ANALYSIS OF THE EFFECT OF FUEL SUBSIDY REMOVAL ON CONSUMER PRICE INDEX IN NIGERIA

Muhammad, A.A,
Department of Economics,
Ahmadu Bello University, Zaria,
Kaduna State-Nigeria
muhammadauwalabubakar107@gmail.com

Adamu, U. A.
Department of Economics,
Ahmadu Bello University, Zaria,
Kaduna State-Nigeria.

Ya'u H.M.
Department of Economics,
Ahmadu Bello University, Zaria,
Kaduna State-Nigeria.

Corresponding author:
Muhammad, A.A,
Department of Economics,
Ahmadu Bello University, Zaria,
Kaduna State-Nigeria
muhammadauwalabubakar107@gmail.com

ABSTRACT

This study investigates the impact of fuel subsidy removal on the Consumer Price Index (CPI) in Nigeria, focusing on how changes in Premium Motor Spirit (PMS) pump prices and transportation costs influence consumer welfare. Using monthly data from January 2012 to September 2024, a Structural Vector Autoregressive (SVAR) model was developed to reflect the Nigerian economy's reliance on petrol for transportation. The model incorporated three key variables: PMS pump price, transportation costs, and the CPI. Findings reveal that removing the fuel subsidy leads to increased petrol prices and transportation costs, which in turn elevate the cost of goods and services, thus driving up the CPI. A positive shock to PMS pump prices caused the CPI to rise from 0.1% in the short run to 0.7% in the long run, while a similar shock to transportation costs raised the CPI from 0.2% to 0.9%. Variance decomposition results show that PMS prices and transportation costs significantly influence welfare, with short-run contributions of 5% and 36%, and long-run contributions of 10% and 19%, respectively. The study recommends investment in public transport and renewable energy to cushion the effects of subsidy removal and promote long-term welfare stability.

Keywords: *Subsidy removal, Consumer, PMS, Transportation Costs, SVAR*

1.0 Introduction

Access to energy is a vital driver of economic growth, influencing production and service delivery across all sectors. Governments, particularly in developing nations, often subsidize energy to alleviate poverty, address market inefficiencies, and promote inclusive development (Okwanya, Moses, & Pristine, 2015). A fuel subsidy is essentially a government intervention that allows consumers to purchase fuel below its market price (Ovaga & Okechukwu, 2022), bridging the gap between the actual cost and what consumers pay. Globally, fuel subsidies aim to enhance energy affordability and accessibility, contributing to citizens' welfare and economic stability. The International Monetary Fund (2022) reports that global fuel subsidies increased significantly from US$5 trillion in 2020 to US$7 trillion in 2022. In developing countries, subsidies are further used to redistribute national wealth, stabilize prices, and address energy poverty (Bazilian & Onyeji, 2012). In Nigeria, fuel subsidies have a long history, dating back to 1973 during the oil shocks, when the government introduced them to reduce the burden of high fuel prices on the poor (Alozie, 2009).

Successive administrations have maintained the policy, including military regimes, to buffer the economy from international oil price volatility (IISD, 2016). However, Despite these intentions, fuel prices have consistently risen: from N0.15 in 1978 to N206.19 by 2022, affecting inflation, transportation costs, and real income (Ikenga & Oluka, 2023). As prices rise, there is a ripple effect on the Consumer Price Index (CPI), which measures household expenditure and overall cost of living (Babalola & Salau, 2020). Hence, petroleum prices influence various sectors including food, transportation, and housing. The persistent adjustment of petrol pump prices is a critical economic and social problem in Nigeria, driven by the recent removal of fuel subsidies. Historically, the government maintained energy subsidies, particularly on Premium Motor Spirit (PMS), to shield consumers from volatile international oil prices and stimulate industrial development. However, growing fiscal constraints, political pressure, and structural challenges led to a policy shift, culminating in the full deregulation of PMS prices on May 29, 2023**,** as declared by President Bola Ahmed Tinubu.

Since the removal of subsidies, Nigeria has experienced monthly fluctuations in PMS retail prices, predominantly characterized by upward trends. According to the National Bureau of Statistics (NBS, 2023 & 2024)**,** the average pump price rose sharply from ₦545.83 in June 2023 to ₦1,030.46 by September 2024, reflecting a nearly 90% increase within a year. This surge in fuel prices has had ripple effects across various sectors, significantly raising the cost of transportation, consumer goods, and essential services. The broader economic implications include decreased purchasing power, increased poverty, higher unemployment rates, and the potential for heightened social unrest. The fuel price hikes also disrupt household welfare and inflate living costs, thereby complicating macroeconomic stability. While many people can easily guess the impact of Nigeria's removal of fuel subsidies, determining its transmission mechanism requires a thorough analysis of pertinent literature and the application of theory to determine the appropriate inclusion of the variable that may or may not confound the model. However, this study wants to achieve the following: Determine the correlation between Premium Motor Spirit (PMS) pump price, Consumer Price Index and Transportation Costs in Nigeria. Investigate the effect of Premium Motor Spirit (PMS) pump price on the Consumer Price Index in Nigeria. Examine the effect of Transportation Costs on the Consumer Price Index in Nigeria.

2.0 Literature Review

The consumer price index seeks to measure the effects of price variations on the purchase cost of the products consumed by households Manjo (2024).

Consumer Price Index (CPI) measures the average change in the prices of a representative basket of goods and services purchased by households. It shows on average, consumer expenditures, cost of living, and welfare of citizens living in the country Babalola, & Salau (2020).

Gordon and Suzanne (2023), a subsidy is "a benefit provided by a government to an individual, business, or institution and is typically offered to relieve burdens deemed to be in the general interest of the public." The subsidy can be seen as a grant of financial aid from the government used to maintain the prices of a particular item at a certain level.

In practice subsidies take the form of direct payments in cash or kind; governmental provision of goods or services at prices below the normal market price; governmental purchase of goods or services at prices more than the market price; and tax concessions and similar inducements.

The theory of Cost-push inflation was used as the theoretical framework to underpin this study. The theory of cost-push inflation explains inflation caused by rising input costs, such as labor and raw materials, which are passed on to consumers through higher prices for goods and services. Fuel, as a key input for transportation and production, plays a significant role in this dynamic. When fuel prices rise, it increases the cost of production and distribution, leading to higher prices for goods and services. This can trigger higher wages and preemptive price hikes, further worsening inflation. In developing economies like Nigeria, the removal of fuel subsidies can elevate fuel prices, creating inflationary pressures that need careful management to avoid destabilizing the economy, despite potential fiscal benefits from subsidy removal.

2.1 Empirical Review

Sakanko, Adejor, and Adeniji, (2021) used NARDL to analyze the role of the petroleum pump price on the consumer price index in Nigeria, a time-series data, spanning from 1980 to 2020 was employed. They found a long-run equilibrium between the consumer price index and petroleum pump price measures. The empirical results revealed an asymmetric relationship between the petroleum pump price and the consumer price index in Nigeria. The study recommends that policymakers should transparently invest in rehabilitating and maintaining domestic refineries to improve their efficiency, reduce fuel import costs, and help stabilize petroleum prices.

Goh, Law, and Trinugroho (2022) used the NARDL model to study how oil price changes affect inflation in Indonesia. They found an asymmetric relationship: oil price increases raise inflation more sharply than price decreases reduce it. The study advises shifting from non-renewable to renewable energy sources like solar and geothermal.

Adepoju, Balogun, and Bekesuomowei (2023) analyzed the economic consequences of increased transportation costs following the removal of Nigeria's fuel subsidy. Employing the Pearson Product Moment Correlation Coefficient and SPSS software on secondary data, they found that inflation rose by 64%, while GDP declined by 42.5%, indicating severe macroeconomic disruption. The study advocates for the adoption of electric, solar-powered, and hybrid vehicles, alongside policies promoting non-motorized transport systems.

Raifu and Afolabi (2023) used the DS-ARDL model to simulate the impact of fuel subsidy removal on various types of inflation in Nigeria. They found differing effects between rural and urban areas, with significant inflationary pressure following subsidy removal. The study recommends using subsidy savings to restore the most cost-effective refinery first and implementing targeted cash transfers to support vulnerable rural populations.

Aligbe and Momoh (2023) explored the impact of fuel subsidy removal on Nigeria's poor and its broader economic implications through a descriptive research approach. Their findings indicate that while the removal disproportionately burdens the poor manifesting in higher transportation costs, increased living expenses, and business challenges. It is ultimately beneficial for the national economy. The rationale is that saved funds can be redirected to enhance critical infrastructure such as healthcare, education, and transportation. The authors recommend that the government ensure transparency in managing these redirected funds and prioritize domestic petroleum refining by rehabilitating Nigeria's refineries.

Izom and Aliyu (2023) investigated the challenges and potential of a particular policy like the subsidy removal policy using content analysis and logical inference. The study revealed that, contrary to public

expectations, the policy implementation had adverse effects on citizens, with no evident governmental measures in place to cushion the resulting hardships. The author recommends an urgent review of the subsidy removal policy and the introduction of well-structured palliative measures to ease the burden on the populace.

Again, Aruofor and Ogbeide (2023) conducted an empirical analysis of Nigeria's fuel subsidy from 1981 to the present, assessing its economic impact and examining shifts across various democratic regimes using the Total Differential Modeling Approach. Their findings suggest that while the fuel subsidy remains potentially beneficial to the Nigerian economy, its effectiveness is hindered by poor administration. To harness its full promise, the authors emphasize the need for significant reforms centered on enhancing transparency and accountability among both government actors and independent marketers.

Furthermore, Veckalne and Humbatov (2023) examined the impact of oil prices on the Consumer Price Index (CPI) in Latvia, Azerbaijan, and Uzbekistan from 1997 to 2021 using the ARDL co-integration method. Their findings revealed that CPI in all three countries is influenced by global oil price fluctuations. The study suggests that these results can inform economic policies aimed at mitigating the effects of external oil price shocks on national economies.

Manjo (2024) used a descriptive design with content analysis to elucidate the socioeconomic impact of fuel subsidy removal especially on the poor who are subjected to rising transport costs and food prices. Though the state rationalizes savings from the elimination of subsidies would benefit basic health infrastructure in education as well as transport infrastructure, the report jeopardizes deepening distress and warns on integrity, transparency, and accountability in repurposing redirected funds in terms that deliver maximum benefit shares, in the same vein.

Shittu, Latiff, and Baharudin (2024) employed a dynamic computable general equilibrium (CGE) simulation to examine economic and welfare implications of fuel subsidy rationalization. The study found that an immediate and complete elimination generates abrupt welfare losses and economic disruption. However, a stepwise reinvestment plan 75% of funds expended in 2024 and 25% in 2025 minimizes negative impacts more effectively. They emphasize strategic and pragmatic use of compensation and reinvestment plans.

Alexander (2024) analyzed inflation dynamics using a Vector Autoregressive (VAR) model and identified a massive, short-run inflation shock following the withdrawal of subsidies. Inflation responds positively for almost nine months following announcement, two months following shocks in inflation acceleration and fuel prices. The analysis promotes fiscal-monetary policy coordination to curb the inflationary pressures. However based on the reviewed literature, many studies have been carried out on effect of fuel subsidy removal but none consider the transmission mechanism that will pass through the effect on CPI. This research study used transportation costs as a transmission channel. Methodologically, this study used Structural Vector Auto-regression (SVAR) to fill the gap.

3.0 Methodology

3.1 Data Source, Measurement, and Description

This study used 153 monthly time series observations from January 2012 to September 2024, sourced from Nigeria's National Bureau of Statistics (NBS). The Consumer Price Index (CPI) served as a proxy for public welfare based on purchasing power, while Premium Motor Spirit (PMS) prices and Transportation Costs (TC) were also measured to assess their effects on economic conditions.

Premium Motor Spirit Price (PMS): To measure the direct impact of subsidy removal on fuel prices.
Consumer Price Index (CPI): CPI can influence and be influenced by changes in fuel prices, affecting purchasing power and cost of living.
Transportation Costs (TC): Changes in fuel prices directly impact on transportation costs, which can affect CPI and overall economic activity.

3.2 Model Specification

The study uses a 3-variable SVAR model with Premium Motor Spirit (PMS), Transportation Cost (TC), and Consumer Price Index (CPI) to assess how removing fuel subsidies affects CPI in Nigeria. PMS captures the direct impact, TC acts as the transmission channel, and CPI represents citizens' welfare. The starting point of our estimation is to specify a multivariate SVAR of order P lags as:

$$AX_t = C + A_iX_{t-1} + - - - - - A_PX_{t-p} + \varepsilon_t - 3.1$$

Where Xt is the vector of the endogenous variables($PMS,\ TC,\ CPI$), C is a 3x1 vector of the constant terms, A is a 3x3 vector matrix describing the variables' contemporaneous relationships, Ai is a 3x3 matrix of the parameters and ε_t is the vector of the structural innovations($\varepsilon_t^{PMS},\ \varepsilon_t^{TC}, \varepsilon_t^{CPI}$).

Reduced-form VAR model is obtained by multiplying equation (3.1) above by A^{-1}, therefore,the reduced-form VAR model is given as:

$$X_t = \beta_1 x_{t-1} + - - - - + \beta_p x_{t-p} + e_t - 3.2$$

Where $\beta_1 = A^{-1}A_i$ and the reduced-form shock $e_t = A^{-1}\varepsilon_t$. Thus, the solution for our structural innovations with no ordering assumed can be written as:

$$\begin{bmatrix} e_{PMS} \\ e_{TC} \\ e_{CPI} \end{bmatrix} = \begin{bmatrix} 1 & \rho_1 & \rho_2 \\ \lambda_1 & 1 & \rho_3 \\ \lambda_2 & \lambda_3 & 1 \end{bmatrix} \begin{bmatrix} \varepsilon_{PMS} \\ \varepsilon_{TC} \\ \varepsilon_{CPI} \end{bmatrix} - 3.3$$

Where: $A^{-1} = \begin{bmatrix} 1 & \rho_1 & \rho_2 \\ \lambda_1 & 1 & \rho_3 \\ \lambda_2 & \lambda_3 & 1 \end{bmatrix} - 3.4$

To determine the effect of fuel subsidy removal on the consumer price index, we estimated the effect of exogenous shock of the CPI, e_{CPI}on the shocks $e_{PMS}$by estimating (3.3). However, (3.3) cannot be estimated because the observed innovation in the variable CPI will depend on both the shock to the PMS and on the shocks PMS and TC in the system. At-least three ($\frac{3^2-3}{2}$) additional restrictions need to be imposed on the matrix A^{-1} to extract ε_{CPI} from other innovations. Because of the weaknesses of the recursive method, this study used theories to impose contemporaneous structural restrictions on matrix A^{-1}so that the derived innovations will have economic meaning.

3.3 Estimation Technique

This study employed the Structural Vector Auto-regression (SVAR) Model to capture the effect of fuel subsidy removal on the consumer price index in Nigeria. The structural Vector Auto-regression (SVAR) Model is worth considering in this analysis as a single equation may not capture the nature of this relationship and hence endogeneity problem is inevitable. Structural Vector Auto-regression (SVAR) Model will take care of this problem using Reduced Form VAR. In addition, SVAR allows for the capture of both short-run and long-run relations via appropriate restrictions based on the theory.

4.0 Empirical Result

4.1 Descriptive Statistics

Table 4.1 Descriptive Statistics of the Variables

Variables	PMS	TC	CPI
Mean	203.1013	276.6249	305.6860
Std. Dev	177.9372	135.0560	167.4745
Min	62.91000	127.8292	130.1851
Max	1030.463	672.0538	804.1418
Obs	153	153	153

Note: PMS is the Pump price of Premium Motor Spirit, (TC) is the Transportation Cost, and (CPI) is the Consumer Price Index (a proxy for measuring welfare).

Source: Author's estimation using E-Views 10

The descriptive statistics (Table 4.1) show complete data from January 2012 to September 2023, with no missing values. Among the three variables Premium Motor Spirit (PMS) pump price, Consumer Price Index (CPI), and Transportation Cost (TC) PMS pump price shows the highest variability, indicated by a standard deviation of 177.94, reflecting greater volatility. This supports the study's claim that fluctuations in PMS prices are linked to periodic subsidy removals by the Nigerian government, causing cyclical trends in petrol pricing.

4.2 Unit Root Test

To avoid spurious results, integration orders of the series were examined using Augmented Dickey-Fuller (ADF) and Phillip-Perron (PP) tests, and the result of the test is reported below.

Table 4.2 Unit Root Test

	Level		First different		comment
Variables	**ADF**	**PP**	**ADF**	**PP**	
LPMS	-0.2360	-0.0214	-10.3146***	-10.2062***	I(1)
LTC	3.2943	2.7753	-6.4483***	-7.4046***	I(1)
LCPI	2.1398	2.7296	-3.3844**	-2.9853***	I(1)

Note: * ** and * indicate rejection of unit root at 10%, 5%, and 1%, respectively.**

Source: Author's estimation using E-Views 10.

Table 4.2 indicates that the PMS pump price**,** Transportation Cost (TC)**,** and Consumer Price Index (CPI) are non-stationary at their levels, meaning any analysis using them in this form would yield spurious results. However, after applying first differencing**,** PMS pump price and TC become stationary at the 1% significance level, while CPI becomes stationary at the 5% level. This leads to the acceptance of the alternative hypothesis of no unit root at the first difference, confirming the series are suitable for further time series analysis post transformation.

4.3 SVAR Result

This sub-section presents and interprets the accumulated impulse response, dynamic elasticities, and variance decomposition of the Consumer Price Index (CPI) proxy to welfare following a structural shock to the variables in the model for 60 Months horizon and 30 periods, respectively. Dynamic elasticity is calculated as a ratio of impulse response, which traces the dynamic impact of a system of shocks to a variable in the system, to its standard deviation. Therefore, the dynamic elasticity of the Consumer Price Index to PMS shock can be expressed as:

$$ECPI_t = \frac{\%\Delta CPI_t}{\%\Delta PMS_0}$$

where $ECPI_t$is the elasticity of the Consumer Price Index, the numerator, $\%\Delta CPI_t$, is the percentage change in the price level between period 0, when the initial Premium Motor Spirit Pump Price shock hits, at time t; and the denominator, $\%\Delta PMS_0$, is the percentage change in the premium motor spirit pump price at time 0.
On the other hand, variance decomposition or forecast error variance estimates the amount of information each variable contributes to the rest of the variables in the system.

Table 4.3 Accumulated Impulse Response of Consumer Price Index to Premium Motor Spirit (PMS) pump price in Nigeria

	Structural One Standard Deviation Shock to:		
Months after Shock	**PMS**	**TC**	**CPI**
1	0.001	0.002	0.002
10	0.006	0.007	0.015
47	0.007	0.009	0.019
Structural S.D.	0.097	0.005	0.002

Source: Author's estimation using E-Views 10

Figure 4.1 depicts the positive shock to Premium Motor Spirit (PMS) pump price on the Consumer Price Index (CPI) in Nigeria, and the full impact of the shock is absorbed after the 47th Month. It can be observed from the first column of Table 4.3 shows that in the first Month, the impact of the Premium Motor Spirit (PMS) pump price shock on the Consumer Price Index (CPI) is modest with a 0.1 percent increase, In the 10th Month, the accumulated response shows that the Consumer Price Index rises steadily at 0.6 percent and increases by 0.7 percent after 47th. This implies the impact elasticity of 0.07 in Figure 4.2 below. The long-term trend shows a persistent increase in the Consumer Price Index (CPI), which points to the fact that fuel subsidy removal reduces the welfare of the citizens in Nigeria. This implies that as fuel prices remain high or continue to increase, the accumulated effect can lead to a significant increase in the cost of living, especially for households that rely heavily on transportation or spend a significant portion of their income on goods affected by fuel costs.

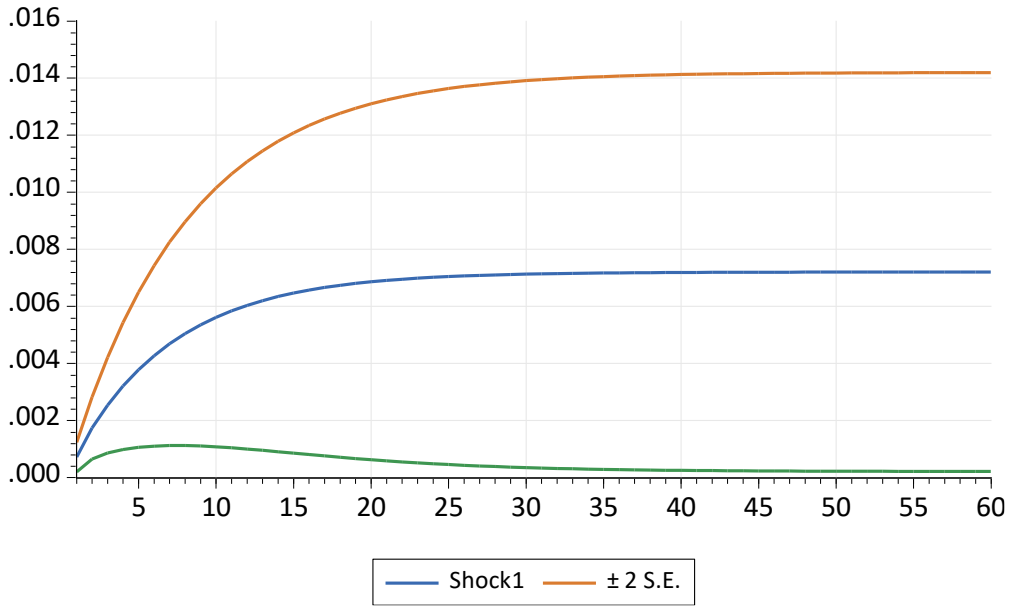

Figure 4.1 Accumulated Impulse Response of Consumer Price Index to a Structural SD Shock to PMS (With Two Standard Error Bands)

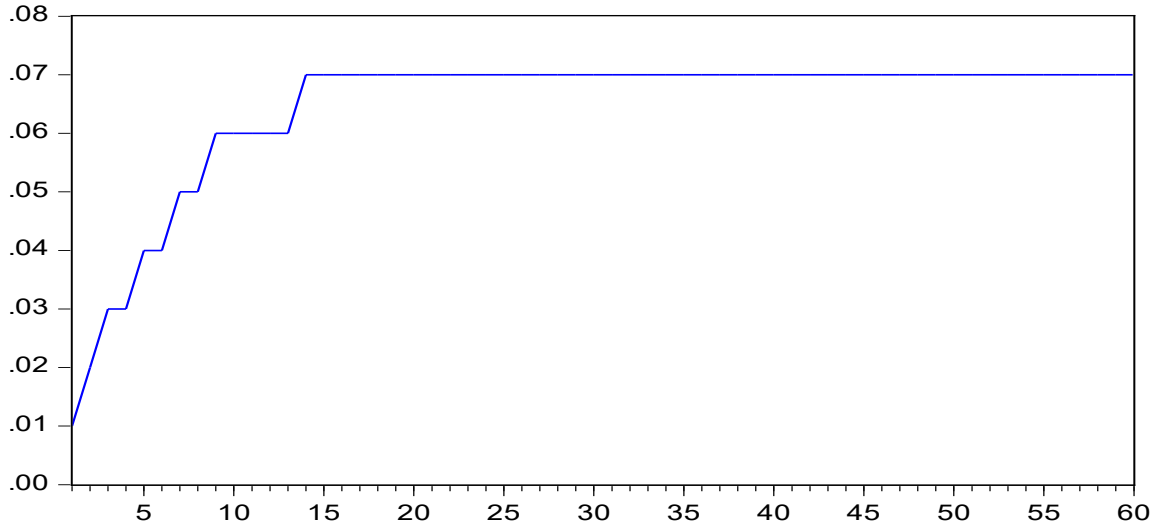

Figure 4.2 Dynamic Consumer Price Index to Premium Motor Spirit (PMS) Pump Price in Nigeria for the Period (2012M1-2024M9)

Source: Author's estimation using E-Views 10

Table 4.4 Accumulated Impulse Response of Consumer Price Index (CPI) to Transportation Cost (TC) in Nigeria

	Structural One Standard Deviation Shock to:		
Months after Shock	**PMS**	**TC**	**CPI**
1	0.001	0.002	0.002
8	0.005	0.007	0.014
42	0.007	0.009	0.020
Structural S.D.	0.097	0.005	0.002

Source: Author's estimation using E-Views 10

Table 4.4 shows the accumulated response of the Consumer Price Index in Nigeria to a structural one standard deviation shock to each of the variables in the model. The penultimate second column of Table 4.4 which shows the response of the Consumer Price Index in Nigeria to a one standard deviation shock to Transportation Cost, is plotted in Figure 4.3 below. The result depicts that, one positive shock to the Transportation Cost, increases the Consumer Price Index in Nigeria, starting at 0.2 percent in the first month and keep increasing until when it reaches full impact by month 42nd with 0.9 percent with a dynamic elasticity of 1.85 represented in Figure 4.4 below. The result shows that transportation costs play a key role in raising the costs of goods and services being consumed by consumers in Nigeria because transportation is an essential part of many supply chains. This implies that a gradual increase in CPI due to rising transport costs could disproportionately affect the cost of living which can reduce citizens' welfare in Nigeria,

especially those in low-income brackets, as transportation costs are a significant component of household expenses.

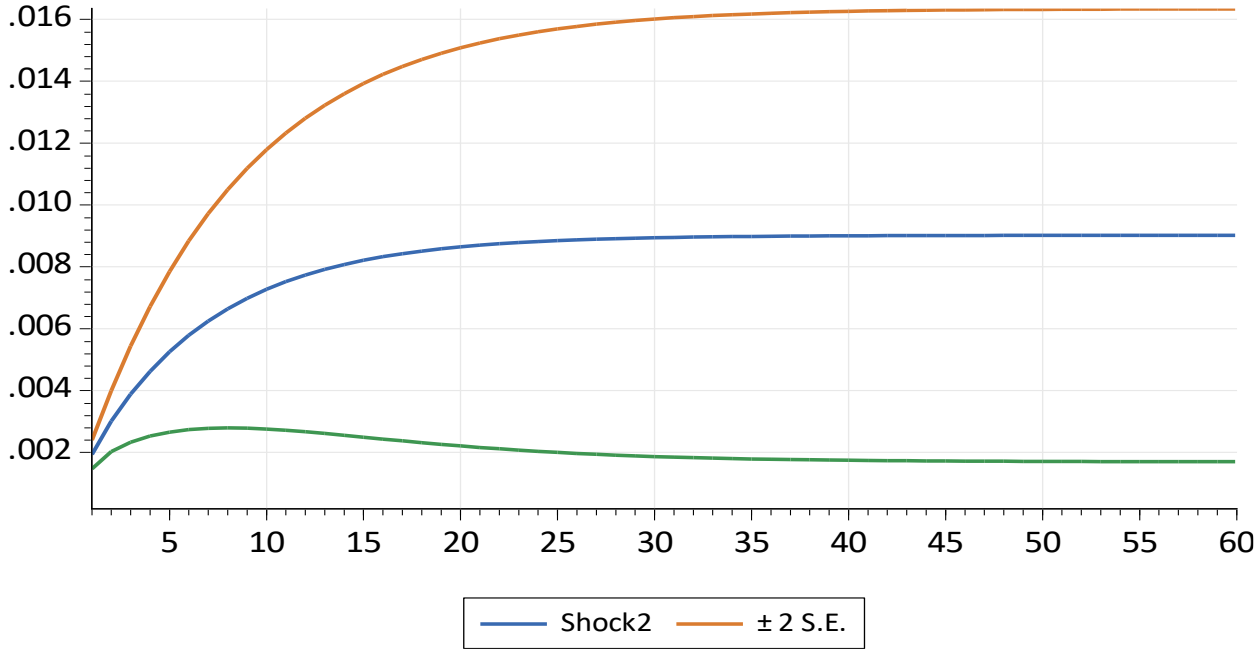

Figure 4.3 Accumulated Impulse Response of Consumer Price Index to a Structural SD Shock to Transportation Cost (With Two Standard Error Bands)

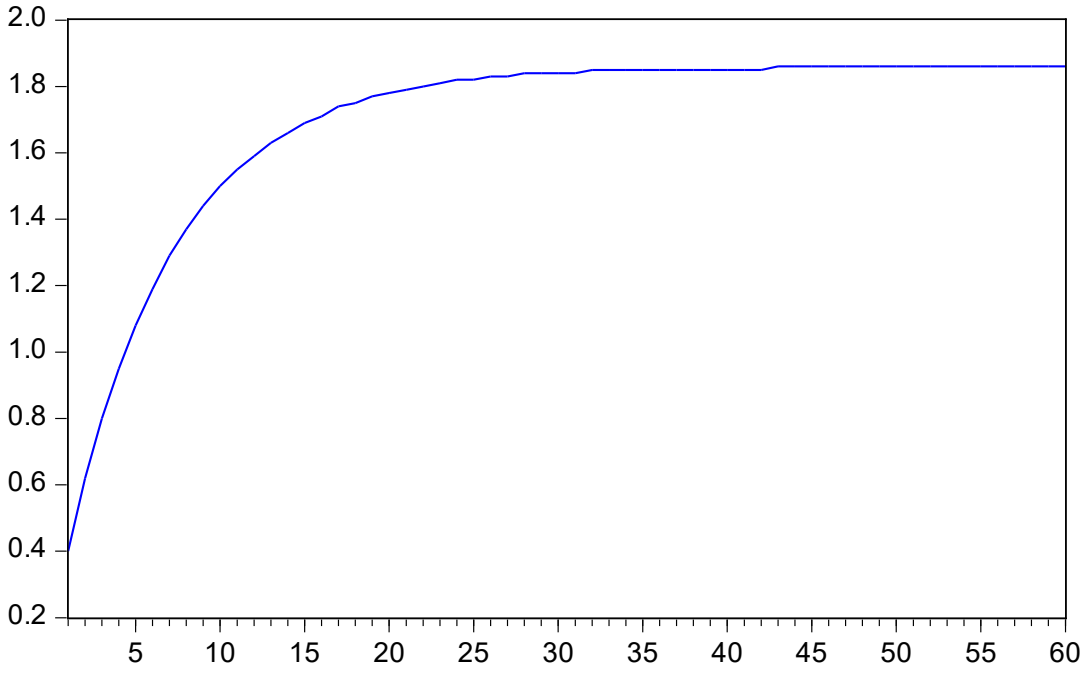

Figure 4.4 Dynamic Consumer Price Index to Transportation Cost in Nigeria for the Period (2012M1-2024M9)

Source: Author's estimation using E-Views 10

4.3. Variance Decomposition

Table 4.5 Variance Decomposition of Consumer Price Index (CPI)

Period	S.E.	PMS	TC	CPI
1	0.097	4.897	35.939	59.164
15	0.101	9.691	19.364	70.945
30	0.101	9.699	19.298	71.003

Source: ***Author's estimation using E-Views 10***

Table 4.5 above show how different shocks affect Nigeria's Consumer Price Index (CPI) over 30 periods. Transportation cost shocks have a bigger effect on CPI than Premium Motor Spirit (PMS) pump price shocks. PMS contributes a steady 5–10%**,** while transportation costs contribute 19–36%**.** In the short run**,** transportation costs contribute 36% and PMS 5% to the reduction in welfare. In the long run**,** their contributions shift to 19% and 10%**,** respectively. The largest share 59–71% comes from self-shocks**,** meaning other internal CPI dynamics not explained by PMS or transportation.

5.0 Conclusion and Recommendations

This study examined the impact of fuel subsidy removal on Nigeria's Consumer Price Index (CPI) using the Structural Vector Autoregressive (SVAR) model. It found that removing the subsidy led to higher petrol prices, which in turn increased transportation costs and gradually raised the CPI. Although direct effects on CPI were modest, the indirect effects especially through transportation significantly raised the cost of living. Low-income households, who spend more on transport and essentials, are disproportionately affected, leading to reduced welfare and increased poverty and inequality. The study also indicate that transportation costs respond more strongly than the CPI to fuel price hikes, and their cumulative effects contribute to long-term inflation. Other factors like domestic supply shocks and exchange rates also influence this trend. It concludes that removing subsidies without improving Nigeria's weak transport infrastructure is counterproductive and calls for complementary policies like targeted welfare programs and inclusive economic reforms to cushion the impact on vulnerable groups.

However, to mitigate the effects of fuel subsidy removal, the study recommendations include investing in affordable public transport for low-income households, promoting renewable energy to reduce reliance on petrol, and diversifying the economy into non-oil sectors like agriculture and technology to stabilize prices, create jobs, and enhance citizens' welfare.

References

Adepoju, O. O., Balogun, A. Q., & Bekesuomowei, O. D. (2023). Impact of fuel subsidy removal on gross domestic product and transportation cost in Nigeria. *European Journal of Theoretical and Applied Sciences*, 1(5), 769-777.

Alexander, A. A. (2024). Subsidy removal and its effect on inflation in Nigeria? A critique.

Aligbe, B. A., & Momoh, M. M. (2023). Fuel subsidy removal and the political sagacity of the Tinubu administration: Implications and coping mechanisms. *Kashere Journal of Politics and International Relations*, 1(2), 45-54.

Alozie, E. (2009). The lies about deregulation. Nigerian Newswatch, retrieved on 26th October 2009, P.15

Aruofor, R. O., & Ogbeide, D. R. (2023). Evaluation of the consequences, and implications of the domestic petrol pump price increase in Nigeria by the Bola Tinubu administration.

Ayakwah, A. and Mohammed, J. (2014). Fuel price adjustments and growth of SMEs in the New Juaben Municipality, Ghana. *International Journal of Small Business and Entrepreneurship Research,* 2(3), 13-23.

Babalola, A., & Salau, T. J. (2020). Petroleum pump price and consumer price index in Nigeria: A case for or against total subsidy removal–panel dynamic analysis. *Timisoara Journal of Economics and Business*, 13(2), 107-128.

Bazilian, M. and Onyeji, I. (2012). Fossil fuel subsidy removal and inadequate public power supply: Implications for businesses. *Energy Policy*, 45, 1-5.

Goh, L. T., Law, S. H., &Trinugroho, I. (2022). Do oil price fluctuations affect the inflation rate in Indonesia asymmetrically? *The Singapore Economic Review*, 67(04), 1333-1353.

Gordon, S., & Suzanne, K. (2023). Subsidies: definition, how they work, pros and cons. The Investopedia Team, June 12, 2023. Retrieved from: https://www.investopedia.com,/terms/s/subsidy.asp. Accessed 18/06/2023.

International Institute for Sustainable Development (IISD). (2016). Sustainable Asset Valuation (SAVi). https://www.iisd.org/savi/

Izom, Y. D., & Aliyu, U. (2023). Policy of fuel subsidy removal in Nigeria: Problems, prospects, and ways forward. *International Journal of Research and Innovation in Social Science*, 7(10), 420-429.

Manjo, Y. G. (2024). Effects of fuel subsidy removal on economy and citizen's welfare in Nigeria. *Lapai International Journal of Politics,* 9(1), 203-220.

National Bureau of Statistics (2020) https://nigerianstat.gov.ng/elibrary.

National Bureau of Statistics (2023) the Nigerian Statistical Fact Sheets on Economic and Social Development, Abuja: NBS.

National Bureau of Statistics (2024) Monthly reports of Nigerian Statistical Fact Sheets on Economic and Social Development, Abuja: NBS.

Okwanya, I., Moses, O., & Pristine, J. M. (2015). An assessment of the impact of petroleum subsidy on consumer price index in Nigeria. *Global Journal of Interdisciplinary Social Sciences,* 4(1), 36-39.

Ovaga, O. H., & Okechukwu, M. E. (2022). Subsidy in the downstream oil sector and the fate of the masses in Nigeria. Kuwait Chapter of Arabian Journal of Business and Management Review, 1(6), 1-20.

President Tinubu, B. A. (2023). *Inaugural Address*, May 29, 2023.

Raifu, I. A., & Afolabi, J. (2023). Simulating the inflationary effects of fuel subsidy removal in Nigeria: Evidence from a novel approach. Available at SSRN 4636464.

Sakanko, M. A., Adejor, G. A., & Adeniji, S. O. (2021). Petroleum pump price swing and consumer price index nexus in Nigeria: New evidence from NARDL. *Studia Universitatis Vasile Goldiș Arad, Seria Științe Economice,* 31(2), 64-79.

Shittu, I., Latiff, A. R. A., & Baharudin, S. A. (2024). Assessing the compensation and reinvestment plans for fuel subsidy rationalization in Nigeria: A dynamic computable general equilibrium approach. Energy, 293, 130671.

Veckalne, R., & Humbatov, H. (2023). Impact of oil prices on the consumer price index: in the case of Azerbaijan, Latvia and Uzbekistan. Turan: *StratejikArastirmalarMerkezi*, 15, 341-355.