

OIL PRICE SHOCKS AND CONSUMPTION EXPENDITURE IN NIGERIA: EVIDENCE FROM THE ERROR CORRECTION MODEL

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ABSTRACT

Nigeria is an oil-exporting country with a low income and a decreasing standard of living. As a result, consumers in Nigeria tend to spend most of their income on consumable goods. The effect of consumption expenditure in an economy is influenced by a variety of factors, including consumer income, the consumer price index, and oil price volatility. Changes in oil prices can have a significant impact on consumer spending, manufacturing output, and national and global economic performance. This study examines the linearity assumption and shock effect of oil price volatility and the consumer price index on consumption expenditure in Nigeria between 1980 and 2021. The Error Correction Model was used to correct the disequilibrium in the study. The findings of the study show that there is a long-run relationship between oil price volatility, the consumer price index, and consumption expenditure in Nigeria. The value of 1.07 indicates that the imbalance in consumer expenditure changes over the sampled period can be attributed to oil price volatility and the persistent increase in the consumer price index. The study recommends that the government adopt a macroeconomic agenda that focuses on alternative sources of government funding (reducing reliance on oil revenues), fiscal restraint in the use of crude oil receipts, and aggressive saving of oil revenue booms in the future to withstand the fluctuations of future oil shocks.

Keywords: Consumption expenditure, Oil price volatility, Consumer price index, Error Correction Model, Nigeria

1.0 INTRODUCTION

Final consumption holds a paramount position within the realm of macroeconomics due to its nexus and linearity shock on oil price volatility and consumer price index. In Nigeria, oil price volatility determines a large share of the final consumption, likewise the consumer price index. Relatively, oil price volatility and consumer price index influence household consumption through inflationary pressure, and cost of energy consumption which in turn leads to income distribution and substitution effects on consumption of goods and services. As such, this study aims to elucidate the intricate dynamics of final consumption expenditure, specifically about both general government and household expenditure. While household final consumption

expenditure denotes spending on consumables by households, government consumption expenditure refers to the corresponding spending by governmental entities. Notably, household final consumption expenditure, often termed domestic consumption expenditure, constitutes a more significant component of aggregate demand than government consumption expenditure. Consequently, an array of factors influences consumption expenditure, including consumer income, the consumer price index, and the volatility of oil prices, which entails variations in the price of petroleum products (Akomolafe, 2020).

The significance of crude oil in the manufacturing sector renders it a crucial factor. Fluctuations in oil prices have a substantial impact on consumer spending, manufacturing output, and overall economic performance at both national and global levels (Mohamued et al., 2021). Decreases in oil prices ease operational aspects for businesses, factories, and households, thereby increasing output, and income, and raising living standards. In effect, the price of oil assumes a pivotal role, whereby it influences national production, manufacturing activities, and living standards. Consequently, an interrelationship emerges between the price of oil and the price of goods. Given these circumstances, the linkage between goods prices, petroleum prices, and consumption expenditure plays an indispensable role in driving economic activities and fostering growth in both developing and developed economies (Sambo & Deng, 2018; Amagoh et al., 2014 ; Babalola & Salau, 2020).

Moreover, the price of oil holds a significant impact on economic inputs, with its upward trajectory exerting inflationary pressures throughout the economy. Frequent adjustments in local petroleum product pricing further intensify inflationary tendencies in Nigeria (Anthony, 2019). Consequently, such adjustments predominantly result in escalated prices of consumable items and transportation. As Nigeria depends on imported refined petroleum products, consumer prices inevitably fluctuate with oil price variations (Otoakhia, 2020). Consequently, this phenomenon leaves an indelible imprint on consumption patterns and aggregate demand, ultimately contributing to a higher cost of living (Nwosu, 2009). Noteworthy, shocks in oil prices possess both supply and demand effects on citizens and the overall economy (Tang et al., 2010). Okwu et al. (2020) investigate the asymmetric short- and long-term effects of oil export earnings and exchange rate fluctuations on aggregate consumption in Nigeria. Employing the Nonlinear Autoregressive Distributed Lag (ARDL) approach, the study confirms the existence of long-run co-integration among oil export earnings, the consumer price index, the nominal effective exchange rate, and final consumption expenditure. Additionally, the findings demonstrate that negative exchange rate shocks yield a significant positive impact on consumption in the short run, whereas positive shocks yield the opposite effect. Notably, negative shocks continue to exert a short-term negative and significant impact on consumption, which subsequently transitions to a short-term positive and inconsequential impact. Furthermore, long-term changes in currency rates and earnings from oil exports exhibit favourable and significant effects on consumption.

Several studies have also explored the connection between oil price volatility and final consumption expenditure. For instance, Ogede (2020) conducted a study to investigate the influence of oil price volatilities on consumer household consumption expenditure during the economically significant period from 1995 to 2019. Using the Vector Autoregressive (VAR) model, the research revealed that unexpected changes in oil prices have a considerable impact on household consumption expenditure in Nigeria. Specifically, a one standard deviation unexpected change in oil prices corresponded to a significant 28.31 per cent increase in Nigeria's consumption expenditure. Notably, the decomposition of variance did not alter the direction and significance of the relationship between oil price volatility and consumption expenditure. Consequently, the study advocates that the nation's continued reliance on oil hinges on its ability to develop alternative energy sources and enhance energy conservation practices.

Abonongi and Ewane (2022) investigated the impact of inflation on household final consumption expenditure in Cameroon. Using data from the World Bank from 1980 to 2020, the ex post facto research design found that an increase in the inflation rate has a positive and significant impact on household final consumption expenditure in both the short and long run. This means that as inflation increases, households tend to increase their spending. The study's findings suggest that an unstable inflation rate can significantly impact household final consumption expenditure in Cameroon. This is because inflation can erode the purchasing power of households, leading them to increase their spending to maintain their standard of living. Additionally, inflation can make it more difficult for households to plan their finances, which can lead to impulsive spending.

Ojeyinka and Yinusa (2021) used trade-weighted variables from Nigeria's five major trading partners to examine the impact of external shocks on the country's output composition from the first quarter of 1981 to the fourth quarter of 2018. The study found that external shocks have a significant impact on consumption and investment, with foreign output, the real effective exchange rate, and the foreign interest rate having significant negative effects. Additionally, the study found that foreign inflation and real effective exchange rate shocks are major drivers of fluctuations, while oil price shocks account for minor variations. The study's findings suggest that Nigeria's high reliance on oil revenues and external financing makes it vulnerable to external shocks. This is because changes in these factors can have a significant impact on the country's economy, leading to fluctuations in output composition and uncertainty for policymakers.

Efayena et al. (2019) investigated the impact of oil price changes on Nigerian consumption patterns. Using the Autoregressive Distributed Lag (ARDL) model, the study found that increased oil prices harm consumption and development levels. This is because higher oil prices lead to higher inflation, which erodes the purchasing power of households and businesses. Additionally, higher oil prices can lead to a decline in investment, as businesses become more cautious about making new investments in a more uncertain economic environment. The study's findings suggest that the Nigerian government should take steps to cushion the impact of oil price fluctuations on the economy. This could include using fiscal policy to provide support to households and businesses or diversifying the economy away from oil.

Furthermore, Obinna (2020) empirically examined the impact of inflation on household final consumption expenditure in Nigeria from 1981 to 2018 using the ordinary least squares (OLS) econometric method. The study's findings showed that there is a positive and significant long-run relationship between inflation and household consumption spending in Nigeria. This means that as inflation increases, household consumption spending also tends to increase. The study's findings suggest that the government of Nigeria should strive to maintain low and stable prices to minimize the negative impact of inflation on private consumption. This is because high inflation can erode the purchasing power of households, leading them to reduce their spending. Additionally, high inflation can make it more difficult for households to plan their finances, which can lead to impulsive spending.

In Nigeria, a nation renowned for its crude oil products and abundant resources, the insufficient production capacity of refineries has hindered domestic petroleum product consumption. This has necessitated the costly importation of refined petroleum products from other countries. Consequently, the Nigerian government has been compelled to allocate significant subsidies, which could have been channelled towards the attainment of Sustainable Development Goals. However, inflationary volatility and high petroleum prices have resulted in impulsive inflation, increased production costs, diminished productivity, a lower standard of living, and elevated transportation expenses for citizens. It is important to highlight that previous research has extensively investigated the relationship between oil price volatility and macroeconomic and manufacturing output shocks in Nigeria. However, limited or no studies have comprehensively

examined the correlation and association between oil price volatility and the consumer price index on final household consumption in Nigeria, using a model that corrects the disequilibrium in economic external shocks. Therefore, this study aims to contribute significantly to the existing literature by focusing on the genuine domestic petroleum price volatility in Nigeria and conducting an in-depth analysis of the short and long-term effects of petroleum price volatility and the consumer price index on consumption levels from 1980 to 2021.

This study contributes fresh empirical evidence supported by robust methodological approaches, drawing on various econometric techniques and the utilization of time series data in Nigeria different from other econometric methods employed by other studies. Consequently, it significantly enriches the body of knowledge and offers valuable insights for scholars and decision-makers in Nigeria and other developing nations. The subsequent sections of this paper encompass the theoretical review in Section 2, data and econometric methodology in Section 3, the results findings in Section 4, and the discussion and conclusion in Section 5.

2.0 THEORETICAL REVIEW

Understanding the correlation between Nigeria's consumer spending, the consumer price index (CPI), and oil price volatility is enhanced by considering the Dutch Disease concept (Wijnbergen, 1984). The Dutch Disease Theory, an economic principle, elucidates the adverse effects that can arise in an economy due to a rapid surge in revenues from natural resource exports, such as oil, which may negatively impact other sectors (Stijns, 2005; Corden & Neary, 1982). Nigeria, being a major oil-producing nation, relies significantly on oil exports, playing a crucial role in its economy. The fluctuations in oil prices can substantially influence household final consumption and Nigeria's fiscal revenue. The government's revenue from oil exports is subject to change with fluctuating oil prices, introducing unpredictability into the nation's income sources (Omojolaibi & Egwaikhede, 2013; Abalaba & Dada, 2013; Sachs & Warner, 1995).

Moreover, the Dutch Disease idea suggests that an increase in oil prices might lead to currency appreciation, as foreign capital floods into the country due to higher oil revenues. However, this appreciation of the domestic currency can lead to a decline in manufacturing and non-oil industries, reducing their competitiveness in the global market (Abdulkareem and Abdulkareem, 2016). Ogundipe, et al 2014; Gylfason, 2001). Consequently, Nigeria may become overly reliant on oil earnings, causing a lack of economic diversification. This lack of diversification could lead to a decrease in domestic production of goods and services, resulting in increased imports. As the stronger currency makes imported goods and services more affordable, inflationary pressures may affect the CPI. (Ross, 2004)

During periods of high oil prices and substantial tax income, the government may boost investments in infrastructure projects and welfare initiatives, stimulating consumer spending and increasing demand for goods and services. Nonetheless, the long-term positive impact on consumer spending may be hindered by the Dutch Disease effect (Arezki & van der Ploeg, 2007). Neglecting other industries like manufacturing and agriculture due to excessive dependence on oil revenues could limit job opportunities outside the oil sector (Matsen & Torvik, 2005). Consequently, oil-dependent regions in Nigeria may face job losses and reduced consumer spending if the oil sector experiences a downturn due to oil price volatility (Oludimu & Alola, 2022). Additionally, inflationary pressures resulting from currency appreciation and increased imports may erode consumers' purchasing power, further affecting their overall spending (Yinusa & Ojo, 2019).

3.0 METHODOLOGY

3.1. Research design

The present study adopts an explanatory research design, focusing on investigating the intricate relationships between oil price volatility, the consumer price index, and final household consumption through empirical analysis. The choice of an explanatory research design stems from its conceptual significance in elucidating the underlying basis for understanding the interconnections among oil price volatility, the consumer price index, and final household consumption in the context of Nigeria.

3.2. Data Collection and Description

The time series data for this study were obtained from reputable secondary sources, including the World Bank, Nigerian National Petroleum Corporation (NNPC), and Reuters (NNPC, 2023; NUPRC, 2022; WDI, 2022). The data collection spanned the period from 1980 to 2021. To represent consumption expenditure, the study utilized final consumption expenditure as a proxy. Crude oil prices served as a proxy for oil price volatility, and consumer price indexes were also sourced for analysis. Table 1 provides details regarding the data sources, the expected sign of a priori hypotheses, and a brief description of the data utilized in the study.

Table 1: Variable description

Variables	Description	<i>A priori</i> expectation sign
Consumption expenditure	Final consumption expenditure includes household and government expenditures, estimating resource supply and consumption disparities.	-/+
Consumer price index	The consumer price index measures inflation, reflecting the average consumer's cost of acquiring goods and services, either fixed or adjusted annually.	+
Oil price volatility	It is the degree of change or variability in the price of crude oil over a certain period that is referred to as oil price volatility.	+

Source: Authors' compilation.

3.3. Econometric methodology

The time series data were analyzed using descriptive statistics, such as the mean, skewness, kurtosis, and Jarque–Bera test of normality. The unit root test was conducted to check for stationarity. The optimal lag length was determined using the Akaike information criterion (AIC). The Autoregressive Distributed Lag (ARDL) bound test was used to assess the long-run relationship between the variables. The results of the ARDL bound test indicated that the variables were cointegrated, which led to the adoption of the Error Correction Model (ECM).

The empirical regression model adopted by the study is as follows:

$$CE_t = \beta_0 + \beta_1 OPV_t + \beta_2 CPI_t \quad (1)$$

Since we have some variables that could affect CE but are not captured in the model, however, due to parsimony, they were all included in the error term which leads to an econometric equation below:

$$CE_t = \beta_0 + \beta_1 OPV_t + \beta_2 CPI_t + \varepsilon_t \quad (2)$$

where α is the intercept, β_1 and β_2 are the coefficients of the independent variables, and ϵ_t is the error term. CE represents Consumption expenditure, OPV is Oil Price Volatility, and CPI is the consumer price index.

4.0 RESULTS AND FINDINGS

Table 2. Descriptive Statistics and optimal lag length

Variables	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob.	Obs.
CE	5.07	14.79	1.22	5.56	21.38	0.00	41
OPV	36.65	35.97	0.67	2.32	3.88	0.14	41
CPI	18.95	16.66	1.85	5.30	32.58	0.00	41

Source: Authors' compilation

Table 2 presents the descriptive statistics of the dependent and independent variables. The mean of consumption expenditure is 5.07, the mean of oil price volatility is 36.65, and the mean of the consumer price index is 18.95. The standard deviation of consumption expenditure, oil price volatility, and consumer price index are 14.79, 35.97, and 16.66, respectively. The skewness of consumption expenditure and consumer price index is positive, indicating that the distributions of these variables are skewed to the right. The kurtosis of consumption expenditure and consumer price index is greater than 3, indicating that these variables are leptokurtic. The Jarque–Bera test rejects the null hypothesis of normality for consumption expenditure and consumer price index, but it does not reject the null hypothesis of normality for oil price volatility.

To identify the most suitable lag length, we employed various information criteria, namely the Akaike information criteria (AIC), Schwarz information criteria (SIC), Hannan-Quinn (HQ) criteria, and final predictor error (FPE) criteria. The results obtained from all these criteria consistently indicate that the optimal lag length is 1. Both the AIC, SIC, and HQ criteria, as well as the FPE criterion, concur in suggesting a lag length of 1 as the most appropriate choice for the model. We, therefore, adopt the AIC criterion and proceed with one lag.

Table 3. Optimal Lag Order Selection Result

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-502.24	NA	7098	26.59	26.72	26.64
1	-458.69	77.93*	1155*	24.77*	25.29*	24.96*
2	-453.68	8.17	1439	24.98	25.89	25.31
3	-448.37	7.83	1792	25.18	26.47	25.64

Note: * indicates lag order selected by the criterion.

Unit Root Tests

To obtain a reliable model that captures the stationarity and non-stationarity of the variables, the Augmented Dickey-Fuller (ADF) and Phillips-Peron (PP) unit root tests were used. These tests have the advantage of including lagged terms of the dependent variables, which helps to avoid the problem of autocorrelation and to improve the robustness of the results. The ADF test is a modified version of the Dickey-Fuller test that allows for the inclusion of lagged terms of the dependent variable. The PP test is a similar test that uses a different lag selection procedure.

Table 4. ADF and PP Unit Root Test

a). ADF							
	Level			First difference			Decision
	t-Statistic	Prob.	5% Critical value	t-Statistic	Prob.	5% Critical value	
CE	-6.96	0.00	-2.94				I(0)
OPV	-1.39	0.57	-2.94	-6.65	0.00	-2.94	I(1)
CPI	-2.52	0.12	-2.94	-6.45	0.00	-2.94	I(1)
b). PP							
	Level			First difference			Decision
	t-Statistic	Prob.	5% Critical value	t-Statistic	Prob.	5% Critical value	
CE	-7.01	0.00	-2.94				I(0)
OPV	-1.26	0.64	-2.94	-6.89	0.00	-2.94	I(1)
CPI	-2.96	0.05	-2.94	-12.39	0.00	-2.94	I(1)

Source: Authors' compilation.

The results of the ADF and PP tests indicate that consumption expenditures were stationary at levels while oil price volatility and consumer price index were stationary at first difference. This suggests that the variables are stationary of order 1, or I(1) except consumption expenditure at 0, or I(0). The results of the unit root tests are important because they inform the choice of the appropriate econometric model. For example, if the variables were not stationary, then a time series regression model would not be appropriate. Therefore, since there is mixed stationarity among the variables, there is a need to determine whether the variables are co-integrated in the short-run or long-run using the ARDL Bounds test.

Table 5. ARDL Bounds Test

F-Statistic	K	I(0) Bound at 5% Critical	I(1) Bound at 5% Critical
12.97	2	3.79	4.85

Source: Authors' compilation.

Cointegration Tests

The results of the Autoregressive Distributed Lag (ARDL) bound test in Table 5 indicate that there is a long-run relationship between consumption expenditure, consumer price index, and oil price volatility in Nigeria between 1980 and 2021. The F-statistic is greater than the critical value for the upper bound at the 5% significance level, which means that we can reject the null hypothesis of no cointegration. This suggests that there is a long-run relationship between the variables and that changes in one variable will be reflected in changes in the other variables in the long run. The results of the cointegration test are important because they inform the choice of the appropriate econometric model. For example, if there was no cointegration, then a time series regression model would not be appropriate. However, because there is cointegration, we can use an Error Correction Model (ECM) to model the relationship between the variables.

To correct this disequilibrium among the variables in the long run, we adopt an Error Correction Term (ECT), and it is then estimated below:

$$\Delta CE_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta CE_{t-1} + \sum_{i=1}^q \beta_2 \Delta OPV_{t-1} + \sum_{i=1}^q \beta_3 \Delta CPI_{t-1} + \varepsilon_t \quad (3)$$

$$\Delta CE_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta CE_{t-1} + \sum_{i=1}^q \beta_2 \Delta OPV_{t-1} + \sum_{i=1}^q \beta_3 \Delta CPI_{t-1} + \lambda ECT_{t-1} + \varepsilon_t \quad (4)$$

where,

$$ECT_{t-1} = \lambda CE_{t-1} + \lambda OPV_{t-1} + \lambda CPI_{t-1} \quad (5)$$

$$ECT_{t-1} \equiv \varepsilon_{t-1} = CE_{t-1} - (\beta_0 + \beta_1 OPV_{t-1} + \beta_2 CPI_{t-1}) \quad (6)$$

Table 6. Long-Run and Error Correction Results

Long-Term Model			Error Correction Model		
Variable	Coefficient	Prob.	Variable	Coefficient	Prob.
OPV	0.05	0.52	D(OPV)	0.27	0.09
CPI	-0.04	0.78	D(CPI)	-0.12	0.45
			ECT(-1)	-1.07	0.00
C	4.16	0.42	C	-0.65	0.78
R ²	0.02		R ²	0.60	
F-Stat.	0.37		F-Stat.	17.69	
D.W Stat.	2.22		D.W Stat.	1.89	
Prob. (F-Stat.)		0.70	Prob. (F-Stat.)		0.00

Source: Authors' compilation.

Error Correction Model

The ECT guides the variables (consumption expenditure, oil price volatility, and consumer price index) of the model to restore equilibrium. In other words, the ECT corrects disequilibrium. For the sake of the results shown in Table 5, the ECT (-1) explains the ECT, which ought to be negative. The coefficient tells us the rate at which the previous period of the disequilibrium is corrected. The negative coefficient validates that there is a long-run relationship between the dependent and independent variables. The ECM, in theory, maintains a constant long-term equilibrium between economic variables. As such, the ECM fixes any short-term imbalances in the following period if they exist (Engle & Granger 1987; Granger & Newbold, 1974). The residual coefficient (-1) or ECT must be significant to determine whether the employed ECM model is legitimate or not.

Based on the probability of the ECT coefficient, the model is significant at the 0.05 significance level, which specifies that the ECM is usable. Foregoing, the equilibrium value of -1.07 deduces that the process of adjusting the imbalance of consumer expenditure changes for the period of 1980–2021 is relatively slow and that it will take a couple of years to achieve a stable consumer expenditure in Nigeria due to oil price volatility and the persistent increase in the consumer's price index. Also, from the result, it was shown that the R-squared is 60 per cent, which shows fit for the model, and the F-statistic probability reveals that the variables are jointly significant at a 5 per cent level of significance. This further upholds that the ECM is stationary at level after carrying out its Augmented Dickey-Fuller unit root test as shown in Figure 1.

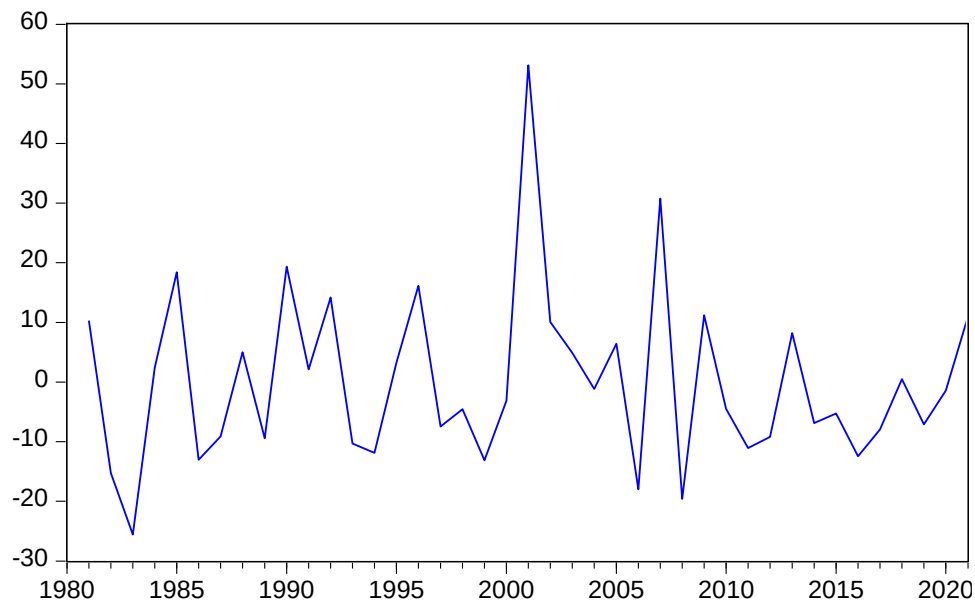


Figure 1. Unit root stationarity graph of the Error Correction Term

From Equation 5, the results can be estimated as:

$$ECT_{t-1} = CE_{t-1} - 1.07 + 0.27OPV_{t-1} - 0.12CPI_{t-1} \quad (7)$$

Equation 6 shows that the rate at which the disequilibrium between the variables, in the long run, can be corrected is 1.07, and it shows to be significant with a probability less than 0.05. The probability of oil price volatility is positive and significant, indicating that there is no long-run relationship between oil price volatility and consumption expenditure. This affirms the findings of Okwu et al. (2020), Akomolafe (2020) and Muktar et al. (2020). Also, since the results show that the consumer price index is negative but significant, it shows that there is no long-run relationship between the consumer price index and consumption expenditure. This is not following the findings of Ezeji & Ajudua (2015) or in support of Dennis Brown and Onah (2022). Therefore, if the oil price volatility is increased by one per cent, then the consumption expenditure will be increased by 27 per cent, and if the consumer price index is increased by one per cent, then the consumption expenditure will be decreased by 12 per cent. However, the model is normally distributed, with an ECM less than 0.05 significance level. Moreover, the model fulfilled the Linearity assumption by having an F-statistic probability greater than 5 per cent significance, as shown in Table 7.

Table 7. Ramsey RESET Test

	Value	Df	Probability
t-Stat.	0.73	35	0.47
F-stat.	0.54	(1, 35)	0.47
Likelihood ratio	0.61	1	0.44

Source: Author's compilation.

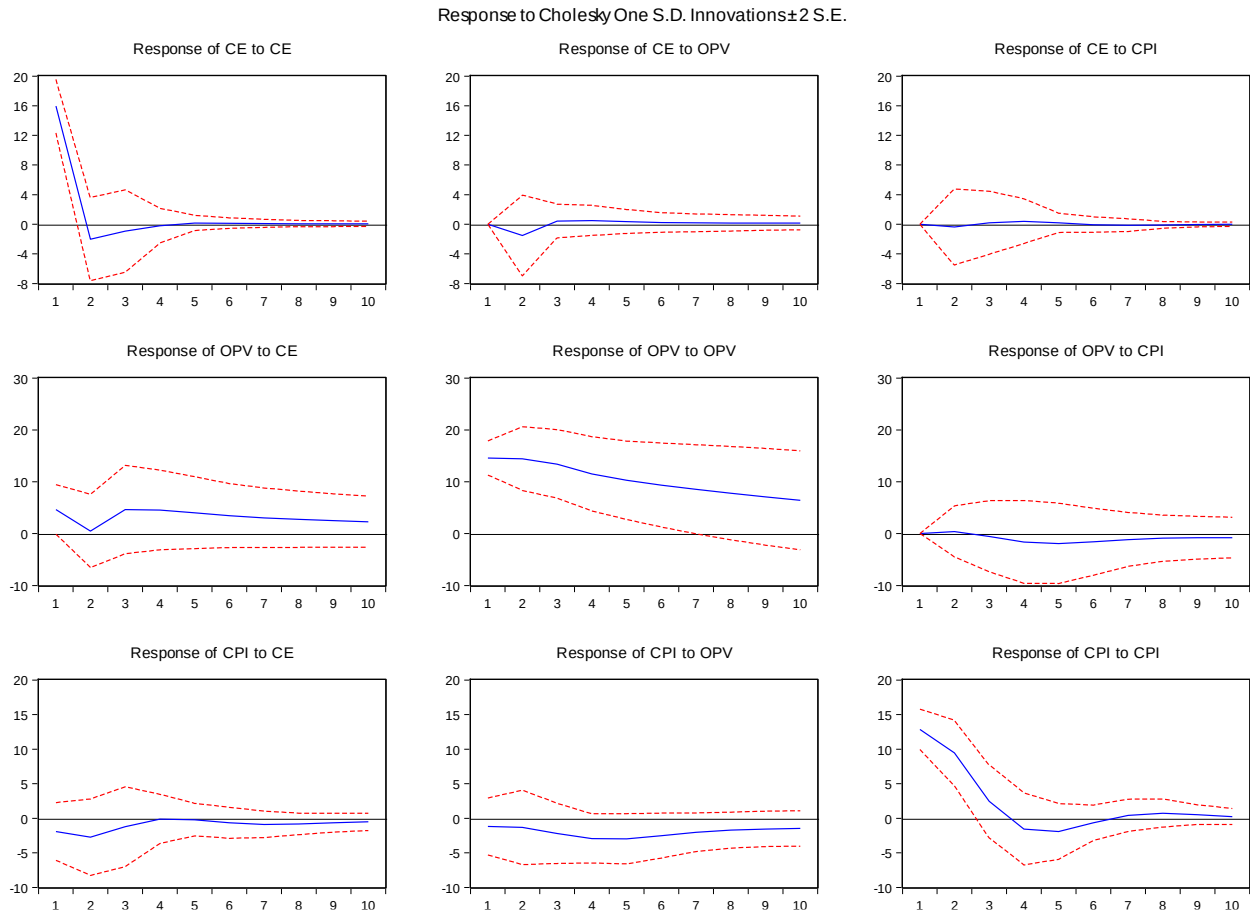


Figure 2. Impulse response functions between consumption expenditure, oil price volatility, and consumer price index

To ascertain the short-run interrelations and dynamism between the variables, the impulse response function was adopted to reveal the persistent effect of shock on consumption expenditure, oil price volatility, and consumer price index. The impulse response function illustrates how a variable, as well as the other variables in the system, respond over time to a shock of one standard deviation. The Cholesky one standard deviation innovation over 10 years was used in this investigation. Figure 2 shows that the immediate response of consumption expenditure to a shock in oil price volatility was negative till the second year and later maintained a positive stable shock till the ten years. Also, it maintained a stable positive shock effect in the consumer price index from the first year till the tenth year. The oil price volatility responded to a decreased shock in consumer expenditure and later increased in the second year the third year and the tenth year, it revealed a slight decrease in consumer expenditure in Nigeria. And revealed that oil price volatility responded to a negative shock effect in the consumer price index from the first year till the tenth year.

5.0 DISCUSSION AND CONCLUSION

Consumption expenditure is a significant component of a nation's total expenditures and is a key factor in a nation's development. A rise in consumption expenditure will result in a rise in overall demand, which will lead to increased investor profits, decreased unemployment, increased incomes, and accelerated economic growth. However, a decline in consumption expenditure will result in excess stocks, which will lead to job losses, increased unemployment, decreased incomes, and a recession (Babalola & Salau, 2020). The price

elasticity of the demand for petroleum products is inelastic, which means that a small increase in the price of petroleum products will lead to a large increase in consumption expenditure. This is because consumers have little choice but to continue to consume petroleum products even when their prices rise. As a result, the increase in the price of petroleum products will lead to an increase in consumption expenditure, which will lead to a decrease in the purchasing power of consumers for non-oil goods. This will cause households to spend less money on non-oil items and more on petroleum products.

The overall implication is that the future of the Nigerian economy is uncertain after the shocks to oil prices and inflation purged an increase in the consumption expenditure of households and commodities. Policymakers need to urgently focus on measures that will bolster and stabilize the macroeconomic framework of the Nigerian economy. These measures should include:

- Reducing the monetization of social media.
- Finding alternative sources of government funding (reducing reliance on oil earnings).
- Fiscal restraint in the use of crude oil receipts.
- Aggressive saving of oil revenue booms in the future to withstand the fluctuations of future oil shocks.

The results of this study have important implications for policymakers in Nigeria. They suggest that the government needs to take steps to reduce its reliance on oil revenue and diversify the economy. The government also needs to take steps to stabilize the macroeconomic framework and protect consumers from the effects of oil price volatility.

In conclusion, the findings of this study suggest that there is a long-run relationship between consumption expenditure, oil price volatility, and consumer price index in Nigeria. The ECM model is a good model for correcting for disequilibrium in this relationship. The results of the ECM can be used to inform policy decisions and to develop models that can be used to predict future changes in these variables. The study also suggests that the Nigerian economy is facing an uncertain future due to oil price shocks and inflation. Policymakers need to focus on measures to strengthen and stabilize the macroeconomic framework of the Nigerian economy to mitigate the negative effects of these shocks.

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