from oil, oil price shocks have significant implications for inflation, fiscal sustainability, foreign exchange stability, and overall economic growth (NNPC, 2022). Statistical evidence demonstrates the impact of oil price shocks on Nigeria's economy. Between 2015 and 2022, crude oil prices fluctuated from $28 per barrel in January 2016 to $80 per barrel in July 2018, corresponding with significant shifts in inflation rates, which moved between 9.0% in 2016 and 18.7% in 2017 (NBS, 2022). The sharp increase in inflation in 2017 coincided with rising oil prices, which elevated production, transportation, and energy costs, ultimately driving up the Consumer Price Index (CPI). Conversely, the global oil price collapse in 2020—from $64 per barrel in January to $20 per barrel in April—led to fiscal shortfalls, naira depreciation, and inflationary pressures through increased import costs.

Inflation

Inflation refers to the sustained rise in the general level of prices of goods and services within an economy over a period of time, eroding the purchasing power of money. According to Blanchard and Johnson (2022), inflation is "the rate at which the general price level of an economy increases, reflecting the aggregate imbalance between demand and supply pressures." Similarly, Mishkin (2021) defines inflation as "a persistent increase in prices that diminishes the real value of money and impacts consumption, investment, and overall economic stability." Economists generally distinguish between demand-pull inflation, driven by excess demand in the economy, and cost-push inflation, triggered by rising production costs, wages, or external shocks such as fluctuations in commodity prices. In contemporary global economy, there is advocacy for self-reliance and dependency on local raw material for refining of finished products and hence the focus on innovations with comparative advantage by every nation for services guarantee and efficiency (Etim & Uford, 2018). In Nigeria, inflation is highly sensitive to external factors due to the economy's heavy reliance on imports and the dominance of oil in government revenue. Empirical evidence highlights the volatility of inflation in response to oil market dynamics. Between 2015 and 2022.

Nigeria's Consumer Price Index (CPI) inflation ranged from 9.0% in 2016 to 18.7% in 2017, reflecting the influence of rising oil prices on transportation, energy, and production costs (NBS, 2022). Similarly, the global oil price collapse in 2020 corresponded with a 11.4% inflation rate, driven by exchange rate depreciation and increased import costs, underscoring the transmission mechanism from oil price shocks to domestic price levels. Inflation impacts multiple aspects of the economy, including household welfare, investment decisions, and the stability of financial markets (Charles & Uford, 2023). For policymakers, maintaining price stability is crucial to ensuring sustainable economic growth and protecting the real incomes of citizens. In this study, inflation is conceptualized as the dependent variable influenced by oil price shocks, allowing for the examination of how fluctuations in global oil prices translate into domestic price adjustments. Therefore, the constant rise in the cost of imports in such a troubled economy like Nigeria's requires the need for the nation to look inward by prioritising indigenous products in her multi-sectorial developmental drive (Umoh et al., 2024). Understanding this relationship provides critical insights for designing monetary, fiscal, and energy policies that mitigate inflationary pressures and enhance macroeconomic stability in Nigeria.

Relationship between Oil Price Shock and Inflation

The relationship between oil price shocks and inflation refers to how sudden and significant changes in global crude oil prices influence the general price level of goods and services in a domestic economy. In many developing economies, especially those highly dependent on oil exports like Nigeria, fluctuations in international oil prices tend to transmit directly into domestic economic conditions, shaping cost structures, price expectations, exchange rates, and ultimately inflationary outcomes. Oil price shock represents an exogenous force that alters production costs and purchasing power, while inflation reflects the resulting shifts in the general price level. Scholars have long acknowledged this nexus. Hooker (2023) asserts that oil price shocks materially propagate into domestic markets through cost-push mechanisms, where increases in energy prices raise input costs for production and transportation, thereby exerting upward pressure on consumer prices. Likewise, Smith and Okojie (2024) emphasize that in oil-dependent economies, the exchange rate channel is a powerful transmission mechanism: oil price downturns weaken export revenue, depreciate the domestic currency, and amplify the cost of imported goods, which in turn exacerbates inflation. This may lead to the introduction of new products or techniques or of a new quality that consumers are not yet familiar with. Therefore, Entrepreneurship is a first-class global theory through which many first world nations expand their economic strength (Umoh, 2021). These frameworks provide a basis for understanding the dynamic interplay between external price shocks and internal price dynamics.

Conversely, the dramatic oil price crash in 2020, when average Brent crude prices fell from approximately $64 per barrel in January to below $20 per barrel by April, had ripple effects on Nigeria's macroeconomy. The sharp contraction in oil export earnings weakened the naira, with the official exchange rate depreciating by more than 20% between early 2020 and late 2021, while CPI inflation stabilized at 11.4% in 2020 but rose again to over 15% in 2021 as import costs increased and fiscal pressures mounted (NBS, 2022; CBN, 2022). These data underscore how both upward and downward oil price shocks influence inflation through cost structures, exchange rates, and external balance effects. Theoretically, this relationship operates through multiple channels. First, the cost-push mechanism posits that oil price shocks directly raise production and distribution costs across sectors, especially in energy-intensive industries. Higher oil prices increase fuel, electricity, and transport costs, which businesses pass on to consumers through higher prices. Second, the exchange rate channel suggests that declines in oil export earnings weaken the naira, making imports more expensive and contributing to imported inflation. Third, the expectations channel holds that sustained periods of volatile oil prices can shape inflation expectations among firms and consumers, leading to price-setting behavior that embeds inflation into contracts, wages, and markets. In Nigeria's context, where oil receipts form the cornerstone of foreign exchange earnings, this relationship is acute. Low oil prices erode external buffers and government revenue, constraining fiscal space for subsidies or social support, while high oil prices increase cost structures and heighten inflationary pressures. Central Bank of Nigeria (CBN) (2022). Statistical Bulletin 2022. Abuja, Nigeria. Agricultural raw materials exports have a positive effect on real gross domestic product while agriculture value added exhibited a negative relationship with real gross domestic product (Utuk et al., 2024).

Theoretical Literature

Cost-Push Inflation Theory

The Cost-Push Inflation Theory was first conceptualized by Phillips (1958) and further developed by Samuelson and Solow (1960). This theory explains that inflation arises when the costs of production increase, leading firms to pass these additional costs onto consumers

through higher prices. These cost increases may occur due to rising wages, higher prices of raw materials, energy price shocks, or other supply-side factors that escalate production costs. Unlike demand-pull inflation, which results from excessive aggregate demand, cost-push inflation emphasizes the role of supply constraints and external shocks in driving price levels upward. Proponents of the theory argue that external shocks, especially in critical inputs such as oil, directly affect the general price level. In economies that are heavily dependent on oil, such as Nigeria, fluctuations in global oil prices serve as a major source of cost-push inflation. A sudden increase in oil prices raises production, transportation, and energy costs, which firms transfer to consumers, resulting in higher overall inflation.

Opponents, including Friedman (1968), contend that cost-push factors alone may not sustain long-term inflation unless combined with monetary expansion or demand pressures, suggesting that the interaction between supply shocks and macroeconomic conditions is critical for persistent inflation. The relevance of the theory to this study lies in its ability to explain the transmission mechanism through which oil price shocks affect domestic inflation in Nigeria. Given that oil is a key input in virtually all production and transportation activities, fluctuations in its price have immediate and observable effects on consumer prices. This makes the theory particularly suitable for analyzing the impact of oil price shocks on inflation. The study anchors on this theory because it provides a clear framework for understanding how external oil market volatility translates into domestic price pressures, enabling policymakers to identify supply-side drivers of inflation and develop strategies to mitigate their effects.

Monetarist Theory of Inflation

The Monetarist Theory of Inflation was developed by Friedman (1963), who posited that inflation is fundamentally a monetary phenomenon. According to the theory, inflation occurs when the money supply in an economy grows faster than the real output of goods and services, leading to a general increase in prices. Monetarists emphasize that controlling the growth of money in circulation is the most effective method to maintain price stability, and they argue that persistent inflation results primarily from excessive monetary expansion rather than from supply-side shocks alone. Proponents of the theory, including Friedman and Schwartz (1982), maintain that managing money supply growth is essential for achieving sustainable economic stability. They contend that any long-term deviation between money supply and real economic output inevitably translates into inflation. Opponents, however, such as Keynesian economists like Blanchard and Johnson (2022), argue that external shocks, such as sudden increases in oil prices or other critical imports, can generate inflation independently of monetary factors, at least in the short run, suggesting that the theory does not fully account for supply-side pressures and external vulnerabilities. Therefore, Economists are vastly divided on the desirability and impacts of fiscal deficit on the economy (Ekpo et al., 2024).

The relevance of the theory to this study lies in its explanation of the indirect channels through which oil price shocks may influence inflation. In Nigeria, oil revenue constitutes a substantial share of government earnings, which in turn affects public spending, liquidity in the economy, and the money supply. Fluctuations in oil prices can therefore influence monetary conditions, either tightening or expanding liquidity, and indirectly affect inflationary pressures. This theory complements the Cost-Push Inflation framework by accounting for the monetary and fiscal dimensions of inflation transmission, making it particularly valuable for understanding how oil price shocks interact with domestic monetary policy to influence price levels.

Empirical Literature

Ojo and Ibrahim (2025) used Panel Vector Autoregression for 2002–2022 across Nigerian states, including crude oil price, state CPI, state government revenue, intergovernmental transfers, and consumer wage rates. They found that oil price shocks significantly influenced state CPI. State revenue and consumer wages were positively associated with inflation, while intergovernmental transfers mitigated inflation in some states. The study concluded that subnational fiscal characteristics shape the inflationary impact of national oil price shocks. Additionally, Amadi and Ekong (2024) applied GARCH and EGARCH models from 2000 to 2022 to examine oil price returns, CPI inflation, exchange rate volatility, and market returns. They revealed that oil price volatility significantly increased inflation volatility, with negative oil price shocks generating larger effects than positive shocks. Exchange rate volatility amplified inflation uncertainty, while market returns had no consistent effect. The study concluded that volatility in oil prices translates into inflation uncertainty, complicating stabilization efforts.

Bello and Samuel (2024) utilized Johansen cointegration and Vector Error Correction (VEC) techniques from 1997 to 2021 to assess crude oil price, CPI, government expenditure, domestic credit, and industrial production. Their findings revealed a long-run positive relationship between oil price and inflation, with government expenditure and domestic credit also increasing CPI, whereas industrial production mitigated inflation. The study concluded that inflation arises from both external oil shocks and domestic fiscal and monetary policies. Also, Adewale et al. (2023) applied Dynamic Ordinary Least Squares (DOLS) to quarterly data from 2005 to 2022 to examine oil price shocks, CPI, interest rate, unemployment rate, and trade openness. The study found that oil price increases had a positive and statistically significant impact on inflation. Trade openness moderated this effect, higher interest rates were associated with reduced inflation, and unemployment had an insignificant direct effect. They concluded that trade policy and monetary conditions could alter the magnitude of inflationary outcomes from oil price shocks.

Yusuf and Adebisi (2023) applied Propensity Score Matching to assess inflation effects before and after exchange rate reforms from 2004 to 2022, including crude oil price, CPI, exchange rate regime, money supply, and foreign reserves. They observed that oil price shocks had a significantly weaker impact on inflation under flexible exchange rate regimes, money supply growth enhanced inflationary responses, and low foreign reserves worsened inflation. The study concluded that exchange rate flexibility combined with tight monetary policies reduces the inflationary impact of oil price shocks. Furthermore, Emeh and Onwudiwe (2023) used a VAR model from 2000 to 2022 to explore the impact of oil price shocks on Nigerian inflation. Variables included oil price (independent), CPI (dependent), exchange rate (control), and government revenue (control). Results indicated that oil price shocks significantly influenced CPI both directly through production costs and indirectly via exchange rate and fiscal channels. The study concluded that effective management of oil price volatility is essential to stabilize inflation and that both direct cost-push and indirect monetary-fiscal mechanisms are critical transmission channels.

Okonkwo and Umeh (2022) applied a Structural Vector Autoregressive (SVAR) model from 1990 to 2020 to examine oil price shocks' transmission to the general price level. Variables included oil price (independent), CPI (dependent), interest rate (control), and exchange rate (control). Results indicated that oil price shocks had a strong positive effect on CPI, with exchange rate depreciation significantly amplifying the effect. Interest rates had a negative but statistically insignificant impact. The conclusion highlighted that external oil price volatility is a major determinant of domestic inflation and that exchange rate stability can

moderate this effect. Still, Ogbonna and Emeka (2022) applied ARDL and ECM approaches from 1995 to 2020 to examine short- and long-run effects of oil price shocks on CPI. Variables included oil price (independent), CPI (dependent), exchange rate (control), and government expenditure (control). Results revealed that oil price shocks had immediate positive effects on CPI, exchange rate depreciation also amplified inflation, while government expenditure moderated long-term adjustments. The study concluded that both short- and long-run inflationary pressures are influenced by oil price volatility.

Ibe and Okoro (2022) investigated the asymmetric effects of oil price shocks on inflation in Nigeria from 1998 to 2020 using the Nonlinear ARDL model. They included crude oil price as the independent variable, consumer price index (CPI) as the dependent variable, and exchange rate, money supply, and fiscal deficit as control variables. Their results showed that positive oil price shocks significantly increased CPI, with larger inflation responses observed for positive shocks than negative shocks. Exchange rate depreciation significantly transmitted oil price effects into CPI, while increases in money supply and rising fiscal deficits reinforced inflationary pressures. Subsequently, Omotayo and Akinyemi (2021) employed the Structural Break VAR model covering 1990 to 2019, analyzing crude oil price, headline CPI, producer price index (PPI), exchange rate, and GDP growth. They found that oil price shocks significantly raised both headline CPI and PPI. Exchange rate depreciation strongly reinforced inflationary transmission, while GDP growth had no significant direct effect, indicating that oil shocks operate mainly through cost and exchange rate channels. Start-up risks refer to the potential challenges and uncertainties that new businesses face, which can hinder their growth, stability, and success. These risks are multifaceted and can be broadly categorized into financial, market, operational, and strategic risks (Edet et al., 2024). The study concluded that structural breaks are an important feature in Nigeria's inflation dynamics in response to oil price shocks.

Okorie et al. (2022) implemented Threshold Regression Analysis for 1990–2020, including oil price shocks, CPI, inflation expectations, public debt, and interest rate. They found that when oil price changes exceeded positive thresholds, CPI rose significantly. Inflation expectations reinforced the inflationary effect, interest rates had a mitigating negative effect, and public debt was insignificant. The study concluded that inflation responses intensify when oil price changes cross critical thresholds. Likewise, Eze and Obi (2022) analyzed short-run and long-run effects of oil price shocks on Nigerian inflation from 1995 to 2020 using a Vector Error Correction Model (VECM). Variables included crude oil price (independent), CPI (dependent), exchange rate (control), and government expenditure (control). Results revealed that in the short run, oil price shocks significantly increased CPI, while exchange rate movements amplified the effect. Government expenditure had a marginal positive effect on inflation. In the long run, CPI adjusted to oil price changes primarily through exchange rate depreciation, confirming both direct and indirect transmission mechanisms. The study concluded that oil price shocks have a persistent impact on inflation in Nigeria.

Akpan (2021) investigated the effect of oil price volatility on consumer price inflation in Nigeria from 2000 to 2019 using monthly time-series data and Ordinary Least Squares (OLS) regression. The study included oil price (independent), exchange rate (control), money supply (control), and CPI (dependent). Results showed that oil price volatility had a positive and significant effect on CPI, indicating that increases in oil prices raised production and transportation costs. Exchange rate depreciation also significantly increased CPI, while money supply had a positive and moderating effect on inflation. The study concluded that oil price volatility is a major driver of domestic inflation, and that managing exchange rate

stability is critical. Accordingly, Musa et al. (2021) applied the Autoregressive Distributed Lag (ARDL) bounds testing approach to study the impact of crude oil price changes on inflation from 2005 to 2020. Variables were crude oil price (independent), CPI (dependent), money supply (control), and government expenditure (control). The study found that crude oil price increases had a direct and significant positive effect on CPI, while money supply also positively influenced inflation but at a lower magnitude. Government expenditure moderated the effect of oil price shocks. The conclusion emphasized that oil price shocks contribute significantly to inflationary pressures and that fiscal and monetary policy play moderating roles.

Abdul et al. (2021) examines the impact of oil price shocks on the dynamics of inflation in Nigeria between 1980 and 2020. The study uses ARDL model to examine the impact and data were sourced from Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics. Consumer price index (CPI) was used to proxy inflation which is the dependent variable while the independent variables include money supply, oil price and exchange rate. The results of the findings show that one period lags of oil price, consumer price index, exchange rate, money supply and two period lags of oil price and consumer price index have positive but insignificant impact on consumer price index. While the two period lags of exchange rate and money supply have negative and insignificant impact on consumer price index in Nigeria. As well, Eze and Nnamdi (2021) used the Frequency Domain Causality test for 1995–2019, including global oil price, headline CPI, core CPI excluding food and energy, exchange rate, and fiscal balance. Their results demonstrated that oil price shocks causally influenced headline CPI at low and medium frequencies but had limited impact on core CPI at high frequencies. Exchange rate depreciation contributed to persistent inflationary pressures, while fiscal balance effects were inconsistent. The study concluded that the shock-inflation relationship varies across inflation measures and time horizons.

Chukwu and Nwosu (2021) studied oil price shocks and inflationary pressures in Nigeria from 1995 to 2019 using ARDL modeling. Variables included oil price (independent), CPI (dependent), industrial production index (control), and government revenue (control). Oil price shocks were positively significant on CPI, industrial production had a negative but weak effect, and government revenue positively influenced inflation indirectly through fiscal policy. The study concluded that both direct cost-push effects and fiscal transmission mechanisms drive inflation in response to oil price shocks. Still, Udo and Adebayo (2021) studied sectoral inflation from 2005 to 2020 using panel regression across energy, transport, and food sectors. Independent variables were oil price, energy cost, and transport cost, while sectoral CPI indices were dependent. Results indicated that oil price shocks had strong positive effects on transport and energy CPI, moderate effects on food CPI, while energy and transport costs served as important transmission channels. The study concluded that sectoral inflation in Nigeria is highly sensitive to oil price shocks, particularly in transport and energy sectors.

Bello et al. (2020) examined oil price shocks on CPI from 2000 to 2018 using OLS regression. Variables included oil price (independent), CPI (dependent), money supply (control), and exchange rate (control). Findings showed that oil price shocks had a positive and significant effect on CPI, money supply significantly amplified inflationary pressure, and exchange rate depreciation had a reinforcing effect. The study concluded that oil price shocks, combined with monetary and exchange rate dynamics, significantly influence domestic inflation in Nigeria. Similarly, Okafor and Chima (2020) conducted a panel regression analysis across Nigeria's six geopolitical zones for 2000 to 2018, considering oil price shocks, regional CPI, regional wage levels, transport costs, and regional exchange rates.

They reported that oil price shocks significantly increased CPI in all regions, with higher transport costs in northern zones amplifying inflation sensitivity and wage levels contributing positively to inflation. The study concluded that regional differences significantly affect how oil price shocks translate into inflation across Nigeria.

Adegboye and Alabi (2020) examined oil price shocks and food price inflation in Nigeria from 2000 to 2018 using multiple regression analysis. Variables included crude oil price (independent), food CPI (dependent), exchange rate (control), and agricultural output (control). The results revealed that oil price increases led to a significant rise in food CPI, confirming the cost-push mechanism. Exchange rate depreciation significantly amplified the effect, while agricultural output had a negative effect, mitigating some of the inflationary pressure. The study concluded that oil price shocks directly affect sectoral inflation, particularly in food, through increased production and transportation costs.

Subsequently, evaluation of previous studies on oil price shock and inflation in Nigeria provides substantial evidence on the transmission of external oil market disturbances into domestic price dynamics. A careful review indicates that most studies converge on the inflationary consequences of oil price movements, though they differ in analytical depth, scope, and methodological orientation. A large body of studies, including Bello and Samuel (2024), Ogbonna and Emeka (2022), and Eze and Obi (2022), employ cointegration and ARDL-based frameworks to establish that crude oil price increases exert a positive and significant effect on inflation, both in the short and long run. These studies further emphasize that exchange rate depreciation amplifies inflationary pressures, while fiscal variables such as government expenditure and monetary factors like money supply serve as important transmission channels. Similarly, VAR and SVAR-based studies (Emeh and Onwudiwe, 2023; Okonkwo and Umeh, 2022; Omotayo and Akinyemi, 2021) highlight that oil price shocks influence inflation not only directly through cost-push mechanisms but also indirectly via exchange rate and fiscal linkages.

Another strand of the literature advances the analysis by incorporating volatility and asymmetry. For instance, Amadi and Ekong (2024) and Akpan (2021) demonstrate that oil price volatility significantly increases inflation uncertainty, while nonlinear approaches (Ibe and Okoro, 2022) reveal that positive oil price shocks exert stronger inflationary effects than negative shocks. Threshold and frequency-based studies (Okorie et al., 2022; Eze and Nnamdi, 2021) further show that inflation responses vary depending on the magnitude of shocks and time horizons. In addition, panel and sectoral analyses (Ojo and Ibrahim, 2025; Udo and Adebayo, 2021; Okafor and Chima, 2020) indicate that the inflationary impact of oil price shocks differs across regions and sectors, reflecting structural and institutional heterogeneity within Nigeria. Despite these rich contributions, several gaps remain evident. First, most studies focus on oil price or oil price shocks in isolation, with limited effort to jointly integrate oil price shock, oil price volatility, crude oil price, and exchange rate within a single, comprehensive framework for explaining inflation. Second, while Nigeria is consistently examined, many studies adopt shorter or fragmented time periods, thereby failing to capture long-term structural dynamics and recent developments up to 2025. Third, methodological approaches are often applied independently, with limited integration of volatility models and cointegration techniques to simultaneously account for uncertainty and long-run relationships.

Finally, although exchange rate appears as a control variable in many studies, its role as a key transmission mechanism linking oil price dynamics to inflation is not sufficiently explored in a holistic manner. In view of these limitations, this study contributes to the literature by

adopting a more integrated framework that simultaneously incorporates oil price shock, oil price volatility, crude oil price, and exchange rate in explaining inflation in Nigeria over the period 1990 to 2025, thereby offering deeper insights into the dynamics of oil-induced inflationary pressures.

3. METHODOLOGY

This study used ex-post facto research design. The ex-post factor research design was used because the facts has been established and cannot be manipulated by the researcher while secondary data were collected from the World Banks World Development Indicator (WDI) 2025 on Crude Oil Price (COP) and Exchange Rate (EXR). However dummy variable was used to generate data for Oil Price Shock (OPS) while the Author manually computed Oil Price Volatility (OPV) from data from World Banks World Development Indicator (WDI). The Augmented Dickey Fuller (ADF) method was used in order to do the unit root test on the model that was developed. Taking into consideration the results of the ADF, the research used the Auto-regressive Distributive Lag (ARDL).

Model Specification

The analytical framework of this study is anchored on the Cost-Push Inflation Theory, which posits that increases in the cost of key production inputs such as energy and imported goods lead to a general rise in price levels. In an oil-dependent economy like Nigeria, fluctuations in oil prices and exchange rate movements significantly influence production costs and, consequently, inflation dynamics. Building on the model of Abdul et al., the baseline specification expresses consumer price index as a function of exchange rate, money supply, and oil price. However, to better capture the multidimensional effects of oil price movements, the model is modified by decomposing oil price into oil price shock and oil price volatility, thereby capturing both sudden changes and fluctuations. Money supply is excluded to maintain focus on cost-driven external factors, while crude oil price is retained to capture the direct price effect.

Thus, the modified model is specified as:

CPI=f (OPS, OPV, COP, EXR) *2*

The mathematical model could be symbolically expressed as;

$$CPI = \beta_0 + \beta_1 OPS + \beta_2 OPV + \beta_3 COP + \beta_4 EXR \quad 3$$

$$CPI = \beta_0 + \beta_1 OPS + \beta_2 OPV + \beta_3 COP + \beta_4 EXR + e \quad 4$$

Where:

CPI = Consumer Price Index, OPS = Oil Price Shock, OPV = Oil Price Volatility, COP = Crude Oil Price. EXR = Exchange Rate, f = functional relationship β_0 = Intercept of relationship in the model/constant B_1-B_4 = Coefficients of each independent or explanatory variable e= Stochastic or Error term.

Description of Variables in the Model

Variables	Description	Expected Impact on CPI	Source
CPI (Dependent)	This measures the average change over time in the prices paid by households for a basket of goods and services. It is the standard indicator used to track inflation and the cost of living in an economy.		**WDI, 2025**
COP	This refers to the international market price per barrel of crude oil, usually denominated in U.S. dollars. An increase in crude oil price typically	**COP >0**	**WDI< 2025**

	raises production and distribution costs, which are passed on to consumers. Therefore, an increase in crude oil price has a positive relationship with CPI, leading to higher inflation.		
OPV	This refers to fluctuations or uncertainty in the international price of crude oil over time. Higher volatility creates uncertainty in production costs, planning, and pricing, making firms more likely to adjust prices upward to hedge against risk. Consequently, higher oil price volatility is expected to have a positive relationship with CPI, contributing to inflationary pressures.	**OPV >0**	**Authors Computation, 2026**
OPS	This is an unexpected and significant change in oil prices. Increase in oil price shock decrease production costs and energy prices, leading to lower price levels, and can temporarily reduce inflation.	**OEV<0**	**Dummy Variable**
EXR	This measures the value of the domestic currency relative to foreign currencies. A depreciation of the domestic currency increases the cost of imported goods, including refined oil products, thereby raising domestic prices.	**EXR>0**	**WDI 2025**

Empirical Data Analysis

Table 1: Descriptive Statistics

	CPI	OPS	OPV	COP	EXR
Mean	149.6917	0.388889	-1.160000	53.36389	237.6306
Median	74.05000	0.000000	2.470000	53.29000	132.8250
Maximum	699.4000	1.000000	43.34000	111.6700	1535.050
Minimum	2.400000	0.000000	-88.53000	12.72000	8.040000
Std. Dev.	184.5000	0.494413	26.77701	31.88759	348.0818
Skewness	1.777934	0.455842	-1.646123	0.371184	2.977655
Kurtosis	3.049564	3.207792	6.213819	1.855957	11.45069
Jarque-Bera	27.96684	6.064766	31.75127	2.789917	160.3198
Probability	0.000001	0.048201	0.000000	0.247843	0.000000
Sum	5388.900	14.00000	-41.76000	1921.100	8554.700
Sum Sq. Dev.	1191408.	8.555556	25095.28	35588.64	4240632.
Observations	36	36	36	36	36

Source: E-view 13 Output

The descriptive statistics provide important insights into the behavior, distribution, and dispersion of the variables under consideration, namely CPI, OPS, OPV, COP, and EXR. In terms of central tendency, the mean values show that CPI (149.69) and EXR (237.63) are relatively high, reflecting persistent inflationary pressures and exchange rate depreciation over the study period. COP has a moderate mean of 53.36, while OPS (0.39) and OPV (-1.16) exhibit relatively low average values, indicating the binary nature of OPS and

fluctuating oil price volatility captured by OPV. The noticeable differences between the mean and median, particularly for CPI and EXR, suggest the presence of asymmetry and extreme values in the series.

Regarding dispersion, the standard deviation indicates the extent of variability around the mean. CPI (184.50) and EXR (348.08) exhibit very high standard deviations relative to their means, implying substantial volatility and wide fluctuations over time. This suggests that both inflation and exchange rate experienced significant instability. OPV (26.78) also shows considerable variability, reflecting pronounced swings in oil price volatility. In contrast, OPS (0.49) show minimal dispersion due to its dummy nature, while COP (31.89) indicates moderate variability in crude oil prices. The range (maximum–minimum) further reinforces these observations. CPI ranges from 2.40 to 699.40, and EXR from 8.04 to 1535.05, indicating extreme variations and possible structural shifts over the period. OPV exhibits a widespread from -88.53 to 43.34, confirming high volatility in oil price changes. COP shows a narrower but still notable range (12.72 to 111.67), while OPS is bounded between 0 and 1 as expected.

A closer look at the deviation from the mean reveals that CPI and EXR deviate substantially from their average values, indicating that observations are widely dispersed and not tightly clustered around the mean. This suggests instability and possible structural breaks in these variables. OPV also shows large deviations, implying erratic fluctuations in oil price volatility. Conversely, OPS exhibits minimal deviation due to its binary structure, while COP shows moderate deviations, indicating relatively more stability compared to CPI and EXR. With respect to distributional properties, skewness values indicate the degree of asymmetry. CPI (1.78) and EXR (2.98) are highly positively skewed, implying a long right tail driven by extreme high values. OPS (0.46) and COP (0.37) are mildly positively skewed, suggesting near-symmetric distributions. In contrast, OPV (-1.65) is negatively skewed, indicating a longer left tail and the presence of extreme negative values. The kurtosis statistics provide information on the peakedness of the distribution. CPI (3.05) and OPS (3.21) are approximately mesokurtic, resembling a normal distribution. COP (2.86) is slightly platykurtic, indicating a flatter distribution. However, OPV (6.21) and EXR (11.45) are highly leptokurtic, suggesting heavy tails and the presence of outliers.

Finally, the Jarque-Bera (JB) test assesses normality. The probability values indicate that CPI ($p = 0.000001$), OPV ($p = 0.000000$), and EXR ($p = 0.000000$) are not normally distributed, as their p-values are less than 0.05. In contrast, OPS ($p = 0.1482$) and COP ($p = 0.2478$) are normally distributed since their p-values exceed 0.05. Therefore, the results indicate mixed normality, with some variables deviating significantly from normal distribution due to skewness and excess kurtosis. However, this does not preclude further econometric analysis, as unit root tests such as ADF and PP are robust to non-normality. Therefore, the study can proceed to unit root testing to examine the stationarity properties of the variables.

Unit Root Test

A unit root test known as the Augmented Dickey Fuller (ADF) test was used in the research project to determine the order of integration of the variables that were being investigated. This was done in order to pick the proper approach and prevent false regression**.**

Table 2: Unit Root Test Using Augmented Dickey Fuller (ADF)

Variables	Levels	First Difference	Order of	P-value

	T. Statistics	5% Critical Value	T. Statistics	5% Critical Value	Integration	
LCPI	-3.221237	-2.948404			I(0)	0.0271
OPV	-5.866898	-2.948404			I(0)	0.0000
LCOP	-1.245893	-2.948404	-5.339290	-2.951125	I(1)	0.0001
LEXR	-0.774859	-2.948404	-5.364524	-2.951125	I(1)	0.0001

Source: Extracts from E-view 13. * Level of significance at 5%

We examined all of the research variables using Augmented Dickey Fuller (ADF) tests to see whether they were stationary or non-stationary series, following the guidelines provided by table. 2. At the initial difference I(1), the stationarity test indicated that LCOP, and OPV, stationary, whereas LCPI and OPV is stationary at the level I(0). The variables show either mixed-order integration or stationarity of level and initial differences when we analyse their stationarity. The Autoregressive Distributive Lag (ARDL) technique was used to analyse the data. Both the first difference (I(1)) and the stationary at level I(0) may be handled by this method. The ARDL test is the most appropriate analytical technique to utilise since it looks at the relationship between the independent and dependent variables in terms of both short-term and long-term trends.

Co-integration Test

Table 3 ARDL Bound Test

Test Statistics	Value	K
F-statistics	**8.445520**	**4**

Significance	I (0)	1(1)
10%	2.75	3.99
5%	3.35	4.77
1%	4.76	6.67

Source: Authors computation 2026

From table 3 the bound test result indicates that there exist long run relationships amongst the variables as the F-statistic value of 8.445520 exceeds both the lower and upper bound critical values. Thus, we reject the null hypotheses of no long run relationship and accept its alternative. This means that there is a long-run relationship between Oil Price Shock and Inflation in Nigeria.

Short and Long-Run Estimation Results for the Model

The results of the short and long-run dynamics association of the model are presented in table 4.4 below.

Table 4.4 ARDL Short and Long-run Result for the Model

Short Run Coefficient				
Variable	Coefficient	Std. Error	t-Statistics	Prob
D(OPS)	-0.147789	0.052725	-2.803010	0.0113
D(OPV)	0.003159	0.001136	2.780529	0.0119
D(LCOP)	-0.273281	0.104387	-2.617950	0.0169
D(LCOP(-1)	0.244546	0.087966	2.780021	0.0119
ECM(-1)	-0.237136	0.050764	-4.671362	0.0002
Long Run Coefficient				
Variable	Coefficient	Std. Error	t-Statistics	Prob
OPS	-0.506759	0.377533	-1.339639	0.1908
OPV	0.045938	0.017321	2.652185	0.0093

LCOP	0.379481	0.266921	1.421700	0.1658
LEXR	0.592921	0.225396	2.630570	0.0135
C	0.208532	0.026903	7.751318	0.0000
Adj R^2 =0.375107, F-statistics = 2.479054 (0.005302), DW = 1.983125				

Source: *Authors computation using E-view 13 2026*

The coefficient estimates for the error correction term, ECM (-1) has a negative value and is significant at the 0.05 level. It suggests that the model will reach long-run equilibrium at a rate of 0.24% every year. This means that a yearly adjustment speed of 0.24% may fix the mistake from the previous year. The independent variables (OPS, OPV, LCOP & LEXR) explain 38% of the total variance in the dependent variable (LCPI), according to the adjusted R-Square (R2) value. As a whole, the model is noteworthy since the F-statistic is significant at the 5% level of significance. Without serial correlation, the model would not work, according to the Durbin-Watson statistics of 1.983125 which is close to 2.

Table 3 displays the model's short-and long run outcome. The logarithm coefficient of crude oil price (LCOP) and the value of oil price shock (OPS) had a negative but significant impact on the log value of consumer price index (LCPI) while oil price volatility (OPV) and the logarithm value of exchange rate (LEXR) had a positive and significant impact on the log value of consumer price index (LCPI) in the short run. Equally, table 3, shows that the outcome of the long-run result that the log coefficient of exchange rate (LEXR), and the value of oil price volatility (OPV) has a positive and significant impact on log value of consumer price index (LCPI).

While the log value of crude oil price (LCOP) reported a positive but insignificant relationship with the log value of consumer price index (LCPI). However, the value of oil price shock (OPS) had a negative and insignificant relationship with log value of consumer price index (LCPI) in the long run.

Diagnostic Test

Table 5: Ramsey Reset Test, Serial Correlation LM Test and Homoscedasticity Test Results

	F-Statistic	**Prob-Value**
Ramsey Reset Test	1.272786	0.7733
Breusch-Godfrey Serial Correlation LM Test	0.652188	0.5371
Breusch-Pagan-Godfrey Heteroskedasticity Test	0.918338	0.5707

Source: Authors computation 2026

From Table 5, the result of the diagnostic test shows that the linearity test using Ramsey Reset test indicates that the f-statistic (1.272786) with computed p-value of 0.7733 which is greater than 5 percent (0.05) critical value, hence the study reject the null hypothesis and conclude that the model is correctly specified. The result of the Serial or Autocorrelation Test using Breusch-Godfrey Serial Correlation LM Test shows that the f-statistic is 0.652188, with a Chi-Square probability value is 0.5371. This indicates that the probability value of about 54 percent (0.5371) is greater than 5 percent (0.05) critical value; hence the study confirms no serial correlation in the model. The result of the heteroscedasticity test using Breusch-Pegan-Godfrey test shows that the f-statistic is 0.918338 with a Chi-Square probability value of 0.5707 The result suggests that there is no evidence of heteroskedasticity in the model since the probability Chi-square value is more than 5 percent (P >0.05). So,

residuals do have constant variance which is desirable in regression meaning that residuals are Homoscedastic.

Figure 1: Normality Test

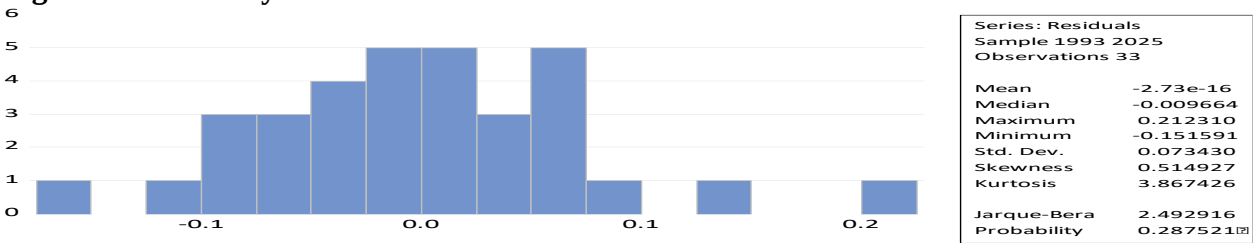

Figure 1, shows summary of the normality test with Jarque-Bara value of 0.492916 and a corresponding probability value of 0.287521 more than 0.05 level of significance, indicating that the residuals are normally distributed.

Figure 2: Stability Test

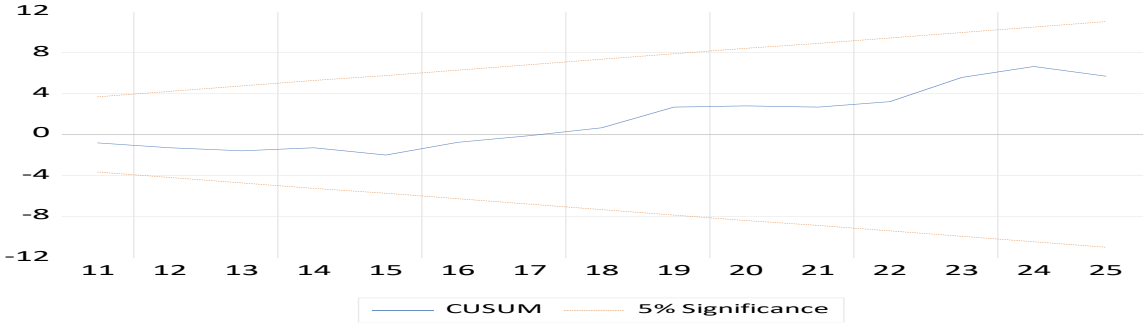

Figure 2 shows summary of the stability test, the result showed that the model is stable. This is evident to the fact that the blue line is in-between the two red (-5 & +5) or less than 0.05 level of significance.

4. DISCUSSION Of FINDINGS

Oil Price Shock and Consumer Price Index in Nigeria.

The inference drawn from the long-run using the Auto-Regressive Distributive Lag (ARDL) result revealed that Oil Price Shock (OPS) had a negative (-0.506759) relationship with the value of consumer price index (CPI). The negative relationship between Oil Price Shock (OPS) and consumer price index (CPI) do not conform to economic theory. It was expected that higher volatility creates uncertainty in production costs, planning, and pricing, making firms more likely to adjust prices upward to hedge against risk. The p-value (0.1908) of the result indicates that Oil Price Shock (OPS) is statistically insignificant to influence consumer price index (CPI) in Nigeria. The study therefore accepts the null hypothesis that there is no significant impact between Oil Price Shock (OPS) and consumer price index (CPI). This implies that there is no statistically significant relationship between Oil Price Shock (OPS) and consumer price index (CPI). This result disagrees with earlier studies by Ojo and Ibrahim (2025) who found that oil price shocks significantly influenced state CPI.

Oil Price Volatility and Consumer Price Index in Nigeria.

The insinuation drawn from the long-run using the Auto-Regressive Distributive Lag (ARDL) result revealed that Oil Price Volatility (OPV) had a positive (+0.045938) relationship with the value of consumer price index (CPI). The positive relationship between Oil Price Volatility (OPV) and consumer price index (CPI) conform to economic theory. It was expected that higher volatility creates uncertainty in production costs, planning, and pricing, making firms more likely to adjust prices upward to hedge against risk. The p-value

(0.0093) of the result indicates that Oil Price Volatility (OPV) is statistically significant to influence consumer price index (CPI) in Nigeria. The study therefore reject the null hypothesis that there is no significant impact between Oil Price Volatility (OPV) and consumer price index (CPI). This implies that there is a statistically significant relationship between Oil Price Volatility (OPV) and consumer price index (CPI). This result agrees with earlier study by Akpan (2021) who found that oil price volatility had a positive and significant effect on CPI.

Crude Oil Price and Consumer Price Index in Nigeria.

The suggestion drawn from the long-run using the Auto-Regressive Distributive Lag (ARDL) result revealed that Crude Oil Price (COP) had a positive (+0.379481) relationship with the value of consumer price index (CPI). The positive relationship between Crude Oil Price (COP) and consumer price index (CPI) conform to economic theory. It was expected that increase in crude oil price typically raises production and distribution costs, which are passed on to consumers. The p-value (0.1658) of the result indicates that Crude Oil Price (COP) is statistically insignificant to influence consumer price index (CPI) in Nigeria. The study therefore accepts the null hypothesis that there is no significant impact between Crude Oil Price (COP) and consumer price index (CPI). This implies that there is no statistically significant relationship between Crude Oil Price (COP) and consumer price index (CPI). This result agrees with earlier studies by Bello and Samuel (2024) who found a long-run positive relationship between oil price and inflation.

Exchange Rate and Consumer Price Index in Nigeria.

The submission drawn from the long-run using the Auto-Regressive Distributive Lag (ARDL) result revealed that Exchange Rate (EXR) had a positive (+0.592921) relationship with the value of consumer price index (CPI). The positive relationship between Exchange Rate (EXR) and consumer price index (CPI) conform to economic theory. It was expected that depreciation of the domestic currency increases the cost of imported goods, including refined oil products, thereby raising domestic prices. The p-value (0.0135) of the result indicates that Exchange Rate (EXR) is statistically significant to influence consumer price index (CPI) in Nigeria. The study therefore rejects the null hypothesis that there is no significant impact between Exchange Rate (EXR) and consumer price index (CPI). This implies that there is a statistically significant relationship between Exchange Rate (EXR) and consumer price index (CPI).

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

The study on the effects of oil price shock on inflation suggest that oil price volatility and exchange rate had a positive and significant relationship with consumer price. However, crude oil price exerts a positive but insignificant relationship with consumer price index while oil price shock reported a negative and insignificant relationship with consumer price index. Hence, it was concluded that oil price shock had a significant impact on inflation in Nigeria.

Recommendations

i. The Central Bank of Nigeria (CBN) should maintain a balanced and forward-looking monetary policy stance, as short-term oil price shocks do not significantly drive inflation. This allows the CBN to focus more on domestic monetary factors such as money supply and interest rate management rather than reacting aggressively to temporary oil shocks.

ii. The Nigerian National Petroleum Company Limited (NNPC Ltd) and the Federal Ministry of Petroleum Resources should implement stabilization mechanisms such as

strategic petroleum reserves and improved supply chain efficiency to reduce oil price volatility, thereby mitigating its inflationary impact on the economy.

iii. The Federal Ministry of Finance Nigeria should prioritize economic diversification and reduce over-reliance on crude oil revenue, since changes in crude oil prices alone do not significantly influence inflation. Strengthening non-oil sectors will enhance price stability and fiscal resilience.

iv. The Central Bank of Nigeria (CBN) in collaboration with the Nigerian Export Promotion Council (NEPC) should adopt policies that stabilize the exchange rate, including boosting non-oil exports and improving foreign exchange inflows, as exchange rate depreciation has a strong inflationary effect in Nigeria.

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