ECONOMIC CONSEQUENCES OF ARMED CONFLICT ON FOOD PRICE INFLATION IN NIGERIA

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Abstract

This study investigates the impact of armed conflict on food price inflation in Nigeria. The study employs the Autoregressive Distributed Lag (ARDL) Bound Cointegration Test approach, utilizing time series data spanning from 1989 to 2023. The empirical findings indicate that armed conflict exerts a positive and statistically significant impact on food price inflation in both the short run and long run. Conversely, monetary credit to the private sector and lending rates demonstrates a significant mitigating effect on inflation in both the short run and long run. Notably, money supply exerts a positive and statistically significant effect on food prices, but only in the short run. Furthermore, the Granger causality test reveals the presence of a unidirectional causality running from inflation to armed conflict, suggesting that rising inflation may contribute to escalating armed conflict in Nigeria. The error correction term (ECM) further confirms the existence of a long-run equilibrium, with adjustments occurring at a rate of 60% per annum. These findings underscore the critical need for comprehensive policy interventions aimed at mitigating the adverse economic consequences of armed conflict while addressing key macroeconomic factors driving food price inflation in Nigeria. Implementing targeted strategies to enhance financial sector stability, regulate money supply dynamics, and foster socio-economic stability is imperative for achieving sustainable economic growth and price stability in the country.

Keywords: Armed conflict, food price, inflation, ARDL, Granger causality, Nigeria

Introduction

Armed conflict continues to pose a significant challenge to nations across the globe. According to the Peace Research Institute Oslo (PRIO, 2023), global violence has reached its highest level since the end of the Cold War, with the increasing involvement of diverse conflict actors further complicating domestic security environments. In 2023, the number of state-based conflicts rose to 59, representing the highest figure recorded

since systematic data collection began in 1946 (Uppsala Conflict Data Program, 2024). Similarly, conflict-related fatalities increased from 153,100 in 2022 to 170,700 in 2023, marking the deadliest year since 2019. This surge is largely attributable to the outbreak or resurgence of major conflicts in Ukraine, Gaza, and Myanmar, alongside persistent violence in other high-conflict regions such as Sudan, Mexico, Yemen, and the Sahel. The persistence of hostilities and limited conflict resolution efforts have further intensified global instability (Armed Conflict Location & Event Data, 2025). While no region is immune to armed conflict, Sub-Saharan Africa remains the most affected, accounting for the highest number of active conflicts worldwide (SIPRI, 2024).

Nigeria exemplifies this growing security challenge, having experienced a significant escalation in armed violence and related fatalities in recent years. This deterioration is driven by multiple and overlapping security threats, including the Boko Haram insurgency and the Islamic State West Africa Province (ISWAP) in the Northeast, farmer–herder conflicts involving Fulani militias across the Middle Belt and southern regions, militancy in the Niger Delta, and widespread banditry in the Northwest and North-Central zones (Barkindo, 2023; Ishaku, 2023). Ethnic and religious tensions, coupled with political and economic instability, have further exacerbated insecurity nationwide. Consequently, armed conflict has had profound economic repercussions, with long-term implications for growth and development. The ongoing violence is estimated to cost Nigeria approximately $100 billion annually (UNDP, 2021; UNICEF, 2023). Beyond financial losses, conflict has resulted in thousands of deaths, the displacement of millions, large-scale kidnappings, cattle rustling, and the widespread destruction of property and critical infrastructure, including assets owned by government and multinational oil companies (Zhang et al., 2024).

These disruptions have contributed to a decline in Gross Domestic Product (GDP) (Frontier Economics, 2025; UNICEF, 2023), hindered domestic and international trade (Jung et al., 2024), and discouraged foreign direct investment (Lee, 2017; Aziz & Khalid, 2019; Wang et al., 2024). The destruction of infrastructure (Voyvodic, 2022) and the loss of human and material capital (Quadri, 2026; Abdalrhim et al., 2026) have weakened economic stability, while the tourism sector has suffered substantial revenue losses (Byemba et al., 2024). Moreover, Nigeria's global image has deteriorated, adversely affecting investor confidence and diplomatic relations.

A critical but often overlooked consequence of armed conflict in Nigeria is the persistent rise in food prices. Armed violence has severely disrupted agricultural production, which remains the backbone of

Nigeria's economy and the primary source of livelihood for millions of households (Adelaja & George, 2019; Arias et al., 2019; Basheer & Elagib, 2024.). Farmers in conflict-prone regions face persistent threats from insurgents, bandits, and militant groups, forcing many to abandon their farmlands due to fear of attacks, kidnappings, and extortion

(Dangusau, 2020; Abubakar et al., 2026). As a result, the cultivation of staple crops such as maize, rice, millet, and sorghum has declined sharply. Livestock farming has also been severely affected, as widespread cattle rustling has decimated herds, reducing the supply of meat, milk, and other dairy products (Iyela et al., 2023; Osatohanmwen, 2024).

The decline in agricultural output has created significant supply-demand imbalances, contributing to rising food prices nationwide. Even where production occurs, the transportation of food to markets has become increasingly difficult due to attacks on transport routes, hijacking of food-laden vehicles, illegal levies imposed by armed groups, and the destruction of roads and bridges (Mustapha et al., 2025; Ajiboye, 2023; Ajiboye et al., 2024). These challenges are further compounded by the mass displacement of rural populations. Millions of internally displaced persons (IDPs), many of whom are farmers or agricultural laborers, lack access to farmland and farming tools, resulting in reduced labor availability for planting and harvesting (Dooshima et al., 2023; George & Adelaja, 2022).

As domestic food production declines, Nigeria has increasingly relied on food imports to meet national demand. However, global inflation, exchange rate volatility, and rising import costs have intensified food price pressures (U.S. International Trade Administration, 2025). The depreciation of the Nigerian naira has further increased the cost of imported food items such as rice, wheat, and vegetable oil, exacerbating inflationary trends (Amachree, 2024; Ewa et al., 2018). The consequences of food price inflation are particularly severe for vulnerable populations, including children, pregnant women, and the elderly, as rising prices force households to reduce food quantity and quality, leading to malnutrition and hunger-related illnesses (Rodiger & Hamm, 2015; Andreyeva et al., 2010).

In response, the Nigerian government has implemented several measures aimed at mitigating food price inflation, including food aid distribution, agricultural subsidies, and security interventions in conflict-affected regions (Idisi et al., 2026). However, these initiatives have yielded limited success, as many areas continue to experience the adverse effects of conflict-induced inflation. Given the growing threat that armed conflict poses to food security and macroeconomic stability, there is a pressing need for further empirical investigation into the relationship between

conflict and food price inflation, as well as the formulation of effective and sustainable policy responses that address its underlying causes.

Armed Conflict and Inflation Nexus in Nigeria

Many empirical studies have examined the interaction between conflict and inflation. For instance, D'Souza and Jolliffe (2013) examine the relationship between conflict, food prices, and household food insecurity in Afghanistan using survey and geo-coded violence data. Their findings show that high-conflict provinces are not always the most food-insecure. While simple descriptive analyses produce mixed results, multivariate models reveal a negative relationship: conflict reduces food security. Households in conflict-affected areas experience smaller declines in food security following food price increases, likely due to market disconnection. The study highlights that conflict disrupts markets and access to resources, thereby emphasizing the need for geographically targeted food aid and strategic interventions. Similarly, Brück et al. (2019) analyze how the 2014 Gaza conflict affected household resilience and food security using panel data collected before and after the conflict. Using distance to the Israeli border as an instrumental variable to measure conflict exposure, the study finds that food security was not directly affected. However, household resilience declined due to reduced adaptive capacity, particularly through deteriorating income stability and limited income diversification.

In the Nigerian context, Fadare et al. (2019) investigate how armed conflict and food price shocks affect household calorie intake and child acute malnutrition. Using nationally representative micro-panel data from the Nigeria Living Standards Measurement Survey combined with conflict event data, the study applies fixed- and random-effects models. The findings show that rising food prices, particularly for staple foods, significantly reduce calorie intake and increase the prevalence of wasting among children. Furthermore, Ajibade et al. (2020) examine food price volatility in Nigeria from 1970–2019 using GARCH and error-correction models. The study finds persistent volatility in staple crops (maize, sorghum, and yam), largely driven by insurgency, political stability in neighbouring countries, trade liberalization, GDP per capita, inflation, government effectiveness, crop production, crude oil prices, and exchange rate movements. The results further indicate that volatility shocks are mostly permanent, while domestic prices remain relatively insulated from fluctuations in global markets.

In addition, Ezeokana (2021) examined the relative impact of the Boko Haram insurgency on food security and food price inflation in Nigeria, finding that Boko Haram activities significantly affect both food

security and food price inflation in the country. Similarly, Adamu et al. (2022) examine the relationship between rural banditry and food price inflation in Nigeria's northwestern region, revealing that rural banditry contributes to rising food prices. Ibiyemi and Oldewage-Theron (2022) also review food and nutrition security in Nigeria, highlighting severe challenges. The authors note that high poverty levels, malnutrition, limited dietary diversity, and food price volatility exacerbate food insecurity. Prolonged conflicts, including Boko Haram and ISWAP insurgencies, as well as farmer–herder clashes, disrupt agricultural production and contribute to rising domestic food prices.

Furthermore, Onuabuchi et al. (2022) analyse the impact of Boko Haram's terrorist activities on food insecurity and food price inflation in West Africa. The study examines terrorism, food insecurity, and food price inflation and adopts the instrumental theory of terrorism, using oral interviews, documentary evidence, and a historical research design. The findings reveal that Boko Haram activities contribute significantly to food price inflation in West Africa. Similarly, Nweke et al. (2023) examine the impact of the Russia–Ukraine war on food security and food inflation in Africa using a longitudinal panel design. The study analyses time-series data on food inflation from January 2019 to March 2022 across selected African countries, including Nigeria, South Africa, Kenya, and Morocco. Using descriptive and trend analysis, the findings show that Nigeria recorded the highest food inflation, while Morocco experienced the lowest. However, Morocco and Kenya witnessed the most noticeable price increases following the outbreak of the war. The study further suggests that persistent food price inflation may heighten the risk of social unrest in African countries. In the same vein, Muriuki et al. (2023) examine the spillover effects of violent conflict on household food insecurity in Uganda, Ethiopia, and Malawi using Living Standards Measurement Study (LSMS) data. Employing a contiguity matrix weighted by the distance between households, the study finds statistically significant spillover effects of conflict on food security in Ethiopia and Uganda. In Malawi, the indirect effects are negative, whereas in Ethiopia they are positive.

Additionally, Ichoku et al. (2023) investigate the relationship between insecurity, climate change shocks, and food price inflation in Nigeria using monthly time-series data from 2011 to 2022. Employing both linear and nonlinear autoregressive distributed lag (ARDL and NARDL) models, the study finds that insecurity and climate-related shocks significantly contribute to rising food price inflation. The findings suggest that these shocks exert both symmetric and asymmetric effects on food prices, highlighting the need for policy interventions, including climate-smart

agriculture and targeted support for households affected by insecurity. Similarly, Odu et al. (2023) ascertain that increased attacks and armed conflict lead to higher food prices at both the aggregate and state levels in Nigeria, as supported by in-sample and out-of-sample forecasts. The study further indicates that unconventional monetary policies targeting the agricultural sector can help mitigate food inflation in some states. Olanrewaju and Balana (2023) also examine how conflict-induced shocks affect household food security in Nigeria, focusing on Boko Haram insurgency, herder–farmer conflicts, and armed banditry.

Using survey data from the Fadama III project and a 2021 phone survey, the study finds that shocks such as forced migration, fatalities, abductions, and property loss significantly reduce household dietary diversity and exacerbate severe food insecurity. The research further highlighted spatial and gendered variations, showing that women and displaced households are particularly vulnerable. Moreover, Adekunle et al. (2024) examine how conflict-induced food price shocks affect household food security in Nigeria using panel household data, monthly retail commodity prices, and violent conflict data from 2010 to 2019. Applying fixed-effects panel regression models, the study evaluates food security using indicators such as calorie intake, dietary diversity, and monthly food consumption. The findings indicate that increases in conflict-related price shocks, particularly for wheat and rice, reduce calorie intake, dietary diversity, and the value of food consumed. The results suggest that violent conflict exacerbates food insecurity mainly through rising food prices and subsequent dietary adjustments by households.

Similarly, Ofem et al. (2025), using an ARDL estimation approach, ascertain that insecurity and military expenditure have a positive but statistically insignificant impact on food prices in Nigeria from 2005 to 2024. The study concludes that insecurity alone does not drive food price fluctuations and that increasing military spending alone cannot resolve insecurity. The authors therefore recommend broader security reforms, rural protection of agricultural activities, and farmer insurance schemes. Finally, Eneh and Eneh (2025) investigate the relationship between violent armed conflict and economic health in Nigeria from 2004 to 2020, encompassing both the pre-Boko Haram period (2004–2007) and the Boko Haram insurgency years (2009–2019). The study finds that increases in battle-related deaths significantly reduce agricultural value added to GDP and increase the prevalence of undernourishment. The results indicate that sustained violent conflict negatively affects both environmental security and food security.

Theoretical Framework

The theoretical foundation of this study is anchored in the Greed versus Grievance Theory, developed by Paul Collier and Anke Hoeffler (2004), which provides a framework for understanding the motivations underlying armed conflict. The theory categorizes the drivers of conflict into two broad motivations: greed and grievance. The greed hypothesis posits that armed conflicts are largely driven by economic self-interest, whereby individuals or organized groups engage in violent activities to gain control over valuable resources, wealth, or political authority. This form of conflict is particularly prevalent in resource-rich regions where competition over natural resources such as oil, diamonds, and minerals intensifies political and economic rivalries. Empirical evidence from countries such as Sierra Leone and the Democratic Republic of the Congo, as well as the Niger Delta in Nigeria, illustrates how struggles for resource control can sustain prolonged violent conflicts. In such contexts, weak institutional structures often allow armed groups to finance their activities through illicit resource exploitation and war economies. Conversely, the grievance hypothesis attributes the emergence of armed conflict to political, ethnic, religious, and socio-economic inequalities. Marginalized groups may resort to violence in response to perceived injustices such as political exclusion, unemployment, economic deprivation, and human rights violations. These grievances often generate social unrest and violent mobilization, as observed in events such as the Rwandan Genocide, the Arab Spring, and the Sri Lankan Civil War.

Beyond explaining the origins of conflict, the Greed versus Grievance framework also provides insights into its economic consequences. Armed conflicts often disrupt agricultural production, destroy infrastructure, displace farming populations, and fragment food supply chains. These disruptions reduce food availability, increase transaction and transportation costs, and exert upward pressure on food prices. In conflict-prone economies such as Nigeria, insecurity in key agricultural regions can limit market access and discourage investment in food production, thereby intensifying supply shortages and contributing to persistent food price inflation. Despite the prominence of the Greed versus Grievance Theory in explaining the determinants of conflict, limited attention has been given to its implications for macroeconomic outcomes such as food price dynamics. This study therefore extends the framework by examining how armed conflict influences food price inflation in Nigeria, consistent with empirical evidence from Eneh and Eneh (2025), Adekunle et al. (2024), and Ichoku et al. (2023).

Research Methodology

The study utilizes secondary data covering the period 1989–2023. The data are obtained from reliable sources, including the World Bank's World Development Indicators (WDI) (2025), the Central Bank of Nigeria (CBN) Statistical Bulletin (2025), and the Uppsala Conflict Data Program (UCDP) (2025). The dependent variable is inflation (INF), while the core independent variable is armed conflict (ARMCFT). The control variables include unemployment (UN), money supply (MON), loans (LEN), and trade openness (TRD).

Econometric model specification

To examine the relationship between inflation (INF) and its determinants, including armed-related violence, the study specifies estimation model functional Form as follows:

$$\boldsymbol{INF} = \boldsymbol{f}(\boldsymbol{ARMCFT}, \boldsymbol{UN}, \boldsymbol{MON}, \boldsymbol{TRD}, \boldsymbol{LEN}, \boldsymbol{BM}) \quad (\mathbf{3.1})$$

Where:
INF: denotes food price inflation.
ARMCFT: denotes armed conflict.
UN: connote unemployment rate.
MON: stand for monetary sector credit to private sector.
LEN: denotes lending rate
BM: connotes money supply measured by broad money supply.
To achieve the core objective, which is to examine the impact of armed conflict on food price inflation, this study follows on the footstep of (Ichoku et al., 2023; Ofem et al., 2025), by specifying a dynamic estimation model of the form:

$$\begin{aligned}\Delta \boldsymbol{INF}_t &= \boldsymbol{\alpha_0} + \sum_{i=1}^{p} \boldsymbol{\delta_i}\, \Delta \boldsymbol{INF}_{t-i} + \sum_{i=1}^{q} \boldsymbol{\beta_k}\, \Delta \boldsymbol{ARMCFT}_{t-i} + \sum_{i=1}^{q} \in_F \Delta \boldsymbol{UN}_{t-i} \\ &+ \sum_{i=1}^{q} \boldsymbol{\gamma_l}\, \Delta \boldsymbol{TRD}_{t-i} + \sum_{i=1}^{q} \boldsymbol{\varphi_m}\, \Delta \boldsymbol{LEN}_{t-i} + \sum_{i=1}^{q} \boldsymbol{\sigma_m}\, \Delta \boldsymbol{BM}_{t-i} + \sum_{i=1}^{q} \boldsymbol{\Psi_n}\, \Delta \boldsymbol{MON}_{t-i} \\ &+ \boldsymbol{\lambda_2 ARMCFT}_{t-1} + \boldsymbol{\lambda_3 UN}_{t-1} + \boldsymbol{\lambda_4 TRD}_{t-1} + \boldsymbol{\lambda_5 LEN}_{t-1} + \boldsymbol{\lambda_6 BM}_{t-1} \\ &+ \boldsymbol{\lambda_7 MON}_{t-1} + \boldsymbol{\theta ECT}_{t-1} \\ &+ \boldsymbol{\mu_t} \quad (\mathbf{3.2})\end{aligned}$$

Estimation Technique

This study adopts the Autoregressive Distributed Lag (ARDL) model because it effectively captures both short- and long-run relationships using lagged values of the dependent variable and current and lagged regressors. Unlike the VAR model, ARDL accommodates variables integrated of

different orders, I(0) and I(1), making it suitable for this analysis (Pesaran & Shin, 1998; Pesaran, Shin, & Smith, 2001). The ARDL framework also provides a reliable alternative to conventional cointegration techniques that may suffer from autocorrelation and endogeneity. Additionally, the inclusion of an Error Correction Model (ECM) enables the estimation of adjustment dynamics toward long-run equilibrium, ensuring model stability and robustness.

Additionally, the study performs two unit root pre-estimation tests: the Augmented Dickey-Fuller (ADF) test and the Phillips-Perron (1988) test for robustness. Cointegration is tested using the ARDL bounds test. Diagnostic tests are serial correlation, normality (Jarque-Bera), heteroskedasticity (ARCH), and model stability (CUSUM and CUSUMSQ). Finally, Pairwise Granger causality (1969) is used to determine the direction of causality, which may be unidirectional, bidirectional, or neutral (Maganya, 2020).

Results and Discussions

Table 4.1. The descriptive statistics for key variables of the study (span of 1989- 2023)

Variable	INF	ARMCFT	UN	TRD	MON	LEN
Mean	16.85113	1935.029	4.055436	28.92092	10.19758	18.65682
Median	10.38478	1175.000	3.851000	30.70465	9.395146	17.79500
Maximum	75.40165	9943.000	5.742000	42.93101	19.62560	31.65000
Minimum	0.686099	0.000000	3.074000	8.729206	4.957522	11.48313
Std. Dev.	15.19914	2246.730	0.557017	9.616209	3.574405	3.971445
Skewness	2.080641	1.969641	1.580404	-0.435297	0.730902	1.001859
Kurtosis	7.765761	7.305512	5.086389	2.069419	3.230220	4.822084
Jarque-Bera	58.37526	49.66411	20.91793	2.368208	3.102322	10.69669
Probability	0.000000	0.000000	0.000029	0.306020	0.212002	0.004756
Sum	589.7896	67726.00	141.9403	1012.232	346.7178	652.9888
Sum Sq. Dev.	7854.475	1.72E+08	10.54909	3144.030	421.6203	536.2608
Observations	35	35	35	35	34	35

Source: Authors computation using EViews 10.0

Table 4.1 displayed the summary statistics for the dataset used in the model. Few out of the many measures central tendency, measures dispersion and normal distribution are of great importance to this study. Skewness in table 4.1 is positive, having all positive sign showing the distribution was skewed. This implies that even in a frequency distribution form, the data set analyzed was dominated by positive values.

The kurtosis on the other hand revealed that some of the variables satisfied it symmetrical condition of the expected value of three. INF,

ARMCFT, UN all had it values more than three which indicate that the distribution is leptokurtic and for TRD it values are less than three, so the distribution is platykurtic. However, the probability of all the variables in the model being statistically insignificant at 5% level of significance. This gives way for the acceptance of the in- built null hypothesis that the data set is approximately normal.

Furthermore, an interesting relationship exists between the mean and median for all the variables in the model. The mean to median ration for all data set is within the unit of proximity. This implies that when plotted on the standard normal curve, the median will not be significantly different from the mean value of the distribution. The range distribution between minimum and maximum is majorly positive for all variables in the model.

Table 4.2: ADF unit root test

Variable	t- statistics	Probability	Order of cointegration
INF	-3.8529	0.0058	I(0)
ARMCFT	-2.9491	0.0512	I(0)
UN	-3.8754	0.0060	I(0)
LEN	-4.0529	0.0161	I(0)
MON	-3.3174	0.0816	I(0)
TRD	-5.7637	0.0000	I(1)

Source: Authors computation using Eviews 10.0

The result of the unit root test using Augmented Dickey- Fuller (ADF) approach is presented in Tables 4.2. The ADF test result shows that the following variables INF, ARMCFT, and UN were stationary at level while LEN, MON and TRD were not stationary at levels.

The series after first difference became stationary at 5% level of significance but with a mix order of integration. Thus, with all the variables not integrated of same order but have a mix order of integration of I (0) and I (1) as shown in the result appropriate choice left is to adopt the use of ARDL bound co- integration to examine the existence of long run relationship amongst the variables in the model.

Analysis of co- integration test

Given the relatively small sample of 37 years and a mixed order of integration of the variables [I (0) and I (0)] from the ARDL unit root test, the results of the bond test in this study is extracted from Eviews 10.0 software.

Table 4.3 Result of the bond test

Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	19.28559	10%	2.53	3.59
K	6	5%	2.87	4
		2.5%	3.19	4.38
		1%	3.6	4.9

Source: Authors

Table 4.4 Estimated short run coefficient using the ARDL approach.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.012600	0.415327	14.47677	0.0000
@TREND	-0.241731	0.017782	-13.59377	0.0000
D(ARMCFT)	8.34E-05	3.94E-05	2.117337	0.0633
D(ARMCFT(-1))	-0.000317	4.10E-05	-7.733023	0.0000
D(ARMCFT(-2))	-9.56E-05	3.86E-05	-2.475528	0.0352
D(LNUN)	1.791972	0.937015	1.912426	0.0881
D(LNUN(-1))	-2.056415	2.104943	-0.976946	0.3541
D(LNUN(-2))	7.875365	2.378458	3.311122	0.0091
D(LNTRD)	1.483585	0.175155	8.470124	0.0000
D(LNTRD(-1))	-0.692550	0.191184	-3.622423	0.0056
D(LNTRD(-2))	-0.671212	0.186752	-3.594142	0.0058
D(LNMON)	-3.839087	0.327662	-11.71659	0.0000
D(LNLEN)	-5.759359	0.628941	-9.157227	0.0000
D(LNLEN(-1))	-1.801880	0.496327	-3.630428	0.0055
D(LNLEN(-2))	-2.360173	0.493114	-4.786258	0.0010
CointEq(-1)*	-0.597410	0.106494	-14.99995	0.0000

R-squared	0.956627	Mean dependent var	-0.016498
Adjusted R-squared	0.913254	S.D. dependent var	0.976213
S.E. of regression	0.287520	Akaike info criterion	0.651274
Sum squared resid	1.240018	Schwarz criterion	1.391396
Log likelihood	5.905253	Hannan-Quinn criter.	0.892535
F-statistic	22.05591	Durbin-Watson stat	2.394001
Prob(F-statistic)	0.000000		

Source: Authors computation using EViews 10.0

Table 4.5 Estimated long run coefficient using the ARDL approach.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ARMCFT	0.000248	0.000107	2.320748	0.0454
LNUN	3.268619	0.949564	3.442233	0.0074
LNTRD	2.076909	0.519323	3.999259	0.0031
LNMON	-1.982698	0.469065	-4.226917	0.0022
LNLEN	-2.380912	2.613241	-0.911095	0.3860
BM	0.051292	0.026321	1.948742	0.0831

Source: Authors computation using EViews 10.0

The short-run and long-run ARDL results for Nigeria, presented in Tables 4.4 and 4.5, identify key determinants of inflation and its macroeconomic drivers. The findings show that armed-related conflict (ARMCFT) has a positive and statistically significant effect on inflation in both the short and long run. This empirical finding is consistent with the results of related studies, such as Ajibade et al. (2020), Ichoku et al. (2023), and Adekunle et al. (2024), which highlight the food inflation–inducing impact of armed conflict. The results of the present study indicate that conflict-related disruptions to production and supply chains exacerbate inflationary pressures. Unemployment (LNUN) also exerts a positive and significant impact on inflation across both periods, highlighting the role of labor market conditions in driving inflation. Similarly, trade openness (LNTRD) positively and significantly influences inflation, reflecting the effects of imported inflation and exchange rate pass-through. In contrast, money supply (BM) has a negative effect on inflation only in the short run, suggesting that temporary liquidity adjustments may influence price dynamics.

Additionally, credit to the private sector (LNMON) and lending rates (LNLEN) exhibit negative and statistically significant effects on inflation, underscoring the stabilizing role of monetary and financial sector policies. The error correction term (ECM) is negative and statistically significant, confirming the existence of a long-run equilibrium relationship, with approximately 60% of short-run disequilibrium adjusted annually. This indicates a relatively fast speed of adjustment toward long-run equilibrium.

The Granger causality test reveals a unidirectional causality running from inflation to armed conflict, suggesting that rising inflation may contribute to the escalation of armed conflict in Nigeria. Model diagnostics indicate a strong fit and reliability. The R-squared (0.9566) and adjusted R-squared (0.9133) confirm that a substantial proportion of variations in

inflation is explained by the model. The F-statistic is significant at the 1% level, while the Durbin–Watson statistic (2.39) indicates the absence of serial autocorrelation. Stability tests using CUSUM and CUSUM of Squares show that all coefficients remain within the critical bounds, confirming parameter stability over the study period.

Conclusion and Recommendations

This study examined the impact of armed conflict on food price inflation in Nigeria using the Autoregressive Distributed Lag (ARDL) Bound Cointegration Test and time series data from 1989 to 2023. The findings indicate that armed conflict significantly increases food price inflation in both the short run and long run, exacerbating economic instability. Additionally, unemployment and international trade contribute to rising food inflation, while monetary credit to the private sector and lending rates help reduce inflationary pressures. Interestingly, money supply has a short-run inflationary effect, suggesting temporary shocks. The Granger causality test reveals a unidirectional causality from inflation to armed conflict, indicating that rising inflation may fuel further conflict, creating a vicious economic cycle. The error correction term (ECM) confirms a long-run equilibrium, with adjustments occurring at 60% per annum. These findings highlight the need for targeted policy interventions to mitigate the economic impact of conflict and inflation. Strengthening financial sector policies, regulating money supply, and implementing employment and trade strategies are crucial for economic stability. Additionally, proactive conflict resolution and social welfare programs can help prevent inflation from exacerbating conflict, fostering a more resilient economy.

Based on the findings of this study, the following recommendations are proposed to mitigate the impact of armed conflict on food price inflation in Nigeria:

> The study indicates that Armed conflict has a positive and statistically significant effect on food price inflation in both the short run and long run. As a result, government of Nigeria are encourage strengthening security in conflict-prone regions, especially in food-producing areas, is essential to ensure stable agricultural output and food supply. Moreover, strengthening social welfare programs and introducing targeted economic interventions in conflict-prone areas can help break the cycle between inflation and conflict, ensuring long-term economic stability.
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> Unemployment and international trade were found to be a significant driver of food price inflation in Nigeria. Consequently, policymakers are advised to address unemployment through skill development, entrepreneurship, and job creation programs will enhance household income and reduce food price inflation. Furthermore, policies should aim

to improve trade efficiency, encourage domestic agricultural production, and reduce import dependency to stabilize food prices and protect the economy from external price shocks.

Th findings shows that monetary credit to the private sector and lending rates significantly reduce inflationary pressures in both the short run and long run. Thus, policies promoting increased credit to the private sector should be reinforced to support economic growth, while lower lending rates for agricultural investments can enhance food production and stabilize prices.

Furthermore, the results indicates that money supply has a positive and statistically significant impact on food price inflation, but only in the short run. thus, its suggested that the Central Bank of Nigeria should adopt prudent monetary policies to control short-term inflationary shocks caused by excessive money supply while ensuring liquidity supports economic growth.

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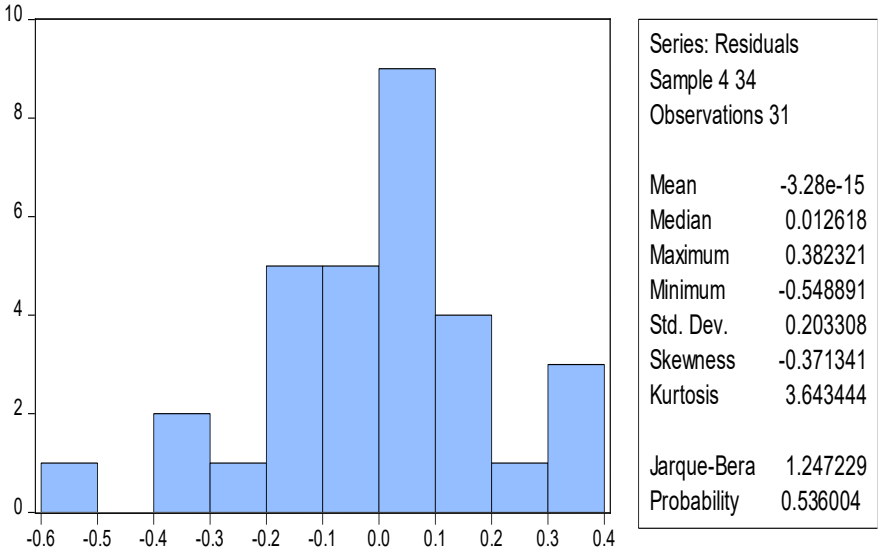
APPENDIX

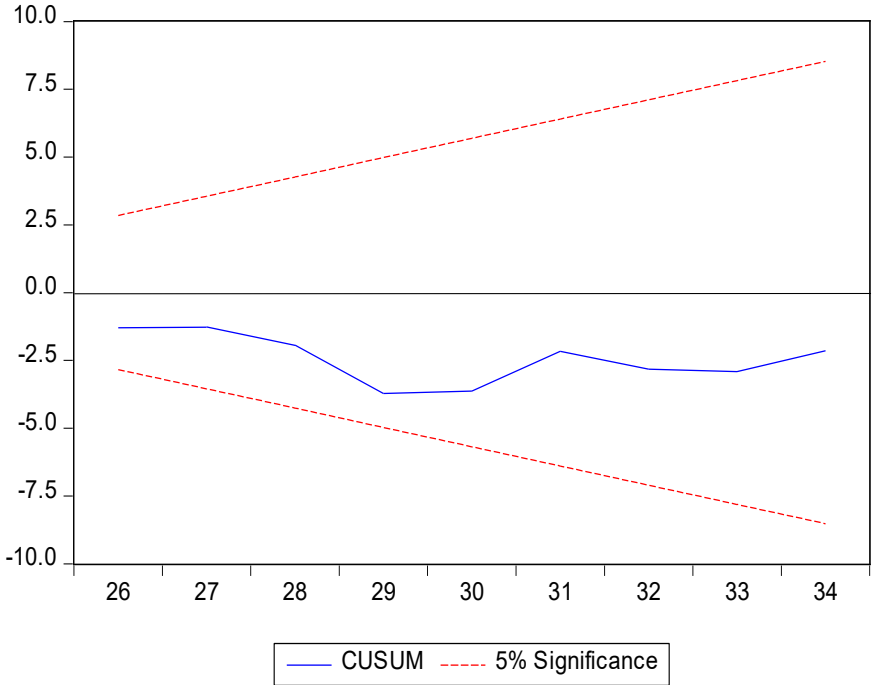


Breusch-Godfrey Serial Correlation LM Test:

F-statistic	4.664877	Prob. F(2,7)	0.0516
Obs*R-squared	17.71137	Prob. Chi-Square(2)	0.5681

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.595467	Prob. F(21,9)	0.2384
Obs*R-squared	24.43604	Prob. Chi-Square(21)	0.2724
Scaled explained SS	2.722279	Prob. Chi-Square(21)	0.7703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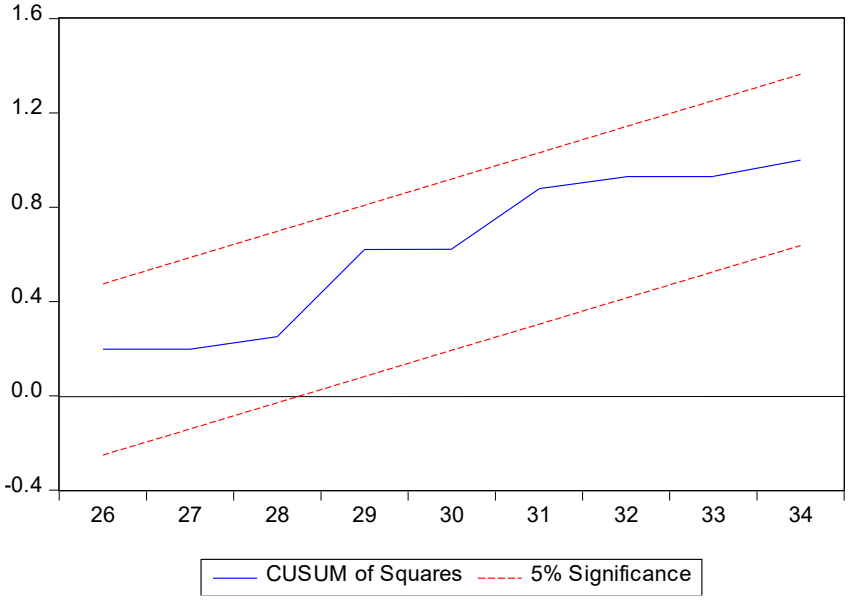
CUSUM
5% Significance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