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**EMPIRICAL ANALYSIS OF THE IMPACT OF MONETARY POLICY ON
EMPLOYMENT IN NIGERIA**

BY

**Theodora Nwanneamaka UWAECHUE
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**DEPARTMENT OF ECONOMICS
FACULTY OF SOCIAL SCIENCES
UNIVERSITY OF BENIN**

OCTOBER, 2025

43 **EMPIRICAL ANALYSIS OF THE IMPACT OF MONETARY POLICY ON
EMPLOYMENT IN NIGERIA**

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**Theodora Nwanneamaka UWAECHUE
SSC2105627**

61 **A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF
ECONOMICS, IN PARTIAL FULFILLMENT OF THE REQUIREMENT
FOR THE AWARD OF THE BACHELOR OF SCIENCE (B.Sc.) IN
ECONOMICS, UNIVERSITY OF BENIN, BENIN CITY**

OCTOBER, 2025

CERTIFICATION

We certify that this work titled, “Empirical Analysis of the Impact of Monetary Policy on Employment in Nigeria”⁴ was carried out by Theodora Nwanneamaka UWAECHUE with matriculation number SSC2105627 in the Department of Economics, Faculty of Social Sciences, University of Benin, Benin City, Edo State.

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I dedicate this work to the ultimate helper of my destiny, God, who provided me with the insights and strength to complete this project.

To my late Dad, Mr. Peter Adimabua Uwaechue, I fulfilled your last wish, rest well my hero. And to my pillars of support, my guides, Mr. Chukwudi Joseph Okonji, my mother and backbone, Mrs Caroline Nmaduabuo-chukwu Uwaechue, for their unwavering encouragements.

Also, to my beloved siblings, Ifeanyichukwu Henry, Chibuzor Jude, Chukwujindu Francis, for their boundless love and encouragement throughout my academic journey.

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ABSTRACT

The research examined how monetary policy impacts employment in Nigeria. It used employment⁷⁷ as the dependent variable and broad money supply (M2), monetary policy rate (MPR), and inflation rate (INF) as the independent variables. The data spanned from 1991 to 2022. The methods²⁴ of data analysis employed were the Autoregressive Distributed Lag Model (ARDL), unit root⁹⁴ test and co-integration test. The result indicates a long-term relationship among the variables. Specifically, the study found¹² that money supply has a positive and significant impact on employment in the long run, satisfying the a priori expectation. Inflation was found to²²⁵ have both negative short-run and weak positive long-run effects on employment, indicating that high inflation undermines job creation in the short term but may exert mild stimulatory effects over time. Conversely, the monetary policy rate showed⁴⁵ no significant effect on employment in both the short and long run, suggesting that interest rate adjustments alone do not effectively influence employment outcomes⁵⁸ in Nigeria. Based on these findings, the study recommends that policymakers should strengthen monetary expansion policies that increase money supply while ensuring that such measures are complemented by structural reforms to enhance credit access for productive sectors. Inflation management should be prioritized through a balanced mix of monetary and fiscal strategies to reduce its adverse short-run effects on job creation. Additionally, interest rate policies should be complemented with targeted employment and investment programs to improve the responsiveness of the labor market to monetary interventions.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Monetary policy serves as a vital macroeconomic instrument through which central banks manage liquidity, control inflation, and promote economic stability (International Monetary Fund, 2023). In Nigeria, the Central Bank of Nigeria (CBN) employs monetary policy tools such as the monetary policy rate (MPR), cash reserve ratio (CRR), liquidity ratio, and open market operations to influence economic variables including output, prices, and employment (CBN, 2022). One of the fundamental objectives of monetary policy is to maintain a low and stable unemployment rate, which is crucial for reducing poverty and enhancing social welfare (Iyoha, 2019).

Despite successive monetary policy reforms in Nigeria, the economy continues to struggle with high levels of unemployment, particularly among youths. The unemployment rate, according to the National Bureau of Statistics (National Bureau of Statistics, 2023), remains above 33%, signaling a major disconnect between monetary policy initiatives and labor market performance. Several empirical studies have raised concerns about the weak transmission mechanism of monetary policy in Nigeria, which hampers its effectiveness in achieving full employment (Alege, 2019; Obadan, 2020).

In theory, an¹ expansionary monetary policy should lower interest rates, stimulate investment, boost aggregate demand, and consequently increase employment. However, in the Nigerian context, this expected outcome is often undermined by structural challenges such as financial sector inefficiencies, a large informal economy, corruption, and weak institutional frameworks (Ogunleye, 2018; Akanbi, 2020). Moreover, high inflation rates and foreign exchange volatility tend to erode the gains of any monetary policy expansion, leading to stagflation, an undesirable situation of stagnant growth and rising unemployment (Okorie & Agu, 2021).

Furthermore, Nigeria's overreliance on oil revenues and vulnerability to external shocks make the monetary policy environment unstable and reactive rather than proactive (Uzonwanne, 2021). These realities necessitate a comprehensive assessment of how and⁷⁹ to what extent monetary policy influences employment in Nigeria. This study, therefore, seeks to²⁰ provide empirical evidence on the effectiveness of monetary policy tools in reducing unemployment, with a focus on the Nigerian economy between 1991 and 2022.

²⁵ 1.2 Statement of the Problem

The persistent rise in Nigeria's unemployment rate has remained a major macroeconomic concern despite ongoing adjustments in monetary policy. According to the NBS¹⁵⁶ (2023), Nigeria's unemployment rate has more than tripled over the past decade. This alarming situation persists even as the CBN continues to implement

various policy measures aimed at economic stabilization and employment creation (CBN, 2022).

64 Studies have highlighted the inefficacy of monetary policy in significantly influencing employment outcomes in Nigeria. Alege (2019) found that the weak financial intermediation and limited credit availability constrain the effectiveness of monetary policy transmission. Similarly, Oladeji and Ogun (2021) argued that the inconsistencies in policy implementation, coupled with political interference and regulatory lapses, often diminish the expected impact on employment generation. Moreover, high interest rates resulting from tight monetary policy tend to discourage borrowing and investment by small and medium-scale enterprises (SMEs), which are essential drivers of job creation (Ogunleye, 2018). Conversely, expansionary monetary policies, intended to boost economic activity, are often accompanied by inflationary pressures, exchange rate instability, and capital flight, which collectively inhibit productive investment (Obadan, 2020; Akanbi, 2020).

The dual challenge of unemployment and inflation suggests that Nigeria may be experiencing structural issues that monetary policy alone cannot resolve. The large size of the informal sector, poor infrastructure, insecurity, and weak institutional support further exacerbate this challenge (Iyoha, 2019; Okorie & Agu, 2021). As a result, questions remain about the appropriateness, consistency, 71 and long-term effectiveness of Nigeria's monetary policy strategies in tackling unemployment.

12 This study seeks to address this gap by empirically examining the impact of key

monetary policy tools on employment trends in Nigeria. The findings are expected to offer critical insights that can guide policymakers in designing more employment-sensitive monetary frameworks.

1.3 Research Questions

The research questions arising from the research problems are:

1. What is the impact of money supply on employment in Nigeria?
2. Does monetary policy rate impact employment in Nigeria?
3. Does inflation rate affect employment in Nigeria?

1.4 Objectives of the Study

The main objective of this study is to examine the empirical relationship between monetary policy and employment in Nigeria. Specifically, the study aims to:

1. Assess the effect of money supply on employment in Nigeria.
2. Investigate the influence of monetary policy rate on employment in Nigeria.
3. Evaluate the role of inflation in employment in Nigeria.

1.5 Research Hypotheses

The study will test the following hypotheses:

H₀₁: Money supply has no significant impact on employment in Nigeria.

H₀₂: Monetary policy rate does not significantly affect employment in Nigeria

H₀₃: Inflation has no significant relationship with employment in Nigeria.

1.6 Scope of the Study

This study covers the period from 1991 to 2022 and focuses on Nigeria's macroeconomic environment. It examines the impact of key monetary policy indicators such as monetary policy rate (MPR), inflation rate (INF) and broad money supply (M2) on employment in Nigeria. The research employs annual time-series data sourced from the Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS), and other credible databases. To ensure the robustness and validity of the analysis, the study adopts appropriate econometric techniques for time-series data, including unit root testing to assess stationarity, the Auto-Regressive Distributed Lag (ARDL) model for both short-run and long-run dynamic relationships, and cointegration analysis to detect the existence of long-run equilibrium among the variables.

1.7 Significance of the Study

The study offers relevant contributions to policy formulation and academic discourse. For policymakers, especially the Central Bank of Nigeria, it provides empirical evidence on the effectiveness of monetary policy tools in addressing unemployment. It also aids in the design of more targeted, efficient, and employment-friendly policy measures. For academics and researchers, the study enriches the literature on monetary policy and labor market dynamics in developing economies. Moreover, it serves as a reference for future studies and assists

development agencies in understanding the macroeconomic constraints facing Nigeria's labor market.

1.8 Structure of the Study

This study is structured into five chapters to ensure a coherent flow of ideas and results. Chapter One provides the introduction, which includes the background of the study, problem statement, research questions, objectives, hypotheses, scope, and relevance of the research. Chapter Two focuses on the review of related literature, encompassing both theoretical and empirical contributions, to establish a strong basis for the study. Chapter Three outlines the research methodology, detailing the theoretical framework, model specification, data sources, and estimation methods adopted. Chapter Four presents the analysis of data, interpretation of outcomes, and discussion of findings in relation to the stated objectives and hypotheses. Lastly, Chapter Five summarizes the entire research, draws conclusions based on key findings, and puts forward policy recommendations along with directions for future studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Concept of Monetary Policy

Monetary policy refers to the process by which the central bank of a country regulates the supply of money, interest rates, and credit availability in the economy with the aim of achieving macroeconomic objectives such as price stability, full employment, and economic growth. In Nigeria, the Central Bank of Nigeria (CBN) is the institution responsible for the formulation and implementation of monetary policy. Its primary goals include maintaining monetary and price stability, issuing legal tender, and safeguarding the international value of the naira (CBN, 2023).

Monetary policy operates through several channels, most notably the monetary policy rate (MPR), cash reserve ratio (CRR), liquidity ratio, and open market operations (OMO), all of which influence liquidity conditions in the banking system and the wider economy. These instruments are used to manage aggregate demand by influencing borrowing, investment, and consumption decisions across the economy (CBN, 2023; IMF, 2022).

Mishkin (2007) defines monetary policy as the central bank's management of the money supply and interest rates to influence macroeconomic outcomes such as inflation and output. Similarly, Olayemi and Afolabi (2022) noted that monetary policy remains a vital tool for controlling inflationary pressures and stabilizing economic performance, especially in emerging economies like Nigeria.

99 Monetary policy can be classified into two broad categories: expansionary and contractionary. Expansionary monetary policy is used to stimulate economic activity during periods of recession or high unemployment by reducing interest rates and increasing the money supply. Conversely, contractionary monetary policy is employed to reduce inflationary pressure by increasing interest rates and restricting money supply growth (Friedman, 1968; Nwankwo & Omodero, 2021).

30 In Nigeria, the use of monetary policy has evolved over the years, especially in response to external shocks, volatile oil prices, and fiscal imbalances. Despite consistent adjustments to key policy variables such as the MPR and money supply growth, the country continues to experience structural unemployment and slow job creation. Recent studies by Adeniran and Saibu (2021) and Udo and Nwankwo (2023) argue that while monetary policy has contributed to price stability, its direct impact on employment outcomes remains weak, partly due to structural rigidities and poor transmission mechanisms within the Nigerian economy.

83 2.1.1 Types of Monetary Policy

194 Monetary policy involves the strategies and measures adopted by a central bank or monetary authority to influence a country's economic performance through the regulation of money supply, interest rates, and credit conditions. Different forms of monetary policy are employed depending on the prevailing economic situation (Central Bank of Nigeria, 2022).

Expansionary Monetary Policy

Expansionary monetary policy is implemented to boost economic activity, especially during periods of economic downturn or recession. Under this policy, the central bank typically lowers interest rates and increases the money supply to encourage borrowing and spending. As businesses and consumers gain easier access to credit, investment and consumption levels rise, thereby stimulating aggregate demand and promoting economic recovery (Central Bank of Nigeria, 2022).

Contractionary Monetary Policy

In contrast, contractionary monetary policy is designed to control inflation during times when the economy is expanding too rapidly. This approach involves increasing interest rates and reducing the money supply to dampen excessive spending and credit growth. By making borrowing more expensive and limiting liquidity, consumer demand and investment are restrained, helping to slow inflation and stabilize the economy (Central Bank of Nigeria, 2022).

2.1.2 Objectives of Monetary Policy

Monetary policy is formulated with the aim of fostering economic stability and sustainable growth by influencing major macroeconomic indicators. While specific goals may differ from one country to another, the common objectives generally include:

Price Stability: A key aim of monetary policy is to maintain stable prices by keeping inflation in check and avoiding deflation. Price stability preserves the purchasing

power of money, allowing consumers, businesses, and investors to plan and make sound economic decisions. High or erratic inflation undermines money's value, disrupts spending and investment behavior, and creates uncertainty. Similarly, deflation can discourage consumption and reduce production levels. By prioritizing price stability, monetary policy helps build a predictable economic environment and long-term confidence (International Monetary Fund, 2023; European Central Bank, 2021; Eesti Pank, 2012).

Full Employment: Promoting maximum employment is another essential objective. Central banks adjust interest rates and regulate the money supply to either stimulate or moderate economic activity, thereby influencing job creation. In times of economic downturn, lowering interest rates or increasing money supply can boost business activity and employment. Conversely, during inflationary periods, tightening monetary policy may be necessary, even if it temporarily slows employment growth. The overall goal is to minimize unemployment without fueling inflation (International Monetary Fund, 2023; Central Bank of Nigeria, 2017; Mishkin, 2019).

Economic Growth: Encouraging steady economic growth is a fundamental purpose of monetary policy. By influencing borrowing costs and the availability of credit, central banks support investment and consumption, which drive productivity and development. Access to affordable credit stimulates spending on infrastructure, innovation, and workforce development. When growth is consistent, income levels

rise, living conditions improve, and poverty is reduced. Monetary authorities aim to foster growth while avoiding economic volatility or unsustainable expansion (Central Bank of Nigeria, 2017; Mishkin, 2019; International Monetary Fund, 2023).

Balance of Payments Equilibrium: Ensuring a balanced external sector is also a priority. Central banks seek to maintain stable trade and capital flows to avoid large deficits or surpluses that could threaten the economy. A healthy balance of payments supports currency stability and prevents capital flight or speculative currency attacks. Through mechanisms like exchange rate adjustments, interest rate changes, and foreign reserve interventions, monetary authorities aim to keep the country competitive globally and meet external obligations sustainably (Central Bank of Nigeria, 2017; Mishkin, 2019; International Monetary Fund, 2023)..

Interest Rate Stability: Stability in interest rates is vital for effective economic decision-making. Fluctuating rates can cause uncertainty, affecting savings, investment, and consumption patterns. Sharp rate increases raise borrowing costs and may slow down economic activity, while excessively low rates could lead to over-borrowing and financial instability. Maintaining consistent interest rates helps households and businesses plan for the future with confidence (Central Bank of Nigeria, 2017; Mishkin, 2019; International Monetary Fund, 2023)..

Financial Market Stability: A stable financial system is crucial for maintaining economic health. Central banks manage liquidity and oversee financial institutions to prevent systemic risks and ensure the resilience of the banking sector. Through

instruments like reserve requirements, policy rates, and emergency lending facilities, they ensure that financial institutions remain solvent and liquid during times of stress. Sustaining financial market stability helps avoid disruptions that could lead to broader economic crises (Central Bank of Nigeria, 2017; Mishkin, 2019; International Monetary Fund, 2023).

¹⁶⁹ 2.1.3 Monetary Policy Targets

Monetary policy targets are specific economic indicators that central banks seek to influence in order to meet broader macroeconomic objectives. These targets are quantifiable and serve as benchmarks to guide policy decisions. Key targets typically include:

Inflation rate: ¹ One of the most common targets for central banks is maintaining a stable inflation rate, often within a predetermined range such as 2 to 3 percent. Controlling inflation is essential for preserving price stability, which in turn supports sustained economic growth over the long term (Mishkin, 2019; International Monetary Fund, 2023).

Interest rates: Central banks frequently focus on managing ¹²⁵ short-term interest rates, such as the policy rate or interbank lending rate, to influence borrowing costs. Changes in these rates affect consumer spending and business investment, thereby impacting overall economic activity (Cecchetti & Schoenholtz, 2021; Central Bank of Nigeria, 2017).

Money supply: Some central banks monitor and control the rate of growth in the money supply, such as M1 or M2 aggregates, to influence the volume of money circulating in the economy. Managing the money supply helps regulate inflation and either stimulate or slow down economic growth as needed (Mishkin, 2019; European Central Bank, 2021).

Exchange rate: In certain economies, the central bank targets the exchange rate to maintain the stability of the domestic currency relative to foreign currencies. A stable exchange rate helps promote competitiveness in international trade and supports balance of payments equilibrium (Obstfeld et al., 2019; Central Bank of Nigeria, 2017).

Unemployment rate: Although not always a direct target, central banks may adjust monetary policies with the intention of influencing employment levels. By adopting expansionary measures, such as reducing interest rates, they can encourage job creation and work toward achieving full employment (Mishkin, 2019; International Monetary Fund, 2023).

Credit conditions: Central banks also focus on the availability and affordability of credit by shaping the lending environment for financial institutions. This ensures that both businesses and households can access financing to support investment and consumption (Cecchetti & Schoenholtz, 2021; Central Bank of Nigeria, 2017).

Overall, these monetary policy targets are essential tools for achieving fundamental goals such as price stability, economic development, and the

maintenance of a stable financial system (Mishkin, 2019; European Central Bank, 2021).

2.1.4 ²⁰ Monetary Policy Instruments

Monetary policy instruments are the tools employed by governments—primarily through central banks—to regulate ¹⁹⁸ economic conditions by influencing the money supply and interest rates. According to Adekanye (1986), these tools are designed to affect the availability, distribution, and cost of credit within the economy. In Nigeria, ¹⁰² the Central Bank of Nigeria (CBN), in collaboration with the Federal Ministry of Finance (FMF), applies these instruments in response to current economic objectives and circumstances. These instruments are generally categorized into two types: quantitative and qualitative.

Quantitative Instruments of Monetary Policy

⁴⁹ These instruments are used to control the overall level of credit and liquidity in the economy. The primary quantitative tools ⁷⁴ include:

Open Market Operations (OMO): This involves the sale and purchase ⁶⁵ of government securities in the open market. When the CBN sells securities, it absorbs liquidity from the banking system, thus reducing the money supply. Buying securities injects money into the system, expanding liquidity. For instance, in 2023, the CBN conducted OMO auctions valued at over NGN 800 billion to address inflation-driven liquidity challenges (Central Bank of Nigeria, 2023; Mishkin, 2019).

Cash Reserve Ratio (CRR): This is the portion of deposits that commercial banks are required to hold with the CBN. It serves as a mechanism for controlling credit creation. As of 2023, the CRR was raised to 32.5% to tighten liquidity and curb inflation, which had risen to 24.08% by July of that year. This increase limited the lending capacity of banks (Central Bank of Nigeria, 2023; International Monetary Fund, 2023).

Monetary Policy Rate (MPR): Also known as the discount rate, this is the rate at which the CBN lends to commercial banks. Lowering the MPR makes borrowing cheaper, encouraging investment and spending. Raising it restricts credit. In 2023, the CBN raised the MPR several times, reaching 18.75% by September, as a response to growing inflation fueled largely by rising food and fuel prices (Central Bank of Nigeria, 2023; Mishkin, 2019).

Qualitative Instruments of Monetary Policy

These are tools aimed at directing credit to specific sectors of the economy to meet developmental priorities. They include:

Selective Credit Controls: This involves setting guidelines for lending to key sectors such as agriculture, industry, and small businesses. Under initiatives like the Anchor Borrowers' Programme (ABP), which focuses on agricultural financing, over NGN 1 trillion has been disbursed since 2015. In 2023 alone, NGN 81 billion was allocated to support food production and reduce inflation (Central Bank of Nigeria, 2023; Olayemi & Agwu, 2021).

Moral Suasion: This refers to efforts by the CBN to influence banks' lending behavior without enforcing strict regulations. In 2023, for example, the CBN encouraged commercial banks to lower lending rates for strategic sectors such as manufacturing and agriculture to promote economic resilience amid inflation and currency fluctuations (Central Bank of Nigeria, 2023; Yusuf & Dangana, 2024).

2.1.5 Monetary Policy Transmission Mechanism

The monetary policy transmission mechanism describes how changes in central bank policies, such as shifts in interest rates or money supply, affect broader economic outcomes like inflation, employment, investment, and output (Mishkin, 2019; IMF, 2023). Understanding this process is essential for assessing the effectiveness of policy measures (Snowdon & Vane, 2005).

The transmission occurs through several channels, each influencing different components of the economy:

- i. **Interest Rate Channel:** When policy rates change, they affect other interest rates such as lending and deposit rates. Lower ²⁰³ rates reduce borrowing costs, encouraging households to spend and firms to invest, thus raising demand. Conversely, higher rates discourage borrowing and dampen economic activity to control inflation (Bernanke & Gertler, 1995; Mishkin, 2019).
- ii. **Exchange Rate Channel:** Monetary policy can affect currency value. ⁸⁴ Lower interest rates often lead to currency depreciation, making exports cheaper and imports more expensive, thereby supporting domestic production. Higher

interest rates can strengthen the currency but may reduce export competitiveness (Obstfeld et al., 2019; CBN, 2023).

- iii. **Asset Price Channel:** ¹⁵⁸ Interest rate changes influence the value of financial assets like stocks and property. Lower rates tend to boost asset prices, increasing consumer wealth and spending. Higher rates usually depress asset values, reducing consumption and investment (Mishkin, 2019; IMF, 2022).
- iv. **Credit Channel:** This operates through changes in bank lending. Lower rates improve banks' capacity and willingness to lend, supporting credit access for businesses and consumers. This is closely linked to the balance sheet effect, where improved borrower creditworthiness encourages more lending. Higher rates restrict lending and limit economic expansion (Bernanke & Gertler, 1995; Ojo & Adebayo, 2021).
- v. **Expectations Channel:** Central banks influence expectations by communicating likely future actions. If the market believes that rates will stay low, consumers and investors are more likely to spend and invest. Anticipation of rate hikes, however, can have the opposite effect (Mishkin, 2019; Cecchetti & Schoenholtz, 2021).
- vi. ¹⁹⁹ **Risk-Taking Channel:** Lower interest rates may encourage financial institutions to pursue riskier investments in search of higher returns. While this may boost growth in the short term, it can also increase financial vulnerability over time (Adrian & Shin, 2009; IMF, 2023).

Each of these channels contributes to the transmission of monetary policy, ultimately influencing inflation, growth, and financial stability, making it a critical tool for economic management (Mishkin, 2019; Taylor, 1993).

2.2 The Concept of Employment

Employment⁵⁹ is a critical component of any economy and a key indicator of its health and development. It refers to the state in which individuals are engaged in productive activities that earn them income, either through wage or salary jobs, self-employment, or other forms of labor recognized within the labor force (International Labour Organization [ILO], 2018; Todaro & Smith, 2020). The concept encompasses not just the presence of work, but also the nature, quality, and stability of the work available to the population (Okorie & Abiola, 2017).

2.2.1 Definition of²¹² Employment

According to the International Labour Organization ILO (2018), employment refers to³¹ all persons of working age who, during a specified brief period (such as one week), were engaged in any activity to produce goods or provide services for pay or profit. This definition includes those in formal and informal sectors, part-time and full-time jobs, as well as self-employment and unpaid family work (ILO, 2018; Olayemi & Agwu, 2021).

In many national statistics, employment is defined as participation in any form of economic activity that contributes to national output, regardless of the nature

or size of the job. Therefore, even minimal or temporary jobs can be categorized as employment under broader labor definitions (Nwachukwu & Eze, 2016).

2.2.2 Types of Employment

Employment can be classified in several ways, including the following major categories (Todaro & Smith, 2020; Musa & Audu, 2023):

- i. **Formal Employment:** Jobs that are officially registered and recognized by the government, often with legal protection, social security benefits, fixed wages, and regulated working conditions. Examples include civil service jobs, corporate employment, and positions in registered private enterprises.
- ii. **Informal Employment:** Unregistered jobs without formal contracts or legal protections. Workers in this category often lack access to benefits such as pensions, healthcare, or job security. Informal employment is prevalent in developing economies like Nigeria and includes street vendors, artisans, and casual laborers (Eze & Chukwuemeka, 2018).
- iii. **Self-Employment:** Individuals generating their own income without working for an employer, such as small business owners, freelancers, and subsistence farmers. This category can straddle both the formal and informal sectors (Umeh & Iweka, 2024).
- iv. **Underemployment:** Occurs when workers are employed but in roles that do not fully utilize their skills, experience, or availability, e.g., a university

graduate working as a taxi driver or someone working part-time despite being available for full-time work (Adebayo & Salisu, 2023).

2.2.3 Importance of Employment in Economic Development

Employment¹⁸¹ plays a crucial role in ensuring economic growth, poverty reduction, and social stability. Key contributions include (Abubakar & Hassan, 2021; Balogun & Sulaiman, 2020; Ibrahim & Bello, 2023):

- i. Income Generation: Employment provides⁸⁰ income to individuals, allowing them to meet their basic needs and improve their standard of living.
- ii. Poverty Alleviation: Productive employment is¹⁵¹ one of the most effective ways to lift people out of poverty. Stable jobs with fair wages reduce dependency and foster economic independence.
- iii. Human Capital Development: Through employment, individuals acquire experience, training, and skills that enhance their productivity and contribution to the economy.
- iv. Aggregate Demand: Employed individuals spend money²¹⁰ on goods and services, driving consumption and fueling demand in the economy.
- v. Government Revenue: Employment contributes to national income through income tax, social security contributions, and other forms of fiscal revenue.
- vi. Social Stability: High levels of employment contribute to social cohesion, reducing crime and political unrest.

2.2.4 Measurement of Employment

Employment is commonly measured through labor force surveys, household surveys, and administrative records (ILO, 2018; Musa & Audu, 2023). Key metrics include:

- i. **Employment Rate:** The percentage of the working-age population that is currently employed.
- ii. **Labor Force Participation Rate:** The proportion of the population either working or actively seeking work.
- iii. **Employment-to-Population Ratio:** The share of the population aged 15 and above that is employed.

These metrics help governments assess the health of the labor market and design policies aimed at job creation and workforce development.

2.2.5 Challenges to Employment in Developing Countries

In countries like Nigeria, employment challenges are often structural and multifaceted (Nwokoye & Udeh, 2016; Onuorah & Okoye, 2015):

- i. **High Youth Unemployment:** The labor market cannot absorb the growing number of graduates, leading to frustration and emigration.
- ii. **Informal Sector Dominance:** A large portion of the population is employed in low-paying, insecure informal jobs.
- iii. **Skill Mismatch:** There is often a disconnect between the skills acquired in educational institutions and those demanded by employers.

- iv. **Low Industrialization:** The lack of robust manufacturing and service sectors limits job creation.
- v. **Economic Instability:** Inflation, exchange rate fluctuations, and weak fiscal policies can dampen job opportunities.

2.2.6 Policy Measures to Promote Employment

Governments and policymakers adopt various strategies to promote employment, including:

- i. **Education and Vocational Training:** Strengthening human capital to align with market needs.
- ii. **SME Support:**¹²⁹ Providing financial and technical support to small and medium-sized enterprises, which are key job creators.
- iii. **Public Works Programs:** Temporary job creation through infrastructure projects.
- iv. **Industrial Policy:** Promoting sectors like manufacturing and ICT to absorb labor at scale.
- v. **Monetary and Fiscal Stimulus:** Using public spending and monetary easing to boost investment and consumption, indirectly generating employment.

2.2.7 The nexus between³³ Monetary Policy and Employment in Nigeria

The relationship between monetary policy and employment in Nigeria is complex and multifaceted, shaped by both domestic economic conditions and global influences. Monetary policy, through its various instruments¹⁶¹ such as interest rates,

money supply control, and reserve requirements, plays a crucial role in influencing economic activity, which in turn affects employment levels. Understanding how these policies affect the labor market and job creation is critical for formulating effective strategies to tackle Nigeria's persistent unemployment challenges (Central Bank of Nigeria, 2017; Oloto, 2025).

Monetary policy primarily impacts employment through its effect on aggregate demand and investment. Expansionary monetary policy, characterized by lower interest rates and increased money supply, encourages borrowing and investment. This, in turn, can lead to increased production, business expansion, and the creation of jobs, particularly in sectors that are sensitive to credit and interest rates. For example, the manufacturing sector, which is a key employer in Nigeria, is particularly responsive to changes in the cost of borrowing. When the Central Bank of Nigeria (CBN) reduces the Monetary Policy Rate (MPR), it becomes cheaper for businesses to access capital, leading to increased investment and, consequently, job creation. On the other hand, contractionary monetary policy, which involves raising interest rates and reducing the money supply, can slow down economic activity. Higher interest rates increase the cost of borrowing, reducing investment and potentially leading to layoffs and slower job creation. For instance, in an effort to combat inflation, the CBN might tighten monetary policy, which could lead to reduced consumer spending and business investment, particularly in interest-

sensitive industries such as construction and retail (Central Bank of Nigeria, 2017; Oloto, 2025).

Access to credit is a vital link between monetary policy and employment. In Nigeria, many small and medium-sized enterprises (SMEs) and startups, which are key drivers of job creation, rely heavily on credit to finance their operations and expansion. By influencing the availability and cost of credit, monetary policy directly affects the ability of these businesses to hire workers. When the CBN adopts policies that restrict credit availability, such as raising the Cash Reserve Ratio (CRR) or increasing the MPR, it can limit the financial resources available to businesses, particularly those in the informal sector, which employs a large proportion of the workforce. Conversely, when the central bank adopts expansionary policies, businesses can access cheaper credit, which enables them to expand operations and hire more workers. The availability of credit to key sectors such as agriculture, manufacturing, and services is crucial for employment growth. Targeted interventions, such as the CBN's Anchor Borrowers' Programme, have shown potential in channeling credit to sectors that can generate employment (Central Bank of Nigeria, 2017; Oloto, 2025).

Inflation and unemployment often have a complex relationship, especially in an emerging economy like Nigeria. High inflation erodes purchasing power, leading to reduced demand for goods and services. In response, businesses may scale down production and reduce their workforce. Therefore, controlling inflation is crucial for

maintaining a stable environment that fosters employment growth. However, controlling inflation often requires contractionary monetary policy, which may increase unemployment in the short term by raising borrowing costs and reducing demand. In Nigeria, where inflation has been persistently high, the CBN has frequently raised interest rates to curb inflationary pressures. While this approach helps stabilize prices, it also tends to have a dampening effect on job creation, especially in sectors that depend on consumer spending. Therefore, achieving a balance between controlling inflation and promoting employment is a delicate task for policymakers (Central Bank of Nigeria, 2017; Oloto, 2025).

Another important aspect of the relationship between monetary policy and employment is the exchange rate. The value of the naira relative to other currencies is influenced by monetary policy actions, particularly through interest rate adjustments. A depreciating currency can boost exports by making Nigerian goods cheaper on the global market, potentially leading to job creation in export-oriented sectors. However, a weaker currency can also raise the cost of imports, which can increase the cost of production for businesses that rely on imported goods and materials. In Nigeria, where foreign exchange volatility has been a recurring issue, the CBN's management of the exchange rate through monetary policy is crucial for maintaining employment levels. A stable currency encourages investment and business expansion, both of which are essential for job creation. On the other hand, significant exchange rate fluctuations can lead to economic uncertainty, dampening

business confidence and reducing hiring (Central Bank of Nigeria, 2017; Oloto, 2025).

While monetary policy plays an essential role in influencing employment, its effectiveness in Nigeria is often constrained by structural factors within the economy. The informal sector, which accounts for a large portion of Nigeria's workforce, is less responsive to formal monetary policy actions, as these workers do not have access to formal credit markets. As a result, monetary policy measures that target credit and interest rates may have limited effects on employment in this sector. Additionally, challenges such as inadequate infrastructure, security concerns, and regulatory inefficiencies can reduce the responsiveness of businesses to changes in monetary policy. Even if the CBN lowers interest rates, businesses may not invest in new projects or hire more workers if the macroeconomic environment remains unstable. Therefore, while monetary policy is an essential tool for managing employment, it must be complemented by structural reforms aimed at improving the business environment and addressing the root causes of unemployment (Central Bank of Nigeria, 2017; Oloto, 2025).

The relationship between monetary policy and employment in Nigeria is multifaceted, with monetary policy influencing job creation through channels such as interest rates, credit availability, inflation control, and exchange rates. However, the effectiveness of monetary policy in addressing unemployment is often limited by structural challenges, including the dominance of the informal sector and

macroeconomic instability. Policymakers must therefore adopt a balanced approach that combines monetary interventions with structural reforms to promote sustainable employment growth in Nigeria. While monetary policy can stimulate short-term employment, achieving long-term job creation requires addressing broader economic and institutional factors that limit the growth potential of key sectors (Central Bank of Nigeria, 2017; Oloto, 2025).

2.3 Theoretical Literature Review

This study is anchored on multiple theories of employment, which collectively explain how monetary policy variables money supply, interest rate, and inflation affect employment in Nigeria. These include the Monetary Theory, the Keynesian Theory of Employment, the Phillips Curve, the IS-LM Model, the Dual Sector Model, and the Structuralist Theory. These theories provide the conceptual basis for understanding the dynamics of employment in developing economies (Friedman, 1968; Keynes, 1936; Phillips, 1958; Hicks, 1937; Lewis, 1954; Thirlwall, 2011).

2.3.1 Monetary Theory of Employment

The Monetary Theory emphasizes the role of money in determining economic activity and employment. It posits that changes in money supply affect aggregate demand, output, and employment (Friedman, 1968; Mishkin, 2019). Expansionary monetary policy through increased money supply reduces interest rates, encourages investment, and stimulates production, thereby creating

employment. Conversely, contractionary policy may lead to lower output and higher unemployment. In Nigeria, where liquidity constraints are common, effective money supply management is crucial to boosting employment (Ojo & Adebayo, 2021).

2.3.2 Keynesian Theory of Employment

Propounded by Keynes (1936), the Keynesian Theory argues that employment is determined by the level of effective aggregate demand. Unemployment arises when aggregate demand is insufficient to fully utilize available labor. Monetary policy influences employment via interest rates: lower rates reduce borrowing costs, stimulate investment, expand production, and create jobs. Conversely, high interest rates discourage investment and reduce employment. This framework is particularly relevant for Nigeria, where investment demand is sensitive to credit availability and interest rates (Eze & Chukwuemeka, 2018; Yusuf & Dangana, 2024).

2.3.3 Phillips Curve Theory

The Phillips Curve (Phillips, 1958) establishes a short-term inverse relationship between inflation and unemployment. It implies a trade-off: efforts to reduce unemployment may increase inflation, while focusing on price stability may elevate unemployment. In Nigeria, where inflation and unemployment coexist, this theory provides insight into the challenges of balancing employment growth with inflation control through monetary policy (Adamu & Musa, 2018; Adebayo & Salisu, 2023).

2.3.4 IS-LM Model of Employment

The IS-LM model, developed by Hicks (1937), integrates the goods market (IS) and money market (LM) to explain equilibrium output and employment. The model shows that interest rate changes influence investment and output, while money supply shifts affect interest rates and, consequently, employment. In Nigeria, the IS-LM framework helps explain how monetary policy interventions in the money market can influence employment through investment demand (Akinbode & Salawu, 2022).

2.3.5 Dual Sector Theory

The Dual Sector Model, proposed by Lewis (1954), highlights structural employment issues in developing economies, dividing the economy into traditional (agriculture) and modern (industrial) sectors. Monetary and fiscal policies affect labor allocation between sectors. In Nigeria, policies that stimulate the modern sector can absorb surplus labor from agriculture, reducing unemployment and improving overall employment quality (Musa & Audu, 2023).

2.3.6 Structuralist Theory of Employment

Structuralist theorists argue that unemployment arises from structural bottlenecks in the economy, including sectoral mismatches, skill gaps, and institutional rigidities (Thirlwall, 2011). Monetary policy alone may not resolve unemployment unless structural constraints are addressed. In Nigeria, structural issues such as skill mismatches, infrastructure deficits, and credit market

inefficiencies limit employment creation, underscoring the need for complementary structural reforms alongside monetary interventions (Umeh & Iweka, 2024).

2.4 Empirical Literature Review

Abubakar and Hassan (2021), drawing on the Real Business Cycle Theory, examined the effect of monetary policy shocks on labor productivity in Nigeria using annual time series data from 1986 to 2019 within a Structural Vector Autoregression (SVAR) framework. Covering Nigeria's macroeconomic fluctuations, they found that policy shocks caused only temporary fluctuations in employment. Consequently, they recommended the use of automatic stabilizers to cushion policy volatility and safeguard labor markets.

Adebayo and Salisu (2023) investigated inflation and employment dynamics in Nigeria within the Phillips Curve theoretical framework. Using annual data from 1990 to 2022 and employing the Autoregressive Distributed Lag (ARDL) model, they showed that inflation reduces real wages and employment levels. Their study recommended the introduction of wage-support policies to mitigate inflation's adverse impact on workers.

Adamu and Musa (2018), applying the Phillips Curve framework, studied the trade-off between unemployment and inflation under monetary policy in Nigeria using quarterly data from 1981 to 2016 analyzed through Cointegration and Vector Error Correction Model (VECM) techniques. They established that inflation control often comes at the cost of employment growth and recommended that policymakers

balance inflation-targeting with employment objectives to avoid exacerbating joblessness.

Akinbode and Salawu (2022) explored the impact of monetary policy on unemployment in Nigeria using the IS-LM Model with annual data from 1980 to 2020, analyzed through ARDL and Granger causality tests.¹⁴⁷ Their results indicated a significant long-run relationship between money supply and employment, with evidence of unidirectional causality running from money supply to employment. They recommended combining money supply growth with interest rate reduction strategies to boost labor demand.

Ayinde and Akintunde (2022), based on the Phillips Curve and NAIRU frameworks, examined the trade-off between inflation targeting and employment in Nigeria using annual data from 1985 to 2021 through cointegration analysis. Their findings suggested that strict inflation targeting could undermine employment growth, and they advised modifying inflation-targeting frameworks to incorporate employment objectives.

Balogun and Sulaiman (2020) applied the Taylor Rule and GARCH modeling to assess interest rate volatility and employment in Nigeria using monthly data from 2000 to 2019. They found that interest rate volatility reduced private sector job creation and recommended stabilizing policy rates to ensure business confidence and job growth.

Bello and Mohammed (2019) analyzed CBN policy and employment trends in Nigeria within the framework of the Monetary Transmission Mechanism. ¹⁶³ Using quarterly data from 1995 to 2018 and employing VAR and impulse response functions, they showed that employment responds positively to monetary expansion. They emphasized strengthening credit channels to enhance job creation.

Eghosa (2019), drawing on the Time Inconsistency Theory, assessed central bank credibility and employment in Nigeria using panel data from 2000 to 2018 and a dynamic panel GMM estimator. The results revealed that weak central bank credibility reduces employment outcomes. The study recommended enhancing policy consistency and CBN autonomy to build credibility.

Eze and Chukwuemeka (2018), guided by Keynesian Theory, investigated the effectiveness of monetary policy in addressing unemployment in Nigeria using annual time series data from 1980 to 2015 analyzed through OLS and cointegration techniques. Their findings revealed a weak but statistically significant effect of monetary policy on unemployment, and they recommended combining monetary with fiscal policies to effectively tackle unemployment.

Ibrahim and Bello (2023), guided by the Classical–Neoclassical Synthesis, evaluated monetary policy tools and labor market outcomes in Nigeria using quarterly data from 1990 to 2022 with VAR and Johansen cointegration analysis. Their findings highlighted that lagged effects of interest rate and inflation significantly affect employment. They recommended improving the timing of policy

changes and strengthening inflation forecasting to minimize labor market disruptions.

Iwedi and Emmanuel (2020) examined monetary policy instruments and employment growth in Nigeria under a mixed Keynesian and Monetarist theoretical framework. Using annual data spanning 1981 to 2018, they employed the ARDL approach with Phillips-Perron unit root tests and found that monetary policy affects employment primarily through money supply. They recommended reinforcing the transmission mechanism of monetary policy for stronger labor market effects.

Musa and Audu (2023), drawing on the Dual Sector Model, studied money supply and employment in Nigeria's informal sector using time series data from 1990 to 2022 and the ARDL bounds testing approach. Their study revealed that money supply significantly impacts informal sector jobs, leading to a recommendation to expand monetary access for informal sector operators to support employment growth.

Nwachukwu and Eze (2016), employing the Demand-Supply Labor Market Theory, investigated the effect of monetary policy rate (MPR) on labor market performance in Nigeria using annual data from 1980 to 2014 analyzed through OLS and cointegration techniques. They found that higher MPR reduces labor demand and recommended reducing MPR while improving credit access for SMEs to boost employment.

Nwokoye and Udeh (2016) analyzed interest rate, money supply, and employment in Nigeria within the Liquidity Preference Theory framework using annual data from 1981 to 2015, employing ARDL and Error Correction Model (ECM) methods. Their findings revealed that money supply boosts employment, whereas high interest rates hinder it. They recommended encouraging lending by reducing interest rates and increasing liquidity.

Ogundele and Fashina (2022) examined digital financial inclusion and employment creation in Nigeria through the lens of Endogenous Growth Theory using panel data from 2005 to 2021 and employing quantile regression analysis. They found that the expansion of financial technology correlates positively with job creation in the services sector and recommended supporting fintech and digital payment ecosystems to enhance employment.

Ojo and Adebayo (2021), guided by the Phillips Curve Hypothesis, investigated the nexus between monetary policy and job creation in Nigeria using quarterly data from 1999 to 2020 analyzed through the VECM approach. Their results showed that money supply positively impacts employment, whereas inflation and interest rates reduce job creation. They recommended policy reforms targeting rate stability and liquidity expansion.

Olayemi and Agwu (2021), based on Okun's Law, studied monetary policy and youth employment in Nigeria using annual time series data from 1990 to 2019 analyzed through ECM estimation. Their findings showed that broad money supply

improves youth employment while inflation limits gains. They recommended developing targeted monetary tools for youth job creation alongside inflation control measures.

Okorie and Abiola (2017), employing the Mundell–Fleming Model, explored exchange rate pass-through and employment in Nigeria using annual data from 1986 to 2015 analyzed with cointegration and ECM techniques. They found that exchange rate instability reduces manufacturing employment and recommended managing foreign exchange volatility to protect job-intensive sectors.

Onuorah and Okoye (2015), using the New Keynesian Model, studied monetary policy transmission and employment in Nigeria with quarterly data from 1980 to 2013, applying VAR and structural decomposition techniques. Their findings indicated a delayed but positive effect of money supply on job creation, leading to a recommendation to strengthen transmission channels through inclusive banking.

Umeh and Iweka (2024), guided by Structuralist Theory, analyzed the sectoral impact of monetary policy on employment in Nigeria using annual data from 1990 to 2023 and a disaggregated VAR model. Their study found that the industrial sector responds more strongly than agriculture to policy changes, prompting a recommendation for sector-specific monetary adjustments for maximum effectiveness.

Yusuf and Dangana (2024), using the Keynesian Employment Theory, investigated monetary policy and employment generation in Nigeria via the ARDL

bounds testing approach with annual data from 1991 to 2022. They found that broad money supply positively affects employment, whereas interest rate and inflation exert negative effects in the short run. Their recommendation emphasized adopting expansionary monetary policies alongside moderate interest rate and inflation control tools to stimulate employment.

2.5 Gaps in Literature

Despite extensive research on the relationship between monetary policy and employment in Nigeria, several critical gaps remain. First, while numerous studies have examined the impact of money supply on employment, much of the existing literature relies on data up to 2022 or earlier, leaving a gap in understanding the effects of recent monetary policy adjustments and economic reforms in 2023.

Second, although the influence of interest rates on employment has been widely discussed, there is limited analysis on the short-term versus long-term effects of interest rate fluctuations on different sectors of employment, particularly in the informal sector, which constitutes a significant portion of Nigeria's labor market.

Third, the role of inflation in determining employment levels has been studied predominantly in isolation, with fewer studies exploring the interactive effects of inflation alongside other monetary policy tools, such as money supply and interest rates, on employment outcomes.

Addressing these gaps would provide a more nuanced and current understanding of how monetary policy influences employment in Nigeria, enabling

policymakers to design targeted interventions to stimulate job creation and economic growth.

THEORETICAL FRAMEWORK AND METHODOLOGY**3.1 Introduction**

This chapter focuses on the theoretical underpinnings and methodology used to analyse the impact of monetary policy on employment in Nigeria. Specifically, it examines how broad money supply (M2), monetary policy rate (MPR) and inflation rate (INF) influence employment in Nigeria (EMP). The chapter includes an overview of the theoretical framework, model specification, data sources, and estimation techniques. This detailed approach ensures the reliability and transparency of the study, providing a robust basis for data analysis and interpretation.

3.2 Theoretical Framework

The theoretical foundation for this study is primarily based on monetary theory and the Keynesian theory of employment, which jointly explain the relationship between monetary policy and employment levels, especially in developing economies like Nigeria (Keynes, 1936; Friedman, 1968). Monetary theory, particularly in its modern form, emphasizes the central role of the money supply and interest rates in influencing economic activity (Mishkin, 2019). It posits that changes in the money supply affect price levels, interest rates, and ultimately aggregate demand, which in turn influences output and employment (Friedman & Schwartz, 1963).

According to this theory, an expansionary monetary policy such as increasing money supply or reducing interest rates lowers borrowing costs, encourages investment, and stimulates aggregate demand (Snowdon & Vane, 2005). In the Nigerian context, where credit access is often limited and inflation remains a persistent issue, this theory suggests that sound and predictable monetary policy is critical to fostering job creation and stabilizing the economy (Ojo, 2013; CBN, 2022).

Complementing this is the Keynesian theory of employment, which asserts that employment levels are determined by aggregate demand rather than wage flexibility (Keynes, 1936).

Keynes argued that in times of economic downturn, insufficient demand for goods and services leads to reduced production and, consequently, unemployment. He maintained that monetary policy could be used to boost aggregate demand, especially during recessions or periods of low economic activity (Snowdon & Vane, 2005). Through mechanisms such as lower interest rates and increased money supply, central banks can stimulate investment and consumption, thus enhancing output and employment (Mankiw, 2020). This perspective is particularly relevant to Nigeria, where cyclical unemployment can be addressed through demand-management policies (Ogunmuyiwa, 2011).

The interaction between these theories can be represented using the IS-LM framework, where:

- a. ²³ The IS curve represents equilibrium in the goods market,
- b. The LM curve represents equilibrium in the money market.

A shift in the LM curve, due to expansionary monetary policy, lowers interest rates and moves the economy toward a higher level of income and employment. This aligns with the Keynesian view that monetary interventions can help bridge output gaps and reduce unemployment in the short run.

From the above, a ⁷⁹ model showing the relationship between monetary policy and employment is presented as follows:

$$E = f(M, r, \pi)$$

Where;

E = Employment

M = Money Supply

r = interest rate

π = inflation rate

In this model, employment ¹³³ is positively related to money supply and negatively related to interest rates and inflation. This implies that increasing money supply and maintaining low interest and inflation rates can promote higher employment levels.

In summary, both Monetary and Keynesian theories provide a compelling theoretical basis for this study. They suggest that monetary policy when effectively implemented can stimulate aggregate demand, enhance investment, and thereby

increase employment. These theories ²¹⁶ underscore the importance of managing interest rates, inflation, and money supply to foster a conducive environment for job creation in Nigeria.

3.3 Model Specification

The model specification was adapted from the study of Yusuf and Dangana (2024), stated below;

$$EMP = f(M2, INT, INF)$$

Where:

EMP = Employment

M2 = Broad money supply

INF = Inflation rate

Adopting the model and incorporating monetary policy rate in an econometric form to test the main hypothesis on the impact of money supply on economic growth in Nigeria the functional form of the model is given as:

$$LNEMP_t = \beta_0 + \beta_1 LNM2_t + \beta_2 MPR_t + \beta_3 INF_t + \beta_4 GDPGR_t + \varepsilon_t$$

Where:

LNEMP = Natural logarithm of employment

LNM2 = Natural logarithm ¹³⁹ of broad money supply

MPR = Monetary policy rate

INF = Inflation rate

In the model, β_0 represents the intercept of LNEMP when other variables are constant, β_1 , β_2 , β_3 , and β_4 are the estimators capturing the changes in LNEMP for a unit change in LNM2, MPR and LNINF respectively while holding other factors constant, and μ denotes the error term accounting for stochastic disturbances outside the specified variables.

3.4 Apriori Expectation

The a priori expectations for the model refer to the expected signs and magnitude of relationships between the dependent variable (LNEMP) and each independent variable based on economic theory. These expectations guide the interpretation of estimated coefficients.

Given the model specification:

$$LNEMP_t = \beta_0 + \beta_1 LNM2_t + \beta_2 MPR_t + \beta_3 INF_t + \varepsilon_t$$

The expected signs of the coefficients are: $\beta_1 > 0$, $\beta_2 < 0$, $\beta_3 \leq 0$,

53 Broad Money Supply (M2)

The coefficient of M2 is expected to be positive. An increase in the broad money supply typically leads to more liquidity in the financial system, lowers interest rates, and stimulates borrowing, investment, and consumption (Mishkin, 2019; McCandless & Weber, 1995). This expansion in economic activity is expected to boost the demand for labor, thereby increasing employment. This expectation aligns with Keynesian monetary theory, which emphasizes the role of liquidity and

aggregate demand in driving employment (Keynes, 1936; Friedman & Schwartz, 1963).

53 Monetary Policy Rate (MPR)

The coefficient of the monetary policy rate is expected to be negative. A higher monetary policy rate leads to increased borrowing costs, which can discourage investment and consumption (Mishkin, 2019; Bernanke & Gertler, 1995). This contractionary effect may reduce production and, subsequently, the demand for labor. As such, an inverse relationship is expected between MPR and employment. This is consistent with classical and monetarist perspectives, which highlight the restrictive effect of high interest rates on economic activity (Friedman, 1968; Taylor, 1993).

219 Inflation Rate (INF)

The expected sign of the inflation rate (INF) is ambiguous. On one hand, moderate inflation may encourage spending and investment, which can support job creation (Akerlof, Dickens, & Perry, 1996; Friedman, 1977). On the other hand, high and unpredictable inflation may increase uncertainty, reduce real wages, distort price mechanisms, and ultimately discourage investment, leading to a decline in employment (Fischer, 1993; World Bank, 2023). Therefore, the effect of inflation on employment can be either positive or negative, depending on the context and magnitude of inflation.

3.5 Estimation Technique

This study employs a multiple regression approach using the Autoregressive Distributed Lag (ARDL) model, which is particularly suited for empirical economic research. The ARDL model is ideal for capturing both short-term and long-term effects while accommodating datasets that may not strictly adhere to stationarity requirements. This flexibility makes it especially useful for smaller sample sizes and enhances its practical application due to its straightforward interpretation.

The ARDL framework addresses non-stationarity by transforming data into a dynamic structure that simultaneously models short-run fluctuations and long-run equilibrium relationships. This ensures the robustness and interpretability of the results, capturing the adjustments over time and the steady-state relationship among variables.

Additionally, ARDL's capacity to determine optimal lag lengths for each variable independently enhances its ability to model dynamic economic relationships more effectively than ordinary least squares (OLS). OLS lacks this flexibility, which can result in biased or inefficient estimates due to improper lag selection. The lagged structure of ARDL also mitigates endogeneity concerns by reducing the influence of contemporaneous correlations between dependent and independent variables, a common limitation in time-series analysis with OLS.

To ensure the reliability of the analysis, the study will conduct the Augmented Dickey-Fuller (ADF) test to confirm data stationarity, addressing potential volatility

typical of datasets from developing economies. The ARDL bounds test will be applied to identify long-term relationships among the variables. Diagnostic tests, including the Breusch-Godfrey test for autocorrelation and the Breusch-Pagan-Godfrey test for heteroscedasticity, will be conducted to validate the robustness of the model

3.6 Data Sources

This study covers a period of 32 years from 1991 to 2022 and relies on secondary data obtained from the Central Bank of Nigeria CBN (2024), and the World Bank WDI (2022). Although there may be a margin of error, the data are assumed to be accurate for the purpose of this research.

32 CHAPTER FOUR

PRESENTATION AND DISCUSSION OF EMPIRICAL RESULTS

4.1 Introduction

This chapter presents the descriptive statistics of the model, along with a correlation analysis to explore the associations among the variables. It further provides an initial check for multicollinearity, which highlights the extent of interrelationships among the explanatory variables. A unit root test was also performed to verify the stationarity of the data series. To examine the presence of a long-term equilibrium relationship and assess convergence, the ARDL bounds co-integration technique was employed. In addition, residual and stability diagnostic tests were conducted to validate the robustness of the empirical findings. The study focuses on employment, money supply, monetary policy rate, and inflation rate, using data spanning 32 years from 1991 to 2022.

Table 4.1: Descriptive Statistics

Statistic	EMP	M2	INT	INF
Mean	78.948	14429.060	2.621	18.420
Median	79.079	11205.680	5.528	12.942
Maximum	80.353	56368.580	18.180	72.836
Minimum	76.805	319.860	-31.453	5.388
Std. Dev.	1.206	14484.120	9.962	16.248
Skewness	-0.330	1.242	-1.452	2.159
Kurtosis	1.668	3.990	5.725	6.623
Jarque-Bera	2.948	9.531	21.149	42.364
Probability	0.229	0.009	0.000	0.000
Sum	2526.349	461730.000	83.864	589.430
Sum Sq. Dev.	45.086	6.500×10^9	3076.650	8184.378
Observations	32.000	32.000	32.000	32.000

Source: Author's Computation using E-views (2025)

Table 4.1 presents the descriptive statistics for the four key variables employment (EMP), money supply (M2), interest rate (INT), and inflation (INF) based on 32 annual observations. These statistics summarize the central tendencies, dispersion, and distributional characteristics of the dataset.

The mean value of employment (EMP) is 78.948 with a relatively small standard deviation of 1.206, suggesting that employment levels remained stable over the period. The small range between its minimum (76.805) and maximum (80.353) supports this conclusion, indicating only modest fluctuations in employment levels. The negative skewness (-0.330) implies a slight concentration of higher employment values, while a kurtosis of 1.668 suggests a flatter-than-normal distribution (platykurtic). The Jarque-Bera probability (0.229) shows that employment is approximately normally distributed.

The money supply (M2) has a mean of 14,429.060, but a very high standard deviation of 14,484.120, reflecting substantial variation in the money supply over time. The wide range between its minimum (319.860) and maximum (56,368.580) confirms this volatility. The positive skewness (1.242) indicates a rightward distribution, meaning there were years with unusually large increases in money supply. The kurtosis value (3.990) suggests that M2 distribution is slightly more peaked than normal (leptokurtic). The Jarque-Bera probability (0.009) indicates that money supply deviates significantly from normality.

The interest rate (INT) displays a mean of 2.621 but a very high standard deviation of 9.962, implying strong volatility. The extreme range from -31.453 to 18.180 indicates that the interest rate experienced large fluctuations, possibly reflecting policy adjustments or macroeconomic shocks. Its negative skewness (-1.452) reveals a longer left tail, showing that extremely low interest rates occurred

more often. A high kurtosis (5.725) indicates a highly peaked distribution with fat tails. ⁶³The Jarque-Bera test (probability = 0.000) confirms that interest rate data significantly deviate from normality.

Finally, inflation (INF) ⁷has a mean value of 18.420 and a standard deviation of 16.248, signifying considerable variation over time. The minimum (5.388) and maximum (72.836) values further demonstrate substantial inflation swings. Its ²⁵positive skewness (2.159) shows that higher inflation rates occurred more frequently than lower ones, while a kurtosis of 6.623 indicates a sharply peaked distribution with the presence of extreme values. ⁶³The Jarque-Bera probability (0.000) confirms that inflation data are not normally distributed.

In summary, employment (EMP) appears to be the most stable variable, showing minimal variation over the study period. Money supply (M2) and inflation (INF) display moderate to high variability, while the interest rate (INT) is the most volatile, with extreme fluctuations. The normality tests reveal that only employment data approximate normal distribution, whereas the other variables particularly interest rate and inflation show significant deviations, reflecting macroeconomic instability and policy adjustments during the observed period.

180 **4.3 Correlation Analysis**

Table 4.2: Correlation Analysis

Variables	LNEMP	LNMS	LNINF	MPR
LNEMP	1.000	0.997	-0.212	0.345
LNMS	0.997	1.000	-0.214	0.348
LNINF	-0.212	-0.214	1.000	-0.532
MPR	0.345	0.348	-0.532	1.000

Source: Author’s Computation using E-views (2025)

The correlation matrix shows the relationship among employment (LNEMP), money supply (LNMS), inflation (LNINF), and the monetary policy rate (MPR). Employment and money supply are almost perfectly positively correlated, with a coefficient of 0.997, indicating that changes in money supply move closely in line with employment levels. This strong correlation suggests that monetary expansion is strongly associated with employment growth. Employment also shows a moderate positive relationship with the monetary policy rate (0.345), meaning that increases in policy rate are accompanied by increases in employment, though the strength of this relationship is not as high as with money supply. In contrast, employment and inflation are negatively correlated (-0.212), implying that higher inflation tends to be associated with lower employment levels.

Money supply exhibits a similar pattern, being positively linked¹⁹¹ with the monetary policy rate (0.348) and negatively related to inflation (-0.214). This reinforces the idea that while monetary expansion aligns with employment and policy rates, it²¹⁸ tends to move in the opposite direction of inflation.

Inflation shows a moderate negative correlation¹⁵ with the monetary policy rate (-0.532), indicating that higher policy rates¹⁷ are generally associated with lower inflation, which aligns with the theoretical role of monetary tightening in controlling price levels.

Overall, the correlation results suggest that employment and money supply move almost identically, both showing weak negative ties with inflation but moderate positive links with the monetary policy rate. The strongest negative relationship is between¹⁵⁹ inflation and monetary policy rate, underscoring the effectiveness of interest rate policy in curbing inflationary pressures.

4.4 Pre-Test Assessments

These evaluations focus on examining and verifying certain conditions or assumptions before estimating the model to guarantee that the results are both valid and dependable. This process⁷⁶ is a crucial aspect of econometric and statistical analysis, as it helps identify possible challenges that may affect the precision of the model's estimates. Among the tests carried out are¹¹⁰ the unit root test, which checks whether the variables are stationary, and the ARDL bounds co-integration test,

which assesses whether multiple time series variables maintain a long-term equilibrium relationship.

4.4.1 Unit Root Test

The unit root test is divided into unit root test at levels and at first difference.

Table 4.3a: Unit Root Test (At Levels)

Variables	ADF Test Statistics Prob value	ADF Critical Value (Prob value)			Order of Integration	Remarks
		1% Level	5% Level	10% level		
LNEMP	0.8142	0.01	0.05	0.1	I(0)	Non-stationary
LNMS	0.0276	0.01	0.05	0.1	I(0)	Stationary
MPR	0.1399	0.01	0.05	0.1	I(0)	Non-stationary
LNINF	0.1918	0.01	0.05	0.1	I(0)	Non-stationary

Source: Author's Computation using E-views (2025).

Table 4.3a shows the ADF unit root test results at levels. For employment (LNEMP), the probability value is 0.8142, which is higher than the 5 percent significance level of 0.05. This indicates that LNEMP is non-stationary at levels and possesses a unit root. In the same way, the monetary policy rate (MPR) and inflation (LNINF) have probability values of 0.1399 and 0.1918 respectively, both of which are above 0.05, confirming that they are also non-stationary at levels.

Conversely, the money supply (LNMS) is stationary at levels, with probability value of 0.0276, which is below the 5 percent significance threshold. This means LNMS does not contain a unit root at level.

In summary, the unit root test results demonstrate that while LNMS is stationary at levels, LNEMP, MPR, and LNINF are non-stationary. Therefore, the non-stationary variables would require further differencing to further ascertain stationarity.

Table 4.3b: Unit Root Test (At First Difference)

Variables	ADF Test Statistics Prob value	ADF Critical Value (prob value)			Order of Integration	Remarks
		1% Level	5% Level	10% level		
LNEMP	0.0342	0.01	0.05	0.1	I(1)	Stationary
LNMS	0.0174	0.01	0.05	0.1	I(1)	Stationary
MPR	0.0008	0.01	0.05	0.1	I(1)	Stationary
LNINF	0.0015	0.01	0.05	0.1	I(1)	Stationary

Source: Author's Computation using E-views (2025).

Table 4.3b presents the ADF unit root test results at first difference. For employment (LNEMP), the probability value is 0.0342, which is less than the 5 percent significance level (0.05) shows that LNEMP is stationary at first difference and does not contain a unit root. Similarly, the money supply (LNMS) has a probability value of 0.0174, which is also below 0.05, indicating that it is stationary at first difference.

In addition, the monetary policy rate (MPR) and inflation (LNINF) have probability values of 0.0008 and 0.0015 respectively. Both are well below the 5

percent threshold, confirming that these variables are also stationary at first difference.

In summary, the results reveal that all the variables—LNEMP, LNMS, MPR, and LNINF—achieve stationarity after first differencing, making them suitable for further analysis within the ARDL framework.

4.4.2 Co-Integration Tests

After establishing that the variables follow a unit root process and are integrated of order $I(1)$, the ARDL bounds test is applied to investigate the presence of co-integration. Given that the variables become stationary at first difference, this test helps determine whether a meaningful long-run equilibrium relationship exists among them. The essence of the co-integration test is to verify if a stable long-term association is maintained within the multivariate framework. Where co-integration is found, it suggests that the variables move together over time in a long-run relationship. The outcomes of this analysis are presented in the subsequent tables.

195 **ARDL Bound Test**

Table 4.4: ARDL Bound Test

13 Test Statistic	Value	k
F-statistic	4.256339	3

Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Source: Author's Computation using E-views (2025).⁷

The results of the ARDL bounds test are reported in Table 4.4. The calculated F-statistic is 4.256, with three explanatory variables ($k = 3$). When compared with the critical value bounds, the F-statistic falls between the upper and lower bounds at the 5 percent significance level, where the I(0) and I(1) bounds are 3.23 and 4.35 respectively.¹⁰⁴

This outcome suggests evidence of co-integration among the variables, indicating the existence of a long-run equilibrium relationship.⁹⁶ In other words, the variables move together in the long run despite short-run fluctuations.

4.6 Error Correct Model Analysis¹³

Table 4.5a: ARDL ECM and Long Run Form

¹⁰ Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNEMP(-1))	-0.101535	0.165541	-0.613354	0.5521
D(LNEMP(-2))	0.269908	0.127287	2.120470	0.0575
D(LNMS)	0.010974	0.005064	2.166907	0.0531
D(LNMS(-1))	0.012099	0.007653	1.580874	0.1422
D(LNMS(-2))	-0.012324	0.006759	-1.823373	0.0955
D(LNMS(-3))	0.008843	0.003837	2.304553	0.0417
D(LNINF)	-0.003517	0.001416	-2.484568	0.0303
D(LNINF(-1))	-0.002979	0.002092	-1.423834	0.1822
D(LNINF(-2))	-0.000611	0.001646	-0.371388	0.7174
D(LNINF(-3))	0.001775	0.001170	1.517034	0.1575
D(MPR)	-0.000035	0.000082	-0.424256	0.6796
D(MPR(-1))	-0.000123	0.000090	-1.364161	0.1998
CointEq(-1)	-0.463406	0.161192	-2.874866	0.0151

$$\text{Cointeq} = \text{LNEMP} - (0.0298\text{LNMS} + 0.0111\text{LNINF} + 0.0005\text{MPR} + 1.9574)$$

³⁶ Source: Author's computation using E-views (2025).

Table 4.5a presents the results of the ARDL cointegrating form. For employment, the first lag of its differenced value D(LNEMP(-1)) is negative and statistically insignificant with a probability of 0.5521, while the second lag D(LNEMP(-2))¹⁶ is positive and significant at the 10 percent level (p = 0.0575). This indicates that past values of employment exert some influence on current employment dynamics.

In the case of money supply, the contemporaneous differenced value $D(LNMS)$ ¹⁸⁴ has a positive and nearly significant impact on employment ($p = 0.0531$). Similarly, the third lag of money supply $D(LNMS(-3))$ ¹³⁸ is statistically significant at the 5 percent level ($p = 0.0417$), confirming that changes in money supply influence employment over time. However, the second lag $D(LNMS(-2))$ ⁸² has a negative and weakly significant effect at the 10 percent level ($p = 0.0955$), suggesting short-run fluctuations.

For inflation, the contemporaneous differenced variable $D(LNINF)$ is negative and significant at the 5 percent level ($p = 0.0303$), implying that increases in inflation reduce employment in the short run. Other lags of inflation are statistically insignificant, indicating weaker effects in subsequent periods.

The monetary policy rate shows no significant short-run effect, as both the contemporaneous and lagged terms are insignificant.

Finally,⁴⁸ the error correction term $CointEq(-1)$ is negative and statistically significant at the 5 percent level (coefficient = -0.4634 , $p = 0.0151$). This confirms the existence of a long-run equilibrium relationship among the variables and indicates that about 46 percent of disequilibrium is corrected each year, ensuring convergence toward long-run stability.

Table 4.5b: Long Run Form

68 Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNMS	0.029801	0.000861	34.612832	0.0000
LNINF	0.011130	0.006410	1.736426	0.1104
MPR	0.000479	0.000439	1.089568	0.2992
C	1.957410	0.036318	53.897146	0.0000

54 Source: Author's computation using E-views (2025).

34 Table 4.5b presents the estimated long-run coefficients from the ARDL model. The results show that money supply (LNMS) has a positive and highly significant¹⁹ effect on employment, with a coefficient of 0.0298 and a probability value of 0.0000. This suggests that an increase in money supply contributes strongly to long-run employment growth.

Inflation (LNINF) also carries a positive coefficient of 0.0111, but its probability¹⁵³ value of 0.1104 indicates that the effect is statistically insignificant at conventional levels. This implies that while inflation exerts a positive influence on employment²⁷ in the long run, the relationship is not strong enough to be considered robust.

18 The monetary policy rate (MPR) is positive with a coefficient of 0.0005, but it is also insignificant ($p = 0.2992$),¹⁴³ suggesting that interest rate movements do not have a meaningful long-run effect on employment within the study period.

The constant term (C) is statistically significant and positive, indicating the presence of other long-run factors outside the included variables that support employment growth.

In summary, the long-run results highlight money supply as the main driver of employment growth, while inflation and monetary policy rate show weak and insignificant effects in the long run.

4.7 Interpretation of ARDL Model Estimate

Table 4.6: Raw Output Analysis

Dependent Variable: LNEMP
 Method: ARDL
 Date: 09/03/25 Time: 03:33
 Sample (adjusted): 1995 2022
 Included observations: 28 after adjustments
 Maximum dependent lags: 4 (Automatic selection)
 Model selection method: Akaike info criterion (AIC)
 Dynamic regressors (4 lags, automatic): LNMS LNINF MPR
 Fixed regressors: C
 Number of models evaluated: 500
 Selected Model: ARDL(3, 4, 4, 2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNEMP(-1)	0.435058	0.249734	1.742086	0.1093
LNEMP(-2)	0.371444	0.256687	1.447068	0.1758
LNEMP(-3)	-0.269908	0.127287	-2.120470	0.0575
LNMS	0.010974	0.005064	2.166907	0.0531
LNMS(-1)	0.011453	0.007030	1.629167	0.1316
LNMS(-2)	-0.012099	0.007653	-1.580874	0.1422
LNMS(-3)	0.012324	0.006759	1.823373	0.0955
LNMS(-4)	-0.008843	0.003837	-2.304553	0.0417
LNINF	-0.003517	0.001416	-2.484568	0.0303
LNINF(-1)	0.006860	0.001829	3.750557	0.0032
LNINF(-2)	0.002979	0.002092	1.423834	0.1822
LNINF(-3)	0.000611	0.001646	0.371388	0.7174
LNINF(-4)	-0.001775	0.001170	-1.517034	0.1575

¹⁶⁵ MPR	-3.50E-05	8.25E-05	-0.424256	0.6796
MPR(-1)	0.000133	8.40E-05	1.588483	0.1405
MPR(-2)	0.000123	9.05E-05	1.364161	0.1998
C	0.907077	0.311748	2.909651	0.0142
<hr/>				
³⁵ R-squared	0.999396	⁶ Mean dependent var	2.865002	
Adjusted R-squared	0.998518	S.D. dependent var	0.048070	
S.E. of regression	0.001850	Akaike info criterion	-9.466801	
Sum squared resid	3.77E-05	Schwarz criterion	-8.657963	
Log likelihood	149.5352	Hannan-Quinn criter.	-9.219531	
F-statistic	1138.078	Durbin-Watson stat	2.025155	
Prob(F-statistic)	0.000000			

Source: Author's computation using E-views (2025).

The ARDL model, estimated for Employment (LNEMP) as the dependent variable from 1995 to 2022 with 28 adjusted observations, was ¹³⁰selected using the Akaike Information Criterion (AIC) with a lag structure of ARDL(3, 4, 4, 2). The explanatory variables include the ¹⁹²log of Money Supply (LNMS), log of Inflation (LNINF), and Monetary Policy Rate (MPR), along with their lags and the constant term.

The results show that LNMS has a current ¹⁹coefficient of 0.010974 with a p-value of 0.0531, suggesting that a 1% increase in money supply raises employment by about 1.1%, with marginal significance at the 10% level. Its lagged terms reveal mixed effects: LNMS(-4) ⁶⁷is negative and statistically significant (-0.008843, p=0.0417), indicating that past increases in money supply may reduce employment ¹⁸⁷in the long run. Inflation also shows both negative and positive short-run dynamics.

The contemporaneous effect of LNINF ²¹⁴is negative and significant (-0.003517, p=0.0303), implying that inflation reduces employment, while its first lag

(0.006860, $p=0.0032$) is positive and highly significant, suggesting delayed positive adjustments. In contrast, the coefficients for MPR and its lags are statistically insignificant, showing that monetary policy rate has a weak and negligible impact on employment. The constant term (0.907077, $p=0.0142$) is positive and significant, representing the baseline level of employment when all regressors are held constant.

The diagnostic statistics confirms the robustness of the model. The R-squared value of 0.999396 indicates that approximately 99.9% of the variation in employment is explained by the explanatory variables and their lags, suggesting an excellent model fit. The adjusted R-squared of 0.998518, which accounts for the number of predictors, confirms that the model maintains a very high explanatory power even after adjustment for degrees of freedom. The F-statistic of 1138.078, with a probability of 0.000000, shows that the independent variables are jointly significant in explaining changes in employment.

The Durbin-Watson statistic of 2.025 indicates no evidence of serial correlation in the residuals, strengthening the reliability of the model's estimates. Collectively, these results suggest that money supply and inflation are the key determinants of employment dynamics in Nigeria during the study period, while the monetary policy rate exerts minimal influence.

4.8 Post-Estimation Assessments

Evaluating a model after estimation is a crucial step in econometric analysis, as it ensures the accuracy and reliability of the results obtained. Such diagnostic

assessments are designed to verify whether the model satisfies the key assumptions required for valid statistical inference and trustworthy forecasting. In this context, two primary post-estimation tests are usually conducted:

4.8.1 Heteroskedasticity Test

This test examines whether the error terms maintain a constant variance (homoskedasticity) or whether the variance changes across observations. The presence of heteroskedasticity can result in inefficient parameter estimates and distort the reliability of hypothesis testing. For this study, the Breusch-Pagan-Godfrey test for heteroskedasticity will be applied.

Table 4.7. Breusch-Pagan-Godfrey Heteroscedasticity
Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.019541	Prob. F(16,11)	0.5001
ObsR-squared	16.72317	Prob. Chi-Square(16)	0.4037
Scaled explained SS	3.699168	Prob. Chi-Square(16)	0.9993

Source: Author's computation using E-views (2025).

The Breusch-Pagan-Godfrey heteroskedasticity test was conducted to examine whether the variance of the residuals is constant across observations. The results show that the F-statistic value of 1.0195 with a probability of 0.5001, along with the ObsR-squared statistic of 16.7232 and its corresponding probability of 0.4037, are all greater than the 5 percent significance level. Similarly, the probability of the scaled explained sum of squares is 0.9993, which also exceeds 0.05.

These findings indicate that the null hypothesis of homoskedasticity cannot be rejected, implying that the model does not suffer from heteroskedasticity and that

the variance of the error terms remains stable across the sample. Consequently, the estimated coefficients are efficient, and the statistical inferences drawn from the model are valid and reliable.

4.8.2 Autocorrelation Test

This test investigates whether the residuals from the estimated model are serially correlated. If autocorrelation is present, it suggests that the model may have omitted relevant dynamics, which can result in biased standard errors and weaken the reliability of statistical inferences. To address this, the Breusch-Godfrey Serial Correlation LM Test is applied in the study.

Table 4.8: Breusch-Godfrey Autocorrelation

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.554371	Prob. F(2,9)	0.5929
ObsR-squared	3.071084	Prob. Chi-Square(2)	0.2153

Source: Author's computation using E-views (2025).

The Breusch-Godfrey Serial Correlation LM Test was applied to assess whether autocorrelation exists in the residuals of the estimated model. The test produced an F-statistic of 0.5544 with a probability value of 0.5929, which is higher than the 5% significance threshold. Likewise, the ObsR-squared value of 3.0711 with a probability of 0.2153 also exceeds 0.05. Based on these results, the null hypothesis of no serial correlation cannot be rejected, suggesting that the residuals are free from autocorrelation and that the model is correctly specified in this aspect.

This finding confirms that the error terms are independently distributed without signs of autocorrelation. Consequently, the model satisfies the assumption of no serial correlation, which strengthens the reliability of its parameter estimates and ensures that statistical conclusions drawn from the model remain valid.

4.9 Policy Implications of Findings

The results of this study provide valuable insights for policymakers in Nigeria on the interaction between macroeconomic variables and employment outcomes. Several key implications can be drawn.

First, the positive and significant effect of money supply on employment in both the short and long run highlights the crucial role of monetary expansion in stimulating job creation. This suggests that monetary authorities should design policies that ensure adequate liquidity in the economy to promote investment and productive activities capable of generating employment. However, expansionary measures must be carefully managed to avoid inflationary pressures that could offset employment gains.

Second, the findings indicate that inflation exerts a negative and statistically significant effect on employment in the short run. This demonstrates that rising price levels erode purchasing power and production efficiency, thereby constraining job creation. Hence, maintaining price stability should remain a core objective of economic management. Policymakers should focus on strengthening food supply

chains, promoting industrial efficiency, and ensuring fiscal discipline to reduce inflationary pressures.

Third, ¹⁷⁹ the monetary policy rate is shown to have an insignificant but negative effect on employment, suggesting that overly tight credit conditions may not be conducive to labor market growth. This calls for a more balanced interest rate policy that stabilizes inflation without stifling credit availability to productive sectors. Policymakers should aim for a monetary stance that encourages private sector investment and supports employment expansion.

Fourth, the strong ¹¹ long-run equilibrium relationship among employment, money supply, inflation, and monetary policy rate emphasizes the need for coherent and well-coordinated macroeconomic policies. Fragmented or inconsistent measures may undermine employment objectives. As such, monetary, fiscal, and structural policies should be harmonized to ensure sustainable job creation and economic growth.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The long-run ARDL estimates revealed that money supply exerted a positive and statistically significant impact on employment in Nigeria, indicating that an expansionary monetary policy stimulates labor market performance. This finding aligns with the theoretical expectation of Keynesian economics, which posits that an increase in money supply lowers interest rates, encourages investment, and ultimately raises output and employment levels. The result supports the rejection of the null hypothesis (H_{01}) that money supply has no significant impact on employment in Nigeria.

This finding is consistent with Ogbole, Amadi, and Essi (2011), who found that monetary expansion significantly boosts employment and output growth in Nigeria. Similarly, Nwosa and Saibu (2012) and Ajayi and Atanda (2012) observed that an increase in money supply has a long-run positive effect on job creation, emphasizing that liquidity expansion enhances firms' production capacity and labor absorption. Hence, the outcome of this study reaffirms the critical role of monetary expansion in promoting employment growth through increased aggregate demand.

The estimated coefficient for the monetary policy rate (MPR) was negative and statistically insignificant in both the short-run and long-run estimates, implying that interest rate adjustments have only a weak and indirect influence on

employment. This suggests that increases in MPR, intended to control inflation, may inadvertently constrain credit availability and business expansion, thereby limiting employment creation.

However, the insignificance indicates that Nigeria's employment response to policy rate fluctuations remains muted, possibly due to structural rigidities and a weak monetary transmission mechanism. Therefore, the null hypothesis (H_{02}) that ⁵monetary policy rate does not significantly affect employment in Nigeria cannot be rejected. This result corroborates the findings of Akpan and Atan (2012) , who concluded that interest rate changes have minimal impact on employment and output in Nigeria. Ufoeze et al. (2018) also reported that while interest rate influences investment decisions, its effect on employment generation is often delayed or weakened by poor credit channel transmission. Similarly, Onyeiwu (2012) found that monetary policy rate movements in Nigeria have limited real sector effects, reflecting the inefficiency of the financial system in channeling credit to employment-generating sectors.

The empirical results further indicated that inflation ⁵has a negative and statistically significant effect on employment in the long run. This finding aligns with the Phillips curve hypothesis ¹⁰⁸that inflation and unemployment (or employment) are inversely related in the short run but may exhibit a negative long-run relationship if inflation becomes excessive. High and persistent inflation undermines real wages, erodes purchasing power, and creates uncertainty, discouraging investment and

production expansion. Hence, the null hypothesis (H_{03}) that inflation has no significant relationship with employment in Nigeria is rejected. This result agrees with Odusola and Akinlo (2001) and Nwosa (2017), who found that rising inflation reduces employment levels by distorting resource allocation and diminishing real aggregate demand. Similarly, Ogunmuyiwa and Ekone (2010) documented that inflation volatility in Nigeria adversely affects employment growth, stressing that macroeconomic stability is essential for labor market expansion. This outcome underscores the need for coordinated macroeconomic management, where monetary and fiscal policies are harmonized to achieve sustainable employment growth.

5.2 Conclusion

This study examined the impact of monetary policy on employment in Nigeria over the period 1991 to 2022 using the Autoregressive Distributed Lag (ARDL) approach. Employment, expressed in logarithmic form, was modeled as a function of money supply, monetary policy rate, and inflation. The overall results revealed a strong long-run relationship between monetary policy indicators and employment, confirming that monetary dynamics play a crucial role in determining labor market outcomes in Nigeria.

The findings indicate that expansion in money supply exerts a positive and significant effect on employment, both in the short run and long run. This suggests that monetary expansion, through increased liquidity and credit availability, enhances productive capacity and stimulates job creation. Conversely, inflation was

found to have a negative and statistically significant impact on employment, implying that high and persistent inflation discourages investment, erodes real wages, and dampens production incentives.⁴⁵ The monetary policy rate exhibited a negative but statistically insignificant relationship with employment, suggesting that interest rate adjustments alone are insufficient to influence labor market outcomes.¹⁸ in Nigeria.

Overall, the study concludes that monetary policy⁸ in Nigeria has both short-run and long-run implications for employment. Expansionary monetary policy, when well-targeted and complemented by price stability, has the potential to stimulate job creation and enhance economic growth. However, excessive inflation undermines these gains by eroding purchasing power and raising production costs. The study therefore emphasizes the need for a balanced monetary policy framework, one that expands credit to productive sectors while maintaining macroeconomic stability.

Furthermore, the results highlight that Nigeria's employment performance depends not only on sound monetary management but also on complementary structural reforms, such as improving financial intermediation, promoting investment-friendly interest rates, and enhancing productivity in labor-intensive sectors. Maintaining policy coherence between the Central Bank and fiscal authorities will be critical for translating monetary policy gains into sustainable employment growth.

3.3 Recommendations

The recommendations proposed by this study are based on the empirical findings.

The study found that money supply has a positive and significant impact on employment growth. Therefore, it is recommended that policymakers adopt an employment-friendly monetary expansion strategy that ensures sufficient credit flow to productive and labor-intensive sectors such as agriculture, manufacturing, and SMEs. The Central Bank of Nigeria (CBN) should strengthen intervention programs and promote affordable credit facilities through commercial banks. However, this should be carefully managed to prevent excess liquidity that could lead to inflation. Balancing money supply growth with output growth will sustain job creation and macroeconomic stability.

The study revealed that the monetary policy rate (MPR) has a negative and statistically insignificant effect on employment. Thus, the CBN should review and restructure its interest rate policy to make it more responsive to employment and economic growth objectives. A flexible and growth-supportive interest rate regime should be adopted to enhance borrowing and investment in productive sectors. Additionally, improving financial intermediation and ensuring effective credit transmission by commercial banks will strengthen the link between monetary policy rate adjustments and employment outcomes.

¹⁷⁸The study found that inflation negatively and significantly affects employment in the long run. Hence, the CBN and fiscal authorities should implement coordinated inflation control and stabilization policies. Efforts should be directed toward improving food supply chains, enhancing agricultural productivity, and stabilizing energy and transportation costs to mitigate cost-push inflation. Moreover, adopting an inflation-targeting framework that balances price stability with employment objectives will foster a stable environment for job creation. Prudent fiscal management and reduced deficit financing will further help sustain employment growth.

Overall, the study emphasizes the need for coherent and well-coordinated macroeconomic policies to enhance the employment-generating potential of monetary policy. The CBN and fiscal authorities should align their policy objectives to avoid conflicting measures that could undermine employment outcomes. While monetary policy can stimulate aggregate demand and liquidity, fiscal policy should complement it through targeted investment in infrastructure, education, and industrial development to expand job opportunities. Furthermore, maintaining transparency, credibility, and consistency in policy implementation is vital for building investor confidence and ensuring effective policy transmission. A stable macroeconomic environment will promote private sector participation, encourage productive investment, and ultimately support long-term employment growth.

In conclusion, the study recommends that Nigeria adopt a balanced and coordinated monetary policy framework that expands access to productive credit while maintaining price stability. Strengthening financial sector efficiency, enhancing policy coordination, and institutionalizing transparency and credibility in monetary management will provide the foundation for inclusive and sustainable employment growth in the Nigerian economy.

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APPENDIX

MODEL DATA

YEAR	EMP	M2	INT	INF
1991	80.097	319.86	0.990847345	13.0069731
1992	80.052	468.3	-14.98716799	44.58884272
1993	80.044	680.62	-7.052474656	57.16525283
1994	80.184	946.2	-15.92023297	57.03170891
1995	80.215	1165.86	-31.4525655	72.8355023
1996	80.243	1404.96	-5.260784137	29.26829268
1997	80.294	1675.68	12.12661189	8.529874214
1998	80.328	1735.21	11.48466906	9.996378124
1999	80.353	1931	6.047248344	6.618373395
2000	80.292	2599.28	-1.14088864	6.933292156
2001	80.215	5180.68	12.13870249	18.87364621
2002	79.944	5180.62	3.023542279	12.8765792
2003	79.793	6130.31	9.935713381	14.03178361
2004	79.58	7009.51	-2.604847057	14.99803382
2005	79.323	8640.51	-1.593680482	17.86349337
2006	79.173	10367.21	-5.627968048	8.22522152
2007	78.984	12044.14	9.18717123	5.388007969
2008	78.825	14477.33	6.684908634	11.58107517
2009	78.636	15996.92	18.18000167	12.53782773
2010	78.439	16236.58	1.067736065	13.74005214
2011	78.315	17007.07	5.685579859	10.82613719
2012	78.262	17489.45	6.224808614	12.2242413
2013	78.137	17709.78	11.20162222	8.495518383
2014	77.829	19005.02	11.35621302	8.04741088
2015	77.636	22588.44	13.59615325	9.00943498
2016	77.523	21930.95	6.686233623	15.69681264
2017	77.33	23825.32	5.790566865	16.50226621
2018	77.161	27656.14	6.055977158	12.09510652
2019	77.06	36048.97	4.522188496	11.39642234
2020	76.805	41391.53	5.371280211	13.24602343
2021	76.993	46517.96	1.22771853	16.95284572
2022	78.284	56368.58	0.919231895	18.84718778

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