EFFECTIVENESS OF MONETARY POLICY ON UNEMPLOYMENT IN NIGERIA

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Abstract

This study explores the relationship between monetary policy and unemployment in Nigeria, focusing on the effects of key monetary variables, including interest rates, money supply, inflation, GDP growth, government expenditure, and exchange rates. Using annual time series data from 1980 to 2023, the study employs the Autoregressive Distributed Lag (ARDL) model to examine both short-run and long-run dynamics. The findings indicate that money supply and inflation significantly reduce unemployment. Error correction term suggests that short-run disequilibrium is corrected annually, demonstrating a strong adjustment toward long-run equilibrium. Post-estimation diagnostic tests—including assessments of normality, heteroscedasticity, serial correlation, and stability (CUSUM and CUSUMSQ tests)—validate the robustness of the model. The study concludes that monetary policy is a critical determinant of employment levels in Nigeria. Financial inclusion enhancement to improve credit access for SMEs will revamp informal sector and strengthening of inflation-targeting policies to balance price stability and employment growth was recommended to tackle unemployment in Nigeria.

Keywords: Monetary Policy, Unemployment, Interest Rate, Inflation. Exchange Rate.

BACKGROUND OF THE STUDY

Unemployment in Nigeria has been on a persistent rise over the years. Data from the World Development Indicators (1980–2023) reveals the trend of unemployment in the country, showing a relatively stable rate from 1980, with a slight increase between 1990 and 2013. According to the Onwuka (2021) citing National Bureau of Statistics, maintained that approximately 82.9 million Nigerians (40.1% of the population) live in poverty, with geographic and regional disparities contributing to this condition. A larger proportion of impoverished individuals reside in rural areas, particularly in the northern region of the country. The data also indicates a significant surge in Nigeria's unemployment rate between 2014 and 2022, with the sharpest increase occurring in 2022 due to the economic disruptions caused by the COVID-19 pandemic.

Monetary policy serves as a key tool for regulating economic activities. Implemented by the Central Bank of Nigeria (CBN), monetary policy is designed to manage money supply, control inflation, and stabilize the economy through instruments such as open market

operations, cash reserve requirements, and bank rate adjustments (CBN, 2006). The primary objectives of these policies include maintaining price stability, ensuring a sound financial system, fostering economic growth, and generating employment. However, despite ongoing monetary interventions, Nigeria continues to experience rising unemployment and significant price fluctuations, raising concerns about the effectiveness of these policies in addressing economic challenges.

The relationship between monetary policy and unemployment is multifaceted and influenced by various factors. Monetary policy can be categorized into expansionary and contractionary policies. Expansionary monetary policy increases money supply and lowers interest rates, encouraging investment and economic activity, which in turn supports job creation. Conversely, contractionary monetary policy raises interest rates and reduces money supply, primarily to curb inflation. While this approach helps stabilize prices, it can also lead to higher unemployment due to reduced investment incentives. A major challenge for policymakers is finding the right balance between controlling inflation and promoting employment growth. Nigeria's heavy reliance on oil revenue has made it particularly vulnerable to external economic shocks. Fluctuations in global oil prices often lead to declines in government revenue, reducing public expenditure and negatively impacting employment levels. Inflation further complicates the employment landscape by diminishing purchasing power and discouraging business expansion.

Furthermore, the country's youth population, which forms a substantial portion of the labor force, has been severely affected by rising unemployment. While monetary policy plays a crucial role in economic stabilization, it cannot directly address structural issues within the labor market. This highlights the need for broader economic reforms to tackle underlying employment challenges.

The study hypothesis that there is no significant relationship between monetary policies and unemployment in Nigeria will be tested to achieve the research specific objectives that determines the effect of these monetary policies (money supply, interest rate, inflation) on unemployment Nigeria.

Unemployment remains a major economic challenge in Nigeria, with serious social and economic consequences, including rising poverty, insecurity, and sluggish economic growth. Despite continuous monetary policy interventions by the Central Bank of Nigeria (CBN), unemployment rates have remained high, raising doubts about the effectiveness of these policies in addressing labor market inefficiencies. Several factors contribute to the complexity of the relationship between monetary policy and unemployment in Nigeria. Structural rigidities in the labor market create a mismatch between skills and job demand, limiting the impact of economic growth on employment. Weak financial market structures and restricted access to credit, especially for SMEs, hinder the transmission of monetary policies aimed at job creation. Additionally, the country faces an inflation-unemployment trade-off, where efforts to reduce unemployment through expansionary policies often lead to rising inflation. Nigeria's heavy reliance on oil exports also exposes it to external shocks, such as volatile oil prices, which can disrupt economic stability and employment

levels. Furthermore, policy inconsistencies and time lags in monetary policy implementation reduce their effectiveness in addressing unemployment. The dominance of the informal sector, which is less responsive to conventional monetary policies, further complicates the situation. This study seeks to examine these challenges by analyzing the effectiveness of monetary policy in addressing unemployment in Nigeria, considering structural, institutional, and macroeconomic factors influencing its outcomes. Specific emphasis will be how interest rate, inflation and exchange rate impact on unemployment.

REVIEW OF RELATED LITERATURE

Several empirical studies have examined the relationship between monetary policy and unemployment in Nigeria and beyond, employing various econometric techniques and analytical models. For instance, Essien et al. (2016) applied a Vector Autoregressive (VAR) framework to analyze the effect of monetary policy on unemployment in Nigeria. Their findings indicate that an increase in the policy rate leads to higher unemployment over ten quarters, with all selected variables in the model jointly causing unemployment. Additionally, structural changes were incorporated using dummy variables to account for identified breakpoints. Okeke and Chukwu (2021) investigated how different monetary policy instruments influence unemployment in Nigeria using the Autoregressive Distributed Lag (ARDL) approach, unit root, and co-integration tests. Their study found that broad money supply positively and significantly affects employment, while the cash reserve ratio and monetary policy rate have a negligible effect. Conversely, exchange rate and liquidity ratio negatively impact employment. They recommended that policymakers consider interest rate adjustments when formulating monetary policies targeting unemployment reduction.

Similarly, Nwamuo (2022) used the ARDL bounds testing approach to examine the impact of monetary policy on unemployment in Nigeria. Short-run results revealed that the minimum rediscount rate negatively but insignificantly affects unemployment, while the prime lending rate has a positive but negligible effect. However, in the long run, the prime lending rate showed a positive and significant relationship with unemployment, while the minimum rediscount rate had a significant negative impact.

Onanuga and Omitogun, (2022) expanded the scope by analyzing the link between monetary policy and employment in Sub-Saharan Africa using data from 37 countries (2011–2017). Their findings indicate that monetary policy indirectly influences employment conditions, with the labor force having a more substantial impact on monetary policy than unemployment rates. The study concluded that employment indices in the region are closely linked to monetary policy. Ernest (2018) examined the relationship between unemployment and monetary policy variables using regression analysis, unit root tests, and co-integration analysis. The study found that unemployment in Nigeria is positively correlated with money supply and Treasury bill rates but negatively correlated with the monetary policy rate and exchange rate. The study concluded that ineffective monetary policies exacerbate unemployment and hinder poverty reduction

efforts. Nwankwo, Ikeora, and Ogini, (2022) assessed the effectiveness of the Central Bank of Nigeria's monetary policies in driving economic growth from 1990 to 2011 using multiple regression analysis. Their results indicate that while money supply had no significant effect on GDP, labor force participation and average prices influenced economic growth. Interest rates had a statistically significant negative impact. The study recommended that the CBN leverage monetary policies to foster investment, stabilize lending rates, and promote employment generation.

Similarly, Nkamba, Niyimbanira, and Nishimwe-Niyimbanira (2021) examined the relationship between monetary policy and unemployment in South Africa using the ARDL model (1980–2020). Their findings suggest that increasing the money supply and reducing real interest rates could help create jobs. Additionally, a falling exchange rate was found to lower unemployment. They advocated for a broader set of monetary policy tools to balance inflation control and employment generation.

Ayodeji and Oluwole (2018) applied multi-variable regression analysis to explore the relationship between monetary policy and economic growth in Nigeria. Their study showed that money supply and exchange rate positively but insignificantly affect economic growth. They recommended granting full autonomy to Nigeria's central banks and implementing market-based interest rate and exchange rate regimes to attract investors and create a favorable investment environment. Onwuka (2021) used a Vector Autoregressive (VAR) model to analyze the impact of fiscal and monetary policies on Nigeria's unemployment rate. The results indicated that interest rates and government spending negatively and significantly affect unemployment, while money supply has a positive and significant effect. The study recommended adopting expansionary fiscal and monetary policies to promote employment generation. Okeke (2021) also examined the impact of monetary policy tools on Nigeria's employment rate using the ARDL approach. The study found that broad money supply significantly improves employment, while cash reserve ratio and monetary policy rate have negligible effects. In contrast, exchange rate and liquidity ratio negatively and significantly impact employment. The study emphasized the importance of interest rate adjustments in addressing unemployment concerns. Lastly, Attamah, Anthony and Ukpere (2015) analyzed the effects of fiscal and monetary policies on unemployment in Nigeria. Their findings revealed that government expenditure positively correlates with unemployment, while government revenue has an insignificant negative effect. For monetary policy, broad money supply and exchange rate significantly impact unemployment, while interest rates positively but insignificantly influence it. The study concluded that high interest and exchange rates discourage private-sector employment by raising production costs. It recommended policies that emphasize entrepreneurship development, investment, and economic growth.

Blanchard (2006) studied European unemployment trends and argued that unemployment persistence is influenced by insider-outsider dynamics in wage negotiations. Their hypothesis suggests that economic shocks have long-lasting effects on unemployment, challenging traditional economic theories. Cacciatore and Ghironi

(2021) explored how trade integration affects monetary policy trade-offs. Their findings indicate that lower trade costs lead to lower optimal inflation rates, while increased trade linkages amplify the global impact of domestic economic shocks. They concluded that strong trade connections could lead to an overly narrow focus on price stability, which may impose welfare costs. Selim and Hassan (2019) compared interest-free and interest-based monetary policies in 23 developed countries using the misery index (MI). Their study found that countries adopting interest-free monetary policy performed better in terms of lower unemployment and inflation rates than those using interest-based monetary policy. Weber (1995) estimated Okun's coefficient for post-war USA, showing a consistent cyclical relationship between output and unemployment. His findings suggested that supply shocks in the 1970s did not fundamentally alter the output-unemployment relationship.

The empirical literature presents diverse perspectives on the effectiveness of monetary policy in addressing unemployment. While studies in Nigeria generally indicate mixed results, with some policy tools (money supply and exchange rate) having significant impacts while others (interest rates) being ineffective, studies outside Nigeria emphasize broader economic factors such as trade linkages, labor market structures, and policy adaptability. Overall, these findings underscore the need for a holistic and context-specific approach to monetary policy to effectively tackle unemployment challenges in Nigeria.

METHODOLOGY

Keynesian theory of employment, is the theoretical foundation for this study that emphasizes that monetary policy influences aggregate demand, which subsequently impacts employment levels.

Model Specification

The Functional Form of the Model

$$UNEM= f (UNEM, INTR, MS, INFL, GDPGR, GOVEX, EXCHR) \dots\dots\dots\dots\dots\dots\dots 1$$

Where;

UNEM = Unemployment rate

INTR = Interest rate

MS = Money supply

INFL = Inflation rate

GDPGR = Gross Domestic Product (GDP) Growth Rate

GOVEX = Government expenditure

EXCHR = Exchange rate

The core variables of the study include UNEM, INTR and MS. The control variables include INFL, GDPGR, GOVEX and EXCHR.

The Econometric form of the Model:

$UNEM_t$ = ɕ0 + ∑αiΔUNEMt-i + ∑βiΔINTRt-i + ∑γiΔMSt-i + ∑φiΔINFLt-i + ∑ξiΔGDPGRt-i + ∑ωiΔlnGOVEXt-i + ∑λiΔEXCHRt-i + δ1UNEMt-i + δ2INTRt-i + δ3MSt-i + δ4INFLt-i + δ5GDPGRt-i+δ6lnGOVEXt-i+δ7EXCHRt-i+μi …………………………………………… 2

Where Δ is a difference operator, t is time, ɕ0 is an intercept term, (α, β, γ, φ, ξ, ω, λ), and (δ1 to δ7) are the coefficients of their respective variables. Other variables are as earlier defined. μt is the error term or stochastic variable. The study first tested for the joint significance of the coefficients of the lagged levels of the variables using the Wald test (F-statistics) so as to determine if there is a long-run relationship existed after Pesaran et al. (2001). i.e.

H_0: $\delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = \delta_7 = 0$

H_1: $\delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq \delta_5 \neq \delta_6 \neq \delta_7 \neq 0$

Once cointegration is obtained, the conditional ARDL long-run model is evaluated as;

$UNEM_t$ = ɕ0 + ∑αiUNEMt-i + ∑βiINTRt-i + ∑γiMSt-i + ∑φiINFLt-i + ∑ξiGDPGRt-i +

∑ωilnGOVEXt-i + ∑λiEXCHRt-i + μt …………………………………………………… 3

To obtain the short-run dynamic parameters can be estimated using an error correction model associated with the long-run estimates. This is specified as follows:

$UNEM_t$ = ɕ0 + ∑αiΔUNEMt-i + ∑βiΔINTRt-i + ∑γiΔMSt-i + ∑φiΔINFLt-i + ∑ξiΔGDPGRt-i + ∑ωiΔlnGOVEXt-i+∑λiΔEXCHRt-i+ϑecm_{t-i}+μ_t……………………………………… 4

Where ϑ is the speed of adjustment of the model in the long-run and *ECM* is the error correction representation of the long-run model.

PRESENTATION AND DISCUSSION OF RESULT

Table 1

	UNEM	INTR	MS	INFL	GDPGR	GOVEX	EXCHR
Mean	3.961016	17.04690	17.27478	18.87250	3.068566	3492.679	120.0923
Median	3.797000	16.89862	14.45851	12.94178	3.449434	982.8433	114.8990
Maximum	5.742000	31.65000	28.62522	72.83550	15.32916	24431.21	425.9792
Minimum	3.074000	8.431667	9.063329	5.388008	-13.12788	9.636500	0.546781
Std. Dev.	0.530940	4.912952	6.318456	16.14926	5.197308	5811.883	126.7730
Skewness	1.837288	0.345833	0.372559	1.903238	-0.862635	2.210945	1.033097
Kurtosis	6.103577	3.488776	1.458193	5.619685	4.964869	7.095982	3.120038
Jarque-Bera	42.41362	1.315055	5.376012	39.14536	12.53499	66.60534	7.853213
Probability	0.000000	0.518131	0.068016	0.000000	0.001897	0.000000	0.019710
Sum	174.2847	750.0638	760.0903	830.3900	135.0169	153677.9	5284.063
Sum Sq. Dev.	12.12156	1037.895	1716.684	11214.33	1161.517	1.45E+09	691070.2
Observations	44	44	44	44	44	44	44

Source: *Author's computation using E-views 9*

Table 1 shows the descriptive statistics of 43 observations. Variables such as interest rate, money supply, and government expenditure exhibit moderate to high levels of variability, while others like unemployment rate and exchange rate show relatively low variability. Most of the variables except for interest rate, money supply, exchange rate is not normally distributed which suggests that some form of transformation might be required for accurate analysis. The highly skewed distributions and high kurtosis values in several variables like unemployment, inflation and government expenditure suggest the presence of extreme values and outliers that might influence the regression analysis.

Table 2

variable	ADF @ level statistics	5% critical value	P-value	First difference statistics	5% critical values		Order of integration
UNEM	-3.5340	-2.9390	0.0122				I(0)
INTR	-2.3962	-2.9314	0.1488	-5.6077	-2.9350	0.0000	I(1)
MS	-2.0953	-2.9314	0.2475	-9.6284	-2.9332	0.0000	I(1)
INFL	-3.1664	-2.9314	0.0291				I(0)
GDPGR	-2.8943	-2.9332	0.0545	-12.2335	-2.9332	0.0000	I(1)
LNGOVEX	-1.6445	-2.9314	0.4517	-6.4032	-2.9332	0.0000	I(1)
EXCHR	2.4000	-2.9314	1.0000	-4.3937	-2.9332	0.0011	I(1)

Source*: Author's computation using E-views 9*

H$_0$: The variables are non-stationary

H$_1$: The variables are stationary

Decision rule: Reject H$_0$ if the ADF statistics is greater than the critical values at the level of significance and accept if otherwise.

Table 2 shows the stationarity of the variables using Augmented Dickey-Fuller (ADF) unit root test. Unemployment and inflation were stationary at level, as their test statistics were more negative than the 5% critical values, and their P-values were significant. However, interest rate, money supply, GDP growth rate, and exchange rate were non-stationary at level but became stationary after first differencing. Notably, government expenditure required logging prior to estimation in order to attain stationarity. These findings confirm the mixed order of integration among the variables, justifying the application of the ARDL model for analysis.

Table 3: ARDL Bounds Test

F-statistics	K	Level of Significance	Lower Bound	Upper Bound
	6	10%	2.12	3.23
5.084392	6	5%	2.45	3.61
	6	2.5%	2.75	3.99
	6	1%	3.15	4.43

Source: *Author's computation using E-views 9*

Table 3 shows that calculated F-statistic (5.08) exceeded the upper bound critical values at the 5% significance level (I(1) = 3.61), indicating a significant long-run relationship. This confirms that monetary policy variables, including interest rate, money supply, inflation, GDP growth rate, government expenditure, and exchange rate jointly influence unemployment in Nigeria in the long term. As a result, the ARDL model was appropriate for estimating both the short-run and long-run effects of these variables on unemployment.

Table 4: Long-run regression results, ARDL

Dependent variable: UNEM				
Variable	Coefficients	Standard error	t-statistics	Probability value
INTR	0.027497	0.015758	1.744985	0.1088
MS	-0.014101	0.007303	-1.930932	0.0797
INFL	-0.002583	0.007864	-0.328500	0.7487
GDPGR	0.122099	0.033437	-3.651575	0.0038
DLOG_GOVEX	1.641617	0.291617	5.632378	0.0002
EXCHR	0.006873	0.001066	6.444840	0.0000
R- squared	0.978819			
Adjusted R^2	0.926830			
DW statistics	2.642947			
Log likelihood	62.48059			

Source: *Author's computation using E-views 9*

The findings from the table 4 indicates that a 1% increase in interest rates leads to a 0.0275% increase in unemployment. This suggests that higher borrowing costs discourage investment impeding job creation as firms and government cannot borrow to expand their business lines. Similarly, money supply shows a negative coefficient, meaning that a 1% increase in money supply reduces unemployment by 0.0141%, which affirms Keynesian theory that money supply is a monetary policy that equilibrates an economy. Unemployment experienced in Nigeria despite increase in money over the years depends on the value of Nigeria naira that is relatively poor to other currencies cajoling the value of the naira. Inflation has an insignificant negative effect on unemployment, as a 1% increase in inflation reduces unemployment by 0.0026%, but the high p-value (0.7487) suggests no meaningful long-run influence. This is an aberration because high inflation ought to worsen unemployment. On the other hand, GDP growth unexpectedly shows a positive relationship with unemployment, meaning that a 1% increase in GDP growth results in a 0.1221% rise in unemployment. This suggests that economic growth in Nigeria has not been sufficient in generating employment opportunities, possibly due to structural issues and weak institution to curtail corruption.

Government expenditure has a strong positive effect on unemployment, with a 1% increase leading to a 1.6416% rise in unemployment. This result, which is highly significant, suggests inefficiencies in public spending and inflated expenditures used in siphoning Nigeria treasury by public office holders. Exchange rate movements also play a crucial role, as a 1% in exchange rate leads to a 0.0069% increase in unemployment.

Nigeria's exchange rate is weak against other currencies as the value of the Nigerian currency lacks purchasing power of imports needed to reduce unemployment. The overall model explains 97.88% of the variation in unemployment, indicating a strong fit.

Table 5: The Short-run Dynamics and Error-correction Model

ARDL Error Correction Regression				
Dependent Variable: D(UNEM)				
Selected Model: ARDL(4, 2, 0, 4, 3, 4, 4)				
Case 2: Restricted Constant and No Trend				
Date: 02/04/25 Time: 14:19				
Sample: 1980 2023				
Included observations: 39				
ECM Regression				
Case 2: Restricted Constant and No Trend				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D(UNEM(-1))	-0.231538	0.114660	-2.019351	0.0685
D(UNEM(-2))	0.192480	0.165317	1.164312	0.2689
D(UNEM(-3))	-0.439521	0.150199	-2.926265	0.0138
D(INTR)	0.032982	0.006677	4.939331	0.0004
D(INTR(-1))	0.014502	0.005110	2.838184	0.0161
D(INFL)	0.000104	0.001281	0.081494	0.9365
D(INFL(-1))	0.000431	0.001486	0.290029	0.7772
D(INFL(-2))	0.001138	0.001454	0.782550	0.4504
D(INFL(-3))	0.004517	0.001309	3.450582	0.0054
D(GDPGR)	-0.043869	0.004863	-9.020599	0.0000
D(GDPGR(-1))	0.045666	0.007806	5.849870	0.0001
D(GDPGR(-2))	0.025442	0.005508	4.618609	0.0007
D(DLOG_GOVEX)	0.270797	0.015347	17.64539	0.0000
D(DLOG_GOVEX(-1))	-0.815244	0.150880	-5.403269	0.0002
D(DLOG_GOVEX(-2))	-0.426170	0.116831	-3.647756	0.0038
D(DLOG_GOVEX(-3))	-0.175416	0.081253	-2.158890	0.0538
D(EXCHR)	0.003334	0.000786	4.239997	0.0014
D(EXCHR(-1))	-0.004382	0.000902	-4.860214	0.0005
D(EXCHR(-2))	-0.004759	0.000941	-5.057962	0.0004
D(EXCHR(-3))	-0.001459	0.000880	-1.657732	0.1256
CointEq(-1)*	-0.894526	0.107815	-8.296878	0.0000
R-squared	0.981364	Mean dependent var		-0.013391
Adjusted R-squared	0.960657	S.D. dependent var		0.339361
S.E. of regression	0.067313	Akaike info criterion		-2.255203
Sum squared resid	0.081558	Schwarz criterion		-1.359439
Log likelihood	64.97646	Hannan-Quinn criter.		-1.933811
Durbin-Watson stat	2.750499			

Source: *Author's computation using E-views 9*

The short-run dynamics and error correction model results show that unemployment in Nigeria responds significantly to economic shocks, with an adjustment speed of 89.45% toward its long-run equilibrium.

While interest rates, money supply, and inflation exhibit weak short-term effects, government expenditure and exchange rate fluctuations have stronger influences on unemployment.

The findings suggest that short-term macroeconomic policies alone may not be sufficient to address unemployment, as structural inefficiencies and economic rigidities play a major role. The rapid speed of adjustment implies that unemployment tends to revert quickly to its long-run equilibrium, emphasizing the need for sustained policy interventions.

Table 6: Post Estimation Results

Test	Statistics	P-value
Normality test	1.169865	0.557143
Autocorrelation	31.51723	0.0000
Heteroscedasticity	30.06467	0.3113
Specification test	3.408712	0.0946

Source: *Author's computation using E-views 9*

The post-estimation results provide important diagnostic checks to assess the validity of the estimated ARDL model. The normality test, with a Jarque-Bera statistic of 1.169865 and a p-value of 0.557143, indicates that the residuals are normally distributed, satisfying one of the key assumptions for regression analysis.

The initial autocorrelation test produced a statistically significant result (p-value = 0.0000), suggesting the presence of serial correlation in the residuals. However, this issue was corrected using the Newey-West HAC estimator, ensuring robust standard errors and more reliable inferences.

The heteroscedasticity test, with a statistic of 30.06467 and a p-value of 0.3113, confirms that the residuals exhibit constant variance, meaning heteroscedasticity is not a major concern.

Lastly, the Ramsey RESET test for model specification, with a statistic of 3.408712 and a p-value of 0.0946, suggests that the model is correctly specified, as the null hypothesis of no omitted variables is not rejected at the 5% significance level.

Overall, these post-estimation diagnostics indicate that the model is well-fitted, free from heteroscedasticity, and properly specified, with autocorrelation adequately addressed through correction methods.

Table 7: Correlation matrix

	UNEM	INTR	MS	INFL	GDPGR	LNGOVEX	EXCHR
UNEM	1	-0.03248012065479659	0.4450773001828345	-0.03980523046230856	-0.1321139648091716	0.06570027465155199	0.5306554004432221
INTR	-0.03248012065479659	1	-0.1472179779553883	0.361204094130669	0.4377583706442115	0.1767114837213769	-0.1763349682173124
MS	0.4450773001828345	-0.1472179779553883	1	-0.245126441149036	0.1059396329741702	-0.2468219448453623	0.8237073886727744
INFL	-0.03980523046230856	0.361204094130669	-0.245126441149036	1	-0.2074560973756689	0.05273219890126755	-0.248347382869408
GDPGR	-0.1321139648091716	0.4377583706442115	0.1059396329741702	-0.2074560973756689	1	0.02099023337701443	0.1338480443350999
LNGOVEX	0.06570027465155199	0.1767114837213769	-0.2468219448453623	0.05273219890126755	0.02099023337701443	1	-0.384402512075828
EXCHR	0.5306554004432221	-0.1763349682173124	0.8237073886727744	-0.248347382869408	0.1338480443350999	-0.38440251207582	1

Source: Author's computation using E-views

The result above shows that all the independent variables do not have high correlation coefficients between them except money supply and exchange rate whose coefficient is 0.823707.
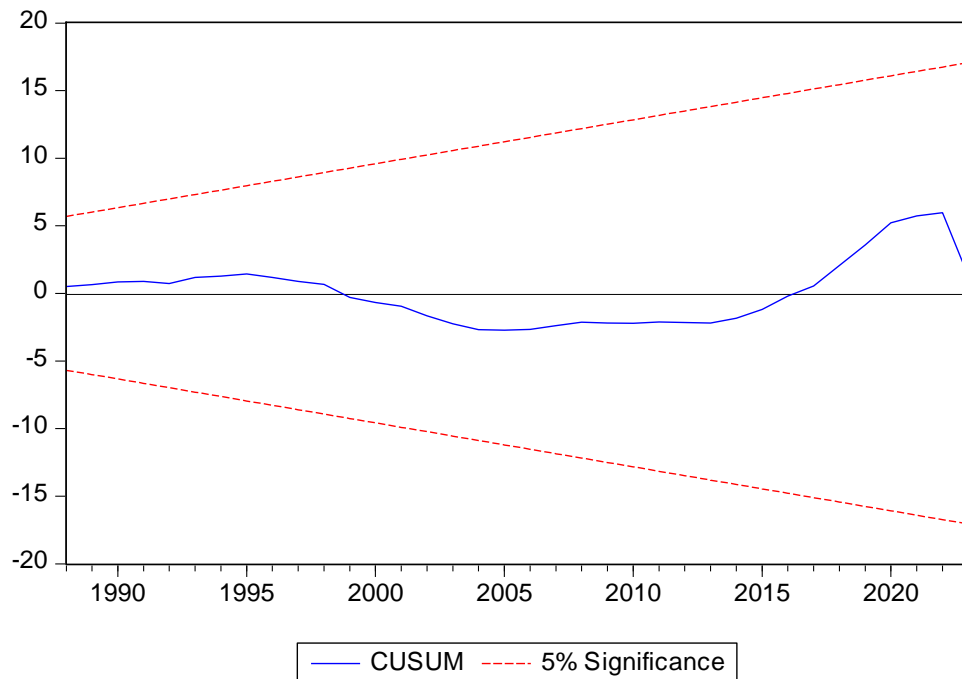
Figure 1: Stability Diagnostics

The CUSUM is used to check for instability in the model. If the line stays within the critical bounds, then you can conclude that there is no structural break in the model. If it does otherwise, it shows instability in the model. Having known this, the CUSUM graph above shows that the blue line lies within the two red critical lines at +5% and -5% significance indicating that the model is stable over the sample period.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

This study examined the relationship between monetary policies and unemployment in Nigeria from 1980 to 2023, analyzing key variables such as interest rates, money supply, inflation, GDP growth, government expenditure, and exchange rates. Using the Autoregressive Distributed Lag (ARDL) model, the study conducted pre-estimation tests (unit root tests) and post-estimation diagnostics (heteroscedasticity, serial correlation, and stability tests) to ensure model robustness.

Findings indicate that key monetary policies significantly influences unemployment in both the short and long run. The ARDL bounds test confirmed a long-term relationship among the variables. Money supply and inflation rates are the only monetary policy variables that conforms to economic expectations that can be employed to checkmate unemployment while interest rate, exchange rate and government expenditure fail to adhere to Keynesian theory as monetary policy variable needed to curtail unemployment in Nigeria. This was explained by the weak purchasing power of the naira, poor exchange rate due

to currency devaluation and corrupt practices of public office holders in Nigeria that inflate projects prices.

The short-run error correction model (ECM) demonstrated rapid adjustments toward equilibrium, with deviations correcting at a rate of 89.45% per period. Post-estimation diagnostics confirmed the model's validity, with tests for serial correlation, heteroscedasticity, and structural stability (CUSUM and CUSUMSQ) reinforcing its robustness.

Policy Recommendations

Maintain moderate interest rates be maintained and below double digit to encourage private sector and foreign direct investment to enhance job creation. Enhance financial inclusion to improve credit access for SMEs will revamp informal sector and address unemployment in Nigeria. Strengthening of inflation-targeting policies to balance price stability and employment growth. Implement a managed floating exchange rate system to reduce excessive volatility and support investment. Direct lending towards labor-intensive sectors like agriculture, manufacturing, and technology and increase capital expenditure on infrastructure and industrialization to create employment.

Conclusion

This study investigated the effectiveness of monetary policies (interest rate, money supply, inflation, government expenditures exchange rate) and finds that its only money supply and inflation rates that can empirically reduce unemployment while interest rate, exchange rate and government expenditure cannot be a monetary tool in minimizing unemployment due to weak institutions that checkmate excesses of public office holders in inflating public expenditures and weak purchasing power of the naira in the exchange markets.

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