

## Unravelling Fiscal Policy Effects on Unemployment: A Nigerian Perspective through ARDL Approach

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### Abstract

**Research Purpose:** With Nigeria facing persistent unemployment challenges, understanding the impact of fiscal policy is crucial for informed policy formulation. This study investigates the long-run effects of various fiscal policy instruments on unemployment in Nigeria.

**Methodology:** The study utilises annual time series data from 1980 to 2021 sourced from the Central Bank of Nigeria. An Autoregressive Distributed Lag (ARDL) approach is employed to analyse the relationship between unemployment (dependent variable) and government consumption expenditure, gross fixed capital formation, exchange rate, and interest rate (explanatory variables). Stationarity is tested using the Augmented Dickey Fuller (ADF) test, while Johansen co-integration tests determine short- and long-run relationships.

**Findings:** Long-run analysis reveals a positive relationship between government consumption expenditure and exchange rate with unemployment. Conversely, interest rate demonstrates a negative long-run association with unemployment.

**Conclusion:** Fiscal policy significantly influences unemployment in Nigeria. While certain instruments positively impact unemployment, others can contribute to its reduction.

**Recommendations:** The study recommends increased government capital expenditure on infrastructure to stimulate national income and employment. Tax policies should be conducive to investment and economic activity. Combating corruption is crucial to prevent the diversion of public funds, ensuring their effective utilisation for economic growth and job creation. Finally, fiscal policies should be implemented alongside complementary monetary policies for optimal economic performance.

**Key words:** *Fiscal policy, Unemployment rate, Nigeria.*

## 1.0 INTRODUCTION

Unemployment has become a topic of global concern, spurred by shifts in labour practices during the industrial revolution that emphasised skill as essential. In Nigeria, the aftermath of the civil war exacerbated already severe unemployment, prompting urgent policy responses. Yet, governments worldwide grapple with this issue. Adawo *et al.* (2012) averred that Nigeria's unemployment data may be manipulated for political reasons, underscoring the gravity of the situation. With over 200 million people, the country struggles as less than 40% have full-time employment.

The Nigerian economy faces a myriad of challenges, leading to declining living standards and increased impoverishment. Fiscal policy interventions were intended to reverse this trend, but economic and social instability hinder long-term progress, as noted by Akanni (2013) and Adefeso & Mobolaji (2010), with significant welfare costs.

Since 1970, governments have experimented with various strategies to tackle unemployment, yet the problem persists, fueling social and economic issues like crime, corruption, poverty, and prostitution. Recent reports indicate Nigeria's unemployment rate has reached alarming levels, threatening social cohesion. Consequently, the government, in collaboration with international bodies such as the International Labour Organization (ILO), prioritises addressing unemployment.

The overarching aim of this study is to explore the impact of fiscal policy on unemployment in Nigeria, with specific objectives including:

- i. Assessing the short-term effects of Nigeria's fiscal policy on unemployment.
- ii. Evaluating the long-term impact of Nigeria's fiscal policy on unemployment rates.

## 2.0 LITERATURE REVIEW

**Fiscal Policy:** Alex and Peter (2008) claim that fiscal policy frequently uses taxation and spending by the government as a macroeconomic strategy policy to influence the level of economic activity. Fiscal policy, in the words of Fadare (2010), is the deliberate action of the government that is used to influence or change macroeconomic indicators in the direction that is desired through spending patterns, taxing and borrowing. The objectives include stable economic expansion, high levels of employment, and low inflation. The objective of fiscal policy regularly shifts in response to the state of the economy and the goals of the government at large. Given this, reducing government expenditure and rising taxes can help to contain an inflationary economy. Government expenditure cuts and/or tax increases will result in decreased disposable income and aggregate demand, which will lower prices and a surplus supply while also lowering aggregate demand and easing inflationary pressure. On the other hand, boosting government spending and reducing taxes can be used to

stabilise a downturn in the economy. The domino effect will be the exact opposite of the circumstance we just looked at.

Prior to the advent of Keynesian economics, any situation of disequilibrium was made up for by market forces. Fiscal policy, which makes use of public funds, is based on interventionist theories that believe that market forces alone cannot correct for deviations from equilibrium. The inability of solely market economies to achieve long-term equilibrium and simultaneously adjust towards equilibrium during periods of disinformation, especially when it came to the Great Depression in the middle of the 1930s, was a devastating blow to the conventional model. Since that time, only market economies afflicted by periodic changes (which in turn are inherent in market economies) have been addressed using means of government fiscal and monetary policy. As a result, fiscal policy, according to Medee and Nembee (2011), comprises employing government expenditure, taxes, and borrowing to impact the structure of economic activity as well as the extent and rate of growth in output, employment, and total demand. It equally entails the government controlling the economy by modifying its income and purchasing power in order to achieve particular preferred macroeconomic objectives, including economic development and maintenance.

According to the Central Bank of Nigeria (2011), fiscal policy is the use of government spending, taxes, and proceeds collection to control the economy. Dornbusch and Fischer (1990) claim that the vast majority of definitions make it obvious that taxes and expenditures by the government are the two primary mechanisms of fiscal policy, although they are not the only ones. Additional fiscal policy alternatives could include public debt and public work. The authors continued by stating that the aim of fiscal policy is to affect the degree and growth of consumer demand as a whole, production, and employment. Fiscal policy has an effect on macroeconomic conditions since it affects tax rates, interest rates, and government spending. Policymakers must use particular tools to regulate or alter macroeconomic factors that benefit the economy as a whole in order to fulfill the goals of fiscal policy.

**Unemployment:** As compared to Adawo, Essien, and Ekpo (2012), unemployment is the condition in which people actively look for work even when they are competent, able, and prepared to do so. According to Stone (2008), in order to be considered unemployed, a person must actively seek employment (i.e., fill out an application, go to an interview, register with employment services, get in touch with businesses directly, visit school placement centres, or call either public or private employment organisations). As said by Abel, Smith and Bernanke, (2003), the twin monsters of macroeconomics—inflation and unemployment—are some of the most difficult and divisive problems that policymakers must resolve. This is so because of the widespread public anxiety caused by elevated unemployment and inflation rates induce due to their immediate and evident consequences. As unemployment rates and pricing pressures rise, economic growth and development are inhibited. The three primary types of unemployment that have been discussed in the literature are

frictional, structural, and cyclical. Employees who out of their own choice quit their occupations in search of better prospects or who are changing careers, according to Stone (2008), experience frictional unemployment because it might require days or even weeks for them to start working for their new employer. Essentially, it is claimed that someone is frictionally unemployed when they experience a brief period of unemployment as a result of changing jobs. Structured unemployment, as captured by Abel, Smith and Bernanke (2003), is brought on by shifts in consumer demand patterns or technical improvements. Before regaining employment, workers may require substantial retraining, and this is typically a protracted process. For instance, using automation in a plant can make manpower unnecessary. Downturns in the business cycle are what lead to cyclical unemployment, claims Ekpo (2017). The study asserts that this sort of unemployment can be managed by monetary and fiscal policy actions by the government. A stagnant economy might result from unemployment (unless it is voluntary), which is unfavourable because it lowers aggregate demand. The rise in the value of the gross domestic product (GDP), which can eventually lead to a recession, can be slowed by rising unemployment rates and inflation. According to Ekpo (2017), macroeconomic issues including unemployment as well as inflation triggered major changes in GDP that led to the current economic decline that occurred in Nigeria between 2014 and 2016. The ongoing economic downturn in Venezuela and other countries across the world is another proof of the crippling effects of high unemployment.

According to Adawo, Essien, and Ekpo (2012), the primary causes of unemployment in Nigeria are a shortage of electricity, a meagre road system, a weak communication system, security issues, and the authority's casual approach to job creation. The authors assert that employment was outlawed in Nigeria as well. The economy has suffered as a result, largely as a result of the fact that most people are employed by the government. Additionally contributing to the unemployment problem are unsuccessful and ineffective economic strategies. As stated by Nwosa (2015), current government trade regulations and the country's restrictive/unfavourable economic conditions have deterred investment. Because of this, many companies have shut down, investors are losing faith, and staff members have been fired off as a result. It is distressing to see the ugly effects of unemployment. Insecurity, poverty, underdevelopment, brain trench, absence of self-worth, and other emotional effects are a few of them, along with increased criminal activity. Ekpo (2017) contends that it is easier to envisage the impacts of unemployment than to really experience them, both for the individual and the economy. Numerous authors have put out a wide range of economic solutions to the unemployment problem that, if zealously implemented, may at least lessen the threat. The government should collaborate with the private sector to diversify the economy, lawful activities in the unorganised sector has to be investigated, encouraged, and given backing in their efforts, and the educational system ought to be strengthened in order to produce graduates who are suitable for employment in the workplace, according to Adawo, Essien, & Ekpo (2012).

**Taxation:** One of the main budgetary measures the government may use to lower unemployment is taxation. High taxes on consumers limit their purchasing power, which lowers consumption. As a result of lower consumer spending, businesses have lower income, which makes it more difficult for them to hire new employees or, in some cases, even compels them to terminate existing ones in an effort to reduce expenses. Tax reductions are regularly used by the government as a measure to encourage economic progression and reduce unemployment. Tax reductions increase spending among consumers, which can provide additional funding for business growth and employee hiring. Spending on programming could be another weapon the government uses to address unemployment. By supporting new public works projects like the building of facilities like roads or train lines, for example, the government can lower unemployment while increasing disposable income and spending. If the initiatives help the economy grow generally, there will be more jobs available once they are completed (Egbulonu & Amadi, 2016).

### **Keynesian Theory of Unemployment**

The traditionalists' thesis of voluntary unemployment was criticised by Keynesians. Keynes suggested that the cyclical oscillations of market-based economies result in involuntary unemployment in his 1936 book. Like Marx, Keynes thought that unemployment will always exist in a completely market-based economy. During the economic downturn of the mid-1930s, market forces completely failed to correct the enormous departures from equilibrium. Unbelievably high unemployment rates were present. The state of the world economy was chaotic. The threat was too large for traditional economics to manage, it turned out. Keynes (1936) asserted that "unemployment happens whenever the economy's aggregate demand is inadequate to provide employment to everyone who needs it."

### **Wagner's Theory of Fiscal Policy**

The economist Adolph Wagner from Germany, who lived from 1835 to 1917, established a theory on public spending after researching other countries as well as his own. Wagner (1890) stated that "for any nation, government expenditure rises continuously as revenue expands." As a result, it is anticipated that the expansion of a manufacturing-based economy will be followed by an increase in the proportion of public expenditure in the GDP. The idea is that government expenditures should generally have a positive effect on the economy, which will encourage additional spending and consequent economic growth. Wagner (1890) stated that "as progressive nations industrialise, the share of the government sector in the national GDP grows continually." As stated by Singh (2008), increased government participation and expenses are essential given the state's rising social, governmental duties, defensive, and welfare functions.

Njoku and Ihuba (2011), for instance, noted the unemployment and progress in Nigeria between 1985 and 2009. The study uncovered the intriguing discovery that between 1991 and 2006, the GDP

expanded by 55.5 percent while the overall population increased by 36.4 percent. This should have caused the unemployment rate to decrease, but instead, it increased by 74.8 percent. Nigeria's high rate of unemployment was the subject of a 2012 study by Adawo, Essien, and Ekpo. According to the evaluation, the workforce in Nigeria increased over a 33-year period at an average pace of 0.3%, indicating that unemployment was a problem for the nation's economy. Inadequate infrastructure, a lack of economic diversification, security issues, and a poor educational system that takes a long time to generate marketable graduates are all reasons for Nigeria's high unemployment rate, according to the report.

Iyeli and Azubuike (2013) conducted an experiment to investigate the results of fiscal policy factors on the economy of Nigeria between 1970 and 2011. The co-integration approach and error correction mechanism was used to examine the real gross domestic product (the dependent variable) in connection to the federal government's expenditures, federal revenues, the rate of inflation, and capital inflow (the independent variables). The study discovered a long-term equilibrium connection between fiscal policy elements and Nigerian economic growth. Samira and Khalil (2015) evaluated the effect of government civil spending on the rate of unemployment in Iran from 1997 to 2013 using the universal ADF unit root test, Johansen cointegration test, (VAR) method, and VEM. After examining the long-term relationship, it was discovered that there is a negative and significant correlation between total government expenditure and the unemployment rate. Adefeso and Mobalaji talked about Nigeria's fiscal-monetary policy and economic growth in a 2010 essay. Their major goal was to reevaluate and review the comparative impact of fiscal and monetary policies on the growth of the economy in Nigeria using annual data from 1970 to 2007. The error correction mechanism (ECM) and co-integration technique were used to carefully analyze the data and provide policy conclusions. According to their research, monetary policy has a much bigger impact than fiscal policy. They recommended increasing the importance and reliance on monetary policy in order to achieve the goal of economic stability in Nigeria.

According to Muritala and Taiwo (2011), who examined the relationship between these two forms of spending and GDP using the ordinary least squares estimation method, both recurrent and capital expenditures by governments have substantial beneficial effects on GDP, which, then steadies the economy. In an associated research project, Yahya, Haruna, and Miriam (2013) used multiple regression analysis to examine the impact of recurring and capital expenses on Nigeria's economic development using data from 1987 to 2010 and found that both effects were insignificant in terms of statistical significance, despite the fact that the influence of recurring expenditure was positive, and the impact of capital spending was adverse. Similar conclusions were found by Ogbonna and Appah (2012). Amassoma and Nwosa examined the association between output increase in Nigeria and unemployment rates from 1986 to 2010 in a study published in 2013. To analyze the relationships among the variables, the co-integration methodology and error correction model methodology were



both utilised. The results of the study show that the government must keep taking immediate action against the increasing rate of unemployment since it poses a serious obstacle to social growth and leads to ineffective utilisation of a trained workforce. This again upheld the findings of Appah (2010) and Aregbbyen (2007). Nwosa (2014) also investigated how government expenditures from 1981 to 2011 affected Nigeria's unemployment and poverty statistics. Employing the Ordinary Least Square (OLS) assessment method, he noted that government spending had a significant, beneficial effect on the rate of unemployment but a negative, slight influence on the poverty rate. Reviewing the empirical research shows that the inferences made from the data are debatable. Examining the impact of various fiscal policy initiatives on unemployment in Nigeria is the aim of this study.

### 3.0 METHODOLOGY

The study adopted the ex-post facto research design as the data utilised are historical in nature .The study employed a descriptive approach to research to ensure that the methodology is well-developed to gather reliable and correct data for the research task. Secondary data were acquired from the National Bureau of Statistics (NBS) and Central Bank of Nigeria (CBN) Statistical Bulletin for that time of 1981 to 2022 in order to examine how Nigeria's fiscal policy affects unemployment. Total government spending, currency exchange rates, and interest rates are some of the main fiscal policy factors that influence the employment rate. Two of the analytical methods employed in the study to analyse the data were the error correction model (ECM) and co-integration.

#### Model Specification

The fiscal policy factors that must be considered include gross fixed capital creation for domestic investment, the government expenditure on consumption, the foreign exchange rate, the rate of interest, and the interest rate. The dependent variable is the rate of unemployment. The following equations represent the connection between the variables.

$$UNEMP =F(GCON, EXC ,INR, GFCF) \dots\dots\dots (1)$$

where

- UNEMP = unemployment rate
- GCON = the government consumption expenditure
- EXC = Exchange rate
- INR = Interest rate
- GFCF = Gross fixed capital formation

The econometric form of the model above is stated as:

$$UNEMP_t = \beta_0 + \beta_1 GCON_t + \beta_2 EXC_t + \beta_3 INR_t + \beta_4 GFCE_t + \mu_t \dots\dots\dots(2)$$

$\mu_t$  = stochastic error term

$\beta_0$  = constant intercept

$\beta_1 - \beta_4$  = coefficient of the associated variables

In order to lower the exponentially increasing values of certain of the study's variables, these variables are further turned into logarithms as follows:

$$UNEMP_t = \beta_0 + \beta_1 LOG(GCON)_t + \beta_2 EXC_t + \beta_3 INR_t + \beta_4 LOG(GFCE)_t + \mu_t$$

**Method of result evaluation**

In this study, stationarity is evaluated using the Augmented Dickey-Fuller (ADF) test. This allows the Auto Regressive Distributed Lag (ARDL) bound test approach to be used under the premise that the variable quantities under investigation are either integrated of order zero or order one. As a result, an order of integration was established using ADF test approaches. The null hypothesis that guided the test is stated as follows:  $H_0: \beta=0$  ( $\beta$  has a unit root);  $H_1: \beta<0$  (for alternative hypothesis). The ARDL model is written as follow:

$$\Delta UNEMP_t = \beta_0 + \sum_{i=1}^n \beta_{1i} \Delta UNEMP_{t-i} + \sum_{i=0}^n \beta_{2i} \Delta LOG(GCON)_{t-i} + \sum_{i=0}^n \beta_{3i} \Delta EXC_{t-i} + \sum_{i=0}^n \beta_{4i} \Delta INR_{t-i} + \sum_{i=0}^n \beta_{5i} \Delta LOG(GFCE)_{t-i} + \delta_1 UNEMP_{t-1} + \delta_2 LOG(GCON)_{t-1} + \delta_3 EXC_{t-1} + \delta_4 INR_{t-1} + \delta_5 LOG(GFCE)_{t-1} + \varepsilon_t \dots\dots\dots(3)$$

where:

$\Delta$  = Difference operator

$\varepsilon_t$  = Stochastic term

An Ordinary Least Square (OLS) estimation is first carried out as part of the ARDL bound test to ascertain whether there is a long-term correlation between the variables under consideration. The test is founded on an F-Statistic for the joint statistical importance of the lagged variables. The null hypothesis of no cointegration stated as: ( $H_0 : \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$ ), for the equations are evaluated.

As a result, the fundamental premise is as follows:  $H_0$  is rejected, concluding that the variables under investigation are cointegrated if the F-statistic is greater than the higher critical bound; otherwise, it is not accepted. The decision becomes inclusive if, however, the F-statistic, the lower critical bound, and the higher critical bound. If the null hypothesis of zero cointegration is not accepted, an



estimation of a vector error correction model (VECM) is then performed. The VECM model is therefore specified as follows:

$$\Delta UNEMP_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} UNEMP_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta LOG(GCON)_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta EXC_{t-1} + \sum_{i=1}^n \alpha_{4i} \Delta INR_{t-1} + \sum_{i=1}^n \alpha_{5i} \Delta LOG(GFCF)_{t-1} + \lambda ECM_{t-1} + \mu_t \dots\dots\dots(4)$$

where:

ECM = The error correction term

$\lambda$  = the error coefficient

### 4.0 DATA ANALYSIS AND RESULTS

#### Data Analysis

The empirical data is to show the significance of the connection between unemployment (UNEMP) and the fiscal policy instruments of government consumption expenditures (GCON), exchange rate (EXC), interest rate (INR), and gross fixed capital formation (GFCF).

#### Descriptive Statistics

Using the Jarque-Bera (JB) test statistic, the variables (control variables) were examined to determine whether the normal probability distribution applied to them. The JB test for normality, an exponential or large-sample test, calculates kurtosis and skewness measurements. In order to do this, the sample standard deviation, mean, kurtosis and skewness, Jacque-Bera statistics, and p-values are all looked at. The variables used in this investigation's descriptive statistics are displayed in the table below:

**Table 1: The descriptive statistics**

	UNEMP	GCON	EXC	INR	GFCF
Mean	4.338548	3.953910	459.4395	-0.019857	37.31496
Median	3.964000	2.114938	493.8285	2.683386	33.97212
Maximum	6.237000	9.448340	732.3977	18.18000	89.38105
Minimum	3.424000	0.911235	211.2796	-65.85715	14.90391
Std. Dev.	0.916070	2.882889	142.0967	14.11808	20.05444
Skewness	1.160551	0.631167	-0.169133	-2.633464	1.108071

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Kurtosis	2.764174	1.911888	2.067432	12.73620	3.732239
Jarque-Bera	9.525473	4.860584	1.722187	214.4348	9.533058
Probability	0.008542	0.088011	0.422700	0.000000	0.008510
Sum	182.2190	166.0642	19296.46	-0.833997	1567.229
Sum Sq. Dev.	34.40658	340.7531	827850.7	8172.131	16489.40
Observations	42	42	42	42	42

Source: Author's own computation from the E-views result, 2022

According to descriptive statistics from the outcome table above, from 1980 to 2021, four of the variables under consideration show an average positive mean value, while a single variable has a negative average value with 42 observations. According to the standard deviation, the EXC and UNEMP both had values of (142.0967), with the EXC having the lowest value. The skewness statistics in the table show that three of the variables have positive skewness, while two have negative skewness. According to the test's probability, four of the variables were found to be normally distributed because their scores in the Jarque-Bera test fell under the 5% level of significance.

**Correlation**

The correlation test is employed to assess how closely the variables that are independent and dependent variables are related. This is done by using the correlation matrix. To determine the level of the link connecting the independent factors and the dependent variable, we analyze the variables in the correlation test. Employing a correlation matrix, the model's depiction of the connections between the variables in investigation was evaluated. The answers of this evaluation are shown below:

**Table 2: The Correlation matrix**

	UNEMP	GCON	EXC	INR	GFCF
UNEMP	1.000000	-0.320324	0.302737	0.222535	-0.412387
GCON	-0.320324	1.000000	-0.758996	-0.318975	0.654954
EXC	0.302737	-0.758996	1.000000	0.366771	-0.709160
INR	0.222535	-0.318975	0.366771	1.000000	-0.476640
GFCF	-0.412387	0.654954	-0.709160	-0.476640	1.000000

Source: Author's own computation from the EViews result

The results of the correlation inquiry show that the UNEMP and two additional variables, the currency exchange rate (EXC) alongside the interest rate (INR), have positive relationships. Government consumption (GCON) and gross fixed capital formation (GFCF) both exhibit negative

signals ranging from -32% to -41%, despite the linkages being 30% and 22%, respectively. Therefore, we infer that the variables under consideration do not show multicollinearity.

**4.2.3. Unit Root /Stationarity Test**

Economic variables often follow a non-stationary stochastic process. The linear combination of non-stationary series is, in general, a non-stationary series that is directly related to economic theory. Using Dickey Fuller's broad Economic theory presupposes that every combination of economic variables would stagnate, hence the test is used in this study to investigate at stationary variables. Unit root testing was used to evaluate the data's time series characteristics. Engle and Granger (1987) claimed that even if the individual time series data were non-stationary, their linear combinations might be stationary if the variables were integrated in the same order. This is how the premise is defined: If the absolute value of the Augmented Dickey-Fuller (ADF) test exceeds the critical threshold at the 1%, 5%, or 10% level of significance at order zero, one, or two, the variable under consideration is stationary; otherwise, it is not. The results of the ADF which stands for Augmented Dickey-Fuller are as follows:

**Table 3: The Unit root test**

Variable	Level difference	Probability	Order of integration	First difference	probability	Order of integration
UNEMP	-1.05414 5	0.7230		-5.975363	0.0000	I(1)
GCON	-1.80523 7	0.3730		-8.584326	0.0000	I(1)
EXC	-1.82597 9	0.3632		-5.791878	0.0000	I(1)
INR	-4.73404 2	0.0004				
GFCF	-3.07889 4	0.0359	I(0)			

Source: Author's own computation from the E-views result

The results of the stationarity tests indicate that two more variables are stationary at the level difference, while three further variables are integrated of degree one at a 5% level of significance. Cointegration can have multiple degrees of order, hence a bound cointegration test is carried out.

**4.2.4 Bound auto regressive distributed lag (ARDL) testing approach**

When using the ARDL bounds test technique, the variables should be I(0) or I(1); otherwise, the variable may be viewed as spurious. When doing the ARDL test, we use the Augmented Dicky Fuller (ADF) test to determine the various levels of the variables. To be able to evaluate the a closer connection over a long period where the highest lag length p is 2 in the ECM, we compute an F-statistics test approach. As a result, the following is how the results of the limits F-test are presented:

**The ARDL Bound test results**

ARDL Bounds Test

Date: 06/06/23 Time: 13:28

Sample: 5 42

Included observations: 38

Null Hypothesis: No long-run relationships exist

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Test Statistic	Value	k
F-statistic	8.008543	4

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Critical Value Bounds

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Significance	I0 Bound	I1 Bound
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10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

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**Source: Author’s own computation from the E-views result**

The Bound test result from the aforementioned table demonstrates that it is possible to create the ARDL model and determine the short-run dynamic-estimated coefficients and the long-run slope-estimated coefficients for the Nigerian balance of payments. According to the Akaike information criterion (AIC), the ARDL (1, 4) is chosen:

#### 4.2.5 The short run error correction coefficients

Although there is an equilibrium link between the variables in the regression model over the long run, the short time is what actually influences the long term. Error Correction Mechanism (ECM) is utilised in order to fix or get rid of the disagreement that develops in the short term. The basic idea of the ECM is that if two variables cointegrate, then there must be an error-correcting mechanism to rectify short-term instability. ECM measures the speed at which a variable adjusts when it departs from its common stochastic trend. ECM makes corrections for short-run deviations from the long-run equilibrium. This demonstrates how variations in independent variables are a result of changes in explanatory factors and the drop back error component in cointegrated regression. The ECM outcome is so displayed below:

#### The short run error correction coefficients results

Dependent Variable: UNEMP

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Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(UNEMP(-1))	0.775294	0.176407	4.394909	0.0003

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D(UNEMP(-2))	0.659990	0.150442	4.386999	0.0003
DLOG(GCON)	0.701143	0.418071	1.677092	0.1083
D(EXC)	-0.001246	0.001406	-0.886263	0.3855
D(EXC(-1))	-0.004342	0.002451	-1.772029	0.0909
D(INR(-3))	-0.013941	0.006348	-2.196049	0.0395
DLOG(GFCF(-1))	3.023010	1.076893	2.807159	0.0106
ecm(-1)	-1.090922	0.188162	-5.797766	0.0000

Source: Author's computation from the E-views result

The results table high up can be used to compute the equilibrium error-correction coefficient, or ECM (1), which is -1.090922. The coefficient is of statistical significance and has the expected negative sign at 5% significant levels. This shows a long-term causal link between independent causes and dependent variables. Additionally, it shows that every one of the variables are cointegrated or have a long-term link. This means that the dependent variable's real values have been modified by 1.09 percent to match the values of the long-term equilibrium. A further estimate of the pace of readjustment toward long-term balance is 1.09% each year. Its t-ratio is -5.797766 and the probability of the null hypothesis being true for zero is [0.0000], which is significant even when  $\alpha = 0.05$ . Thus, it can also be concluded that the adjustments are quite meaningful in the short-run ARDL relationship.

**4.2.6 The long run relationships exchanger rate and balance of payment in Nigeria**

**Long Run Coefficients results**

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(GCON)	0.642707	0.327419	1.962950	0.0630
EXC	0.003049	0.001594	1.912536	0.0695
INR	-0.003455	0.022022	-0.156902	0.8768
LOG(GFCF)	-1.399028	0.481667	-2.904557	0.0085



C                    7.017360    1.183891    5.927371    0.0000

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Based on the long-term elasticity of the independent factors causing the drop in unemployment in Nigeria, the coefficient of LOG(GCON) and EXC exhibit good signs and are statistically significant. It illustrates how the currency rate and government consumption over the long run have a positive effect on the rate of unemployment. The coefficient of GFCF has a sign that is negative and is statistically significant, in contrast to the coefficients of INR, which have a negative sign but are statistically insignificant. This indicates that domestic investment throughout the research period helped the Nigerian economy's unemployment rate to drop.

**4.2.7 Diagnostic test**

For the purpose of determining the model's adequacy of fit, diagnostic tests are run. During the model's diagnostic tests, serial correlation, functional form, non-normality, and heteroscedasticity will all be examined.

**Serial correlation tests**

Breusch-Godfrey Serial Correlation LM Test:

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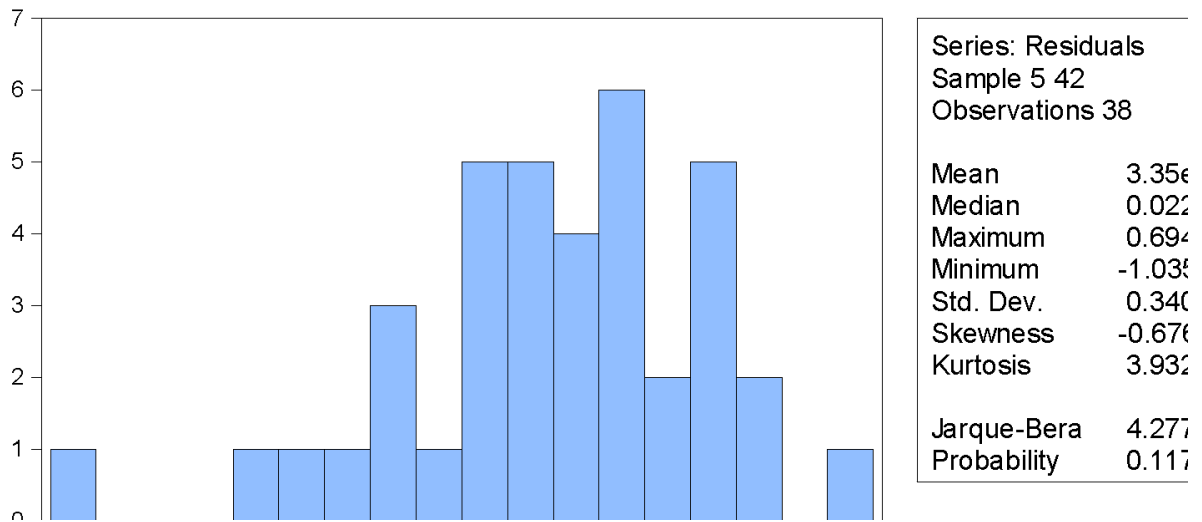
F-statistic	1.282923	Prob. F (2,19)	0.3002
Obs*R-squared	4.521137	Prob. Chi-Square (2)	0.1043

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*Source: Author's computation from the E-Views result*

The serial correlation test findings show that the null hypothesis regarding serial correlation is false, and the associated probability values of the F-statistics are not statistically significant at the 5% level. As an outcome, we draw our conclusion that the variables being examined do not exhibit serial correlation.

Figure 2 The normality test



Source: Author’s computation from the E-views result

The null hypothesis can be accepted in light of the results since the probability, 0.117817, is higher than 0.05 at the 5% threshold of significance. This cannot serve as the basis for habitually allocating the residuals.

#### 4.2.8 The Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

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F-statistic	1.186991	Prob. F(16,21)	0.3509
Obs*R-squared	18.04594	Prob. Chi-Square(16)	0.3212
Scaled explained SS	8.081572	Prob. Chi-Square(16)	0.9464

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Source: Author’s computation from the EViews result, 2023

Given that the likelihood of Chi-Square (16) is 0.3212, which is higher than 0.05 at the 5% level of significance, the results show that the null hypothesis is rejected. This demonstrates that there is no

heteroscedasticity in the model. Because of this, error terms from repeated sampling have homoscedasticity or a constant variance.

### 4.3 Restatement of Hypotheses

#### 4.3.1 Hypothesis one

**H<sub>0</sub>:** Fiscal policy does not have any considerable short-term impact on Nigeria's unemployment rate.

**H<sub>1</sub>:** Fiscal policy has considerable short-term impact on Nigeria's unemployment rate.

#### Decision

Using Table 4.2.6 above as a guide, the decision criterion is to not reject the null hypothesis if the likelihood of the t-statistics is  $> 0.05$  level of significance. If not, you should reject the null hypothesis and accept the alternative one. We accept the null hypothesis and come to the conclusion that government consumption spending has a positive but insignificant influence on unemployment in Nigeria because Table 4.2.6 shows a positive coefficient of 0.642707 and a probability value of 0.0630  $> 0.05$  threshold of significance for the t-statistics.

#### 4.3.1 Hypothesis two

**H<sub>0</sub>:** Fiscal policy does not have any significant long run effect on unemployment in Nigeria.

**H<sub>1</sub>:** Fiscal policy has a significant long run effect on unemployment in Nigeria.

#### Decision

According to Table 4.2.6 above, the null hypothesis should not be rejected if the probability of the t-statistics is  $> 0.05$  level of significance. If not, then prove the alternative hypothesis and reject the null hypothesis. We accept the null hypothesis and conclude that the government exchange rate has no appreciable effect on unemployment in Nigeria because Table 4.2.6 shows that it has a coefficient that is positive of 0.003049 and a probability value of 1.912536  $> 0.05$  threshold of significance.

#### Decision

According to table 4.2.6 above, the null hypothesis should not be rejected if the probability of the t-statistics is  $> 0.05$  level of significance. If not, then prove the alternative hypothesis and reject the null hypothesis. According to Table 4.2.6's negative coefficient of -0.003455 and the probability value of the t-statistics, which is -0.156902  $> 0.05$  threshold of significance, the interest rate in Nigeria has a negative and significant effect on unemployment. As a result, we disprove the null hypothesis.

## 5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

## Summary of Findings

This study assessed the effects of Nigeria's fiscal policy on unemployment. In order to ascertain the tangential connection between fiscal policy and unemployment in Nigeria, the study examined the pattern of fiscal policy instruments in Nigeria. Secondary data were acquired from multiple sources, including the CBN's statistical bulletin, for the period of 1982 to 2022. The unit root test, autoregressive distributed lag, correlation analysis, and other analytical techniques were also applied in the study.

The study's analysis revealed the following as a result:

- (i) Government consumer spending has a positive but negligible influence on unemployment in Nigeria.
- (ii) Interest rates have a favourable and negligible outcome on unemployment in Nigeria.
- (iii) Interest rates have a negative and substantial impact on unemployment in Nigeria.

## Conclusion

The inability to find work prevents the poor from earning an income, which is a vital source of support. The government's capacity to restore stability to the economy and create jobs is essential to reducing poverty. The current research examined the manner in which Nigeria's fiscal policy affects employment in order to investigate this. Descriptive statistics, the Augmented Dickey-Fuller test for the unit root test, Johansen cointegration, the error correction model, the diagnostic test, and the heteroskedasticity test were all put to use in the study. The result shows that Nigeria's unemployment rate has not been significantly decreased by the government's fiscal policy measures.

## Recommendations

Nigeria's unemployment condition is unbearable. The government's efforts to implement fiscal policy do not always provide the desired outcomes. Institutional shortcomings and a lack of political will are the main causes. Therefore, the analysis suggests that:

- The government should reconsider its expenditures in the country, especially on infrastructure development, in order to grow the rate of efficiency in the country and slow the economic progression needed in order to increase the employment of labour.
- By cutting corporation tax rates, the government should encourage both domestic and international investment.

- To promote gross fixed capital creation, the public and private sectors should work together. This needs to be carefully investigated since it has the capacity to scavenge idle labour force and increase productivity.
- Widening the country's economic base and putting into action a sensible mix of monetary and fiscal policies.
- Massive expansion and investment outside the oil industry of the country's economy are needed in order to raise the employment rate, particularly in the manufacturing sector and agricultural subsector.

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