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**Inflation and Economic Growth in Nigeria: A Search for the Ideal  
Balance**



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## Inflation and Economic Growth in Nigeria: A Search for the Ideal Balance

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### Abstract

**Purpose:** This study attempts to empirically investigate the dynamic interplay between inflation and economic growth as well as determining the existence of inflation-growth threshold in Nigeria from 1981 to 2025. The unit root results from ADF and PP revealed that all the variables were stationary at first difference.

**Methodology:** The investigation is done using ARDL bounds test and TAR.

**Findings:** The evidence from the study strongly supports the existence of an inverse relationship between inflation and economic growth in Nigeria in the long run while there is a positive short run relationship between inflation and economic growth which indicates a short-term gain, aligning with the Phillips Curve theory. Further evidence suggests that there is an inflation threshold for Nigeria at 13 per cent.

**Unique Contribution to Theory, Policy and Practice:** The apparent policy implications are: the Central Bank of Nigeria should endeavor to keep the rate of inflation below 13 per cent as this will be growth inducing, since Nigeria's economic growth hinges on disciplined fiscal and monetary policies as such policymakers should exercise restraint in spending and borrowing. The findings further highlight the need to encourage private investment and increase financial liberalization to achieve a sustainable level of economic growth in real terms

**Keywords:** *CPI Inflation, Economic Growth, Phillips-Perron Unit Root Test, Phillips Curve Theory, Threshold Autoregressive (TAR) Model*

## 1. BACKGROUND TO THE STUDY

Despite its large population, abundant resources, and significant economic potential, Nigeria faces significant challenges that have hindered its economic growth. With a low GDP per capita and widespread poverty, the country has been unable to translate its abundant resources into prosperity for its people, resulting in significant wealth disparities. These factors, coupled with persistent inflationary pressures, have caused the country to remain at a middle-income level, with slow economic growth compared to other Sub-Saharan African countries. Striking the right balance between inflation and economic growth has proven challenging for Nigeria, limiting its ability to achieve its full economic potential (IMF, 2025).

Nigeria's economy struggles with inflation due to oil price fluctuations, underdeveloped industries, corruption, and poor infrastructure (Ekpo and Udoh, 2025). To address these issues, the government should prioritize fiscal discipline, invest in infrastructure, and support private businesses. Leveraging Nigeria's youthful population and natural resources can lead to economic growth and stability. Implementing these strategies requires a multi-faceted approach. Strengthening institutions and combating corruption can foster trust and attract foreign investment. Enhancing infrastructure will improve efficiency and competitiveness. Encouraging entrepreneurship and innovation in sectors like agriculture and technology can diversify the economy and create jobs (Ekpo and Udobia, 2025). By tackling these challenges, Nigeria can unlock its potential for sustainable economic growth. Diversification is key to reducing Nigeria's reliance on oil exports. Investing in education and skills training can equip the workforce for emerging industries. Promoting trade and regional integration can expand market access and stimulate economic activity. Furthermore, adopting sound monetary policies and maintaining price stability will help control inflation and protect consumers' purchasing power.

Nigeria has grappled with inflation despite numerous anti-inflationary policies. Inflation harms economic growth by reducing purchasing power and causing uncertainty. Historical inflation spikes in Nigeria were driven by oil revenue, wage increases, and currency depreciation. Managing inflation remains a priority for Nigeria's economic stability and development. Understanding the causes of inflation is crucial for effective policy-making. In Nigeria, factors like oil price shocks, exchange rate fluctuations, and fiscal mismanagement have contributed to inflation. Addressing these underlying issues through prudent economic policies can help mitigate inflationary pressures and foster a more stable economic environment.

Research on inflation and growth reveals mixed findings. Early Phillips curve studies suggested a positive link, while monetarists argued for neutrality. Recent work indicates high inflation harms growth, though causality is not clear. The relationship varies by context, with non-linearity observed—low inflation may be harmless or even beneficial, but high inflation is detrimental. This raises questions about optimal inflation levels and thresholds for policymakers to balance growth and stability (Ekpo and Udobia, 2025).

Nigeria's economy has faced significant challenges since 2015, including stagflation, high inflation, unemployment, and poverty. The country's reliance on oil exports has exacerbated these issues. Inflation peaked at 28.92% in 2023, while unemployment hit 40.60%. Economic growth has been modest, and the misery index soared, reflecting widespread hardship. Nigeria urgently needs economic reforms to address these persistent problems (Ekpo, 2017; Ekpo, 2024).

Nigeria's economic woes were compounded by a flawed foreign exchange policy, which fueled speculation and inflation. Poor coordination between fiscal and monetary policies further weakened the economy, exacerbated by unpaid salaries and reduced consumer spending. The country experienced recessions in 2016 and 2020 due to unresolved issues like underconsumption and infrastructure gaps, as well as external shocks like the COVID-19 pandemic. Research on inflation's impact on Nigeria's economic growth yields conflicting results. Some studies such as Osuala *et al.*, (2013); Bassey and Onwioduokit (2011); Anidiobu *et al.*, (2018) and Ogu *et al.*, (2018), suggested moderate inflation boosts growth by affecting savings, investment, and profits. However, others like, Eze and Nweke (2017); Idris and Suleiman (2019); and Oluwabunmi and Olugbenga (2020), argued that inflation hampers growth, while a few such as Oranefo (2022) found no significant relationship. This inconsistency highlights the complexity of the inflation-growth link and necessitates more research for a clearer understanding.

This study aims to enrich existing literature by investigating the dynamic interplay between inflation and economic growth in Nigeria. It employs advanced statistical techniques like ARDL and TAR to uncover the optimal inflation level that fosters growth, providing valuable insights for policymakers seeking to strike a balance between price stability and economic expansion.

## 2. LITERATURE REVIEW

### 2.1 Conceptual Literature

#### 2.1.1 Inflation

Inflation is a sustained increase in prices, eroding purchasing power. It can be measured using CPI or GNP deflators. Nigeria has experienced high inflation since the 1970s, with rates often exceeding 30%. Various inflation types exist, including cost-push and demand-pull. While some argue moderate inflation can spur growth, most economists agree that high inflation harms economies by discouraging investment, distorting income distribution, and destabilizing financial systems. Inflation's negative effects are far-reaching. It can lead to uncertainty for businesses, making long-term planning difficult. High inflation also disproportionately affects vulnerable populations, like those on fixed incomes, as their real incomes decline. To combat inflation, central banks often raise interest rates to reduce money supply and curb spending. Fiscal policies, like reducing government spending or increasing taxes, can also help control inflation (Ekpo *et al.*, 2025).

#### 2.1.2 Economic Growth

Economic growth is the quantitative increase in the monetary value of goods and services produced in an economy within a given year. Dwivedi (2013), argues that economic growth is a sustained increase in per capita national output or net national product over a long period of time. It implies that the rate of increase in total output must be greater than the rate of population growth. Economic growth is measured as a percentage change in the gross domestic product or gross national product (Ekpo *et al.*, 2025).

## 2.2 Theoretical framework:

The interplay between inflation and economic growth is complex, influenced by various economic theories. The Phillips curve theory explores the relationship between inflation and economic growth, suggesting a trade-off between inflation and unemployment (Bassey and Onwioduokit, 2011). However, monetary theory emphasizes the role of money supply in determining inflation and economic activity. Further, Demand- pull inflation theory suggests that inflation is driven by aggregate demand exceeding available supply (Ekpo and Udobia, 2025). More so, Endogenous growth theory highlights the role of internal factors, such as institutional and technological factors in driving economic growth (Ekpo *et al.*, 2023 and Ekpo and Udoh, 2025). Nigeria's unique economic situation calls for a multifaceted approach, integrating these theories to better understand and manage inflation's impact on growth.

## 2.3 Empirical Literature

The complex relationship between inflation and economic growth has remained a central issue in macroeconomic policy and research. While classical and Keynesian theories acknowledge inflation as an unavoidable feature of a growing economy, they differ on its long-term implications. The classical view that is rooted in the quantity theory of money, posits that inflation merely reflects changes in money supply without influencing real output (Friedman, 1968). Conversely, Keynesian and structuralist perspectives suggest that mild inflation can stimulate investment and employment by enhancing profit expectations, particularly in developing economies like Nigeria (Tobin, 1965; Dornbusch and Fischer, 1993).

Empirical evidence on this nexus is, however, far from being resolved. Early studies in Nigeria such as Odusola and Akinlo (2001) and Chimobi (2010) revealed a negative relationship between inflation and growth, arguing that persistent price instability distorts market signals and discourages productive investment. Similarly, Umaru and Zubairu (2012) found that inflation exerts a significant inverse effect on Nigeria's GDP, emphasizing the structural rigidity and import-dependence of the economy as amplifying factors. In contrast, more recent studies (Akinbobola, 2012; Doguwa, 2021) document a nonlinear relationship, where moderate inflation supports growth up to a threshold level, beyond which its effects become detrimental. This pattern reinforces the growing consensus that the inflation-growth nexus is not linear but exhibits threshold dynamics.



Globally, several studies have attempted to estimate the optimal inflation threshold that maximizes economic growth. Sarel (1996) identified a 2–3% threshold for developed economies, while Khan and Senhadji (2001) proposed 11–12% for developing countries. Using Nigerian data, Mubarik (2005) and Omoke (2010) confirmed that growth is maximized when inflation remains within single digits, with higher levels undermining productivity. Similar evidence was reported by Seleteng *et al.*, (2013) for the Southern African region, further supporting the notion of a country-specific inflation tolerance level. The heterogeneity across countries implies that the “ideal balance” between inflation and growth depends on structural, institutional, and monetary frameworks unique to each economy.

In theoretical perspective, the threshold hypothesis bridges the gap between classical neutrality and Keynesian tolerance for inflation. It suggests that inflation is growth-enhancing only below a certain level after which the benefits turn into costs due to rising uncertainty, inefficient capital allocation, and erosion of purchasing power (Barro, 1995). This idea aligns with the endogenous growth framework, where macroeconomic stability serves as a prerequisite for sustained capital accumulation and technological advancement (Lucas, 1988). Empirical applications of this model in Nigeria (Adeniran *et al.*, 2016; Salami and Kelikume, 2010) reveal inflation thresholds ranging between 8% and 11%, implying that policy missteps beyond this range could threaten macroeconomic stability.

Beyond threshold estimation, methodological innovations have also shaped the discourse. Studies employing autoregressive distributed lag (ARDL) and vector error correction (VECM) frameworks (e.g., Olatunji *et al.*, 2018; Oyinlola and Adeniyi, 2020) demonstrate both short-run and long-run effects of inflation on growth, depending on monetary transmission channels. More recent nonlinear ARDL approaches (Doguwa, 2021) provide a nuanced understanding of asymmetry, which shows that inflationary shocks affect growth differently during periods of acceleration versus deceleration. Despite these advancements, consensus remains elusive due to data inconsistencies, measurement differences, and omitted structural variables such as governance quality and fiscal discipline.

Comparatively, cross-country analyses highlight that institutional strength moderates the inflation-growth relationship. Fischer (1993) and Bittencourt (2012) show that economies with credible monetary authorities and strong fiscal coordination tend to sustain growth even under moderate inflation. For Nigeria, however, weak policy credibility, supply-side bottlenecks, and frequent exchange rate adjustments complicate this relationship (Ajisafe and Folorunso, 2002). Consequently, inflation management in Nigeria demands a multi-dimensional policy approach that integrates fiscal prudence, exchange rate stability, and productivity enhancement rather than relying solely on monetary tightening.

A clear research gap emerges in the integration of structural variable (trade openness) into the inflation-growth model for Nigeria. Most prior studies have focused narrowly on statistical

estimation without considering how governance quality, sectoral productivity, or external shocks mediate the inflation-growth dynamics. Furthermore, the nonlinear and asymmetric effects of inflation across sectors, such as agriculture, manufacturing, and services, remain underexplored. Future research should therefore adopt multi-sectoral and regime-switching models to uncover these hidden dynamics and provide actionable insights for policy design.

In all, the reviewed literature confirms that the relationship between inflation and economic growth in Nigeria is complex, nonlinear, and context-dependent. While mild inflation can coexist with robust growth, sustained double-digit inflation undermines economic stability. Identifying the ideal inflation threshold for Nigeria thus requires not just econometric modeling but also a contextual understanding of its structural and institutional realities

### 3. RESEARCH METHODOLOGY

#### 3.1 Research Design

The study combines descriptive and quasi-experimental methods to analyze the connection between inflation and economic growth and determine an ideal balance. By covering 45 years, it allows for a thorough examination of their long-term interactions, uncovering trends that might not be apparent in shorter timeframes. This extensive analysis contributes to a deeper comprehension of these economic variables' interdependencies.

#### 3.2 Model specification

This study applies the endogenous growth theory to study inflation's effect on Nigeria's growth. The theory emphasizes internal factors like capital and technology for sustained growth. By using a production function, the study explores how inflation interacts with these elements, offering insights into Nigeria's economic performance and potential growth strategies (Ekpo and Udoh, 2025; Ekpo *et al.*, 2025).

$$Y = f(K, L, T) \dots\dots\dots(3)$$

Where, Y = Gross domestic product, K = Stock of capital, L = Labour force

T = Technological progress

The model can be written as Equation 3.1, with physical capital represented by gross fixed capital formation.

$$Y = AK \tag{3.1}$$

where, Y is growth in output; A is advancement in technological and; K is stock of capital.

The original model considers human (h) and physical capital (p) as components of K. This study follows previous research in using gross fixed capital formation as a proxy for physical capital, recognizing its significance in representing investment in tangible assets that contribute to economic productivity. Thus, Equation 3.1 becomes Equation 3.2:

$$Y = A K_h K_p \tag{3.2}$$

Because  $K$  is expandable, it is possible that modern version of Equation 3.1 can be written as shown by Equation 3.3 as:

$$Y = A K_h K_p K_f \quad 3.3$$

Equation 3.3 expands the growth model by integrating financial capital (f) as a crucial driver of economic expansion. It highlights the role of financial resources in complementing technological advancements and investments in human, physical, and other capital, thereby enhancing overall economic performance.

Low inflation can potentially boost Nigeria's economy by encouraging government investment in critical sectors. This increased spending may lead to higher productivity and output, contributing to overall economic growth. However, it's essential to maintain inflation within manageable levels to avoid potential negative impacts. Equation 3.1 gives Equation 3.4 as

$$Y_\delta = K_h K_p K_{Osep} \quad 3.4$$

This equation suggests a direct link between inflation (osep) and economic growth ( $\delta$ ). Inflation's fluctuations can have far-reaching consequences on the economy ( $Y$ ), making it vital for policymakers to grasp how inflation influences growth. As inflation impacts various economic sectors, its effects on overall economic performance are anticipated to change over time  $t$ .

Trade openness as a structural factor, is an essential variable in this analysis. It captures the extent of a country's trade with other nations, which can influence economic growth through increased competition, technology transfer, and access to global markets. Including trade openness allows for a more comprehensive understanding of Nigeria's economic growth dynamics. Restating Equation 3.1 in the light of the above, our specification now becomes Equation 3.5 as:

$$Y_\delta = A K_h K_p K_{Osep} K_{opn} \quad 3.5$$

For opn (trade openness, inflation (inf) Thus, formal equation to be estimated is of the form as shown by Equation 3.6 as:

$$Y_\delta = f(INV_t, LFPR_t, INF_t, OPN_t) \quad 3.6$$

Expanding Equation 3.6 and disintegrating  $Y_\delta$  gives Equation 3.7

$$RGDP_t = \alpha_{0t} + \alpha_1 gfc_t + \alpha_2 LFPR_t + \alpha_3 INF_t + \alpha_4 OPN_t + \varepsilon_t \quad 3.7$$

where,  $GDP_t$  is Economic growth;  $gfc_t$  is gross fixed capital formation;  $LFPR_t$  is labour force participation rate;  $INF_t$  is inflation;  $OPN_t$  is trade openness;  $\varepsilon_t$  is an error term.

Equation 3.7 will address the objective of the study which is to examine the impact of inflation on economic growth in Nigeria.

The following ARDL representation of equation (3.7) will be estimated in order to test the existence of a long run relationship between economic growth and inflation.

$$\begin{aligned} GDPG_t = & \pi_0^i + \sum_{i=1}^k \pi_1^i \Delta INV_{t-1} + \sum_{i=1}^k \pi_2^i \Delta LFPR_{t-1} + \sum_{i=1}^k \pi_3^i \Delta OPN_{t-1} + \sum_{i=1}^k \pi_4^i \Delta INF_{t-1} \\ & + \pi_5^i \Delta GDPG_{t-1} + \pi_6^i INV_{t-1} + \pi_7^i LFPR_{t-1} + \pi_8^i OPN_{t-1} + \pi_9^i INF_{t-1} + \phi_t \end{aligned} \quad (3.8)$$



Once the co-integrating relationship is established, the short run dynamics is also analyzed and the error correction model representation of the ARDL model is specified in equation (3.9) below:

$$\Delta \text{GDPG}_t = \pi_0^i + \sum_{i=1}^k \pi_1^i \Delta \text{GDPG}_{t-1} + \sum_{i=1}^k \pi_2^i \Delta \text{INV}_{t-1} + \sum_{i=1}^k \pi_3^i \Delta \text{LFPR}_{t-1} + \sum_{i=1}^k \pi_4^i \Delta \text{INF}_{t-1} + \sum_{i=1}^k \pi_5^i \Delta \text{OPN}_{t-1} + \mu \vartheta_{t-1} + \varepsilon_{t-1} \quad (3.9)$$

The model specification to capture the optimal threshold of inflation- growth will be adopted from the work of Aero, and Ogundope, (2018) and Ekpo, (2024) with some modifications.

$$\text{GDPG}_t = f(\text{INV}, \text{LFPR}, \text{Fd}, \text{INF}, \text{EXR}, \text{BM})_t \quad (3.10)$$

Where,  $\text{GDPG}_t$  = Growth rate of real GDP,  $\text{INV}$  = Gross fixed capital formation as a ratio of GDP,  $\text{LFPR}$  = Labour force participation rate,  $\text{Fd}$  = Fiscal deficit as a ratio of GDP

$\text{INF}$  = Inflation rate,  $\text{EXR}$  = Exchange rate,  $\text{BM}$  = Financial deepening  $M_2/\text{GDP}$

Expressing the model in econometric form as:

$$\text{GDP} = \beta_0 + \beta_1 \text{INV}_t + \beta_2 \text{LFPR} + \beta_3 \text{Fd}_t + \beta_4 \text{INF}_t + \beta_5 \text{EXR}_t + \beta_6 \text{BM}_t + e_t \quad (3.11)$$

$\beta_0$  is the fixed effect of the constant term.  $\beta_1 - \beta_6$  are the coefficients of the explanatory variables

$e_t$  is the stochastic term, on the a priori expectations

$$\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0, \beta_5 < 0, \beta_6 > 0$$

### Specification of the TAR Model (Inflation)

The TAR model uses a threshold to segment data, enabling the identification of inflation thresholds that may have distinct effects on economic growth. This method allows researchers to explore non-linear relationships between inflation and growth, uncovering potential breakpoints where inflation's impact changes. It is a useful tool for understanding the nuanced role of inflation in economic development.

$$\text{GDPG}_t = \lambda_0 + \lambda_1 \text{GDPG}_{t-1} + \lambda_2 \text{INF}_t [D_t(\text{INF}_t < K^*)] + \lambda_3 \text{INF}_t [D_t(\text{INF}_t > K^*)] + \lambda_4 \text{INV}_t + \lambda_5 \text{LFPR}_t + \lambda_6 \text{Fd}_t + \lambda_7 \text{EXR}_t + \lambda_8 \text{BM} + e_t \quad (3.12)$$

where

$D_t$  is a dummy variable with a value of 1, if  $\text{INF}_t > K^*$  or 0 otherwise,  $K^*$  is the threshold level of inflation which is to be calculated at 6% to 25%,  $\lambda_2$  is the effect of inflation below the threshold level,  $\lambda_3$  is the inflation above the threshold level. Other variables are as defined previously.

On the a priori expectations:  $\lambda_1, \lambda_2, \lambda_4, \lambda_5, \lambda_6, \lambda_8 > 0$  and  $\lambda_3, \lambda_7 < 0$

Equation 3.12 will attempt to answer the core objective of this study which is to identify the ideal balance of inflation-growth nexus in Nigeria

### 3.3 Diagnostic Test

Pre-Estimation Test:

**Stationarity Test:**

To ensure reliable analysis, stationarity tests are essential for time series data. This study uses Perron's PP test, which accounts for structural breaks and offers a more nuanced approach than traditional ADF tests. By identifying these breaks, the PP test helps accurately assess each variable's time series characteristics, enhancing the study's validity. The PP test is specified by Equation 3.13 as:

$$\theta_{\alpha}^{*} = \theta_{\alpha} \left[ \frac{\gamma^{\circ}}{\omega^{\circ}} \right]^{\frac{1}{2}} - \frac{T(\omega^{\circ} - \gamma^{\circ})[se(\varphi)]}{2\omega^{\circ\frac{1}{2}}s} \quad 3.13$$

This equation presents a statistical analysis formula, where  $\varphi$  represents an estimated parameter,  $\theta_{\alpha}$  is its t-statistic, and  $se(\varphi)$  denotes the standard error. The equation also includes the regression's standard error (s), residual spectrum ( $\omega^{\circ}$ ), and error variance estimate ( $\gamma^{\circ}$ ). These components are crucial for evaluating the significance and reliability of the estimated relationship.

**Table 1: Explanation of variables and *a priori* expectation**

S/N	Variables	Description	Sources	Apriori Expectation
1.	GDP growth	Real GDP growth in Nigeria is calculated by adjusting the total value of goods and services for inflation and using a base year (2010) for comparison. This measurement gives a comprehensive view of Nigeria's economic performance over time, helping track changes in the country's productivity and overall economic health (Ekpo and Udoh, 2025)	CBN <b>statistical bulletin, (WDI)</b>	$GDP > 0$
2.	CPI inflation	Inflation is a crucial macroeconomic indicator reflecting price changes. Nigeria's inflation is sensitive to external factors and expectations, showing some persistence. Excessive inflation hinders growth, whereas stable, low inflation fosters economic stability and promotes growth. Consequently, this study uses CPI inflation to examine its expected inverse relationship with economic output (Onyemalu <i>et al</i> , 2025).	NBS, CBN <b>statistical bulletin</b>	$CPI \text{ INF} < 0$
3.	Gross fixed capital formation	Gross Fixed Capital Formation measures the total investment in long-term assets like buildings, roads, and machinery. It captures both government and private investments, playing a vital role in national economic accounts. As an independent variable, changes in GFCF can significantly impact a nation's growth trajectory, highlighting its importance in economic development (Ekpo <i>et al</i> , 2025)	CBN <b>statistical bulletin</b>	$INV > 0$
4.	Exchange rate (EXR)	Exchange rates influence trade and investment by expressing currency values relative to each other. Direct and indirect quotations offer different perspectives on currency strength. Often benchmarked against the US dollar, exchange rates can also be cross-referenced with other currencies. In this context, exchange rates are used as a control variable, anticipated to	CBN <b>statistical bulletin</b>	$EXR < 0$

	negatively affect economic growth due to their role in shaping trade dynamics and capital movement.		
5. Fiscal deficit	A fiscal deficit occurs when government expenditures exceed revenues, signaling potential fiscal challenges. Expressed as a percentage of GDP, it assesses a nation's financial management and long-term economic viability. Closely tied to budget deficits, excessive or unsustainable fiscal deficits can impede growth, while manageable deficits might stimulate economic activity through strategic spending (Onyemalu <i>et al</i> ,2025).	<b>CBN statistical bulletin, World Development Indicators</b>	$FD > 0$
6. Trade openness	Trade openness quantifies a nation's engagement in global trade by comparing its trade volume to GDP. Higher openness can attract foreign investment and advanced technologies, potentially boosting growth. Thus, increased trade openness is anticipated to have a favorable impact on Nigeria's economy, assuming other conditions stay unchanged.	<b>World Development Indicators</b>	$OPN > 0$
7. Labour force participation rate	Labor force participation rate gauges the share of the working-age population actively engaged in the workforce or looking for jobs. It's a crucial metric for understanding labor market conditions and overall economic engagement, offering insights into a country's potential for growth and productivity. (Ekpo <i>et al</i> ,2024)	<b>World Development Indicators</b>	$LFPR > 0$
8. Financial deepening	The M2/GDP ratio measures financial deepening by comparing a country's broad money supply (M2) to its economic output (GDP). It reflects the financial sector's role in facilitating economic growth. A higher ratio suggests a more developed financial system, which can support economic expansion. In Nigeria's case, this metric helps assess the financial sector's contribution to the country's growth.	<b>World Development Indicators, CBN</b>	$BM > 0$

**Source: Researchers' field work (2025).**

### 3.5 Analytical techniques

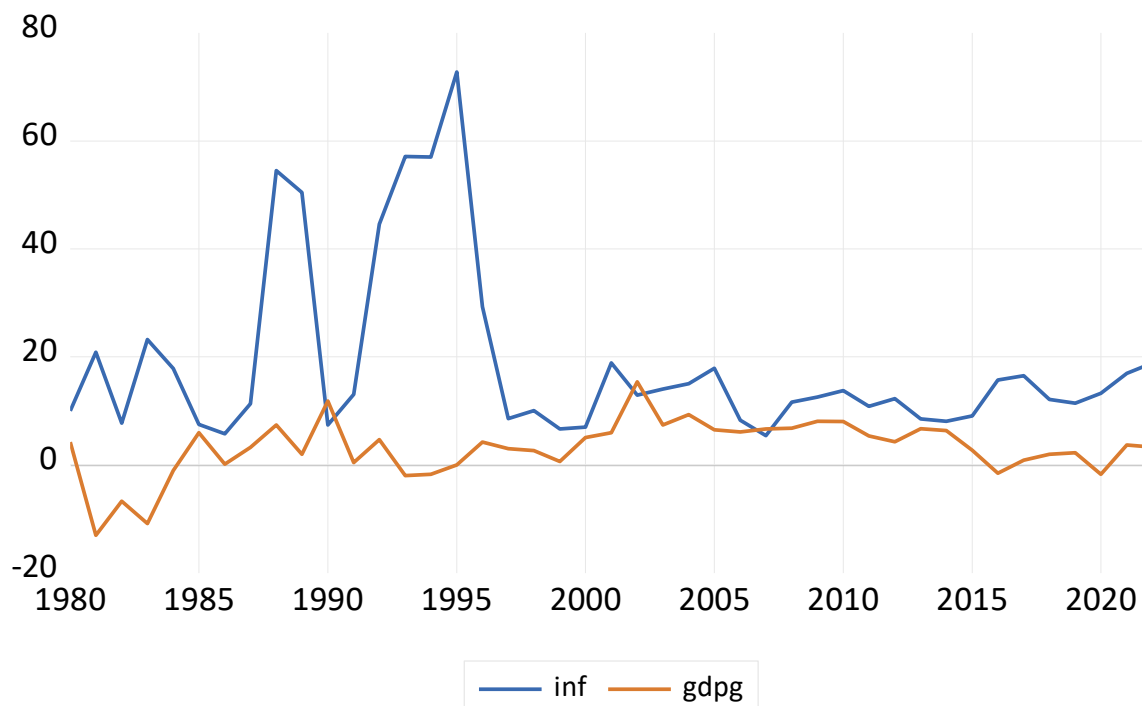
This study utilizes the ARDL bounds testing method to examine the long-run relationships among variables. The endogenous growth model serves as the framework, focusing on internal drivers like technological advancements and human capital accumulation. It suggests that growth stems from investments, capital accumulation, and innovation, rather than external factors alone (Pesaran *et al*; (2001; Ekpo *et al*., 2024).

### 4. The Stylized facts of Inflation and Economic Growth in Nigeria.

Nigeria's inflation and growth have historically moved in opposite directions, with high inflation typically coinciding with stagnant or declining growth. The 1980s saw severe inflation and poor

growth due to oil price shocks and fiscal issues. Although SAP improved conditions in the 1990s, inflation resurged, exacerbated by low oil prices and debt burdens. This led to mostly negative GDP growth, except for brief periods of modest expansion. Development in the Nigeria economy was largely influenced by the slump in crude oil prices, excessive debt payment burden which impacted negatively on the balance of payments and the negative and debilitating effects of the SAP. As a result, the real GDP witnessed high negative growth rates in most of the years while a few other years recorded minimal growth rates apart from 1988, 1989 and 1990 when average growth rate of 8.23 per cent was recorded.

In the 2000s, there was a brief period of low inflation and relatively high economic growth, but this was followed by a period of high inflation and low economic growth in the late 2000s and early 2010s.



**Figure 1. Inflation and Economic Growth Graph.**

Since 2015, Nigeria has faced economic hardships, including stagflation in 2016. Despite the CBN's monetary efforts, inflation and unemployment remained high, highlighting the complexity of addressing these issues in a struggling economy. The period underscores Nigeria's ongoing battle with economic instability and the need for effective policies. Nigeria's economy has grappled with persistent inflation and sluggish growth, exacerbated by factors like plummeting oil prices in 2014, security issues, political unrest, the pandemic, and climate change. These challenges have deterred investment, disrupted agriculture, and raised living costs, ultimately hindering economic progress and stability. Climate change poses a considerable threat to Nigeria's economy, as the

nation is particularly susceptible to its impacts. Severe weather events like floods and droughts have ravaged agricultural output and transportation systems, leading to food shortages, price hikes, and increased cost of living to Nigerians.

## 5. PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS.

### 5.1 Preliminary Data Analysis and Diagnostics.

#### 5.1.1 Descriptive Statistics.

**Table 2. Descriptive Statistics**

	<b>GDPG</b>	<b>INF</b>	<b>FD</b>	<b>EXR</b>	<b>INV</b>	<b>LFPR</b>	<b>BM</b>	<b>OPN</b>
Mean	2.941577	19.06650	-1.514197	115.3247	8.190567	58.81280	16.89399	33.30234
Median	3.251681	12.87658	-1.900436	111.2313	7.752972	55.78000	14.24738	34.02388
Maximum	15.32916	72.83550	5.857085	425.9792	15.63972	84.60000	27.37879	56.39031
Minimum	-13.12788	5.388008	-6.526412	0.617708	1.501513	54.73600	9.063329	6.176985
Std. Dev.	5.341382	16.64080	2.862217	120.6438	3.923612	7.836143	6.106222	12.92361
Skewness	-0.796055	1.839591	0.707264	1.021852	0.098235	2.536136	0.411211	-0.182374
Kurtosis	4.701703	5.277170	3.348146	3.166577	1.931674	8.050201	1.471489	2.206144
Jarque-Bera	9.277290	31.98323	3.625246	7.182640	2.015697	87.52213	5.146734	1.303883
Probability	0.009671	0.000000	0.163225	0.027562	0.365003	0.000000	0.076278	0.521033
Observations	41	41	41	41	41	41	41	41

Source: Authors' Computation Using EViews 12

The table 2 summarizes key descriptive statistics for variables like fiscal deficit, inflation, GDP growth, investment, labour force participation rate and others from 1981 to 2025.

Nigeria's average GDP growth was modest and unstable as shown by mean of 2.94% and standard deviation of 5.3%, the mean value is less than the medium indicating that the economy was not growing at a sustainable rate relying on occasional growth spurts. This pattern indicates an



economy vulnerable to crises, like the 2008 financial crisis and the pandemic, which led to recessions and disrupted economic progress. Sustainable growth remains elusive due to these external shocks and internal challenges.

Inflation averaged 19%, with significant variability as revealed by a standard deviation of 16.6 %. The higher mean compared to the median suggests frequent inflation spikes, possibly due to sector-specific pressures or inadequate monetary control. This uneven inflation experience points to challenges in managing price stability across the economy.

The fiscal deficit averaged 1.5% of GDP, with low variability as the standard deviation showed 2.86%. However, the mean exceeding the median indicates periods of substantial deficits, likely driven by increased government expenditures on social programs and security. This imbalance could suggest that economic growth has not matched the pace of government spending, leading to fiscal imbalances.

Investment, as a share of GDP, averaged 8.2% with moderate fluctuations given the standard deviation of 3.9%. The skewed distribution of investment spending reveals a concentration of large investments, which might stem from a few major projects or numerous smaller investments. This investment pattern could impact economic growth and development, depending on the nature and quality of these investments.

The Nigerian Naira's exchange rate averaged N115, but exhibited considerable volatility with a standard deviation of N120.6. The lower median compared to the mean signifies frequent currency undervaluation, potentially affecting trade, inflation, and overall economic stability. This volatility can complicate monetary policy and foreign exchange management.

Nigeria's trade openness averaged 33%, showing substantial variation. The mean being lower than the median hints at possible trade deficits, where imports might exceed exports. This trade imbalance could result from reliance on foreign goods or insufficient domestic production, impacting the country's economic balance and growth.

The labour force participation rate was 58.8%, with notable fluctuations. The positive skew suggests either high unemployment or underutilization of the workforce, indicating potential inefficiencies in the labor market. Addressing these issues could unlock more economic potential and improve overall productivity.

Financial depth, measured by broad money supply as a percentage of GDP, averaged 16.9% but was unstable with standard deviation of 6%. The higher mean than median indicates a substantial money supply relative to the economy, possibly driven by government spending. This could lead to inflationary pressures or liquidity issues if not managed carefully.

The kurtosis values show that GDP growth, inflation, fiscal deficit, and exchange rate distributions are leptokurtic, meaning they have peaked shapes with most data points clustered around the mean.

This suggests stability in these variables, as extreme values are rare, contributing to a more predictable economic environment

Despite mostly stable distributions, the fiscal deficit's non-normality warrants attention. Its potential volatility could necessitate proactive policies to prevent economic instability. Conversely, the stability observed in GDP growth, inflation, and exchange rates indicates effective management in these areas. These statistics paint a picture of an economy facing various challenges, including inflation, fiscal imbalances, and labour market inefficiencies. Addressing these issues through targeted policies could help stabilize the economy, promote growth, and improve living standards for Nigerians. However, these findings provide a basis for further exploring the inflation -economic growth relationship and its implications.

### 5.1.2 Unit Root Test

While ARDL does not mandate unit root tests, ADF and PP tests are used to confirm stationarity and integration order. ADF might overlook structural breaks, so PP test is employed to account for these changes, ensuring more accurate results. Combining both tests strengthens the analysis and helps identify the true nature of the time series data (Ekpo *et al.*, 2023).

**Table 3: ADF Unit Root Test Results.**

Variable	ADF Statistic At Level	ADF Statistic At 1st Difference	Integration Order
FD	-4.762859***	_____	I(0)
INF	-3.844173**	_____	I(0)
GDPG	-2.855478	-12.08960***	I(1)
BM	-2.130574	-9.502619**	I(1)
EXR	2.953701**	_____	I(0)
INV	-3.666358**	_____	I(0)
LFPR	-2.870707	-5.663356***	I(1)
OPN	-2.123507	-7.246456***	I(1)

Source: Authors' Computation Using EViews 12

Note: \*\*\* significant at 1%, \*\*significant at 5%, -4.192337 and -3.520787 are critical values at level for 1% and 5% respectively while -3.600987 and -2.935001 are critical values at first difference for 1% and 5% respectively.

**Table 4: Phillips -Perron Unit Root Test Results**

Variable	ADF Statistic	ADF Statistic	Integration	Order
	At Level	At 1st Difference		
FD	-4.745708***	_____	I(0)	
INF	-2.998964**	_____	I(0)	
GDPG	-3.792029***	_____	I(0)	
BM	-2.268690	-15.99926***	I(1)	
EXR	3.359016**	_____	I(0)	
INV	-2.224082	-12.76825***	I(1)	
LFPR	-1.763210	-6.078248***	I(1)	
OPN	-2.016142	-7.433673***	I(1)	

Source: Authors' Computation Using EViews 12

Note: \*\*\*Significant at 1% , \*\*significant at 5%, -3.596616 and -2.933158 are critical values at level for 1% and 5% respectively while -3.600987 and -2.935001 are critical values at first difference for 1% and 5% respectively.

The ADF test reveals that fiscal deficit, inflation, GDP growth, and exchange rate are stationary in their level, while broad money, investment, labor force participation, and trade openness become stationary after first differencing. This suggests different integration orders among the variables, which is crucial for subsequent econometric analysis.

However, The PP test results align more closely with ADF for most variables, confirming stationarity at level for FD, INF, GDPG, and EXR, and at first difference for others. The slight discrepancy between ADF and PP tests hints at structural breaks, making PP test results more reliable. Thus, the study proceeds with PP test findings for a more accurate analysis.

### 5.2.1 Cointegration Test Analysis.

Given that variables are difference-stationary, exploring long-run relationships is essential. This involves co-integration tests to determine if these variables share a common stochastic trend, indicating potential equilibrium relationships that could guide policy decisions and economic forecasting.

**Table 5: Bounds Test for Existence of cointegration**

Test Statistic	Value	Significance	I(0)bound	I (1)bound
K	4	5%	2.86	4.01
		2.5%	3.25	4.49
		1%	3.74	5.06
F-Statistic	7.586196	10%	2.45	3.52

Source: Authors' Computation Using EViews 12.

The cointegration test shows a significant F-statistic of 7.586196 which exceeds the lower and upper bounds critical values of 3.74 and 5.06 respectively at 1 per cent significance level. This leads to rejecting the no-cointegration hypothesis, confirming a long-run association among GDP growth, inflation, investment, labor force participation, and trade openness. The findings suggest these variables are interconnected in the long term, influencing each other's trajectories.

### 5.2.2 Correlation Matrix Results

This is used to determine the correlation strength between the variables in the model

**Table 6: Correlation Coefficient Matrix**

	GDPG	INF	INV	LFPR	OPN
GDPG	1				
INF	-0.207467	1			
INV	0.074561	-0.085110	1		
LFPR	-0.515735	-0.059412	-0.433294	1	
OPN	0.461102	0.084123	0.200735	0.680499	1

Source: Authors' Computation Using EViews 12.

Correlation analysis highlights strong links between trade openness and labour participation, while inflation and labour participation show weaker ties. Despite some high correlations, all variables

are retained for their model relevance. Notably, inflation and labor participation correlate negatively with growth, contrasting with the positive associations of investment and trade openness, underscoring their distinct roles in Nigeria's economy.

### 5.2.3 Long Run Regression Result

The long-run estimated coefficients are presented in Table 7

**Table 7: Estimates of long run coefficient ARDL Dependence Variable: GDGP**

Variable	Coefficient	Std.Error	t-Statistic	Prob.
INV	-0.489618	0.159440	-3.070857	0.0069
LFPR	0.187558	0.336294	0.557719	0.5843
INF	-0.235427	0.066159	-3.558522	0.0024
OPN	0.142529	0.112270	1.269513	0.2214

Source: Authors' Computation Using EViews 12.

The long-run analysis reveals that most variables align with economic theory, except for gross fixed capital formation. Labour force participation, inflation, and trade openness display expected signs, but investment's sign contradicts theoretical expectations. This unexpected result may indicate unique factors influencing investment's impact on Nigeria's economy, warranting further investigation.

The study confirms a significant negative long-run link between inflation and economic growth, this indicates that a one per cent rise in inflation rate reduces the economic growth by about 0.235 per cent. This result is consistent with several prior studies such as Anochiwa *et al*; 2015; Ndoricimpa 2017; Idris and suleiman 2019; Oyelade and Tella 2019; Olugbenga *et at*; 2020; Adaramola and Dada 2020; and Onwubuariri *et al*; 2021. However, it diverges from other research like Wajid and Kalim 2013; Chude and Chude 2015; Anidiobu *et al*; 2018; And Ogu *et al*; 2020; that found positive or insignificant relationships. Also, the result further contradicts the works of Echekoba *et al*; 2021 and Oranefo 2022 whose findings revealed no significant long-run relationship between inflation and economic growth. These contrasting findings might stem from differences in data, methodologies, or contextual factors, highlighting the complexity of inflation's role in economic growth.

Investment which is measured as gross fixed capital formation as a percentage of GDP discloses that in the long-run, one per cent increase in investment level decreases economic growth by 0.49 per cent. The negative correlation between investment and growth in Nigeria is surprising and



defies conventional wisdom. Possible explanations include ineffective investment allocation, corruption in government projects, and insufficient infrastructure. Despite substantial spending on social programs and public projects, the anticipated growth benefits have not materialized, suggesting inefficiencies and structural issues that need addressing.

Labour force participation has a positive, though statistically insignificant, long-run effect on Nigeria's growth. While a 1% increase in participation may boost growth by 0.188%, this association is not strong enough to be conclusive. Nonetheless, it aligns with economic theory that a more engaged workforce can contribute to economic expansion.

Trade openness, the structural variable in the model and key driver of economic growth as well, shows a positive yet non-significant relationship with Nigeria's growth. This finding supports the idea that trade promotes growth, even if the effect is not statistically robust. As Nigeria's economy becomes more open, it may enhance domestic industries' competitiveness, fostering growth over time.

#### **5.2.4 Short Run Regression Result**

The short run estimated coefficients are presented in Table 8

**Table 8: Estimates of the Short Run Error Correction**

Variable	coefficient	Std. Error	t-Statistic	Prob.
C	-2.553512	0.586282	-4.355431	0.0004
D(GDPG(-1))	0.085976	0.129644	0.663170	0.5161
D(GDPG(-2))	0.322118	0.155156	2.076088	0.0534
D(GDPG(-3))	0.264938	0.135266	1.958646	0.0668
D(LFPR)	0.551058	0.151835	3.629319	0.0021
D(LFPR(-1))	0.280152	0.139996	2.001139	0.0616
D(LFPR(-2))	-0.412172	0.115100	-3.581003	0.0023
D(LFPR(-3))	0.207306	0.138975	1.491680	0.1541
D(INF)	-0.160890	0.039210	-4.103245	0.0007
D(INF(-1))	0.205724	0.043238	4.757926	0.0002
D(INF(-2))	0.079237	0.034882	2.271552	0.0364
D(INF(-3))	0.112631	0.038066	2.958851	0.0088
D(OPN)	0.161258	0.066342	2.430702	0.0264
D(OPN(-1))	-0.049305	0.062303	-0.791372	0.4396
D(OPN(-2))	0.027842	0.059733	0.466111	0.6471
D(OPN(-3))	0.146279	0.061950	2.361241	0.0304
ECM(-1)*	-0.978813	0.142994	-6.845138	0.0000
R-squared	0.839909	Adjusted	R-squared	0.717935

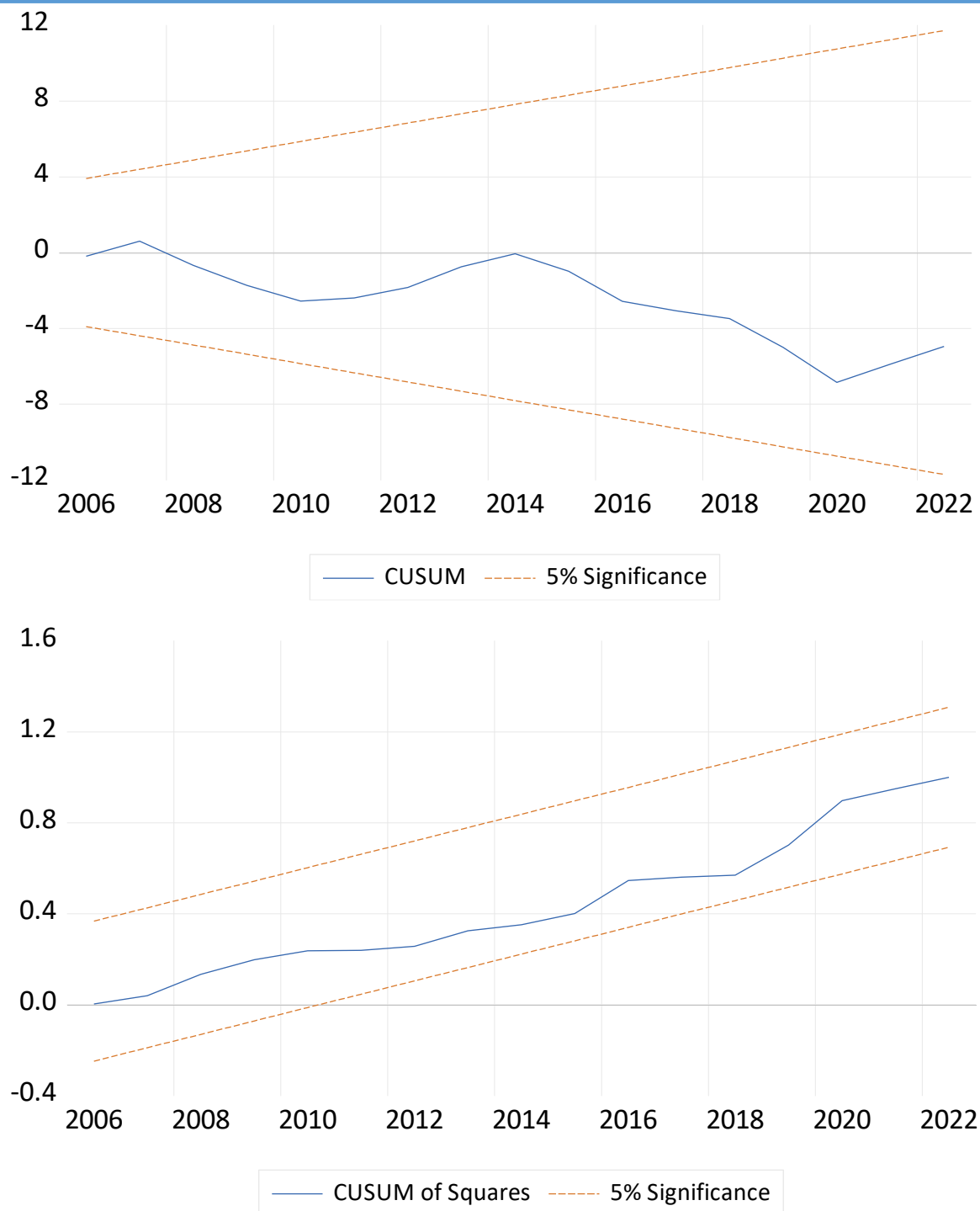
Source: Authors' computation using EViews 12

The ECM result as expressed in equation 3.9 indicates a swift return to equilibrium after disturbances, with about 98% adjustment occurring within a year. This suggests the economy is fairly resilient. Additionally, labor participation and trade openness emerge as significant short-run growth drivers, reinforcing their importance in Nigeria's economic recovery and stability.

Interestingly, the lagged values of inflation rate exert a positive significant influence on economic growth in the short run, thus, asserting the Phillips curve theory

### 5.2.5 Stability Test

Figure 2 shows that the plots of CUSUM and CUSUMSQ are both within the 5 per cent critical bound, indicating that the model's parameters are not subject to structural instability over the study period. Meaning that all coefficients in the error correction model are dynamically stable



**Figure 2: CUSUM and CUSUMSQ Plot for Stability Test**

**5.2.6. Diagnostic Test Results**

To ensure that some of the assumptions of the classical linear regression model are met, diagnostic tests are imperative to perform.

**Table 9: Diagnostic Tests**

TEST TYPE	STATISTIC	VALUE	PROBABILIY	REMARKS
Normality	Jarque-Bera	0.37550	0.8288	Normally distributed residuals
Serial correlation (LM)	F-Statistic	1.27372	0.3084	No serial correlation
Heteroskedasticity (ARCH)	F-Statistic	0.63777	0.8329	No heteroskedasticity
Specification (Wald)	F-Statistic	6.51651	0.0018	The overall model is well specified

Source: Authors' Computation

The table 9 presents the results of the residual diagnostic tests. The residuals for the model were found to be normally distributed. No serial correlation and Heteroskedasticity were observed in the equation. The overall model was well specified implying that the estimates are reliable and consequently, can be relied upon for policy formulation purposes.

**5.4.3 Analysis of the Threshold Model Estimation Result**

To identify the inflation threshold impacting growth, Hansen's method is applied. This procedure involves estimating equation 3.12 by OLS method and computing the residual sum of squares (RSS) for the different or selected threshold levels of inflation ranging from  $K=6\%$  to  $K=25\%$ . The threshold estimate of inflation is found by selecting the one that minimizes the sequence of the RSS therefore maximizing the adjusted  $R^2$ . The estimation result, following repeated estimation of equation 3.12 for the different values of expected threshold ( $K$ ) are reported in Table 10.  $K$  is labelled on the first column; it gives the range over which the search for the threshold is conducted. The dummy variable  $DL_{1t}$  measures the effect of inflation below the chosen threshold ( $K$ ) value while  $DU_{1t}$  represents the effect of inflation above the threshold. To save space, only the explanatory variables that are statistically significant at 10% are reported along with inflation dummies.

**Table 10: Estimation Result of Inflation Threshold Model.**

K	Variable	Coefficient	Std.Error	t-Statistic	Prob.	RSS	Adj. R <sup>2</sup>
6%	DL <sub>6</sub> INF	-0.746703	0.525697	-1.420407	0.1652	450	0.37
	DU <sub>6</sub> INF	-0.070293	0.040439	-1.738246	0.0918		
	GDPG(-1)	0.267136	0.159868	-1.670981	0.1045		
	INV	-0.393695	0.231010	-1.704236	0.0980		
	LFPR	-0.254298	0.122713	-2.072298	0.0464		
7%	DL <sub>7</sub> INF	-0.0581795	0.374158	-1.554944	0.1298	447	0.37
	DU <sub>7</sub> INF	-0.081284	0.042457	-1.914521	0.0645		
	INV	-0.277566	0.124748	-2.225016	0.0333		
8%	DL <sub>8</sub> INF	0.091246	0.324953	0.280799	0.7807	471	0.47
	DU <sub>8</sub> INF	-0.047542	0.047118	-1.009014	0.3205		
	GDPG(-1)	0.289373	0.172762	1.674977	0.1037		
	LFPR	-0.235789	0.125189	-1.883467	0.0688		
10%	DL <sub>10</sub> FD	-0.050064	0.262749	-0.190539	0.8501	475	0.34
	DU <sub>10</sub> FD	-0.057712	0.052359	-1.102227	0.2786		
	LFPR	-0.238437	0.126932	-1.878460	0.0695		
12%	DL <sub>12</sub> INF	-0.070120	0.216673	-0.323622	0.7483	475	0.34
	DU <sub>12</sub> INF	-0.060520	0.051548	-1.174053	0.2490		
	LFPR	-0.240624	0.128655	-1.870312	0.0706		
13%	DL <sub>13</sub> INF	0.235948	0.199233	1.184282	0.2450	443	0.38
	DU <sub>13</sub> INF	-0.011389	0.050221	-0.226770	0.8220		
	GDP(-1)	0.320380	0.162971	1.965875	0.0580		
14%	DL <sub>14</sub> INF	-0.041431	0.201603	-2.05506	0.8385	475	0.34
	DU <sub>14</sub> INF	-0.56052	0.051358	-1.091380	0.2833		
	LFPR	-0.235638	0.131406	-1.793212	0.0824		
15%	DL <sub>15</sub> INF	-0.019572	0.194078	-0.100848	0.9203	474	0.34
	DU <sub>15</sub> INF	-0.052775	0.049979	-1.055948	0.2989		
	LFPR	-0.235210	0.126728	-1.856023	0.0727		
18%	DL <sub>18</sub> FD	-0.018721	0.170141	-0.110030	0.9131	474	0.37
	DU <sub>18</sub> FD	-0.053186	0.046699	-1.138904	0.2632		
	LFPR	-0.238646	0.125308	-1.904484	0.0659		
20%	DL <sub>20</sub> INF	0.124471	0.189802	0.655791	0.5166	461	0.35
	DU <sub>20</sub> INF	-0.036395	0.045936	-0.792287	0.4340		
	LFPR	-0.245981	0.123736	-1.987956	0.0554		
21%	DL <sub>21</sub> INF	0.124471	0.189802	0.655791	0.5166	461	0.35
	DU <sub>21</sub> INF	-0.036395	0.045936	-0.792287	0.4340		
	LFPR	-0.245981	0.123736	-1.987956	0.0554		
23%	DL <sub>23</sub> INF	-0.204399	0.186600	-1.095384	0.2815	465	0.35



	DU <sub>23</sub> ,INF	-0.073680	0.044230	-1.665826	0.1055		
	GDPG(-1)	0.307413	0.171546	1.792015	0.0826		
	INV	-0.425767	0.245633	-1.733349	0.0927		
25%	DL <sub>25</sub> ,FD	-0.204399	0.186600	-1.095384	0.2815	465	0.35
	DU <sub>25</sub> ,FD	-0.073680	0.044230	-1.665826	0.1055		
	GDPG(-1)	0.307413	0.171546	1.792015	0.0826		
	INV	-0.425767	0.245633	-1.733349	0.0927		

Source: Authors' Computation

Table 10 shows that an inflation threshold of 13% minimizes RSS which is 443 and maximizes adjusted  $R^2$  which is 0.38 per cent, signifying it as the optimal point. This implies that inflation above 13% may significantly hinder economic growth, while keeping inflation below this level could support growth. The findings underscore the importance of inflation control in Nigeria's economic policy.

A thorough examination of Table 10 reveals intriguing insights. Specifically, the coefficient of the inflation dummy for inflation levels below the threshold (DL1t) displays a positive sign, indicating that inflation below 13 per cent may have a positive impact on economic growth. Conversely, the coefficient of the inflation dummy DU1t, which represents the effect of inflation levels above the threshold, demonstrates a negative sign. This suggests that inflation levels beyond 13 per cent are detrimental to economic growth. Consequently, the identified threshold level for inflation in Nigeria is set at 13 per cent.

However, it is crucial to note that the two parameters of the inflation dummy variables (DL1t and DU1t) are not statistically significant at conventional levels. This lack of significance poses a challenge in interpreting the findings, especially considering that the signs and magnitudes of these coefficients align with theoretical and a priori expectations regarding inflation thresholds.

The study's results might be influenced by a small sample size and a complex model with many variables. These factors could reduce the precision of estimates and lead to insignificant findings. Future studies could address these limitations by using larger datasets or alternative methods like panel analysis to confirm the results and improve the analysis's reliability.

Several studies like Li (2005) utilized panel data from 90 developing countries and located an inflation threshold at 14 percent. In a country-specific analysis, Seleteng *et al.*, (2013) found an inflation threshold of 10 percent for Lesotho. Furthermore, Bassey *et al.*; (2011) conducted a study specific to Nigeria and identified an inflation threshold of 18 percent. These findings are consistent with the results of Bawa *et al.*; (2012) and Sani *et al.*; (2013), who also identified optimal inflation thresholds in line with the aforementioned studies.

Overall, the alignment between our identified threshold levels and existing literature underscores the robustness of our findings. However, the lack of statistical significance emphasizes the need

for cautious interpretation and warrants further investigation into the stability of these threshold levels over time. Nonetheless, the convergence of our results with previous research provides valuable insights into the fiscal and inflationary dynamics of Nigeria, facilitating informed policymaking and economic management strategies.

#### 5.4.4 Diagnostic Test Results

Diagnostic tests were carried out at a 13 per cent threshold model. Diagnostic results for the optimal level of inflation are presented in Table 11

**Table 11: The Diagnostic Test at a 13 per cent Threshold**

TEST TYPE	STATISTIC	VALUE	PROBABILITY	REMARKS
Normality	Jarque-Bera	1.431942	0.488717	Normally distributed residuals
Serial correlation (LM)	F-Statistic	0.571601	0.5706	No serial correlation
Heteroskedasticity (ARCH)	F-Statistic	1.191787	0.3346	No heteroskedasticity
Stability	CUSUM and CUSUMSQ		Within bands	Stable

Source: Authors' Computation Using EViews 12

## 6. SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 6.1 Summary

This study examines the impact of inflation on economic growth in Nigeria. Specifically, it investigates the optimal threshold of inflation that spurs economic growth.

Given the focus on Nigeria, the study used ARDL bounds test and TAR modeling framework with annual time series data over the period 1981 to 2025 for a limited set of macroeconomic time series variable such as fiscal deficit as a percentage of GDP, inflation (Consumer price index), GDP growth, gross fixed capital formation as a ratio of GDP (investment), labour force participation rate, exchange rate, trade openness and financial deepening (Broad money supply as a ratio GDP) to evaluate the long-run and short-run dynamic of inflation and economic growth relationship.

The following major findings were observed.

- i. Inflation shows a significant long-run inverse relationship with economic growth in Nigeria
- ii. Observably, inflation exhibits a rather positive relationship with economic growth in the short-run in Nigeria supporting the Phillips curve theory.

- iii. Labour force participation rate in Nigeria stimulates economic growth both in the short-run and long-run although statistically insignificant.
- iv. Gross fixed capital formation in Nigeria reacts negatively to economic growth, implying that investment in Nigeria is not growth enabler.
- v. The degree of openness in the economy shows a positive relationship with economic growth, thus supporting the “growth by trade” argument.
- vi. The inflation threshold that stimulates economic growth in Nigeria is established at 13 per cent
- vii. The coefficient of inflation dummy for inflation rate higher than 13 per cent is detrimental to economic growth. On the contrary, the coefficient of inflation below 13 per cent possesses positive sign signifying that the inflation rate below 13 per cent may not be harmful to economic growth.
- viii. The non-significance of the two parameters of dummy variable  $DL_{1t}$  and  $DU_{1t}$  could possibly be traced to the smallness of sample size.

## 6.2 Conclusion

This study undertook an extensive examination of the relationship between inflation and economic growth in Nigeria spanning from 1981 to 2025. Empirical findings derived from the ARDL bounds test reveal several critical insights.

However, a noteworthy negative relationship emerges between inflation and GDP growth, underscoring the adverse impact of inflation on economic performance.

Furthermore, the investigation reveals a robust negative long-run relationship between economic growth and gross fixed capital formation. Interestingly, while expenditure on investment fails to demonstrate a growth-inducing effect, both short-term and long-term empirical evidence highlights the stimulative impact of fiscal deficit on economic growth.

Moreover, the study identifies optimal thresholds for inflation that fosters economic growth, pinpointing this threshold at 13 per cent. Notably, exceeding an inflation rate of 13 per cent is found to impede economic growth potential, underscoring the importance of fiscal prudence and inflation management in sustaining economic expansion.

Overall, the findings underscore the detailed interplay between inflation dynamics and economic growth in the Nigerian context. By delineating optimal thresholds for inflation, the study offers valuable insights for policymakers, emphasizing the imperative of maintaining fiscal discipline and price stability to nurture sustained economic growth and development.

## 6.3 Recommendations

Consequent upon major findings of the study, the following recommendations are suggested.

- i. To foster growth, the CBN must aim for inflation below 13%. This can be done by employing monetary tools like raising CRR, conducting open market operations, or increasing MPR. These measures can curb inflation, protect purchasing power, and create a favourable environment for economic expansion in the short to medium term.
- ii. Economic theory suggests that fiscal deficits can fuel inflation. To prevent this, the government should manage its deficit spending carefully. Excessive and prolonged deficits could lead to higher inflation, reducing consumers' purchasing power and ultimately harming economic growth. Balancing fiscal policy is crucial for maintaining economic stability.
- iii. Nigeria's economic growth hinges on disciplined fiscal and monetary policies. Policymakers must exercise restraint in spending and borrowing, while the central bank should maintain prudent monetary control. This balanced approach will help stabilize the economy, foster growth, and ensure long-term prosperity for the nation.
- iv. It is further suggested that to achieve a sustainable level of economic growth in real terms, conscious efforts should be made to encourage private investment and increase financial liberalization

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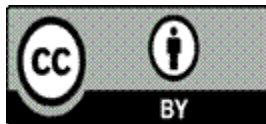
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