

Impact of Insecurity on Economic Growth in Nigeria: 1990-2023

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ABSTRACT

This study examines the impact of insecurity on economic growth in Nigeria from 1990 to 2023. Insecurity, including terrorism, kidnapping, and ethno-religious conflicts, has significantly hindered Nigeria's economic progress. The study employs an Autoregressive Distributed Lag (ARDL) model to analyze the long-term and short-term relationships between economic growth, measured by real GDP, and key variables like insecurity (National Terrorism Index), unemployment, poverty, and inflation. The findings reveal a strong negative correlation between insecurity and economic growth. Increased insecurity leads to reduced investment, decreased productivity, and increased economic uncertainty, ultimately hindering economic development. Additionally, the study highlights the detrimental effects of unemployment, poverty, and inflation on economic growth. To mitigate the negative impacts of insecurity and foster sustainable economic growth, the study recommends comprehensive security measures, effective governance, and targeted policies to address poverty, unemployment, and inequality. By addressing these challenges, Nigeria can create a more secure and prosperous future.

Keywords: Insecurity, Economic Growth and Autoregressive Distributive Lag Model (ARDL)

INTRODUCTION

Nigeria's return to democratic governance on May 29, 1999, ignited widespread hope for freedom, equity, and sustainable economic growth. Citizens anticipated that democracy would address fundamental challenges like unemployment and insecurity, enabling development (Agbadagbe, Musa & Ismail, 2024). However, by March 2009, over ten million Nigerians were unemployed, according to the National Bureau of Statistics. Otto and Ukpere (2012) observed that unemployment has been exacerbated by insufficient efforts to address it. This issue, coupled with inadequate access to essential services like education, water, and healthcare, highlights the gap between democratic aspirations and realities. Additionally, Nigeria faces pervasive security challenges, including militancy, kidnapping, and ethno-religious conflicts, leading to significant losses in lives, investments, and national stability (Magaji, Musa, & Salisu, 2022).

Efforts to address Nigeria's insecurity have often fallen short, with interventions failing to mitigate rising militancy, insurgencies, and public dissatisfaction. The inability to meet basic needs fosters grievances and leads to political, ethnic, and religious tensions (Musa & Ismail, 2023). Structural issues, such as years of environmental degradation and marginalization in the oil-rich Niger Delta, fuel violent responses. Oche (2001) noted that while the region contributes significantly to the economy, its wealth has not translated into local prosperity, resulting in militancy, vandalism, and kidnappings. These acts disrupt oil production, hinder economic growth, and compound insecurity across the country (Magaji, Musa & Ismail, 2025).

The economic impacts of insecurity are profound, affecting both short- and long-term growth. Insecurity leads to direct losses through destruction and displacement while also creating economic uncertainties that deter investments. Yusuf and Mohd (2023), Ismail, Musa and Magaji (2024) argue that excessive security spending diverts resources from critical sectors like education and health, compounding developmental challenges. Terrorism, for instance, not only disrupts local economies but also elevates operational costs and discourages foreign direct investment. This combination of factors perpetuates poverty, inequality, and unemployment, creating a vicious cycle that undermines economic stability and governance (Magaji, Musa & Ismail, 2025).

Addressing Nigeria's security crisis requires a multifaceted approach. According to Ahmad and Magaji (2024), inclusive growth and effective governance are essential to countering insurgency and its root causes. A comprehensive strategy would involve addressing socioeconomic disparities, fostering community empowerment, and promoting equitable resource distribution. Additionally, utilizing advanced econometric modeling could provide insights into both short- and long-term effects of insecurity on economic growth, enabling policymakers to craft targeted interventions that address systemic challenges effectively.

Nigeria's insecurity poses significant risks to regional stability and international peace, given its status as a leading economy in Sub-Saharan Africa. Rising violence impacts neighboring countries through refugee spillovers, altering demographics and security landscapes. Domestically, insecurity undermines investor confidence, damages infrastructure, and disrupts productive activities. This dual impact emphasizes the urgency of coordinated efforts to enhance security, governance, and economic resilience. Only through holistic and inclusive strategies can Nigeria hope to address its challenges and fulfill its potential as a stabilizing force in the region.

Literature Review and Theoretical Framework

Conceptual Review

Economic growth

Economic growth is the sustained enhancement of an economy's capacity to produce goods and services, thereby improving the standard of living (Igwe, Magaji, & Darma, 2021). It relies on the effective management of land, labor, capital, and entrepreneurship, and is commonly measured by the increase in real GDP, which adjusts for inflation to better reflect actual expansion (Balami, 2006). Growth in per capita production ensures alignment with population trends for improved living standards (Jhingan, 2006), while labor force expansion and increased trade volume further support productivity and global integration (Magaji, 2007). Technological progress, capital accumulation, and institutional development also underpin sustainable growth (Musa, Magaji, & Salisu, 2023). Beyond output increases, economic growth involves equitable access to services and income distribution, with sustainability requiring environmental and social balance (Enaberue, Musa, & Magaji, 2024). The IMF (2012) and World Bank (1993) define growth as rising real GDP and productivity, reflecting not only economic output but also structural and social advancements that contribute to long-term development.

Insecurity

Security is a multifaceted concept that encompasses both traditional, state-centric concerns and modern, human-centric dimensions, defined as the ability of a state or entity to protect its interests, values, and citizens from various threats, including physical, economic, and social vulnerabilities (Omede, 2018; Achumba et al., 2017). This broader understanding stresses the importance of integrated approaches that promote physical safety, economic stability, and social well-being, ensuring individuals feel secure and empowered within society. In contrast, insecurity involves fear, instability, and inadequate protection, often driven by poverty, unemployment, poor governance, and systemic inequality (Achumba et al., 2013; Ewetan & Urhie, 2014). Such challenges hinder societal cohesion and sustainable development, particularly in countries like Nigeria, where insecurity deters investment and progress. Addressing these issues requires comprehensive strategies that tackle root causes and strengthen governance and law enforcement, ultimately creating a stable environment conducive to both national and human developments.

Theoretical Review

The Social Conflict Theory

Social conflict theory emphasizes the persistent class struggles and societal inequalities that have accompanied the rise of capitalism, drawing from German philosophy, English political economics, and French socialism to explore concepts such as dialectical and historical materialism, class conflict, and the pursuit of a classless society (Marx & Engels, 1848). It explains how tensions between social classes and between state and non-state

actors arise from competing efforts to safeguard self-interests, with class struggles historically shaping societies and fueling social unrest, inequality, and threats to national security and economic stability (Adebakin & Raimi, 2014). The theory asserts that groups strive to control societal resources, leading to the establishment of political, economic, and legal institutions as expressions of power, further intensifying these conflicts. When tensions between dominant and exploited groups remain unresolved, they can escalate into widespread conflict, disrupting social harmony and economic progress (Adebakin & Raimi, 2012). By highlighting these dynamics, social conflict theory underscores the need to address systemic inequalities to foster peace, cohesion, and sustainable development.

Empirical Review

The World Bank (2024) examines the impact of insecurity on economic growth in the Horn of Africa and highlighted the growing concern of food insecurity in Sub-Saharan Africa (SSA), particularly in understudied peri-urban contexts. To address this gap, a cross-sectional survey was conducted among 300 randomly selected farm households in the peri-urban area of Jimma City, supplemented by key informant interviews (KIIs) and focus group discussions (FGDs). Using a structured questionnaire for quantitative data and an unstructured one for qualitative inputs, the study developed a food insecurity index based on twelve indicators across four dimensions of food insecurity. Principal Component Analysis (PCA) identified the most significant indicators, while an ordered probit regression model revealed that 46% of households were food-insecure, influenced by factors such as human capital, physical assets, risk aversion, and institutional challenges. The expansion of urban areas and market-oriented crops like eucalyptus significantly impacted food security. Households employed coping strategies such as income and farming diversification, social networks, and specialization. The study emphasized the effects of urban sprawl on agricultural land, the decline of staple crop cultivation, and rising food prices, which heighten vulnerability to food insecurity and poverty. It recommended preserving agricultural land use and supporting household coping mechanisms through targeted food insecurity mitigation strategies amidst rapid urbanization.

Njoroge (2024) investigates how insecurity has affected education and economic development in Kenya. The study adopted a descriptive research approach, targeting a population of 420 stakeholders, including civil society organizations, human rights groups, security entities, and counter-terrorism units. From this population, a sample of 150 participants was selected using a two-stage purposive sampling method, and data was gathered through questionnaires and interviews. Quantitative data was analyzed using SPSS version 26.0, while qualitative data was thematically examined through content analysis. The results were presented narratively and illustrated with tables, charts, and bar graphs. The study found that the Kenyan government has implemented numerous counterterrorism measures from 1998 to 2020, such as arrests, detentions, prosecutions, use of multi-agency collaboration, public awareness campaigns, economic empowerment initiatives, legislation like the anti-terrorism act, financial transaction monitoring, and media regulation. However, the research concluded that most of these strategies have not been successful in fully eliminating terrorism in Kenya.

Musa (2024) explores the relationship between insecurity and youth unemployment in Nigeria over the period from 1990 to 2020, employing the Ordinary Least Squares (OLS) estimation method. The study uses the National Terrorism Index (NTI) and Crime Rate (CR) as independent variables, with unemployment (UNE) as the dependent variable. Findings demonstrate that NTI has a positive and significant effect on unemployment; specifically, a one-unit rise in NTI increases unemployment by 0.000827 units. Similarly, the crime rate in Nigeria significantly and positively impacts unemployment, with a one-unit increase in CR leading to a 0.005653 rise in UNE. The study recommends reducing commercial bank interest rates to improve access to credit for small business owners, which would aid in job creation and subsequently reduce insecurity. Additionally, it advocates for increasing skill acquisition programs and curbing corruption in both public and private institutions, while addressing issues such as kidnapping.

Hassan and Magaji (2023) highlight the global spread of technological innovation and diffusion, traditionally limited to developed countries, in the context of financial systems based on cyber infrastructure. With the vulnerabilities inherent in digital systems, safeguarding computer and telecommunications networks has become essential. This chapter outlines Nigeria's electronic banking infrastructure, emphasizing benefits like transaction convenience, reduced cash usage, and anticipated crime reduction—including fewer robberies and lower

corruption. A review of literature related to crime and cash use is undertaken, along with an examination of how the digital system may have either mitigated or given rise to new forms of crime. Using police crime statistics, interviews with law enforcement, and a sociological survey, the study evaluates the types and frequencies of crimes before and after cyber banking implementation. Analytical tools such as the Likert scale, frequency analysis, and simple percentage methods were applied. A significant disparity between Kaduna and Abuja in terms of e-banking and the incidence of abductions was observed. The authors recommend that banks regularly test their software and hardware systems for vulnerabilities to prevent potential financial losses through cyber theft.

Aminu and Duda (2023) discuss the economic consequences of kidnapping in Northern Nigeria, integrating discussions on insecurity and electoral processes. The paper defines insecurity as a hazardous condition that exposes individuals to threats, fear, violence, and inadequate protection. It also defines elections as mechanisms for selecting political leaders in democratic systems. The study identifies various forms of insecurity, including Boko Haram insurgency, herder-farmer clashes, banditry, militancy, and kidnapping. It further attributes insecurity to factors such as political instability, erosion of traditional values, weak security institutions, governance failures, unemployment, and corruption. The study is framed within the Broken Windows and Queer Ladder theories. It reveals that insecurity poses threats to the conduct of the 2023 general elections. Consequently, it recommends that the government address the root causes of insecurity through strategic planning and that all stakeholders work collaboratively to ensure peaceful elections. Economically, the paper notes that kidnapping has discouraged investment and hampered agricultural output, contributing to a 2.3% decrease in GDP growth.

Musa, Magaji, and Salisu (2022) examine the influence of insecurity on youth unemployment in Nigeria. The study focuses on youth unemployment as the dependent variable, with explanatory variables including the Corruption Perception Index, domestic private investment, government capital expenditure, and security conditions. Using data from 1996 to 2019 and applying the OLS estimation method, the study finds that insecurity significantly increases youth unemployment. Specifically, a one-unit decline in the security index is linked to an estimated 1.16-unit increase in unemployment, assuming other factors remain constant. Furthermore, both the Corruption Perception Index and domestic private investment are shown to negatively affect youth unemployment, while government capital spending has a substantial mitigating effect. The study suggests equipping security personnel adequately to combat both urban and rural insecurity, promoting community engagement, and investing in infrastructure to support economic growth and job creation. To combat corruption effectively, the study emphasizes the importance of strong institutional accountability and zero-tolerance enforcement.

Gap in Literature

This study adds to the corpus of research on the impact of insecurity on Nigeria's economic development by exposing the general public to the enormous social and physical costs associated with the nation's quest of a robust defense. Additionally, it presents factual proof of the link between Nigeria's economic development and insecurity. The dearth of empirical literature on security and economic performance is a significant knowledge gap that this invaluable study fills. Additionally, by not dividing the national cake equally, it will compel the government to recognize the cost of inequality.

METHODOLOGY

Research Design

The ex-post facto research approach was employed in this study, and secondary data were used to determine the correlation between the independent and dependent variables. The nature of the study, which exhibits the following traits, makes the ex-post facto research design appropriate. The study spans more than a year, and the non-manipulable data were already available when it was conducted. This study is essentially analytical in nature and makes use of secondary data to investigate the connection between Nigeria's economic expansion and insecurity. To understand the composition and organization of the data, descriptive analysis was used. To investigate the relationship between the variables and one another, correlation analysis was also performed. The

short- and long-term effects of the independent factors on the dependent variable were further investigated using an Autoregressive Distributed Lag Model (ARDL).

Model Specification

For the purpose of this study the model of Ajibola (2022) was adapted. This was based on determinant of economic growth, Thus, the relationship is specified as follows:

$RGDP = F(\text{TEXPS}, \text{GFCF}, \text{TLBF}, \text{UE}, \text{POVI}, \text{CUPI}, \text{INFRATE}) \dots\dots\dots (1)$ linearizing the function gives multiple regression equation below as: -

$$RGDP = \alpha_0 + \alpha_1 \text{TEXPS} + \alpha_2 \text{GFCF} + \alpha_3 \text{TLBF} + \alpha_4 \text{UE} + \alpha_5 \text{POVI} + \alpha_6 \text{CUPI} + \alpha_7 \text{INFRATE} + U_t$$

Where:

RGDP = Real Gross Domestic Product proxy for economic growth

TEXPS = Total Expenditure on Security GFCF = Gross Fixed Capital Formation TLBF = Total Labour Force

UE = Unemployment rate

CUPI = Corruption perception Index

POVI = Poverty Index

INFR = inflation rate

U_t = Error term

And the new model is stated as follows:

$$RGDP = f(\text{UN}, \text{NTI}, \text{POVI} \text{ and } \text{INFR})$$

$$RGDP = \alpha_0 + \alpha_1 \text{NTI} + \alpha_2 \text{UE} + \alpha_3 \text{POVI} + \alpha_4 \text{INFR} + U_t$$

Variable Measurement and Discussion

Economic growth, represented by the real gross domestic product (RGDP), reflects the gradual increase in an economy's production capacity over time, leading to higher national output and income. This study uses RGDP as the dependent variable to assess Nigeria's economic growth. Key variables influencing economic growth include unemployment, which highlights the inability of willing workers to find jobs and serves as a policy variable in the model, and inflation, measured by the sustained rise in general price levels, reducing the purchasing power of currency over time. Additionally, poverty, a multifaceted social and economic challenge characterized by a lack of essential resources and opportunities, significantly impacts individuals and communities, influencing overall economic and social well-being.

Sources and Type of Data

The Statistical Bulletin of the Central Bank of Nigeria is the source of secondary data used in this study. The information gathered spans the years 1990 to 2023. The dependent variable was the real gross domestic product, whereas the independent variables were the inflation rate, unemployment rate, poverty rate, and overall security spending.

Method of Data Analysis

Descriptive Statistics (Pre-Diagnostic Tests) : The Jarque–Bera test, the mean, the standard deviation (SD), and the normalcy test are used in the study. The mathematical formula known as the arithmetic mean (AM) is

occasionally used interchangeably with the term "average" to denote the central value of a discrete set of numbers, that is, the sum of the values divided by the total number of values. The mean serves as a benchmark for comparing ratings with each other. A distribution of data set in a given distribution must, according to a statistical function, indicate whether the data collected is normally distributed or not.

Correlation Analysis

A statistical technique for determining the degree of link between two quantitative variables is correlation analysis. A weak correlation indicates that there is little to no association between the variables, whereas a high correlation indicates that two or more variables have a strong relationship. Stated differently, it refers to the method of examining the degree of the association using the statistical data that is at hand. This method is closely related to linear regression analysis, which is a statistical method for simulating the relationship between one or more explanatory or independent factors and a dependent variable known as response.

Unit Root Test

The fundamental nature of time series data is assumed to be stationary in empirical work based on these data. Economic variables are therefore anticipated to be stationary in nature. Time series are subjected to the unit root test to ascertain their stationarity or non-stationarity. The time series' stationarity is crucial because, even with a very large sample size, correlation may continue in non-stationary time series, leading to what is known as spurious or nonsense regression (Gujarati, 2004; Wei, 2006).

Unit root theory is the foundation of the methodology used to determine whether a time series is stationary or non-stationary, according to Cagla et al. (2021). Removing the stochastic trend and unit roots of variables by differencing them to the first or second order can be helpful. Three test equations were used in the Augmented Dickey-Fuller and Phillip Perron tests to perform the unit root test in this investigation. These equations are mathematically expressed as;

$$y_t = \Delta y_t + \rho y_{t-1} + \sum_{i=1}^k \lambda_i y_{t-1} + \mu_t \quad 3.3$$

$$y_t = \alpha + \rho y_{t-1} + \sum_{i=1}^k \lambda_i y_{t-1} + \mu_t \quad 3.4$$

$$y_t = \alpha + y_t + \rho y_{t-1} + \sum_{i=1}^k \lambda_i y_{t-1} + \mu_t \quad 3.5$$

Where $\Delta y_{t-1} = y_t - y_{t-1}$ is the first difference of the series; ρ , α and λ are parameters to be estimated while μ is a stochastic disturbance term.

ARDL Co-Integration Approach

In order to examine the long-term relationship between the variables, this study departs from the widely accepted co-integration methods of Engle and Granger (1987) and Johansen and Juselius (1990) and instead employs a novel and sophisticated method called the autoregressive distributive lag model (ARDL) bounds testing approach, which was created by Pesaran, Shin, and Smith (2001).

The reason this strategy has gained popularity recently is that it works well when the variables of interest have a hazy order of integration, such as solely I(0), purely I(1), or I(0) and I(1), which was not acceptable in earlier methods. Additionally, as Haug (2002) maintains, the ARDL bounds testing approach is more suitable and produces better results for small sample sizes, allowing for the simultaneous estimation of the long-run and short-run parameters.

Hence, the ARDL representation of equation 3.2 can be presented as thus;

$$\begin{aligned} \Delta RGDP_t = & \alpha_0 + \alpha_1 RGDP_{t-1} + \alpha_2 CEXP_{t-1} + \alpha_3 GEXPA_{t-1} + \alpha_4 GEXPH_{t-1} + \alpha_5 GEXPE_{t-1} \\ & + \alpha_6 DEBT_{t-1} \sum_{i=1}^k \beta_1 \Delta RGDP_{t-i} + \sum_{j=1}^l \theta_1 \Delta CEXP_{t-j} \\ & + \sum_{j=1}^m \gamma_1 \Delta GEXPA_{t-j} + \sum_{j=1}^m \gamma_2 \Delta GEXPH_{t-j} + \sum_{j=1}^m \gamma_3 \Delta GEXPE_{t-j} + \sum_{j=1}^m \gamma_4 \Delta DEBT_{t-j} \\ & + \varepsilon_t \dots \dots \dots (3.6) \end{aligned}$$

Where; Δ is the first-difference operator and β 's and α 's show the long run coefficients and short run coefficients. Hence, the null hypothesis (H_0) of no cointegration states that:

$$H_0: \alpha_1 = \alpha_2 = \alpha_3 = \beta_1 = \theta_1 = \gamma_1 = 0, \text{ and}$$

The alternative hypothesis of the existence of cointegration state that:

$$H_1: \alpha_1 \neq \alpha_2 \neq \alpha_3 \neq \beta_1 \neq \theta_1 \neq \gamma_1 \neq 0 \text{ respectively.}$$

The aforementioned conjectures are examined through a comparison of the computed F-statistic with critical values derived from Narayan (2005). These values were generated for limited sample sizes ranging from 30 to 80 observations, under the presumption that every variable in the model is $I(0)$ on one side and $I(1)$ on the other. As per standard hypothesis testing procedures, in the event that the computed F-statistic surpasses the upper critical bounds value, we reject H_0 and accept H^1 . Conversely, if the F-statistic remains within the bounds, the test is deemed inconclusive. Lastly, if the F-statistic falls below the lower critical bounds value, it suggests the absence of co-integration.

ARDL Error-Correction Model (ARDL-ECM) Approach

Within the context of ECM, causal relationships between variables can be investigated with cointegrated variables (Granger, 1988). The long-term and short-term relationships between the variables are shown here. The model's short-term dynamics are explained by the individual coefficients of the lag terms, while the long-term relationship information is presented by the error correction term (ECT). Similarly, a negative and statistically significant ECT is seen to indicate long run causation, whereas the importance of the lagged explanatory variable illustrates short run causality.

The short-run causality model from the ARDL model in equation 3.6 is presented in equation 3.7;

$$\begin{aligned} \Delta RGDP_t = & \beta_0 + \beta_1 \Delta RGDP_{t-1} + \beta_2 \Delta CEXP_{t-1} + \beta_3 \Delta GEXPA_{t-1} + \beta_4 \Delta GEXPH_{t-1} + \beta_5 \Delta GEXPE_{t-1} \\ & + \beta_6 \Delta DEBT_{t-1} + \mu_t \dots \dots \dots (3.7) \end{aligned}$$

While that of the ARDL model in equation 3.7 is presented in equation 3.8;

$$\begin{aligned} \Delta RGDP_t = & \beta_0 + \beta_1 \Delta RGDP_{t-1} + \beta_2 \Delta CEXP_{t-1} + \beta_3 \Delta GEXPA_{t-1} + \beta_4 \Delta GEXPH_{t-1} + \beta_5 \Delta GEXPE_{t-1} \\ & + \beta_6 \Delta DEBT_{t-1} + \rho ECM_{t-1} + \mu_t \dots \dots \dots (3.8) \end{aligned}$$

Where, Δ is the difference operator, ECM represent the Error Correction Term (ECT) derived from the long-run co-integrating relation from specified ARDL models equation 3.8. In equation 3.9, ρ should exhibit a negative and significant sign for causality to exist in the long run.

Finally, the CUSUM of square (CUSUMSQ) and cumulative sum of recursive residuals (CUSUM) tests are used to assess the model's stability. This is based on the claim made by Narayan and Smyth (2005) that Pesaran (1997) recommends using the CUSUM of square (CUSUMSQ) and cumulative sum of recursive residuals (CUSUM) tests to evaluate the parameter constancy after the error correction models have been computed.

Data Presentation, Analysis and Discussion of Results

Data Presentation

This chapter focuses on the presentation of data used in estimating the model as developed in chapter three. Data on the variables (Real Gross domestic product, Unemployment, Poverty, National terrorism Index and Inflation Rate, were sourced from World Development Index (WDI) and Central Bank of Nigeria from 1990-2023.

Data Analysis

Descriptive Statistics

Table 1: Descriptive Statistics

	RGDP	NTI	UNP	POV	INF
Mean	244.0564	418.9873	4.302576	56.49515	18.30606
Median	236.1000	72.09755	3.974000	55.21000	13.00697
Maximum	546.6800	6474.000	6.237000	66.90000	72.83550
Minimum	27.75000	4.206067	3.424000	42.00000	5.382224
Std. Dev.	183.5547	1148.724	0.857582	5.694599	16.01195
Skewness	0.184519	4.681224	1.186148	-0.373337	2.205217
Kurtosis	1.397461	24.94193	2.906644	3.553938	6.860519
Jarque-Bera	3.718441	782.5176	7.750194	1.188510	47.23887
Probability	0.155794	0.000000	0.020752	0.551974	0.000000
Sum	8053.860	13826.58	141.9850	1864.340	604.1001

Source: Authors' Computation from E-views 11, 2025

Table 1 presents the summary statistics of the individual variables under consideration which include real gross domestic product (RGDP), Unemployment (UNP), Poverty (POV), National terrorism Index (NTI) and Inflation Rate (INF). Each variable of interest contained 33 observations. NTI has the highest mean value, followed by RDGP, POV, INF and UNP respectively. The mean value of each variable shows the average of the data, while the median is the middle value after sorting observations either in ascending or descending order. The value of the mean of all the variables also falls between the maximum and minimum value. All the variables appeared to be mesokurtic in nature as their kurtosis values are greater than three (3) except for RGDP which is less than 3 (1.923). Also, the probability of Jarque-Bera test revealed that all the variables are normally distributed except RGDP. The skewness test shows that all the variables are skewed given that their value is greater than one (1) except for RGDP.

Unit Root Test

Table 2 presents the unit root test results of the variables examined in this study using Augmented Dickey Fuller and Phillip Perron techniques. The essence of the unit root test is to examine the stationarity properties of the variables of interest which guide in choosing the appropriate technique of analysis to avoid a misleading or spurious regression result. Apparently from the table, the stationary properties of the variables show the mixture of I (0) and I (1) which justifies the applicability of ARDL bounds approach of co-integration test in this study.

Table 2 Unit root test Result

Variables	ADF-Statistic	Critical value 5%	Order of integration	Interpretation
RGDP	-3.632579	-2.960411	I(1)	Stationary at 1 st Difference

NTI	3.885934	-2.963972	I(0)	Stationary at Level
UNP	-5.634096	-3.603202	I(0)	Stationary at Level
POV	-3.597607	-3.562882	I(0)	Stationary at Level
INF	-5.457982	-3.587527	I(1)	Stationary at 1 st difference

Source: Authors' Computation from E-views 11, 2025

Table 2 shows the summary of the Augmented Dickey Fuller Unit root test result. It presents the level of integration of the variables. The individual unit root test is computed for stationarity using the Nigerian data from 1990-2022. The table indicates that all the variables (national terrorism index, unemployment and poverty) are stationary at level (0) while real gross domestic product and inflation rate are stationary at first difference (1).

ARDL-Bounds Co-Integration Test

Table 4.3 presents the Bound Test co-integration analysis result. Obviously from the table, the F- stat which is 9.395485 is greater than the upper bound critical values at 10%, 5%, 2.5% and even 1%. This result confirms the existence of long run relationship or co-movement among the variables under consideration, and it also suggests we can proceed to estimating the long-run and the short- run impact relationship between the target variable and the features in our specified model.

Table 3: Bounds Test Co-Integration Result

F Test:					
F-statistic	Degree of Freedom	Level of Significance	Pesaran et al., (1999) a		Remark
			I(0) Bound	I(1) Bound	
9.395485	4	10%	2.45	3.52	Co-integrated
		5%	2.86	4.01	
		2.5%	3.25	4.49	
		1%	3.74	5.06	

Source: Authors' Computation from E-views 11, 2025

Regression Analysis

ARDL Short-run Analysis

Table 4: The Short-Run Dynamic and the Error Correction

ARDL(4, 3, 4, 0, 2))lag selection based on Akaike Information Criteria				
dependent Variable: Real Gross Domestic Product ((RGDP))				
Variable	Coefficient	Std. Error	t-statistic	Prob.
ECM(-1)	-0.135757	0.093408	-1.453376	0.0040
D(RGDP(-1))	-0.680317	0.227390	-2.991852	0.0123
D(RGDP(-2))	-0.267200	0.228723	-1.168227	0.2674
D(RGDP(-3))	-0.981646	0.231910	-4.232884	0.0014
D(NTI)	-0.034887	0.022055	-1.581785	0.0420

D(NTI(-1))	0.078002	0.128959	0.604858	0.5575
D(NTI(-2))	-1.006399	0.256040	-3.930631	0.0023
D(UNP)	-34.599415	17.926187	-1.930104	0.0798
D(UNP(-1))	-26.196667	31.054802	-0.843563	0.4169
D(POV)	-0.680597	1.453521	-0.468240	0.6488
D(INF)	-0.577672	0.466402	-1.238571	0.2413
D(INF)	0.430255	0.341372	1.260371	0.2336

Source: Authors' Computation from E-views 11, 2025

Table 4 presents the short-run dynamic and the error correction coefficients of the estimated model. The ECM (-1) coefficient is -0.135757, which confirms the presence of long-run co-movement among the variables under study as presented in table 4.4, and it implies that the speed of adjustment of these variables to the position of equilibrium is 13.6% annually. The negative nature of the ECM (-1) coefficient also affirms that the model is statistically well structured and fit for prediction and forecasting purposes.

The results revealed that total real gross domestic product at first period lag and third period lag have negative but significant impact on real gross domestic product in Nigeria on the short run. In the same vein, real gross domestic product at second period lag has a negative but insignificant impact on real gross domestic product in the short run. Also, national terrorism index at current value and at second period lag have a negative but significant impact on real gross domestic product in the short run, while the national terrorism index at first period lag has a positive but insignificant impact on real gross domestic product in the short run. Unemployment at current value has a negative but significant impact on real gross domestic product in Nigeria in the short run, while unemployment at first period lag has a negative but insignificant impact on real gross domestic product in the short run. At the same time, poverty at current value has a negative but insignificant impact on real gross domestic product in Nigeria in the short run. Also, inflation rate at first period lag has a positive but insignificant impact on real gross domestic product in Nigeria on the short run, in the same vein, inflation rate at current value has a negative but insignificant impact on real gross domestic product in Nigeria in the short run.

ARDL Long-run Analysis

Table 5: ARDL Long-Run Estimate

ARDL (4, 3, 4, 0, 2) lag selection based on Akaike Information Criteria				
Dependent Variable: Real Gross Domestic Product (RGDP)				
43 observations used for estimation from 1981 to 2021				
Regressors	Coefficients	Std. Errors	t-Statistic	Probability
RGDP(-2)	0.413117	0.223505	1.848358	0.0916
RGDP(-3)	-0.714446	0.321149	-2.224660	0.0480
RGDP(-4)	0.981646	0.231910	4.232884	0.0014
NTI	-0.034887	0.022055	-1.581785	0.1420
NTI(-3)	1.006399	0.256040	3.930631	0.0023
UNP	-34.59941	17.92619	-1.930104	0.0798
UNP(-1)	-107.9860	22.14750	-4.875762	0.0005
POV	-0.680597	1.453521	-0.468240	0.6488
INF	-0.577672	0.466402	-1.238571	0.2413

INF(-1)	-0.026551	0.449051	-0.059127	0.9539
INF(-2)	-0.430255	0.341372	-1.260371	0.2336
C	790.7944	167.6433	4.717123	0.0006
$R^2 = 0.996751$	$R^2 = 0.991729$	$F = 198.4906$ (0.000000)	DW = 2.144015	

Source: Authors' Computation from E-views 11, 2025

Table 5 reflects the Autoregressive Distributed Lag (ARDL) Long run regression results. The target variable is the real gross domestic product, (RGDP), while the regressors are lag of the dependent variable and national terrorism index and its lags, unemployment and its lags, poverty rate and its lags, then inflation rate and its lags. Also, it is worth noting that the real gross domestic product at second period lag RGDP (-2) and fourth period lag RGDP (-4) have positive and significant impact on real gross domestic product in the long run and the real gross domestic product at third period lag RGDP (-3) have a negative but significant impact on real gross domestic product in the long run. Also, national terrorism index at current value has a negative but significant impact on real gross domestic product on the long run while national terrorism index at first period lag have a positive and insignificant impact on real gross domestic product in the long run, in the same vein total unemployment at current value UNP and first period lag UNP (-1) have a negative and significant impact on real gross domestic product on the long run, poverty at current value has a negative and insignificant impact on real gross domestic product on the long run. Inflation rate at first period lag REXP (-1) and at second period lag REXP (-2) have negative but insignificant impact on real gross domestic product on the long run.

Diagnostic Test

Table 6 ARDL Diagnostic Tests

Type	Diagnostic Test	F-stat.	Probability
Breusch-Godfrey LM Test	Serial Correlation	4.266055	0.3204
Breusch-Pagan-Godfrey Test	Heteroskedasticity	0.564471	0.8861
Ramsey RESET Test	Specification	0.238866	0.6306
Jarque-Bera Test	Normality	1.828143	0.400887

Source: Authors' Computation from E-views 11, 2025

Table 6 presents the results of the various diagnostic checks conducted to validate the reliability of the regression results of our dynamic model. The tests include; Breusch-Godfrey Test for Serial correlation, Breusch-Pagan-Godfrey Test for Heteroskedasticity, Ramsey RESET Test for model specification and Jarque-Bera Test for Normality. The F-stats and probabilities obtained reflect positivity as they all suggest the rejection of null hypothesis for each category of diagnostic tests. Explicatively, the serial correlation test result shows the absence of serial correlation as an econometric problem BPG Test shows that the model is not characterized by homoskedasticity, Ramsey REST Test result justifies the model specification's goodness as previously established, and Jarque-Bera test shows that the variables are normally distributed given that its probability value is greater than 0.05 or 5% level.

Interpretation of ARDL Result

Table 4 displays the short-term dynamics and the error correction coefficients derived from the estimated model. The coefficient of the Error Correction Model (ECM) lagged by one period is -0.135757, indicating a long-run equilibrium relationship among the studied variables, as supported by the findings in Table 4.4. This negative coefficient also confirms the model's statistical robustness and suitability for forecasting, suggesting that approximately 13.6% of any disequilibrium in the system is corrected annually. In the short run, the national

terrorism index (NTI) has a detrimental effect on real GDP, where a one-unit increase in NTI results in a decrease of approximately 6.60 units in real GDP.

On the other hand, government spending components, particularly recurrent and capital expenditures lagged by one period, show positive and significant effects on real GDP in the short term. Specifically, a one-unit increase in lagged recurrent expenditure (REXP(-1)) boosts real GDP by about 65.20 units, while a one-unit increase in lagged capital expenditure (CEXP(-1)) increases GDP by roughly 24.95 units. The model's high R-squared (0.998340) and adjusted R-squared (0.996847) values suggest that 99% of the variation in real GDP is explained by the explanatory variables, even after adjusting for degrees of freedom. Additionally, the F-statistic of 668.3454 with a significance level of 1% supports the overall strength and reliability of the model, making it suitable for guiding policy decisions aimed at economic growth.

DISCUSSION OF RESULTS

This study investigates the impact of insecurity on Nigeria's real gross domestic product (RGDP) and finds that insecurity significantly and negatively affects economic growth, aligning with previous research by Okoye et al. (2019), Benson et al. (2019), and Oladeji and Musa (2022). Additionally, unemployment is shown to have a negative impact on economic growth in both the short and long term, consistent with findings by Shabana et al. (2017) and Chandana et al. (2021). Similarly, poverty negatively affects economic growth in both the short and long term, corroborating the findings of Eregba (2019). These results underscore the significance of addressing insecurity, unemployment, and poverty to foster sustainable economic growth in Nigeria.

Policy Implication of Findings: The findings highlight the critical need for a comprehensive policy response to address the negative impact of insecurity, unemployment, poverty, and inflation on Nigeria's economic growth. Insecurity disrupts economic activities, deters investment, and worsens poverty and unemployment, requiring integrated security, economic, and social policies. Unemployment reduces consumer spending, erodes human capital, and fosters social unrest, necessitating job creation and skill enhancement strategies. Poverty hinders human capital development, reduces economic participation, and increases social costs, calling for policies focused on education, healthcare, and economic opportunities. Inflation undermines purchasing power, distorts markets, and destabilizes the economy, requiring coordinated measures to ensure stability. Addressing these challenges holistically will create a stable environment conducive to sustainable economic development.

CONCLUSION AND RECOMMENDATIONS

This study examines the impact of insecurity on economic growth in Nigeria. Insecurity, unemployment, poverty and inflation has a great influence on economic growth as proved by the findings of this research, insecurity is one of the greatest threat to economic growth. The study shows that insecurity is no beneficial and remains a bad tool of economic growth in Nigeria. It is also seen that there exists a direct relationship between the explanatory variables (Insecurity, unemployment, poverty and inflation) and economic growth in Nigeria.

Based on the findings, the study recommends that; given that capital expenditure has been found to have a positive impact on economic growth, policymakers should prioritize investment in infrastructure, education, healthcare, and other productive sectors. This can stimulate economic activity, enhance productivity, and contribute to long-term sustainable growth. To maximize the impact of capital expenditure, it is essential to ensure efficient allocation and utilization of funds. Governments should implement transparent procurement processes, rigorous project appraisal mechanisms, and effective monitoring and evaluation systems to prevent wastage and corruption in capital projects. And expenditure may have a positive impact on economic growth, it is crucial to rationalize recurrent spending to free up resources for investment in priority areas. Governments should streamline public sector wages, reduce non-essential recurrent expenses, and enhance efficiency in public service delivery to optimize the use of resources.

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