MACROECONOMIC INSTABILITY AND LIVING STANDARDS IN NIGERIA: THE IMPACT OF INFLATION AND UNEMPLOYMENT (1990–2024)

Abstract

This study examines the effects of inflation and unemployment on living standards in Nigeria over the period 1990–2024. Despite being Africa's largest economy, Nigeria still experiencesincessant macroeconomic instability depicted by high inflation, labour market distortions, and falling real incomes. Employing annual secondary time-series data and the Autoregressive Distributed Lag (ARDL) bounds testing framework, the study examined both short-run and long-run dynamics of inflation and unemploymenton living standards while controlling for interest rate, and exchange rate movements. The existence of a long-run equilibrium relationship among the variables was certified by the ARDL bounds test. The results confirm that the long-run coefficients of inflation, unemployment, interest rate, and exchange rate are statistically insignificant, indicating weak or unstable long-term effects on living standards. The estimated short-run coefficient indicates that unemployment exhibits mixed dynamic effect on living standards, with a statistically insignificant contemporaneous impactbut a significant lagged positive effect, indicating delayed labour market adjustments.Exchange rate movements exhibit a positive and significant short-run relationship with GDP per capita.Overall, the findings allude that although macroeconomic instability variables are theoretically relevant, their empirical relevance on living standards in Nigeria is context-specific and mediated by structural factors. The study therefore recommends complementary structural reforms in enhancing welfare outcomes in Nigeria.

Keywords: Macroeconomic instability; Inflation; Unemployment; Living standards; ARDL; Nigeria

1. Introduction

Despite Nigeria's abundant human and natural resources, the country continues to face chronic unemployment and inflation, which undermine macroeconomic stability and economic progress. macroeconomic instability evident in high inflation and unemployment

are bane of standard of living in any economy. However, macroeconomic stability is widely recognized as a precondition for sustained enhancements in living standards in developing countries (Todaro & Smith, 2020). High unemployment and inflation are two critical issues that have consistently plagued Nigeria, contributing to the country's socioeconomic instability. Both phenomena have continued to erode purchasing power, weaken income security, and constrain welfare gains in Nigeria. Although moderate inflation and frictional unemployment are normal macroeconomic features, prolonged instability may generate stagflationary pressures and hinder inclusive growth (Friedman, 1968; Phelps, 1967).

Nigeria's recurrent inflationary trend is attributed to exchange rate depreciation, fiscal imbalances, supply bottlenecks, and external shocks (Itua, 2020; World Bank, 2024). As at 2024 inflation rate has exceeded 30 percent following exchange rate reforms and fuel subsidy removal, exacerbating food and energy price pressures (Central Bank of Nigeria [CBN], 2024; World Bank Nigeria Development Update, 2024). The persistent inflation has diminished living standards, especially for wage earners, highlighting the government's struggle to manage the crisis effectively (Taiwo, 2011).At the same time, labour market fragilities remain pronounced. While recent revisions aligned unemployment measurement with International Labour Organization standards (National Bureau of Statistics [NBS], 2023), informality and underemployment remain widespread.

Despite modest real GDP growth averaging 2–3 percent in recent years, aggregate growth has not translated into sustained improvements in living standards due mainly torapid population growth which has diluted per capita gains (World Bank, 2024). Persistent inflation erodes real incomes and savings, while unemployment reduces household consumption and raises poverty risk (Adenutsi, 2010; Talukdar, 2012).

Although extensive literature examines inflation–growth and unemployment–growth relationships, fewer studies analyze their joint impact on living standards over extended periods in Nigeria. This study fills this gap by investigating the combined effects of inflation and unemployment—controlling for interest and exchange rate dynamics—on GDP per capita between 1990 and 2024.

2. Literature Review

2.1 Conceptual Clarifications and Theoretical Framework

Standard of living reflects the overall economic and social conditions under which individuals or groups live, particularly in relation to their access to essential resources and opportunities for advancement. This variable, often proxied by real GDP per capita, is reflection of material well-being and access to economic opportunities (Todaro & Smith, 2020). Inflation refers to a sustained and general increase in the prices of goods and services that reduce purchasing power in an economy over a period of time (Mankiw, 2016). Unemployment denotes the proportion of the labour force actively seeking but unable to secure employment (Blanchard & Johnson, 2013).This study draws on three complementary theoretical perspectives:

1. The Capability Approach, pioneered by economist Amartya Sen (1999), argues that developmentis a function of individuals' substantial freedom;that is, their substantive freedoms to lead lives they have reason to value. This perspective argues that standard of living should not be gauged solely through monetary metrics but through people's real opportunities to achieve education, health, security, and social inclusion. In the Nigerian context, the Capability Approach – postulated by Amartya Sen - provides a comprehensive framework for evaluating the relationship between living standards and national development, with empirical applications in Nigeria(Oladipo, 2012). Sen's framework further underscores that even in resource-rich settings, individuals may endure low living standards if they lack the capabilities to transform available resources into meaningful and valued life outcomes (Sen, 1993; Alkire, 2002).

2. Expectations-Augmented Phillips Curve – Persistent inflation expectations may eliminate short-run trade-offs between inflation and unemployment, producing stagflation (Friedman, 1968; Phelps, 1967).

3. The Structuralist Theory, advanced by Prebisch (1950) and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC, 1951), argues that developing economies face structural bottlenecks, commodity dependence, and weak industrial bases that perpetuate inflation and labour market inefficiencies; resulting in low living standards.It argues that developing economies such as Nigeria face systemic disadvantages due to their heavy dependence on primary commodity exports and their limited industrial base. The theory maintains that without deliberate structural transformation—through economic diversification, human capital development, and infrastructural advancement—living standards will remain stagnant. In the Nigerian context, persistent unemployment, inflation,

inadequate healthcare, and weak educational infrastructure reflect entrenched structural constraints (Akinlo, 2021). This framework reinforces the need for comprehensive reforms and industrial policies aimed at tackling the underlying causes of low living standards.

Collectively, these theoretical frameworksprovide interconnected perspectives which predict that macroeconomic instability undermines living standards through reduced real income, constrained employment opportunities, and structural rigidities.

2.2 Empirical Review

Empirical studies for Nigeria generally confirm the adverse welfare effects of inflation and unemployment. Tevin-Anyali, Obi, and Oladipo (2023) for instance, examined the impact of inflation on the standard of living in Nigeria using time series data from 1999 to 2022. Employing the ARDL framework, the study reportsthat manufacturing capacity utilization (MCU) and exchange rate (EXCR) negatively affected standard of living in the long, while consumer price index (CPI) and unemployment rate (UNEM) had a positive influence. In the short run, CPI, MCU, and UNEM showed a positive impact, whereas EXCR retained its negative effect.

In similar study Muhammad, Temidayo, and Bashir (2023), investigated the impact of inflation on the standard of living in Nigeria employingthe ARDL frameworks and annual data from the period 1991 to 2021to analyze the nexus between Gross Domestic Product Per Capita (GDPPC) and variables such as Consumer Price Index (CPI), interest rate, and exchange rate. The findings from the analysis revealed both short-run and long-run relationships among the variables, with past inflation identified as a significant determinant of standard of living. The results equally revealed that while CPI positively influenced GDPPC in the short run, interest rate and exchange rate had negative effects.

The study by Okafor and Nwankwo (2022), examined how inflation and unemployment affected household consumption expenditure in Nigeria for the period 1991–2020. Utilizingan Ordinary Least Squares (OLS) regression technique after testing for stationarity, the study found that both inflation and unemployment reduced household consumption capacity, with inflation’s effect being more pronounced during periods of economic recession. The authors recommended that a policy that combines price stabilization and labour market reforms should be implemented in Nigeria.

An Empirical analysis on inflation and people's well-being in Nigeria from 1981 to 2019 was conducted by Olabiyi (2022), using life expectancy as the proxy for the dependent variable while consumer price index (CPI), Gross Domestic Product Per capital (GDPPC), unemployment and openness as the independent variable. The study adopted the autoregressive distributive lag (ARDL)bounds test framework and found that a percentage increase in the inflation rate hampers the well-being status of Nigerians by 0.24%.

Akekere and Yousuo (2012) investigated the effect of inflation on output growth and living standards in Nigeria from 1970 to 2010. Using the Johansen cointegration technique and Vector Error Correction Model (VECM), the results found a long-run inverse relationship between inflation and GDP per capita.

International evidence supports these findings. Adenutsi (2010) finds that inflation threatens human development in Sub-Saharan Africa, while Talukdar (2012) demonstrates that inflation increases poverty in developing countries.Anghelache, Anghel, Iacob, Rădut, and Strijek (2022) conducted a study to determine the impact of inflation on the standard of living in Romania. Employingsecondary data, the study adopted comparative and index analyses alongside graphical and tabular representations to assess the evolution of inflation and its correlation with gross and net wages. The findings revealed that inflation — proxied by both the CPI and Harmonized Index of Consumer Prices (HICP) — had a significant negative impact on household incomes, leading to a significant decline in the standard of living. The study emphasized that economic stagnation, exacerbated by the COVID-19 pandemic and food insecurity, worsened the situation, especially for fixed-income earners. The study concluded that inflation directly erodes the purchasing power and well-being of the population, especially during prolonged economic instability.

Cüneyt. &Jülide (2022) investigated the impact of inflation on human development and poverty in Turkey using ARDL data of 1990–202. The study established that inflation and human development are co-integrated and will move together in the long run. Given that, the long-run coefficient estimation showed a negative and positive relationship between inflation and poverty, respectively. However, none of the models had difficulties in terms of autocorrelation, heteroscedasticity, parameter instability.

Ahmed and Suleiman (2021) analysed the effects of inflation and unemployment on household welfare in Pakistan from 1990–2019. The researchers employed an autoregressive distributed lag (ARDL) bounds testing approach to investigate both short-run and long-run

relationships. The findings revealed that inflation had a severe negative long-run effect on welfare, while unemployment exerted both direct and indirect negative impacts on household consumption and health spendings.

Khan, Senhadji and Smith (2001) conducted a study using a structural vector autoregressive (SVAR) econometric model to explore the interconnectedness between unemployment, inflation, and poverty in 140 emerging and developed countries from 1960 to 1998. They identified an apex level of inflation at which the increase in both unemployment and inflation justifies a rise in poverty. For developed economies, the poverty increase ranged from 1% to 3%, while for emerging countries, the parameter ratio was around 11% to 12%.

3. Methodology

3.1 Research Design

This study adopts the causal-comparative research design, using the ARDLbounds test econometric methods to examine both short-run and long-run dynamics. The causal-comparativeresearch design is a type of non-experimental quantitative design because it does not require experiments in the course of data collection and because the researcher compares two or more groups. The comparison is performed with respect to a cause (which is the independent variable) which has already occurred (Creswell, 2014). According to Jongbo, *(2014),* the design is employed when there are two groups which differ on independent variable and the researcher is interested in investigating the difference of one or more dependent variables or difference of one or more independent variables. Besides examining short and long run dynamics, the ARDL bounds test framework also addresses potential endogeneity and omitted variable bias via robustness checks.

3.2 Sources of Data

Annual data (1990–2024) were obtained from the World Development Indicators and national sources including the CBN and NBS. Living standards are proxied by real GDP per capita (GDPPC). Explanatory variables include inflation (INF), unemployment (UNE), real interest rate (INT), and exchange rate (EXR).The selected period of 1990 to 2024 offers sufficient historical scope to capture significant economic trends and policy shifts in the Nigerian economy.To ensure comparability and robustness of the time series employed, alternative data sources were used and the data crosschecked for consistency. The datasets employed showed consistency across datasets with reduced measurement bias. Each variable in this

study is measured using standard macroeconomic definitions widely recognized in economic literature:

1. Standard of Living: is proxied by real Gross Domestic Product (GDP) per capita, in constant U.S. dollars. Real GDP per capita is a monetary indicator of material wellbeing, a core component of standard of living. This indicator measures the average output per individual in the country and it directly relates to the income earning capacity of citizens or residents. Income is a determinant of access to goods and services, hence; higher GDP per capitatranslates to greater consumption possibilities, enhanced access to education, health, housing, recreation, and thus enhance overall wellbeing. adjusted for inflation, and serves as a proxy for the population's living standards. The study opted for the use of this proxy because of availability, reliability and the wide use of the variable for policy and empirical research. The proxy is equally strongly positively correlated with other welfare indicators.

2. Unemployment Rate: Measured as the percentage of the labour force that is without employment but actively seeking work, as reported by the NBS and WDI based on International Labour Organization standards.

3. Inflation Rate: Measured by the annual percentage change in the Consumer Price Index (CPI), capturing the rate at which the general price level of goods and services rises.

4. Interest Rate: Represented by the Monetary Policy Rate (MPR) or the commercial lending rate, reflecting the cost of borrowing money in the economy.

5. Exchange Rate: Measured as the annual average Naira to U.S. Dollar exchange rate, representing the relative strength of the Nigerian currency in the international market.

All variables are measured on an annual basis to maintain consistency and reliability and expressed in percentage terms or monetary units based on standard economic reporting formats.

The selection of unemployment and inflation is rooted in classical and Keynesian economic theories, which posit that these variables are primary determinants of economic well-being. Interest and exchange rates are included due to their crucial role in monetary transmission mechanisms, cost of credit, investment decisions, and international trade all of which ultimately affect living standards. Real GDP per capita serves as a standard proxy for living standards in macroeconomic research due to its comprehensive nature.

3.3 Model Specification

The study Ademola and Badiru's (2016) model which took its bearing from Okun's (1962) type of model though it was modified so that inflation, unemployment, exchange rate and interest rate could be included as independent variables while real GDP per capita, which will be used as proxy for standard of living will be the dependent variable.

The functional relationship is specified as:

$GDPPC_t = f(INF_t, UNE_t, INT_t, EXR_t)$ (1)

The estimable model is: $GDPPC_t = \beta_0 + \beta_1 INF_t + \beta_2 UNE_t + \beta_3 INT_t + \beta_4 EXR_t + \mu_t$ (2)

where: β_0 = Constant, (β_1, β_2, β_3, β_4) = Parameters or coefficients of independent variables. 't' is the country's time series dimension and, μ = Stochastic or error term

It is expected that (β_1, β_2, β_3, β_4) < 0, i.e.,a priori, inflation and unemployment are expected to exert negative effects on living standards.Intercept (β_0): Represents the baseline level of standard of living when all independent variables are zero.

3.4 Estimation Technique

The study employs the Autoregressive Distributed Lag (ARDL) bounds testing approach to cointegration (Pesaran et al., 2001), suitable for variables integrated of order I(0) and I(1). The estimation procedure includesAugmented Dickey–Fuller unit root tests (Dickey & Fuller, 1979, 1981), ARDL bounds test for long-run relationship and Long-run and short-run estimation via Error Correction Model (ECM). Diagnostic and stability tests include Breusch–Godfrey LM, Breusch–Pagan, Jarque–Bera, and CUSUM.

4. Empirical Results

4.1 Unit Root Test

Testing for stationarity of the series for the presence of unit root, the Augmented Dickey-Fuller (ADF) test was employed.

Table 4.1: ADF Unit Root Test Results

Variables	ADF Statistics at Level	ADF Statistics at 1st Difference	ADF Critical Value(s)			P Values	Order of Integration
			1%	5%	10%		
GDPPC	-1.5923	-4.24936	-4.26274	-3.5529	-3.2096	0.0103	I(1)
INF	-2.2992	-4.6825	-3.64634	-2.9540	-2.6158	0.0007	I(1)
UNE	-3.1373		-3.66166	-2.9604	-2.6191	0.034	I(0)
INT	-2.3451	-4.49713	-3.66166	-2.9604	-2.6191	0.0012	I(1)
EXR	-2.6536	-5.30973	-3.64634	-2.9540	-2.6158	0.0001	I(1)

Source: Author's Computation, 2025

The ADF test indicates that GDP per capita, inflation, interest rate, and exchange rate series are non-stationary at level but stationary after first differencing, i.e., integrated of order one, I(1). Unemployment is stationary at level (I(0)). The mixture of I(0) and I(1) variables validates the use of the ARDL bounds testing approach.These results are agreement with Tevin-Anyali, Obi, and Oladipo (2023) and Olabiyi (2022), who reported similar integration orders for Nigerian macroeconomic variables.

4.2Bound Test for Co-integration

Table 4.2:Bound Test for Co-integration H_0: No Co-integration

Test Statistic	Value	K
F-Statistic	4.564824	4
Pesaran Critical values	**Lower bound I(0)**	**Upper bound I(1)**
10%	2.45	3.52
5%	2.86	4.01
1%	3.74	5.06

Source: Author's Computation, 2025

The ARDL bounds test results indicate that the calculated F-statistic (4.564824) is greater than the upper critical value (4.01) at the 5% significance level. consequently, the null hypothesis of no co-integration is rejected, affirming the existence of a long-run equilibrium relationship among GDP per capita, inflation, interest rate, unemployment, and exchange rate.

These findings are in tandem with Akekere and Yousuo (2012) and Olabiyi (2022), both of whom found evidence of long-run equilibrium association between macroeconomic variables in Nigeria. Tevin-Anyali, Obi, and Oladipo (2023) reported both shot-run and long-run relationships when applying the ARDL framework to inflation–unemployment–exchange rate dynamics. This alignment strengthens the reliability of the present results and justifies proceeding with the estimation of both the long-run and short-run ARDL models.

4.3ARDL Long-run Relationship Results

Table 4.3: ARDL Long-run Relationship of the variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF RATE	-209.2844	176.0813	-1.188567	0.2467
INT RATE	-283.4703	272.9688	-1.038472	0.3098
UNE RATE	-1084.272	1626.686	-0.666552	0.5117
EXR RATE	-15.6099	19.17561	-0.814049	0.424

Source: Author's Computation, 2025

The long-run ARDL estimates show that inflation rate, interest rate, unemployment rate, and exchange rate all have negative non-statistically significant effects on real GDP per capitaat the 5% level. These outcomes are possibly due to structural constraints or offsetting macroeconomic factors.Precisely, the estimated results show that a one-unit increase in inflation, interest rate, unemployment, and exchange rate reduce real GDP per capita by approximately 209.28, 283.47, 1084.27, and 15.61 units respectively, on average.

Although these negative signs are in concordance with economic theory and the empirical findings of Olabiyi (2022),AkekereandYousuo(2012) and Khan et al. (2001)), the lack of statistical significance indicates that the long-run impacts of these variables on living standards in Nigeria may be weak, inconsistent, or influenced by other offsetting structural factors.

Lag Selection and Model Parsimony in the ECM Specification

The parsimonious error correction model (ECM) reported in Table 4.4 does not capture inflation and interest rate due to the optimal lag selection and model reduction procedure inherent in the ARDL bounds test framework. Notably, thecontemporaneous and lagged values of all explanatory variables (inflation, unemployment, interest rate, and exchange rate)were included in the initial unrestricted ARDL model. However, guided by the general-

to-specific modelling approach and bythe Akaike Information Criterion (AIC), statistically insignificant short-run dynamics were sequentially eliminated to obtain a more parsimonious and efficient specification. Consequently, the short-run coefficients of inflation and interest rate were dropped because their lagged differences were not statistically significant and did not improve model fit. This is consistent with standard ARDL–ECM practice (Pesaran*et al*., 2001), where only variables with meaningful short-run explanatory power are retained in the final ECM.This does not however undermine the relevance of inflation and interest rates, rather, their effects are captured through the long-run relationship and the error correction term, which embodies the joint adjustment dynamics of all variables in the system.

4.4ARDL Short-Run Relationship Results

Table 4.4: ARDL Short-run Relationship with Error Correction of the Variables

ECM Regression

Case 3: Unrestricted Constant and No Trend

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	813.6463	159.1890	5.111198	0.0000
D(GDPPC $(-1))	0.218503	0.080273	2.721997	0.0122
D(UNE RATE)	-103.8907	89.12255	-1.165707	0.2557
D(UNE RATE(-1))	213.1596	89.19067	2.389931	0.0254
D(EXR RATE)	6.790745	0.689345	9.851015	0.0000
CointEq(-1)*	-0.065158	0.012588	-5.176247	0.0000

R-squared	0.859907	Mean dependent var	6.850333
Adjusted R-squared	0.833963	S.D. dependent var	386.1800
S.E. of regression	157.3591	Akaike info criterion	13.11790
Sum squared resid	668571.0	Schwarz criterion	13.39000
Log likelihood	-210.4454	Hannan-Quinn criter.	13.20945
F-statistic	33.14569	Durbin-Watson stat	2.097743
Prob(F-statistic)	0.000000		

Source: Author's Computation, 2025

The results in table 4.4 indicate that the error correction term (CointEq(-1)) is correctly signed negative, with a highly significant coefficient of -0.0652 at the 1% level. This further

confirms the existence of a stable long-run relationship and implies that about 6.5% of short-run deviations from equilibrium are corrected each year. The positive and significant coefficient on the lagged GDP per capita (0.2185, p = 0.0122) suggests that past economic performance reinforces current GDP levels, indicating a form of growth persistence.

The current unemployment rate has a negative but insignificant effect (-103.89, p = 0.256), whereas its lagged value exerts a positive and statistically significant effect (213.16, p = 0.0254), pointing to a delayed labour market impact on growth. Exchange rate movements display a strong and positive short-run effect on GDP per capita (6.79, p < 0.01), implying that favourable exchange rate shifts may boost economic activity in the near term.

It is worthy of note that inflation and interest rate do not appear in theparsimonious error correction model (ECM) specification due to their lack of statistically significant short-run dynamics during the lag selection process, rather than theoretical irrelevance.

The delayed positive effect of unemployment mirrors the observations of Akekere and Yousuo (2012), who noted that structural adjustments in the labour market can produce lagged growth benefits. The moderate speed of adjustment (6.5% annually) aligns with Olabiyi (2022), who found that Nigeria's macroeconomic convergence towards equilibrium is gradual due to persistent structural rigidities.

The model exhibits strong explanatory power, with an R-squared of 0.8599 and an adjusted R-squared of 0.8340, indicating that approximately 83% of variations in real GDP per capita are explained by the short-run dynamics. The Durbin–Watson statistic of 2.10 suggests no autocorrelation, while the highly significant F-statistic (33.15, p < 0.01) confirms the overall robustness of the model.

4.5Diagnostic Test Results

Table 4.5: Serial Correlation and Heteroskedasticity Test Results

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.330600	Prob. F(4,19)	0.8539
Obs*R-squared	2.147346	Prob. Chi-Square(4)	0.7087

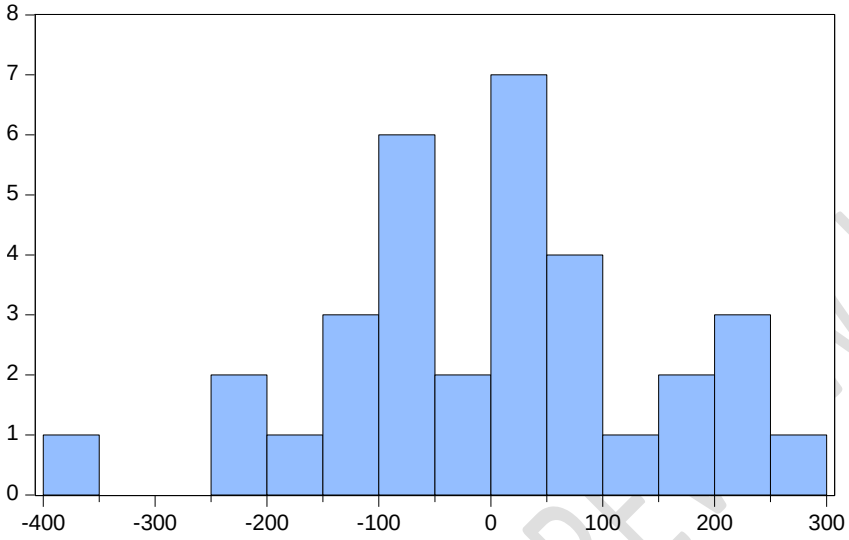
Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.207310	Prob. F(9,23)	0.0607
Obs*R-squared	15.29357	Prob. Chi-Square(9)	0.0832

Source: Author's Computation, 2025

The post-estimation diagnostic results indicate that the model does not suffer from autocorrelation or heteroskedasticity. In particular, the Breusch-Godfrey LM test reveals no evidence of autocorrelation, as the p-value (0.7087) exceeds the 5% significance level. The Breusch-Pagan-Godfrey test also confirms that the residuals are homoscedastic, thus reinforcing the reliability of this study's estimations.

4.6 Normality Test Results

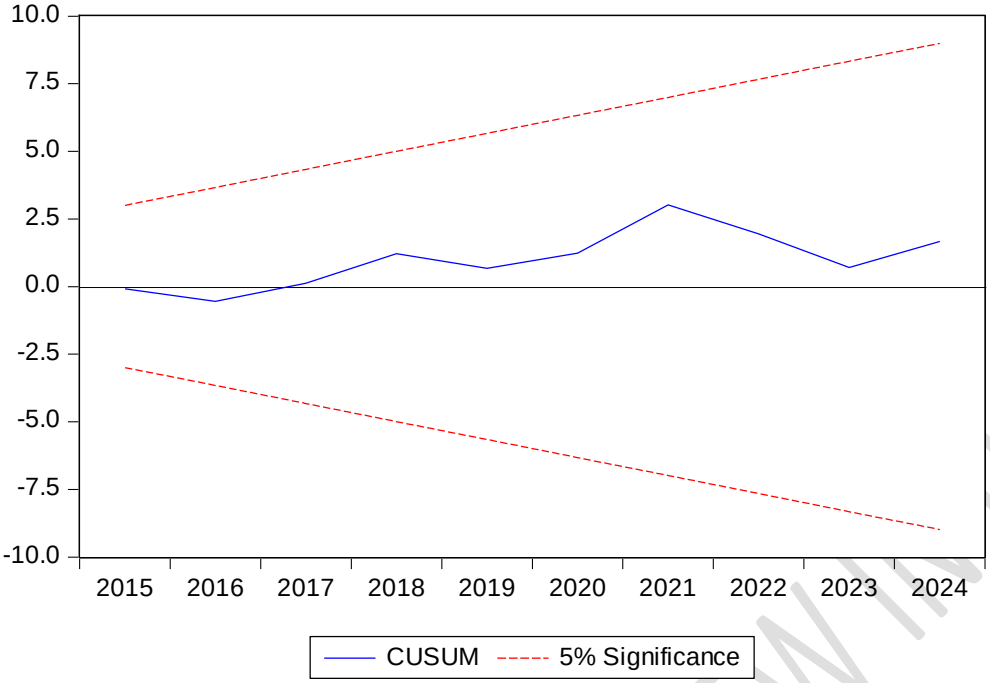


Source: Author's Computation, 2025

Figure 1: Jarque-Bera Normality test result

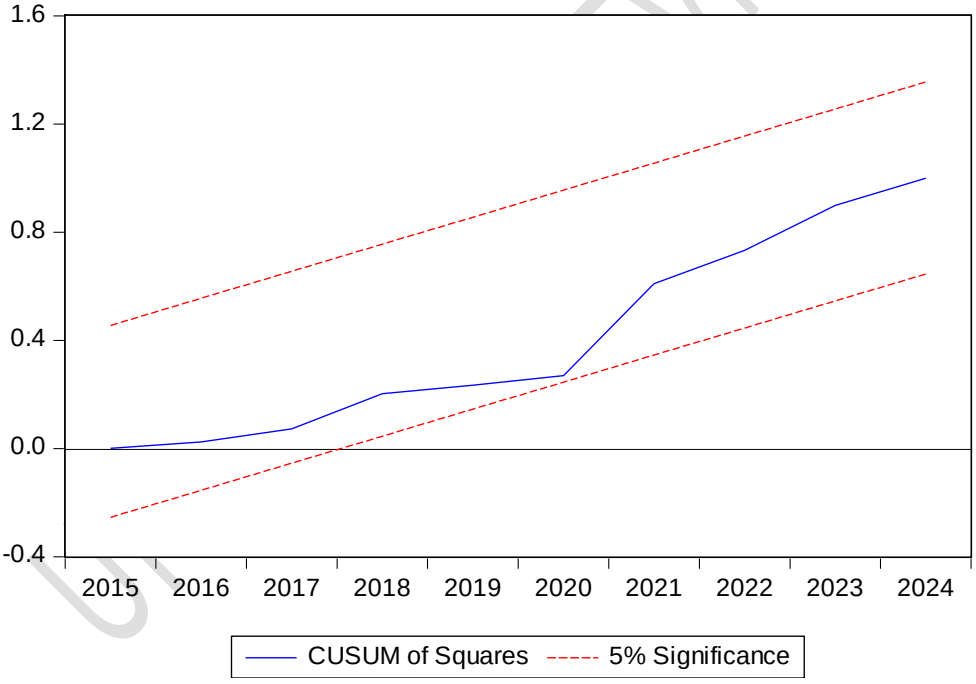
The Jarque-Bera test result confirms that the model's residuals are normally distributed with Jarque-Bera value of 0.258416 and the probability value of 0.878791, satisfying a key assumption of classical regression, supporting the validity of this study's statistical estimates.

4.7 Stability Test Results



Source: Author's Computation 2025

Figure 2: Cumulative sum (CUSUM) test



Source: Author's Computation, 2025

Figure 3: Cumulative sum (CUSUM) of squares test

The Cumulative Sum (CUSUM) and CUSUM of Squares tests, following Brown, Durbin, and Evans (1975), assess the stability of the ARDL model over time. The plots remain within the 5% significance bounds, indicating stable coefficients and no model misspecification. This confirms the robustness of the model's estimations.

4.8 Discussion of Findings

This study examined the effects of inflation, unemployment, interest rate, and exchange rate on Nigeria's standard of living, proxied by GDP per capita, from 1990 to 2024 using the ARDL framework.

The long-run ARDL estimates reveal negative but statistically insignificant effects of inflation, unemployment, interest rate, and exchange rate on GDP per capita. This mirrors the findings of Olabiyi (2022), who reported that macroeconomic instability exerts a theoretically adverse but statistically weak long-run effect on living standards due to offsetting structural factors such as policy inconsistencies, institutional weaknesses, and infrastructural deficits. Khan *et al*., (2001) also noted that in developing countries, long-run growth is often more influenced by structural reforms than by the direct effects of macroeconomic aggregates.

The short-run results indicate that exchange rate appreciation significantly boosts real GDP per capita, suggesting that stable or favourable exchange rate movements can stimulate economic activity. This is consistent with the work of Tevin-Anyali, Obi, and Oladipo (2023), who found that exchange rate stability contributes positively to growth in the short term by reducing import costs and enhancing investor confidence.The short-run positive impact of lagged unemployment on real GDP per capita suggests a delayed labour market effect, possibly reflecting structural adjustments or productivity gains from previously unemployed labour entering the workforce. This pattern supports Akekere and Yousuo's (2012) observation that job creation policies may not produce immediate growth benefits but can yield positive outcomes over time as labour market mismatches are corrected.

The error correction term, which is negative and significant, confirms a stable long-run relationship among the variables. However, the slow speed of adjustment (6.5% annually) is in line with Olabiyi (2022), who argued that Nigeria's macroeconomic convergence towards equilibrium is gradual due to persistent structural rigidities.

While the *a priori* expectation opines that inflation and unemployment should adversely affect living standards, the empirical findings, particularly the statistical insignificance of long-run coefficients, indicate that these associations are not robust in the Nigerian context over the study period. This suggests that the transmission from macroeconomic instability to welfare outcomes may be indirect, nonlinear, or conditioned by structural factors such as informality, institutional quality, and policy inconsistencies.

4.9 Policy Implications

The findings of this study have important implications for policymakers seeking to improve living standards and promote sustainable economic growth in Nigeria.

1. The negative relationship between inflation and GDP per capita suggests the urgent need for more credible inflation-targeting frameworks. Strengthening the independence of the Central Bank of Nigeria and ensuring fiscal-monetary coordination would help reduce inflationary pressures, thereby safeguarding living standards.

2. The negative impact of high interest rates on living standards suggests that monetary authorities should aim to strike a balance between curbing inflation and maintaining affordable borrowing costs. Excessively high lending rates discourage investment and entrepreneurship, thus dampening output growth. Policymakers should explore ways to deepen financial markets and increase credit availability at reasonable rates, especially to small and medium enterprises.

3. Though unemployment showed mixed effects, its negative long-run association with GDP per capita suggests the importance of job creation policies. The various levels of government in Nigeria should invest in skills development, vocational training, and labour market reforms that reduce structural unemployment and improve workforce productivity. Supporting the informal sector and enhancing labour mobility may also mitigate unemployment's adverse effects on growth.

4. The positive short-run impact of exchange rate changes highlights the importance of a stable but flexible exchange rate regime. Authorities should avoid excessive exchange rate misalignments by deepening the foreign exchange market and boosting non-oil exports to strengthen external competitiveness.

5.Given the insignificance of long-run coefficients and potential offsetting effects, it is clear that macroeconomic variables alone are insufficient to drive sustained growth. Comprehensive structural reforms targeting governance, infrastructure, diversification of the economy, and improved institutional quality are necessary to create an enabling environment where inflation control, interest rates, unemployment reduction, and exchange rate management can translate effectively into improved living standards.

5. Conclusion and Policy Recommendations

This study examined the impact of inflation and unemployment on living standards in Nigeria over 1990–2024 using an ARDL framework. Empirical evidence from the confirms a long-run equilibrium relationship between macroeconomic variables and living standards in Nigeria;however, the estimated long-run effects of the independent variables (inflation, unemployment, interest rate, and exchange rate) are not statistically significant. This suggests

that the direct long-term impact of macroeconomic instability on living standards is weak or unstable within the time scope of the study.

In the short-term, the findings show a more nuanced dynamic effect. Unemployment does not exert a statistically significant contemporaneous effect but displays a significant lagged positive relationship with living standards, indicating delayed and possibly structural labour market adjustments rather than straightforward welfare deterioration in Nigeria.

Taken together, the findings provide no strong evidence of direct fall in living standards driven solely by inflation and unemployment, but rather point to a more complex interaction mediated by structural and institutional conditions in the Nigerian economy.Consequently;

i. government should adopt employment-centred growth strategies,with focus on labour-intensive industrialization and SME development.

ii. Credible inflation control mechanism, combining monetary discipline with supply-side productivity reforms should be adopted in Nigeria.

iii. Balanced interest rate policy that supports investment without compromising price stability should be implemented in Nigeria.

iv. Similarly the country should adopt expanded social protection mechanisms to cushion the effect of high interest rate and inflation on vulnerable households in Nigeria.

In all, macroeconomic stabilization is necessary but insufficient. Sustainable improvements in living standards require structural reforms that enhance productivity, institutional quality, and labour absorption capacity.

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