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IMPACT OF INFLATION ON YOUTH UNEMPLOYMENT IN NIGERIA: A COMPARATIVE ANALYSIS OF MALE AND FEMALE YOUTHS

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Abstract

This study investigates the impact of inflation on youth unemployment in Nigeria from 1990 to 2023, focusing on gender-specific effects for male and female youths. Anchored on the Phillips Curve, the study explores both short-run and long-run dynamics of Autoregressive Distributed Lag. Results indicate that inflation significantly influences youth unemployment in the long run, with a 1% increase in inflation resulting in a 0.12% increase in total youth unemployment and a 0.22% increase in female youth unemployment. In contrast, the impact on male youth unemployment is negligible. Inflation does not significantly impact youth unemployment across all categories in the short run, suggesting that other macroeconomic factors dominate short-term labour market outcomes. The error correction terms (-0.77 for the total youth unemployment, -0.83 for the male youth unemployment model, and -0.50 for the female youth unemployment model) show a significant adjustment to equilibrium, with about 50–83% of deviations corrected annually. These findings highlight the disproportionate vulnerability of female youths to inflationary pressures. The study recommends inflation-targeting policies, gender-sensitive labour market reforms, and entrepreneurship support to mitigate the adverse effects of inflation on youth unemployment.

Key Words: Inflation, Youth Unemployment, Female Youth Unemployment, Male Youth Unemployment, Nigeria

1. Introduction

Youth unemployment is a pressing issue in Nigeria with wide-ranging social and economic repercussions. Nigeria's economic growth and development depend heavily on its young, who make up a significant section of the population (Babatunde et al., 2020; Ajibola & Oraka, 2020; Anyanwu et al., 2021; Dodo & Idris, 2022). Nevertheless, this group's ongoing unemployment has prevented them from reaching their full potential as catalysts for innovation and productivity. Through factors including diminished buying power, elevated production costs, and shifting demand for products and services, inflation—a crucial macroeconomic variable—is often connected to unemployment (Musa, 2024; Idris, 2021; Razia et al., 2023; Nurudeen, 2016). Numerous research has examined the link between inflation and young unemployment in Nigeria; however, the gendered aspect of this relationship has not received enough attention (Obiekezie, 2022; Katumo & Maingi, 2020; Tan et al., 2021).

Structural economic factors and policy decisions often mediate inflation's short- and long-run impacts on unemployment. According to the Phillips Curve hypothesis, unemployment and inflation have an inverse connection, meaning that greater inflation may temporarily lower unemployment (Nurudeen, 2016; Dodo & Idris, 2022; Katumo & Maingi, 2020; Fung & Nga, 2022). However, there are conflicting findings from Nigerian empirical data. According to studies like those by Musa (2024) and Babatunde et al. (2020), inflation may have a major and sometimes detrimental effect on unemployment. On the other hand, Ajibola and Oraka (2020) and Obiekezie (2022) indicate little or contradictory impacts, underscoring the complexity of inflation's influence on employment markets. These discrepancies highlight the necessity for a thorough analysis that considers demographic variables,

especially the effects of inflation on young unemployment that are unique to gender (Marvellous, 2020; Idris, 2021; Razia et al., 2023; Dodo & Idris, 2022).

The Nigerian economy struggles with high rates of young unemployment despite several government initiatives to reduce unemployment and inflation. The ongoing inflation has worsened the issue, which is exacerbated by things like currency devaluation, the elimination of subsidies, and disruptions in the global economy. Most studies ignore how inflation specifically impacts male and female youth, even though the overall association between inflation and unemployment has been examined. For example, Idris (2021) and Ajibola and Oraka (2020) have shown how inflation affects young unemployment from a wider economic perspective, but their studies do not break down the data by gender. Compared to female adolescents, who are more prevalent in service-oriented businesses, male youths, who are often employed in areas like manufacturing and construction, may face inflation-induced layoffs in various ways.

Furthermore, current research often overlooks the dynamic character of inflation's effects over time. Because of structural and policy-driven variables, inflation's short- and long-term impacts on young unemployment may differ substantially. For instance, Dodo and Idris (2022) discovered that the short-term and long-term effects of inflation on unemployment differed, highlighting the need for temporal analysis. However, gender-specific patterns within these processes are still poorly understood, depriving policymakers of the knowledge necessary to create focused responses.

By investigating the impact of inflation on young unemployment in Nigeria with an emphasis on gender-specific disparities, this research aims to close these inequalities. The first goal is to ascertain if inflation substantially influences young unemployment in Nigeria. The second goal is to examine this connection's short- and long-term dynamics. The third goal is to evaluate the effects of inflation on youth unemployment among males and females. This research attempts to thoroughly grasp how inflation affects young labour market outcomes in Nigeria by breaking down the data by gender.

By adding a gender-focused viewpoint to Nigeria's examination of young unemployment, this study adds to the body of knowledge on inflation and unemployment. Despite their useful insights into the macroeconomic determinants impacting unemployment, previous research like Babatunde et al. (2020) and Anyanwu et al. (2021) have mostly overlooked gender discrepancies. The project will provide data to support gender-sensitive policies that encourage inclusive economic development by filling this gap. Additionally, current data until 2023 guarantees that the analysis includes Nigeria's current inflation and unemployment reality, including the effects of recent economic reforms and international shocks like the COVID-19 epidemic.

Nigeria is the subject of the research from 1990 to 2023, a time marked by notable economic ups and downs, including periods of hyperinflation, structural changes, and economic reforms. Using techniques like the Autoregressive Distributed Lag (ARDL) model, the research will examine how inflation affects young unemployment over the short and long terms. A significant gap in the research will be filled by the comparative study of young unemployment rates for men and women, which will provide a clearer understanding of gendered labour market dynamics. This strategy aligns with Razia et al.'s (2023) suggestions, which stressed the need for disaggregated studies in comprehending unemployment patterns across various demographic groups.

This research provides policymakers, development organisations, and stakeholders interested in tackling unemployment and promoting economic resilience in Nigeria with practical insights by concentrating on the gendered effect of inflation on young unemployment. It offers a method to create more inclusive and fair policies that address the difficulties that young men and women face in the job market.

A Recap on the Trend in Inflation and Youth Unemployment in Nigeria

Based on the presented data, the trend of youth unemployment in Nigeria reveals a gender disparity alongside fluctuating levels of unemployment for both male and female youths. Male youth unemployment generally starts higher earlier, particularly between 1991 and 2012. Still, a notable shift occurs around

2013, when female unemployment surpasses male unemployment and continues to rise more steeply until 2020. This change could be influenced by structural economic challenges and gender-specific factors that exacerbate barriers to employment for young women, such as limited access to education, skills training, or sociocultural restrictions (Anyanwu, 2014; Babatunde et al., 2020; Ajibola & Oraka, 2020).

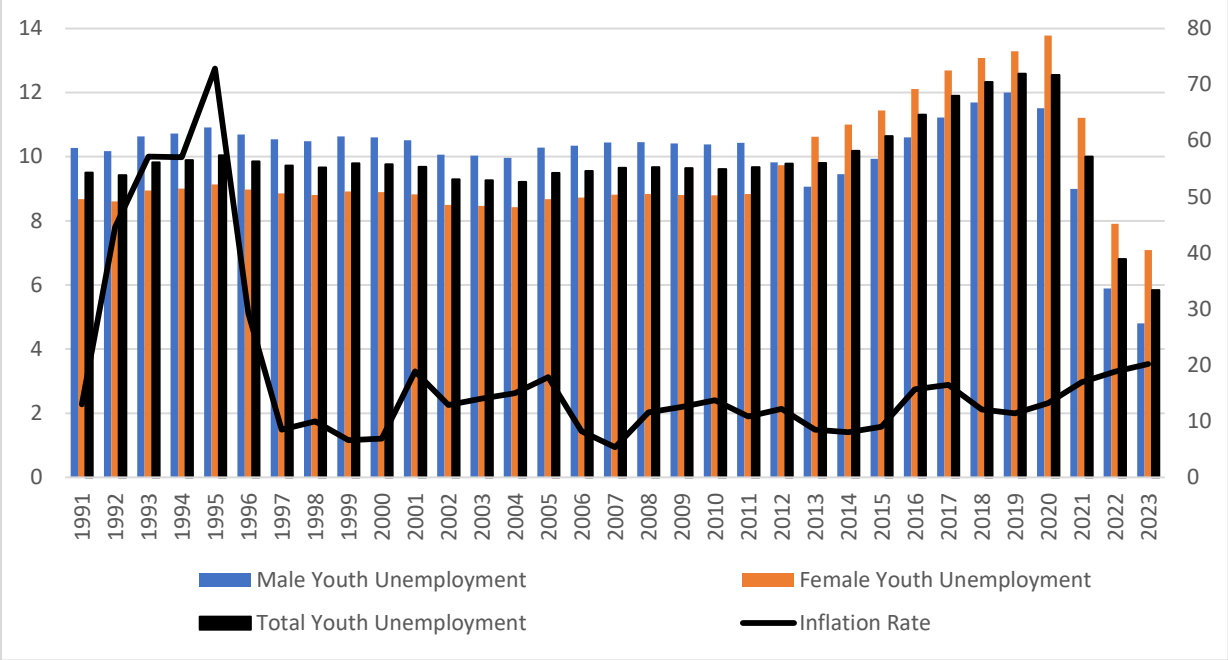


Figure 1 Inflation and Youth Unemployment
Sources of Date: WDI

Interestingly, the data also shows that the total youth unemployment rate increased significantly during periods of economic instability, such as between 2015 and 2020, when the inflation rate surged beyond 15%. This trend aligns with the theoretical assertion of the Phillips Curve, which describes an inverse relationship between inflation and unemployment, but in Nigeria's case, inflation seems to exacerbate unemployment. High inflation likely eroded purchasing power and increased production costs, contributing to reduced hiring by firms (Nurudeen, 2016; Razia et al., 2023; Musa, 2024). However, after 2020, a drastic reduction in youth unemployment is evident despite the continued rise in inflation. This anomaly requires further investigation to determine whether external interventions, such as government employment schemes or the informal labour market, contributed to mitigating unemployment (Katumo & Maingi, 2020; Dodo & Idris, 2022; Tan et al., 2021).

2. Literature Review

This study is anchored on the Phillips Curve, a theoretical framework that postulates an inverse relationship between inflation and unemployment in the short run (Phillips, 1958). According to this theory, higher inflation typically stimulates economic activity, reducing unemployment as firms hire more workers to meet rising demand. However, in developing economies like Nigeria, this relationship can be distorted by structural inefficiencies, such as weak institutional frameworks, labour market rigidities, and economic mismanagement. Empirical evidence in Nigeria reveals mixed outcomes, where inflation often coexists with high unemployment, sometimes referred to as stagflation (Nurudeen, 2016). Thus, applying the Phillips Curve framework enables a nuanced exploration of how inflation impacts youth unemployment, particularly when gender disparities are considered.

This framework is particularly relevant for this study, providing a foundation for analysing the interplay between macroeconomic conditions and labour market outcomes. The Phillips Curve helps to explain why inflation might have differential impacts on male and female youth unemployment, given varying levels of participation, education, and socio-economic barriers in Nigeria's labour market. By grounding the analysis in this theory, the study contributes to understanding

whether the curve's predictions hold in Nigeria's case or whether unique structural factors necessitate alternative explanations. This insight is critical for informing gender-sensitive and macroeconomically sound policy interventions to reduce youth unemployment (Babatunde et al., 2020; Anyanwu, 2014; Dodo & Idris, 2022).

The literature on inflation and youth unemployment has been extensively explored in Nigeria and globally, with studies revealing diverse relationships between these variables. For example, Ajibola and Oraka (2020) analysed the impact of minimum wage and inflation on youth unemployment in Nigeria from 1991 to 2019 using the ARDL method, finding that inflation negatively influences youth unemployment but lacks significance. Similarly, studies by Anyanwu et al. (2021) and Onwuka & Udeze (2023) employed ARDL and ECM methodologies, revealing significant associations between economic growth, youth unemployment, labour force participation, and population growth in Nigeria. While some studies, like Obiekezie (2022), found no long-run relationship between youth unemployment and economic growth, others, like Babatunde et al. (2020), identified short-run and long-run dynamics between inflation and unemployment using VECM and ECM frameworks.

A range of studies has also explored external influences such as insecurity and structural factors. For instance, Musa (2024) demonstrated a positive and significant impact of insecurity, including terrorism and crime rates, on youth unemployment in Nigeria. Meanwhile, studies like Dodo and Idris (2022) and Adeboye (2020) have examined inflation's varying impacts on unemployment, with findings indicating both positive and negative relationships depending on the context, methodology, and time frame analysed. Additionally, Idris (2021) characterised Nigerian unemployment as structural and inflation as cost-push in nature, highlighting the intricate interplay between macroeconomic variables.

Comparative analyses outside Nigeria provide further insights. Marvelous (2020) explored youth unemployment in South Africa, attributing it to poor education and skills mismatch. Meanwhile, Katumo and Maingi (2020) examined Kenya, finding a positive relationship between economic growth and youth unemployment. Studies like those by Nindi and Erni (2022) on ASEAN countries identified generally negative relationships between inflation and unemployment, although the effects often vary by region and economic context.

Research methodologies like ARDL, dynamic panel regression, and generalised method of moments (GMM) have been used to assess Philip's Curve hypothesis and its relevance across regions. For instance, Nurudeen (2016) confirmed Nigeria's long-run trade-off between inflation and unemployment, consistent with Philip's Curve. In Palestine, Razia et al. (2023) identified a negative impact of unemployment on economic growth and a nuanced relationship between inflation and growth. Collectively, these studies underscore the complex and context-dependent dynamics between inflation, youth unemployment, and economic growth, shaped by structural, institutional, and macroeconomic factors.

Significant gaps persist after substantial studies on inflation and young unemployment in Nigeria. Many studies, such as Ajibola and Oraka (2020) and Dodo and Idris (2022), shed light on how inflation affects youth unemployment but do not address gender differences. While Musa (2024) and Babatunde et al. (2020) examined macroeconomic determinants, including insecurity and long-run inflation-unemployment dynamics, they did not compare gender-specific unemployment patterns. Unfortunately, most work, notably Obiekezie (2022) and Anyanwu et al. (2021), does not include data up to 2023, missing the effects of current economic policies and global shocks like the COVID-19 pandemic. Intersectional variables are understudied in inflation, including educational attainment, urban-rural inequality, and sectoral employment, which are key to understanding gendered unemployment outcomes. A gender-focused, contemporary examination of inflation's influence on Nigerian young unemployment is needed to address these discrepancies.

3. Methodological

3.1 Model Specification and Data

To empirically study the relationship between inflation and youth unemployment, the model Adeboye (2020) will be augmented. This model was specified as follows:

$$UNM = \beta_0 + \beta_1 INF_t + \beta_2 RGDP_t + \beta_3 INT_t + \beta_4 EXC_t + \varepsilon_t \quad (1)$$

Where UNM is the unemployment rate, INF is the inflation rate, RGCP is the real GDP, INT is the interest rate, and EXC is the exchange rate at time t. Equation 3.1 will be augmented for this research to capture the objectives. Therefore, the working model for this research is as follows:

$$YUN = \beta_0 + \beta_1 INF_t + \beta_2 GDP_t + \beta_3 EXC_t + \varepsilon_t \quad (2)$$

YUN_t stands for youth unemployment at time t., INF_t represents inflation at time t, EXRt represents exchange rate at time t, and GDPt represents the gross domestic product at time t. ε_t – stochastic error term assumed to be normally distributed, β_O is the constant, β_1 *to* β_3 represents the estimated parameters of the model. We substituted the dependent variables to compare the impact of male and female youth unemployment. Table 1 presents the variables, source of data and expectations

Table 1 Data Sources and Expected Signs of Coefficients

Variables	Expectation	Sources
Total Youth Unemployment (YUN_t)	Dependent	WDI
Male Youth Unemployment ($MYUN_t$)	Dependent	WDI
Female Youth Unemployment ($FYUN_t$)	Positive (+)	WDI
Inflation Rate (INF_t)	Positive (+)	WDI
Nominal GDP (GDP_t)	Positive (+)	WDI
Exchange Rate ($EXC_{i,t}$)	Positive (+)	WDI

Note: WDI-World Development Indicator

3.2 Estimation Technique

The Autoregressive Distributed Lag (ARDL) model, as proposed by Pesaran et al. (2001) and Pesaran and Shin (1999), is widely recognised for its robustness in analysing short- and long-term relationships in time series data. The method is advantageous because it accommodates variables integrated at levels I(0), or first differences, I(1), or a mix of both, without requiring pre-testing for stationarity (Yusuf & Mohd., 2020). Additionally, ARDL allows simultaneous estimation of long- and short-run parameters, making it efficient for dynamic analyses (Toriolaa et al., 2021). It is particularly suitable for small sample sizes, enhancing its reliability in diverse datasets (Lim & Grosheck, 2021). The ARDL approach uses bounds testing through the F-test to determine cointegration, which requires the test statistic to exceed the upper critical bound for confirmation.

Moreover, the error correction model (ECM) derived from ARDL provides insights into the speed of adjustment to equilibrium, with a negative and significant ECM coefficient indicating a long-run relationship (Banerjee et al., 1998). These strengths make ARDL a preferred choice for examining the dynamic interaction of dependent and independent variables across varied time horizons. Analytical tools like EViews and Microsoft Excel facilitate ARDL estimation and interpretation in empirical research. Given the methodology employed for the analysis (ARDL), the equation 3 will be written as:

$$lnYUN_t = \beta_0 + \beta_1 lnYUN_{t-i} + \beta_2 lnINF_{t-i} + \beta_3 lnRGDP_{t-i} + \beta_4 lnEXC_{t-i} + \sum_{i=0}^{p} \beta_5 \Delta lnYUN_{t-i} + \sum_{i=0}^{p} \beta_6 \Delta lnINF_{t-i} + \sum_{i=0}^{p} \beta_7 \Delta lnRGDP_{t-i} + \sum_{i=0}^{p} \beta_8 \Delta lnEXC_{t-i} + ECM + \mu_t \quad (3)$$

Note that all the variables remain as previously described, but Δ stands for the difference (or change) in respective variables, and (-) is the lag sign. In satisfying the long-run relationship, the ARDL bound test requires a null hypothesis for no cointegration HO: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$ for equation (3).

4. Results and Discussion

The descriptive statistics in Table 2 Panel A provide insights into the distribution of the key variables. Youth unemployment (LYUN) has a mean of 2.2810 with a standard deviation of 0.1435, indicating relatively low variability in youth unemployment rates

across the observed period. Male youth unemployment (LMYUN) and female youth unemployment (LFYUN) show similar patterns, with means of 2.3020 and 2.2535, respectively, and comparable ranges, suggesting parallel trends in unemployment across genders. Inflation (LINF) has a higher variability, evidenced by a standard deviation of 0.6252, and ranges significantly from 1.6842 to 4.2882, highlighting economic instability. GDP (LGDP) and exchange rate (LEXC) display higher means of 26.0970 and 4.6572, reflecting the relative scale of these macroeconomic indicators. At the same time, their smaller ranges suggest more stability over time compared to inflation.

The correlation matrix in Table 2 Panel B reveals relationships among the variables. LYUN shows strong positive correlations with LMYUN (0.8802) and LFYUN (0.8296), indicating shared unemployment trends across youth demographics. LFYUN has a moderate positive relationship with LGDP (0.4688) and LEXC (0.3920), suggesting some economic factors may uniquely influence female unemployment. Inflation (LINF) is negatively correlated with LGDP (-0.3568) and LEXC (-0.4060), implying that rising inflation could dampen economic growth and currency stability. The strong positive correlation between LGDP and LEXC (0.6944) suggests that economic growth and exchange rate dynamics are closely linked. These relationships underscore the interconnectedness of macroeconomic variables and labour market outcomes.

Table 2 Summary Statistics and Correlation Matrix

Panel A Descriptive Statistics						
Variable	LYUN	LMYUN	LFYUN	LINF	LGDP	LEXC
Obs	33	33	33	33	33	33
Mean	2.2810	2.3020	2.2535	2.6865	26.0970	4.6572
Std. Dev.	0.1435	0.1752	0.1629	0.6252	0.79630	1.0715
Min	1.7649	1.5692	1.9590	1.6842	24.6764	2.2935
Max	2.5327	2.4846	2.6234	4.2882	27.0759	6.1312
Panel B Correlation Matrix						
Variables	LYUN	LMYUN	LFYUN	LINF	LGDP	LEXC
LYUN	1					
LMYUN	0.8802	1				
LFYUN	0.8296	0.4652	1			
LINF	-0.1205	-0.0572	-0.1599	1		
LGDP	0.0889	-0.2579	0.4688	-0.3568	1	
LEXC	0.0030	-0.3266	0.3920	-0.4060	0.6944	1

Source: Authors' Computation

4.1 Unit Root Tests and Cointegration

The Augmented Dickey-Fuller (ADF) test findings in Table 3 show variable stationarity. Youth unemployment (LYUN), male youth unemployment (LMYUN), female youth unemployment (LFYUN), and inflation (LINF) are integrated of order I(0) because their t-statistics surpass the crucial values at 1% or 5% significance levels. This suggests these variables have no unit roots and do not need differencing for stationarity. However, GDP (LGDP) and the exchange rate (LEXC) are not stationary since their t-statistics fall below critical values. After the initial difference, their t-statistics reach the essential thresholds, suggesting they are steady and integrated of order I(1). This shows that LGDP and LEXC have patterns that must be included in time series analysis. Overall, the combination of I(0) and I(1) variables emphasises the need for ARDL to examine their interactions.

Table 3: Augmented Dickey-Fuller (ADF) Unit Root Test

Variables	Level (t-statistics)	1st difference (t-statistics)	Remarks
LYUN	-4.358***	-4.338***	I(0)
LMYUN	-5.528***	-3.764***	I(0)

LFYUN	-2.659*	-3.753***	I(0)
LINF	-2.974**	-4.520***	I(0)
LGDP	-1.836	-3.333**	I(1)
LEXC	-1.299	-4.163***	I(1)
Critical Values	10%	5%	1%
Level	-3.700	-2.983	-2.623
Ist Difference	-3.716	-2.986	-2.624

Note: * indicates stationery at 10 %, ** means stationery at 5% and *** means stationery at 1%. Unit root test was based on Augmented Dickey-Fuller (ADF) Using Stata 14

The model was estimated threefold: first with total youth unemployment rate, second with Male and female youth unemployment rates. The cointegration bounds test results in Table 4 confirm the presence of a long-run relationship across all three models total youth unemployment (T), male youth unemployment (M), and female youth unemployment (F). The F-statistics for each model exceed the critical upper bounds at the 5% significance level: 5.321 (T), 9.018 (M), and 4.892 (F), rejecting the null hypothesis of no long-run relationship. The error correction terms (ECM-1) are negative and highly significant at 1%, with adjustment speeds of 77.2%, 82.9%, and 50.2% for T, M, and F models, respectively, indicating effective correction toward long-run equilibrium. These findings demonstrate robust long-term dynamics within the ARDL framework. The results are summarised in Table 4.

Table 4: Cointegration Bound Tests Result

F-statistic (T)	5.321	EC_{M-1}	-0.772***	(0.164)
F-statistic (M)	9.018	EC_{M-1}	-0.829***	(0.163)
F-statistic (F)	4.892	EC_{M-1}	-0.502***	(0.156)
Significant level		10%	5%	1%
F-Bounds Test	Lower bound	2.72	3.23	4.29
	Upper bound	3.77	4.35	5.81

Note: the number in parenthesis represents t-statistics, *** signifies a 1% level of significance, F-statistics is determined with restricted constant and no trend; T- Total Youth Model, M-Male Youth Model and F-Female Youth Model

4.2 Short Run and Long Run Results

The regression results in Table 5 provide insights into inflation's long-run and short-run impacts on youth unemployment, specifically focusing on male and female youths in Nigeria. In the long run, inflation (LINF) shows a statistically significant positive relationship with overall youth unemployment and female youth unemployment, as evidenced by coefficients of 0.118 and 0.217, respectively, significant at the 5% level. This suggests that rising inflation rates are associated with higher levels of unemployment, particularly among female youths, indicating potential vulnerabilities due to inflationary pressures. However, for male youth unemployment, the coefficient for inflation is positive but statistically insignificant, implying that inflation does not have a meaningful long-term effect on male youth unemployment. These findings highlight a gender disparity in how inflation impacts youth unemployment, possibly reflecting structural inequalities and differences in labour market participation or adaptability.

Table 5: Regression Result on the Short-run and Long-run Impact of Inflation on Youth Unemployment

Variables	Youth	Male Youth	Female Youth
Long Run Results			
LINF	0.118**	0.000382	0.217**
	(0.0417)	(0.0388)	(0.0811)
LGDP	-0.00373	-0.0249	0.0280
	(0.0314)	(0.0294)	(0.0611)

LEXC	0.0504*	-0.00818	0.0917
	(0.0274)	(0.0256)	(0.0537)
Error Correction Short Run Results			
ECT	**-0.772*** **	**-0.829*** **	**-0.502*** **
	(0.164)	(0.163)	(0.156)
LD.LYUN	1.588***	1.633***	1.183***
	(0.242)	(0.224)	(0.262)
D.LINF	-0.0446	-0.00249	-0.0466
	(0.0331)	(0.0303)	(0.0431)
LD.LINF	-0.0530	-0.0225	-0.0507
	(0.0322)	(0.0300)	(0.0414)
D.LGDP	-0.279*	-0.0496	-0.341
	(0.156)	(0.149)	(0.205)
LD.LGDP	-0.0240	0.0223	-0.0423
	(0.0370)	(0.0365)	(0.0481)
D.LEXC	-0.234	-0.0435	-0.280
	(0.175)	(0.172)	(0.224)
Constant	1.469**	2.509***	0.313
	(0.638)	(0.733)	(0.730)
Observations	31	31	31
R-squared	0.773	0.815	0.617

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

In the short run, the error correction term (ECT) is highly significant for all models, with coefficients of -0.772, -0.829, and -0.502 for total youth, male youth, and female youth unemployment, respectively. These values indicate a strong speed of adjustment toward equilibrium following a short-term shock, with male youth unemployment adjusting more quickly than female youth unemployment. Interestingly, the short-run coefficients for inflation (D.LINF and L.D.LINF) are negative but statistically insignificant across all categories, suggesting that inflation does not immediately or direct impact youth unemployment in the short term. This could be due to the delayed transmission of inflationary effects or the dominance of other short-run economic factors over inflation in influencing youth unemployment.

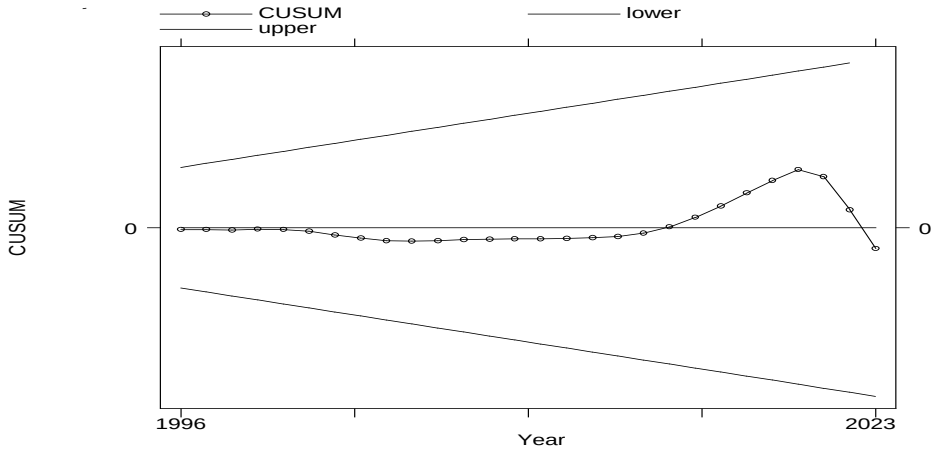
The results underscore the importance of considering gender-specific dynamics when analysing the relationship between inflation and youth unemployment. While inflation significantly affects female youth unemployment in the long run, its short-run effects are negligible across all groups. This indicates that policymakers should adopt a dual approach: addressing inflationary pressures through macroeconomic stabilisation measures in the long run while implementing gender-sensitive labour market policies to mitigate the disproportionate impact on female youths. These findings align with prior studies (Anyanwu, 2014; Babatunde et al., 2020), emphasising the need for targeted economic policies to address unemployment disparities in Nigeria.

Table 6: Diagnostic Test

Statistics	Youth	Male Youth	Female Youth
R-Square	0.773	0.815	0.617
Serial Correlation	0.026(0.8718)	0.323(0.5698)	0.276(0.5995)
Heteroscedasticity Test	18.3(0.1000)	5.74(0.1166)	20.07(0.1000)

Note: Probabilities are in parentheses, Serial correlation is with Breusch-Godfrey LM test; Heteroscedasticity test is with Breusch-Pagan test. All were done using Stata 14.

The diagnostic test results in Table 6 demonstrate the robustness and reliability of the regression models for youth, male youth, and female youth unemployment. The R-squared values—0.773 for total youth, 0.815 for male youth, and 0.617 for female youth unemployment—indicate that the models explain a substantial portion of the variation in unemployment across these groups. Male youth unemployment has the highest explanatory power, while the lower R-squared for female youth unemployment suggests that additional, unexplored factors might influence this category, warranting further investigation.



The Breusch-Godfrey serial correlation test confirms the absence of serial correlation in all models, with probabilities for youth (0.8718), male youth (0.5698), and female youth (0.5995) exceeding the 0.05 significance threshold. Similarly, the Breusch-Pagan-Godfrey heteroscedasticity test indicates no significant heteroscedasticity, as the probabilities for youth (0.1000), male youth (0.1166), and female youth (0.1000) surpass the threshold. These results affirm the reliability of the models. Additionally, the CUSUM test confirms model stability, with cumulative residuals remaining within critical bounds. Together, these diagnostics validate the models' capacity to inform policy interventions addressing gender-specific youth unemployment in Nigeria.

4.3 Discussion of Findings

The regression results indicate a significant long-run relationship between inflation and youth unemployment, particularly for female youths, while short-run effects are less pronounced. The positive and statistically significant coefficient of inflation on total youth and female youth unemployment aligns with findings by Anyanwu (2014) and Babatunde et al. (2020), who suggest that inflationary pressures exacerbate unemployment due to reduced purchasing power and increased production costs. However, the insignificant impact of inflation on male youth unemployment reflects labour market differences, as Okojie (2003) noted, where male youths may have better employment adaptability or access to informal job markets. In the short run, the insignificance of inflation highlights its limited immediate impact. This is consistent with the work of Maku and Adelowokan (2013), who argue that other macroeconomic variables, such as GDP and exchange rates, may dominate short-term unemployment dynamics. These findings underscore the necessity for gender-sensitive policies, as structural and labour market disparities exacerbate the adverse effects of inflation on female youths.

The error correction terms (ECTs) are highly significant, indicating a rapid adjustment back to equilibrium after short-run shocks. This is particularly important for policymakers aiming to stabilise unemployment levels following macroeconomic volatility. Studies like Oseni and Oladele (2016) emphasise the critical role of macroeconomic stability in labour market outcomes, as rapid adjustment speeds signal the economy's capacity to correct disequilibrium. However, the results also suggest a gap in immediate policy responses to inflation's impact, as highlighted by Noko (2016), who points out that inflationary policies in Nigeria often fail to address unemployment directly. The lack of a significant short-run effect of inflation suggests the need for longer-term structural interventions to mitigate its adverse impacts on youth unemployment, particularly among women.

The results provide mixed implications for the Phillips Curve, which posits an inverse relationship between inflation and unemployment. While the long-run positive relationship between inflation and youth unemployment challenges the traditional Phillips Curve framework, it is consistent with the modified version incorporating stagflation scenarios, where high inflation and unemployment coexist (Friedman, 1968). This divergence might be due to structural rigidities and labour market inefficiencies in Nigeria, as suggested by Maku and Adelowokan (2013). Additionally, the gendered disparity in the results reinforces that the Phillips Curve may oversimplify inflation-unemployment dynamics without accounting for demographic-specific factors (Anyanwu, 2014). This study thus calls for a context-specific adaptation of the Phillips Curve, recognising Nigeria's unique socio-economic realities and the varying impact of inflation across different demographic groups.

This study examines the impact of inflation on youth unemployment in Nigeria, focusing on its gendered dimensions. The findings reveal a significant long-run relationship between inflation and youth unemployment, particularly for female youths, underscoring the disproportionate vulnerability of this demographic group. However, inflation's short-run effects on youth unemployment were found to be insignificant, indicating that other macroeconomic factors may play a more dominant role in immediate unemployment dynamics. The significant error correction terms highlight the economy's capacity to adjust to shocks, emphasising the critical need for long-term economic stability policies. Overall, the study demonstrates the necessity of addressing structural labour market disparities and designing gender-sensitive interventions to mitigate inflation's adverse effects on youth unemployment.

To mitigate the adverse effects of inflation on youth unemployment, especially among female youths, policymakers must implement strategic interventions. First, prioritising labour market reforms that enhance access to skill acquisition programs and dismantle gender-based employment barriers is essential. Second, reinforcing inflation-targeting measures, such as stricter fiscal discipline and efficient monetary policies, is crucial for fostering price stability and creating an environment conducive to sustainable job creation. Third, fostering partnerships between the government and private sector can stimulate entrepreneurship and support the growth of the informal sector, providing employment opportunities for unemployed youths, particularly females. Finally, targeted social protection programs, such as wage subsidies and conditional cash transfers, should be introduced to cushion vulnerable groups from inflationary shocks while promoting inclusive labour market participation.

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