

MONETARY POLICY MEASURES AND UNEMPLOYMENT IN NIGERIA

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Abstract

This study determines the effect of monetary policy on unemployment in Nigeria from 1985 to 2022. The study was directed by four distinct objectives, four research questions, and four hypotheses. The lending rate, money supply, liquidity ratio, and exchange rate served as proxies for monetary policy (independent variable), while the unemployment rate was used as the indicator of unemployment (dependent variable). The research employed yearly temporal data obtained from the Central Bank of Nigeria Statistical Bulletin and the publications of the National Bureau of Statistics (NBS). The data analysis methods employed are the Augmented Dickey-Fuller (ADF) test, the limits Co-integration test, and the Autoregressive Distributed Lag (ARDL) methodology. The results indicated that the lending rate and exchange rate exert a favourable and substantial sway on the unemployment rate in Nigeria, whereas the money supply has an unfavourable and non-substantial impact, and the liquidity ratio demonstrates an unfavourable and substantial outcome on the unemployment rate in Nigeria. The study revealed that monetary policy has considerable effect on unemployment in Nigeria. It was suggested, among others, that the Central Bank of Nigeria (CBN) should contemplate enacting measures to lower lending rates, so making credit more accessible for enterprises. Reduced rate of interest may enable small and medium-sized firms (SMEs) to get loans for growth, resulting in heightened output, which might subsequently provide more employment possibilities and diminish unemployment rates.

Keyword: Lending Rate, Money Supply, Liquidity Ratio, Exchange Rate, Unemployment.

I. Introduction

Unemployment continues to be a substantial obstacle in Nigeria, with far-reaching consequences for national development, social stability, and economic growth. Those who are competent and willing to work at the going rate of pay but cannot find a job are considered to be unemployed (Fapohunda, 2012). Underutilisation of human resources within an economy is what Oseni and Ogunmuyiwa (2016) mean when they talk about unemployment, and they stress the social and economic consequences of this. Unemployment, in congruent with Ekpo and Umoh (2018), is "the gap between the supply of workers and their demand in an economy," which in turn causes inequality, poverty, and crime to rise. Nigeria now ranks among the world's countries with the highest unemployment rates, at 33.3% in 2021, in congruent with the National Bureau of Statistics (NBS). Thus, being unemployed is the same as being unemployed. Rapid population expansion, a lack of economic possibilities, and structural inefficiencies are the main causes of this condition. Monetary policy is one of the measures that have been put in place to deal with this problem. In congruent with Mishkin (2007), monetary policy is the process by which a central bank

attempts to attain macroeconomic goals like price stability, economic development, and job creation by influencing the supply and demand for money and credit. The monetary policy rate (MPR), cash reserve ratio (CRR), and open market operations (OMO) are monetary policy instruments that the CBN uses to control economic activity and impact labour market outcomes in Nigeria. The importance of monetary policy in combating unemployment is borne out by the statistics. For instance, in congruent with the 2022 Annual Report of the CBN, a 3.5% rise in private sector credit was one result of a decline in the monetary policy rate (MPR) from 14% to 12.5% in 2020. This, in turn, encouraged the growth of industries like agriculture, manufacturing, and small-scale enterprises, which in turn created jobs. Nevertheless, the research did point out several difficulties, i.e. the fact that the aggressive monetary measures put in place to control inflation in 2022 occurred at the same time that the jobless rate jumped from 27.1% in 2020 to 33.3% in 2022.

In congruent with standard economic theory, monetary policy has the power to affect investment, company activity, and aggregate demand, all of which in turn affect unemployment. For example, the goal of expansionary monetary policies is to boost economic activity and, by extension, the number of available jobs by lowering rate of interest and increasing the money supply. On the other hand, recessionary monetary policies aim to lower inflationary pressures yet often result in augmented unemployment. Given Nigeria's distinctive economic structure, reliance on oil earnings, and susceptibility to external shocks, it is crucial to comprehend the precise impacts of monetary policy on unemployment in the nation. It is against this background that this paper seeks to answer the following questions. How does lending rate affect unemployment rate in Nigeria? To what extent does money supply affect unemployment rate in Nigeria? What is the effect of liquidity ratio on unemployment rate in Nigeria? To what extent does exchange rate affect unemployment rate in Nigeria?

To this end this paper aims to explore the link between monetary policy and unemployment in Nigeria, with a focus on identifying the effectiveness of key monetary policy instruments in addressing unemployment challenges from 1985 to 2022, indicating thirty-eight (38) years sample observations.

II. Literature Review

Conceptual Literature

Monetary Policy

When a nation's central bank or other monetary authority takes steps to manage the money supply, rate of interest, and credit conditions in an economy, they are engaging in monetary policy. In most cases, monetary policy aims to foster economic development and stability, stabilise prices, and rein in inflation (Chukwuemeka, 2022). Economic policy is the science and art of managing a country's money supply to achieve long-run price stability and robust economic development (Chowdhury, Hoffman & Schabert, 2003). To rephrase, monetary policy is the process by which the central bank decides how much money to print or lend out utilising tools like the open market operation (OMO), reserve requirements, discount rates, moral suasion, lending system controls, and rate of interest regulations (Loayza & Schmidt-hebbel, 2012). To accomplish its goals, the central bank formulates and implements policies that are known as monetary policy. These policies and decisions try to keep bank lending rates at a level that is consistent with credit demand and money growth at a level that is consistent with aggregate supply elasticity (Loayza & Schmidt-hebbel, 2012). As per their overarching policy goal, monetary authorities may pursue expansionary or contractionary policies. When the government's goal is to raise the money supply, this is known as expansionary monetary policy. On the other hand, contractionary monetary policy aims to decline the money supply, either by increasing or decreasing the amount of deposits in banks or by limiting the growth or ability of these institutions to provide additional loans (Ojo, 2013).

Unemployment

Depending on the author's bias, the term "unemployment" has a wide range of accepted meanings. If you are unemployed and have looked for employment during the last four weeks, you may be in this status, in congruent with the International Labour Organisation in 2009. On the other hand, in congruent with Gbosi (2005), unemployment occurs when individuals who are ready to work at the going pay rate cannot find employment. An economically active population is considered to be unemployed if there are a substantial number of persons who are neither employed nor actively seeking employment, whether as a result of job loss or voluntary resignation (World Bank, 2008). By dividing the total number of jobless people by the total number of people actively seeking work, we may get the unemployment rate, which is a statistical indicator of how common unemployment is. Nearly two-thirds of developed countries and half of emerging economies are seeing a decline in job growth, in congruent with a 2011 report by Business Week, which put the number of unemployed people at a record high of over 200 million. To paraphrase Aminu and Anono (2012), the unemployment rate is the percentage of the population that is neither employed nor actively seeking employment while having the necessary skills and abilities to do the job. Consequently, being unemployed means that there is a general lack of work opportunities in the nation. The formula for unemployment rate is the following: $UR = \frac{UN}{L} \times 100$, where L is the sum of the employed and the jobless, and the number of individuals in the labour force is equal to the sum of the employees and the unemployed.

III. Theoretical Framework

Keynesian Theory of Unemployment

John Maynard Keynes, an economist from the United Kingdom, developed the Keynesian Theory of Unemployment in 1930. In congruent with Keynesians, the unemployment rate goes up when times are tough and down when things are good. In congruent with Keynes, this kind of unemployment occurs when effective demand is insufficient. As a consequence, output drops short of meeting demand, salaries remain stagnant, and the unemployment rate soars. The Keynesian framework, in congruent with Thirlwal (1979), Grill and Zanalda (1995), and Hussian and Nadol (1997), posits that technical progress, rises in capital stock, and job creation are mostly determined from within. That is to say, demand dictates job growth, and the basic factors that drive long-run production growth also impact employment growth. In congruent with Keynes's theory, the employment market is self-reinforcing: as effective demand rises, production rises, and then there is a rise in income and jobs.

He views employment as contingent upon income. Effective demand is determined by the aggregate supply and demand functions. The aggregate supply function remains constant because it is based on physical or technological elements that are not likely to change very soon. The aggregate demand function was Keynes' primary weapon in the struggle against the Great Depression and unemployment. Demand for consumption and investment together constitute aggregate demand, which is a key factor in determining employment. A rise in consumption and investment, argues Keynes, may lead to a rise in employment. Raising income causes people to save more money, which in turn affects consumption (C(Y)). Raising people's propensity to spend could increase jobs and income in the short-run, but in the long run, people's psychology (taste, habit, etc.) stays the same, which might also cause them to consume more. The drive to eat stays the same because of this. Investment plays a significant role in the labour market.

Monetarist Theory

The monetarist theory was associated Irving Fisher' in 1997. His primary argument was that the money supply determines both the price level and the value of money; so, he predicted that a change in the money supply would have a direct and proportional outcome on the price level. The formula $MV = PQ$ (1)

In this context, M represents the money supply, V the money circulation velocity, Q the number of transactions that occur during the specified time period, and P the overall

price level of the economy. By replacing Q with Y (the total quantity of products and services transferred for money), we get the following equation:

$$MV = PY \quad (2).$$

Connecting the virtual and physical realms of the economy, Y's introduction bridges the gap. Nevertheless, in this model, the system itself determines P, V, and Y. Monetary policymakers externally set the value of the policy variable, M. A shift in the money supply, in congruent with monetarists, has no outcome on the actual economy whatsoever; all it does is alter prices and the monetary side of things. This suggests that changes in the money supply have no outcome on the actual production of goods and services, but do have an outcome on their trade values or prices. The monetarist model places more weight on the supply-side features of the economy over its short-run dynamics, which is a crucial component (Friedman, 1997).

IV. Empirical Literature

Using quarterly temporal data from 1990(1) to 2019(3), Babalola, Yelwa, and Olaniy (2023) appraised the effect of monetary policy on Nigeria's rate of joblessness. These monetary tools were the liquidity ratio, the cash reserve ratio, and the monetary policy rate. We comprised inflation (P) to stand for a macroeconomic indicator. The study followed the integration sequence and employed the ARDL Co-integration/bound test approach. In congruent with the research, the monetary policy rate (MPR) and cash ratio (CR) had no notable impact on Nigeria's rate of joblessness in the near term. But the LR (liquidity ratio) was noteworthy. Additionally, the upshots showed that monetary policy (MPR and LR) substantially affects the unemployment rate over lengthy periods of time, whereas CR has no such effect. The discovery that monetary policy takes a long time to restore full employment equilibrium was another important finding.

Ogwuche and Obiaje (2023) employed yearly data from 1985 to 2022 to analyse the effect of monetary policy on economic development in Nigeria. Regarding this, the research employed the ARDL method to determine a long-run connection between monetary expansion and variables comprising rate of interest, inflation rates, currency exchange rates, and supply of cash. While the supply of cash, rate of interest, and exchange rate all had favourable links with the dependent variable, the upshots indicated that inflation had the only unfavourable link with economic growth in Nigeria over the long run.

Chukwuemeka (2022) appraised how the Nigerian government's monetary policies affected the country's unemployment rate. Series of data that cover the years 1981–2020. For this data analysis, we consulted the ARDL bounds testing method for co-integration. To achieve these goals, the research employed the ARDL model in conjunction with the ECM. Unemployment is favourably and insubstantially affected by prime lending rate and unfavourably and insubstantially by minimum rediscount rate, in congruent with the predicted short-run co-efficient result. Results showed that prime lending rate had a positive and statistically significant impact on unemployment in Nigeria, whereas minimum rediscount rate had a negative and statistically significant outcome on the same variable in the long run. The long-run upshots showed that the link between the Nigerian currency rate and the unemployment rate is favourable but not substantial statistically.

Using data collected from 1981 to 2020 and primarily analysing it utilising the Vector Autoregressive (VAR) model, Onwuka (2022) conducted an empirical examination of the effect of fiscal and monetary policy on the unemployment rate. At the second lag period, the research found that government spending and rate of interest substantially and unfavourably affect the unemployment rate. By the second lag period, the government tax had become negligible and even unfavourable. By the end of the first lag period, the supply of cash had a favourable and substantial statistically effect.

Igbafe (2022) employed secondary data to see how successful monetary policy was in boosting Nigeria's economy from 1990 to 2019. The mixed-order variables and ECM led the authors of this study to use the ARDL Bounds testing method. Consistent with the ARDL

limits Test, the lower and upper limits were both below the estimated 5% significance criterion, suggesting a long-run connection among the variables.

Using secondary data from the Statistical Bulletin of the Central Bank of Nigeria (2020), Okeke and Chukwu (2021) appraised the impact of various monetary policy instruments on unemployment in Nigeria from 1986 to 2018. Finding out how the broad supply of cash, exchange rate, liquidity ratio, and cash reserve ratio affected unemployment was the primary goal of the research. The study combined the results of the unit root and co-integration tests with an ARDL strategy. All things considered, the study found that the broad supply of cash had a positive and statistically significant connection with the employment rate in Nigeria, the liquidity ratio had a negative and substantial statistically connection with the exchange rate, and the cash reserve ratio had a positive but insignificant connection with the monetary policy rate.

The impact of Nigeria's economic policy on GDP growth over a 48-year period (1971-2018) was the subject of Adeagbo's (2021) research. The paper's analysis was as per OLS. In congruent with the upshots, there is a long-run link between the variables, and although the real exchange rate has an unfavourable outcome on economic growth in Nigeria, other explanatory variables, i.e. the rate of interest, monetary policy rate, and investment to productive sector, have a favourable but insubstantial effect. A different explanatory variable, supply of cash, however, substantially and favourably affects economic growth.

In their 2019 study, Lyndon and Godspower employed data from 2000 to 2017 to conduct an empirical examination of Nigeria's economic policy and economic development. With GDP serving as the dependent variable and monetary policy, rate of interest (INT), cash reserve ratio (CRR), and liquidity ratio (LQR) as the independent variables, this article employed a variety of proxies to measure economic growth and policy. All of the independent variables had a significant sway on GDP, a measure of economic growth, except for the cash reserve ratio, which showed a slight negative association. If taken as a whole, the results showed that monetary policy and GDP growth are highly correlated.

Using temporal data spanning 1980–2017, Idris (2019) appraised how monetary policy affected GDP growth in Nigeria. The research employed the OLS method and the Co-integration test to estimate the model co-efficient and demonstrate the policy nexus between the related variables. The upshots show that there is a long-run correlation between economic growth and monetary policy variables. In congruent with further empirical data, the supply of cash favourably affects real GDP, but interest and exchange rates unfavourably impact it.

Ekwe (2018) used regression analysis to investigate the connection between joblessness and fiscal policy variables such as the supply of cash, the monetary policy rate, exchange rate, and the rate of treasury bills. The research showed that unemployment in Nigeria is favourably correlated with the rate of Treasury bills and supply of cash, and unfavourably correlated with the rate of monetary policy and exchange rate, in congruent with the upshots of the ECM and the co-integration analysis. The research found that monetary policies had a detrimental outcome on unemployment in Nigeria, which, if left unchecked, would make it harder for the country to tackle poverty.

To combat Nigeria's high unemployment rate, Attan, Effiong, and Okon (2019) appraised the role of monetary policy. The research covered the years 1981–2017 utilising temporal data. The investigation made use of the OLS technique. The research found that throughout the study period, unemployment in Nigeria was substantially and inversely affected by the following variables: supply of cash (MS), gross domestic product (GDP), monetary policy rate (MPR), and credit to the private sector (CPS). In addition, the presence of cointegrating equations demonstrated a long-run association between the explanatory variables employed in this investigation and unemployment.

In their 2018 study, Ufoeze, Odimgbe, Ezeabalisi, and Alajekwu appraised how monetary policy affected GDP growth in Nigeria. For the years 1986–2016, which fall within the era of market control, the temporal data is available. The research employed the unit root and co-integration tests in addition to OLS. Consistent with the studies, there is a long-run

connection among the components. In line with the study's primary finding, there was also no statistically significant correlation between investment, interest rates, or monetary policy rates and economic progress in Nigeria. But the supply of cash does have a positive outcome on GDP growth in Nigeria. There is a large negative effect of the currency rate on GDP in Nigeria. Rises in both the supply of cash and investment granger and GDP growth in Nigeria are the two main drivers of rate of interest. All things considered, monetary policy accounts for almost all of the variation in Nigeria's GDP growth.

In his 2017 study, Bassey appraised how the supply of cash affects Nigeria's rate of joblessness. This study uses temporal data from 1985 to 2015 utilising a nonlinear autoregressive distributed lag (NARDL) model to look at how the rise in the supply of cash affected the unemployment rate. Our upshots point to the importance of the supply of cash and show that a rise in the supply of cash has a substantial long-run impact on the unemployment rate. As per these upshots, it seems that trying to identify a stable long-run link between unemployment and supply of cash rise in Nigeria would be a fruitless endeavour, since imposing a long-run symmetry on a nonlinear link may lead to misleading dynamic reactions.

Olubiyi (2017) appraised the data from 1990 to 2015 to determine how monetary policy affected unemployment in Nigeria. His research employed the unemployment rate as a proxy for monetary policy, with the Monetary Policy Rate, supply of cash, and liquidity ratio serving as proxies for monetary policy. We estimated the given multiple regression model utilising the OLS approach. In Nigeria, he discovered that the following links: the supply of cash and unemployment rate are unfavourably and substantially correlated; the liquidity ratio and unemployment rate are unfavourably and substantially correlated; and the monetary policy rate and unemployment rate are favourably and substantially correlated. His research led him to the conclusion that Nigeria's current unemployment rate is mostly attributable to monetary policy.

Using statistics from 1970 to 2013, Amasomma (2015) appraised how effective various monetary policy factors were in lowering Nigeria's rate of joblessness. The researchers in this study employed an OLS strategy. We employed ECM to look at how several important monetary policy factors affected Nigeria's rate of joblessness. Among the several monetary policy variables appraised, the upshots demonstrated that only the exchange rate and the consumer price index had any outcome on the unemployment rate. Equally revealing is the fact that the data show a one-way causation between the unemployment rate and the exchange rate, a monetary policy variable.

Using data from 1983 Q1 through 2014 Q1, Sunday (2016) employed a vector autoregressive (VAR) framework to analyse the link between unemployment and monetary policy in Nigeria. The research appraised the impact of structural change by finding three structural breakpoints and adding them as dummy variables to the VAR model. Over a ten-quarter period, the data demonstrated that a rise in the policy rate causes unemployment to rise. There is a dynamic link between economic policy and unemployment in Nigeria, since all the proxy variables in the model jointly cause unemployment.

In their 2016 study, Egbulonu and Amadi appraised data from 1970 to 2013 to determine how fiscal policy affected Nigeria's rate of joblessness. This study's data comes from the following places: the National Bureau of Statistics (NBS) and the CBN Statistical Bulletin (different editions). It comprises government spending, debt stock (a stand-in for government borrowing), tax revenue, and the unemployment rate. The analysis indicated that tax income had a favourable correlation with Nigeria's rate of joblessness, but fiscal policy instruments (i.e., government spending and debt stock) had an unfavourable correlation. So, a lower employment rate in Nigeria is the result of a higher tax rate. The upshots also show that fiscal policy and unemployment in Nigeria have an equilibrium connection in the long run.

In 2016, Obayori appraised the link between Nigeria's fiscal policies and unemployment. From 1980 to 2013, the research employed yearly aggregate data. We employed ECM and co-integration to examine the data. Unemployment in Nigeria is

unfavourably and substantially correlated with the two independent variables, namely, Government Capital and Recurrent Expenditure. Both the sign and the statistical significance of the ECM co-efficient show that fiscal policy and unemployment have a long-run connection in the outcome. The upshots so far clearly show that fiscal policy is helping to lower Nigeria's rate of joblessness.

Between 1980 and 2013, Nick, Igwe, and Wilfred (2015) studied the effect of fiscal and monetary policies on Nigeria's unemployment problem. To do this, we employed government spending and revenue as fiscal policy indicators and broad supply of cash (M2), rate of interest, and exchange rates as proxies for monetary policy. We employed an economic analytical framework as per OLS methods to find the series' unit roots, which we then tested for Co-integration utilising the Engle Granger method. Authorities in Nigeria discovered that whereas spending did correlate favourably with the country's unemployment rate, tax income had an unfavourable and statistically negligible effect. The study indicated that the supply of cash and exchange rate had a favourable and substantial sway on monetary policy, but rate of interest merely had a favourable association on Nigeria's unemployment issue. This satisfies the expectation (a priori). In congruent with the research, private companies are less likely to hire a big staff when interest and exchange rates rise since doing so raises the cost of manufacturing.

Using ECM and temporal data, Jonathan, Anthony, and Emily (2015) appraised the macroeconomic factors that contribute to Nigeria's high unemployment rate. In the near term, and especially within the time period under discussion, the outcome shows that GDP growth rate, inflation rate, degree of openness, and private domestic investment all have substantial impacts on unemployment. The Johansen co-integration test validates the presence of a long-run link between the variables, and the ECM, which is both unfavourably signed and substantial statistically, demonstrates a rapid transition from short-run volatility to long-run equilibrium.

Gaps and Value Addition

Consequently, this paper conducted a comprehensive review of a variety of literature and identified reports that were both conflicting and contradictory. In Nigeria, for example, there has been research looking at how monetary policy affects GDP growth and inflation/price stability, but much less studies looking at how monetary policy affects unemployment. So, the purpose of this research is to look at the link between unemployment in Nigeria and monetary policy. Twenty22 was also not comprised in any of the prior relevant research. Consequently, in an effort to make this research more current and up-to-date than prior relevant studies, it will span the period from 1985 to 2022 utilising yearly temporal data.

V. Methodology

Research Design

'Survey' is another term for the quasi-experimental research design that this paper employs. This method integrates empirical observation with theoretical consideration (a priori criterion) to extract the most information from the available data. Consequently, this paper employed secondary data from the Statistical Bulletin of the CBN and the Publications of the National Bureau of Statistics (NBS). Encompassing the years 1985 to 2022, signifying thirty-eight (38) years of sample observations.

Model Specification

This paper is as per the modification of Okeke and Chukwu (2021) with minor modifications. In light of this, our model is defined as follows:

$$UMR = f(\text{Monetary Policy}) \quad (1)$$

The model is disaggregated as follows:

$$UMR_t = f(LR, MS, LQR, EXR) \quad (2)$$

The functional link in equation 2 is stated in mathematical form as follows:

$$UMR_t = \beta_0 + \beta_1 LR_t + \beta_2 MS_t + \beta_3 LQR_t + \beta_4 EXR_t \quad (3)$$

The mathematical link in equation 3 is stated in explicit form to enhance its estimation thus:

$$UMR_t = \beta_0 + \beta_1 LR_t + \beta_2 MS_t + \beta_3 LQR_t + \beta_4 EXR_t + u_t \quad (4)$$

Where:

UMR _t	=	Unemployment rate (measured by unemployment)	LRT _t	=	Lending rate	
MSt	=	Money supply, LQR _t	=	Liquidity ratio, EXR _t	=	Exchange rate
f	=	Function of, t	=	Timeframe		
β_0	=	Regression Intercept				
β_1	=	Parameter of lending rate				
β_2	=	Parameter of money supply				
β_3	=	Parameter of liquidity ratio				
β_4	=	Parameter of exchange rate				
μt	=	Disturbance or error term				

A Priori Expectation

On a priori grounds, the co-efficient (parameter estimates) will take the following outcome:

$\beta_1 > 0$: This means that lending rate is expected to have favourable impact on unemployment rate.

$\beta_2 < 0$: This means that money supply is expected to have unfavourable impact on unemployment rate.

$\beta_3 > 0$: This means that liquidity ratio is expected to have favourable impact on unemployment rate.

$\beta_4 > 0$: This means that exchange rate is expected to have favourable impact on unemployment rate.

Variable Description

This study provides an operational measurement of the variables to guarantee that a meaningful analysis is conducted. This will assist in elucidating the significance of the variables, as they are employable in the investigation. The dependent variable in this study is unemployment, which is quantified by the Unemployment Rate. The independent variable is unemployment, which is proxied by the lending rate, money supply, liquidity ratio, and exchange rate.

Dependent Variable

Unemployment Rate: By dividing the total number of people out of work by the total number of people actively seeking employment, we may get a sense of the prevalence of unemployment rate as a percentage.

Lending Rate: As a percentage of the loan's principle, it is the amount that lenders charge borrowers for utilising their assets.

Money Supply

Money supply refers to the total quantity of money in circulation within an economy, comprising both fiat and non-fungible forms of currency.

Liquidity Ratio

The liquidity ratio is a measure of a bank's capacity to pay back its short-run borrowers utilising its available cash. You may calculate it by dividing your total cash on hand by your short-run borrowings.

Exchange Rate

In trading one country's currency for another, this is the markup that the former obtains.

VI. Result and Discussion

Unit Root Test

The upshots of the unit root test are presented in table 4.2 below:

Table 1: Unit Root Test Upshots

Variables	Level		First Difference		Order of
	ADF	5% Critical	ADF	5% Critical	

		Value		Value	Integration
UMR	12.54741	-2.936942	-	-	I(0)
LR	1.135264	-2.938987	-6.504745	-2.943427	I(1)
MS	4.697372	-2.957110	-	-	I(0)
LQR	2.714122	-2.936942	-4.074471	-2.938987	I(1)
EXR	-1.511118	-2.938987	-4.512549	-2.938987	I(1)

Source: Computation done by author (2024), E-Views) 12 Statistical Software.

Table 1 displays the aggregated upshots of the ADF Unit root tests performed on all of the model variables. Both the unemployment rate and the money supply stabilised at their respective levels, in congruent with the upshots of the unit root test. Why? As a result of the fact that the values of the money supply test statistic and the unemployment rate are both higher than the Mackinnon critical value at the 5% level of significance. This provides further evidence that the money supply and unemployment rate were both stagnant at the zeroth order [i.e., I (0)]. In contrast, there was no levelling down of the loan rate, liquidity ratio, or exchange rate. The reason for this is because at the 5% level of significance, their individual test statistic values are lower than the Mackinnon critical value. Nevertheless, after the first differencing, the loan rate, liquidity ratio, and exchange rate achieved stability. This is due to the fact that, at the 5% level of significance at first difference, each of their test statistic values is above the Mackinnon critical value. This proves that the exchange rate, liquidity ratio, and loan rate are all of the first order [i.e., I(1)].

Bounds Co-integration Test

Table 2: ARDL Bounds Co-integration Test (1, 1, 0, 0)

Level of Significance	Critical Values		Wald Test (F- K Value)	
	Lower Bound	Upper Bound		
10%	2.2	3.09	103.6738	4
5%	2.56	3.49		
2.5%	2.88	3.87		
1%	3.29	4.37		

Source: Computation done by author (2024), E-Views) 12 Statistical Software.

Table 2 displayed the upshots of the ARDL Bounds Test. At both the lower and higher limits, the result's F-statistic of 103.6738 rejects the null hypothesis that the variables do not have any long-run association. This suggests that between 1985 and 2022, there is a link between unemployment in Nigeria and monetary policy. This demonstrates, in particular, the existence of a long-run link between the exchange rate, money supply, lending rate, liquidity ratio, and unemployment rate. It was also necessary to estimate the strength of the association between the dependent and independent variables in an effort to validate long-run dynamics among the variables.

Long-Run Estimates of the ARDL Model

Table : Estimated Long-Run Co-efficient of ARDL (1, 1, 0, 1, 1)

Dependent Variable: UMR				
Variable	Co-efficient	Std. Error	t-Statistic	Prob.*
LR	0.728803	0.237615	3.067164	0.0056
MS	-1.725091	1.097318	-1.572098	0.1264
LQR	-1.670848	0.560027	-2.983514	0.0069
EXR	0.920077	0.051896	17.72913	0.0000
C	533.1197	4926.395	0.108217	0.9145

Source: Computation done by author (2024), E-Views) 12 Statistical Software.

Table 3 displays the ARDL model's long-run estimates. The upshots demonstrated a favourable and statistically substantial association between the rate of receiving a loan and the rate of unemployment in Nigeria over the long run. Lending rate's favourable co-efficient value (0.728803) and probability-value (0.0056), which is below 0.05, provide support of this. The unemployment rate will rise by 0.728803 points for each individual unit rise in the

lending rate and fall by the same amount for each individual unit drop in the lending rate. In addition, the ARDL model's long-run predictions showed that the money supply is unfavourably and insubstantially related to Nigeria's rate of joblessness over the long run. The money supply co-efficient is unfavourable (-1.725091) and has a probability-value of 0.1264, which is larger than 0.05, indicating this. This means that the unemployment rate will go down by 1.725091 points for each individual unit rise in the money supply and up by 1.725091 points for each individual unit reduction in the money supply.

Additionally, the ARDL model's long-run estimations showed that the liquidity ratio had an unfavourable and statistically substantial association with Nigeria's rate of joblessness. The probability-value (0.0069) is below 0.05, and the co-efficient value (-1.670848) of the liquidity ratio is unfavourable, indicating this. This means that the unemployment rate will go down by 1.670848 percentage points for each individual unit rise in the liquidity ratio and up by 1.670848 percentage points for each individual unit drop in the liquidity ratio. Finally, the ARDL model's long-run projections showed that the exchange rate is favourably and substantially related to Nigeria's rate of joblessness. The favourable co-efficient value of the exchange rate (0.920077) and its probability-value (0.0069), which is below 0.05, provide confirmation of this. If the exchange rate goes up by one unit, the unemployment rate will go up by 0.920077, and if it goes down, the unemployment rate will go down by 0.920077.

Short-Run Estimates of the ARDL Model

Table 4 below shows the short-run parameter upshots along with the error correction term:

Table 4: Short-run Estimates of the ARDL Model

Dependent Variable: UMR				
Variable	Co-efficient	Std. Error	t-Statistic	Prob.*
D(LR)	0.853930	0.282530	3.022441	0.0050
D(MS)	-0.069989	0.047869	-1.462076	0.1538
D(LQR)	-50.88381	13.67893	-3.719869	0.0008
D(EXR)	0.069989	0.034046	2.055700	0.0483
CointEq(-1)*	-0.404708	0.015058	-26.87698	0.0000
R-squared: 0.953836, Adjusted R-squared: 0.949989			Durbin-Watson stat: 2.348224	

Source: Computation done by author (2024), E-Views) 12 Statistical Software.

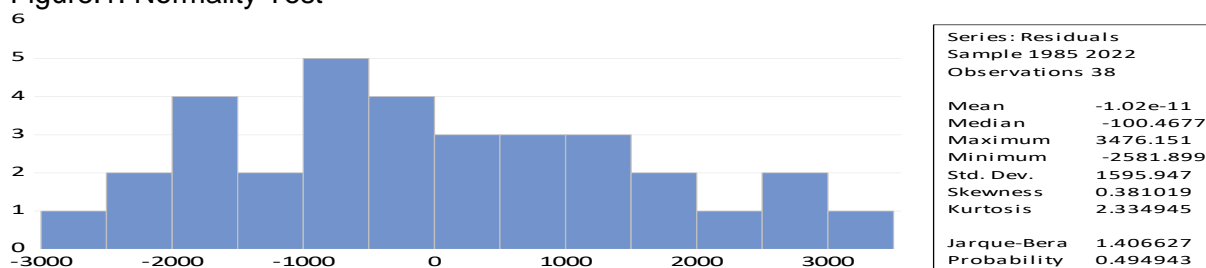
Table 4 displays the short-run estimates obtained from the ARDL model. The upshots showed that in the short-run, there is a favourable correlation between the loan rate and Nigeria's rate of joblessness. Since the probability-value (0.0050) is below 0.05 and the loan rate co-efficient (0.853930) is favourable, this is clearly the case. This means that the unemployment rate will go up 0.853930 points for each individual unit rise in the loan rate and down 0.853930 points for each individual unit drop in the lending rate. Additionally, the ARDL model's short-run estimations showed that the money supply is unfavourably and insubstantially related to Nigeria's rate of joblessness in the short-run. The money supply co-efficient is unfavourable (-0.069989) and has a probability-value of 0.1538, which is larger than 0.05, indicating this. This means that the unemployment rate will go down by 0.069989 points for each individual unit rise in the money supply and up by 0.069989 points for each individual unit reduction in the money supply.

In addition, the ARDL model's short-run estimations showed that the liquidity ratio is unfavourably yet substantially related to Nigeria's rate of joblessness in the short-run. A probability-value of 0.0008, which is below 0.05, and a co-efficient value of -50.88381 for the liquidity ratio provide proof of this. It follows that the unemployment rate will fall by 50.88381 percentage points for every one-unit rise in the liquidity ratio and will rise by 50.88381 percentage points for every one-unit reduction in the liquidity ratio. Finally, the ARDL model's short-run estimations showed that the exchange rate is favourably and substantially related to Nigeria's rate of joblessness in the short-run. The favourable co-efficient value of the exchange rate (0.069989) and its probability-value (0.0483), which is below 0.05, provide support of this. The result is that the unemployment rate will go up by 0.069989 points for

each individual unit rise in the exchange rate and down by the same amount for each individual unit fall in the rate.

The anticipated favourable sign of $CointEq(-1)$ is very substantial, as seen in table 4. This proves that the variables do in fact have a connection in the long run. The co-efficient of $CointEq(-1)$ is -0.404708, which means that the next year, the unemployment rate will be 40% closer to the long-run growth rate. Furthermore, in congruent with table 4.4's long-run ARDL model estimates, the estimated model is well-fitting with an Adjusted R-squared value of 0.949989. This means that the model adequately explains the variation in the unemployment rate, with the explanatory variables (liquidity ratio, lending rate, exchange rate, and money supply) accounting for around 95% of the variance, and other variables or factors accounting for the remaining 5%. Finally, there is no serial autocorrelation when the Durbin-Watson statistic is bigger than 2, which is 2.348224.

Figure.1: Normality Test



Source: Computation done by author (2024), E-Views) 12 Statistical Software.

At the 5% level of significance ($P = 0.494943$), the normality test yielded a favourable result (Figure 1), suggesting that the residual follows a normal distribution. A probability value of 0.494943 is above the indicated threshold of significance, in congruent with the Jarque-Bera normality test. This indicates that the errors were regularly distributed, as the null hypothesis of normal distribution is upheld.

Serial Correlation Test

Table 5: Breusch-Godfrey Serial Correlation LM Test

F-Statistic	Probability-value	Null Hypothesis	Decision
1.047988	0.3691	H0: No serial correlation	Retain H0

Source: Computation done by author (2024), E-Views) 12 Statistical Software.

Table 5 displays the upshots of the Breuch Godfrey test and the Lagrange multiplier (LM) tests for serial correlation of the residuals. Being more than the 5% threshold of significance, the probability value of 0.3691 allowed for the retention of the null hypothesis of no serial connection. So, we may deduce from the statistics that our model does not comprise serial correlation.

Table 6: Breusch-Pagan-Godfrey Heteroscedasticity Test

F-Statistic	Probability-value	Null Hypothesis	Decision
1.429047	0.2320	H0: Homoscedasticity	Retain H0

Source: Computation done by author (2024), E-Views) 12 Statistical Software.

Table 6 displays the outcomes of the Breusch-Pagan-Godfrey test for heteroskedasticity. Upshots disproved the existence of heteroscedasticity in our model. We kept the null hypothesis of homoscedasticity, which is why this is the case. For this reason, a 0.2320 probability value suggests that the mistakes were homoscedastic and unrelated to the explanatory factors. Therefore, the model is suitable for analysis and drawing conclusions since it fits well.

Table 7: Ramsey RESET test

F-Statistic	Probability-value	Null Hypothesis	Decision
0.084384	0.7735	H0: Correctly specified	Retain H0

Source: Computation done by author (2024), E-Views) 12 Statistical Software.

For the purpose of identifying specification errors, Table 7 displays the upshots of the Ramsey RESET test. In congruent with the upshots, the probability value of 0.7735 is above the intended 5% threshold of significance when tested against the Ramsey Regression Equation Specification Error Test (RESET) test. This meant that we could keep our fingers crossed that our model specifications were spot on. As a consequence, the model could not have been defined wrongly, ruling out the possibility of missing variables. Once again, there is no incorrect functional form for the model.

Discussion of Upshots

From 1985 through 2022, this research appraised how monetary policy affected unemployment in Nigeria. The CBN Statistical Bulletin provided the temporal data employed in this research, which primarily utilised the ARDL estimate approach. Following is a discussion of the upshots produced from the analysis, which was made possible utilising the statistical software Econometric Views (E-Views) 12: This study's upshots demonstrated a favourable and statistically substantial link between loan rate and Nigeria's rate of joblessness. Accordingly, during the study period (1985–2022), the loan rate substantially contributed favourably to Nigeria's rate of joblessness. This confirms what Okeke and Chukwu (2021) found: that the loan rate substantially affects Nigeria's rate of joblessness for the better.

The research also found that the money supply affects Nigeria's rate of joblessness, but only in an unfavourable and insubstantial way. It follows that, from 1985 to 2022, the money supply had an unfavourable and insubstantial outcome on Nigeria's rate of joblessness. Nteegah (2021) found that the money supply has an unfavourable outcome on Nigeria's rate of joblessness, and our upshots are in line with that. The research also found that the liquidity ratio substantially and unfavourably affects Nigeria's rate of joblessness. This means that from 1985 to 2022, the liquidity ratio substantially impacted Nigeria's rate of joblessness in an unfavourable way. Nick, Igwe, and Wilfred (2015) also discovered that liquidity ratio substantially affects unemployment rate in Nigeria unfavourably, therefore our upshots are in line with theirs.

Finally, this study's upshots demonstrated that the exchange rate substantially and favourably affects Nigeria's rate of joblessness. Accordingly, during the study period (1985–2021), the exchange rate substantially contributed favourably to Nigeria's rate of joblessness. This confirms what Ekwe (2018) observed, that a rise in the exchange rate reduces unemployment in Nigeria over the long and short-run.

VII. Conclusion and Recommendations

Conclusion

The impact of Nigeria's economic policy on the country's unemployment rate was the focus of this research. While the money supply did not have a substantial sway on Nigeria's rate of joblessness in either the short or long run, the research did find that the lending rate, liquidity ratio, and exchange rate did. The research found that monetary policy has a substantial impact on Nigeria's rate of joblessness.

Recommendations

The researcher suggests these actions as per the study's upshots:

In an effort to make credit more accessible to companies, the CBN had to think about enacting policies that lower lending rates. When rate of interest are low, SMEs are more likely to borrow money to grow. This boosts output, which in turn might lower unemployment and provide more job openings. The government should implement expansionary monetary measures, comprising reducing bank reserve requirements or opening the market to private investors, with caution In an effort to raise the money supply. A decline in unemployment may result from the creation of new jobs made possible by a rise in the supply of cash, which in turn stimulates the economy and rises demand for products and services.

To encourage banks to lend more money to productive sectors, especially ones that rely on human labour, the Central Bank should think about changing liquidity ratios. Reduce unemployment by

shifting bank lending capital to industries with greater job creation potential as a result of lower liquidity ratios.

In an effort to make Nigerian exports more competitive, the government should implement policies regarding the currency rate. Exports, output, and the number of employment in Nigeria might all benefit from a more favourable exchange rate, which would make the country's commodities more competitively priced on global markets.

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