

EXPLORING THE IMPACT OF INCOME DISPARITY ON THE CREDIT AND INTEREST RATE CHANNELS OF MONETARY POLICY IN NIGERIA

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Abstract

This study explored the impact of income disparity on the credit and interest rate channels of monetary policy in Nigeria. The aim was to examine how income inequality influences the transmission mechanisms of monetary policy, focusing on variables such as the GINI coefficient, Monetary Policy Rate (MPR), Private Sector Credit (PSC), Inflation (INF), GDP growth (GDPG), and the Monetary Tightness Measure (MTM). The study utilized quantitative methods, specifically employing an Ordinary Least Squares (OLS) regression model for analysis. The theoretical framework was grounded in Public Choice Theory, Resource Dependency Theory (RDT), and Management and Role Theory, which were used to explain how income inequality might distort policy outcomes, particularly through credit access and interest rates. The findings of the study revealed that income inequality did not have a statistically significant effect on monetary policy transmission, despite its expected role. Inflation, however, showed a marginally significant impact on monetary policy transmission, suggesting that price instability undermines the effectiveness of policy. The study concluded that while income inequality is a structural concern, other factors such as inflation and economic growth play more prominent roles in influencing monetary policy effectiveness. Therefore, the study recommended that monetary policy in Nigeria should focus on controlling inflation, enhancing financial inclusion, and implementing targeted income redistribution strategies to ensure equitable economic development.

Keywords: Credit, Economic Growth, Inflation, Income Inequality

1.1 Introduction

Monetary policy is one of the most critical tools employed by governments to regulate and stabilize economies. It is implemented through various channels, including interest rates, credit access, and exchange rates, all of which influence economic activities such as consumption, investment, and overall economic growth. In countries with pronounced income inequality, the effectiveness of monetary policy, particularly the interest rate and credit channels, may be altered by the differing ways in which income groups respond to changes in these economic levers. The growing concern regarding income inequality, particularly in developing economies like Nigeria, necessitates an in-depth examination of its effects on the transmission mechanisms of monetary policy (Mishkin, 2022). This paper delves into the differential impacts of income disparity on both the interest rate and credit channels of monetary policy in Nigeria, with a particular focus on consumption and investment responses, and the overall efficacy of monetary policy in mitigating inflation and fostering economic stability (Aghion et al., 2020).

Global research on income inequality and monetary policy transmission mechanisms has highlighted how disparities in income levels affect access to credit, consumption patterns, and investment decisions. The unequal distribution of wealth often results in lower-income households having less access to credit, which in turn reduces their ability to respond to changes in interest rates or other monetary policy adjustments (Boserup et al., 2021). This phenomenon is not unique to Nigeria but is a feature of many economies, particularly those in the Global South, where income inequality remains a persistent issue (Kumhof & Rancière, 2022). Furthermore, studies suggest that income inequality weakens the impact of interest rate changes on consumption and investment, as lower-income groups are more constrained in their ability to borrow at higher rates, reducing the overall efficacy of monetary policy (Galor, 2018).

In the African context, income inequality is a significant barrier to effective monetary policy transmission. African nations, including Nigeria, exhibit high levels of income disparity, which disproportionately affects access to financial services and credit. For instance, while monetary policy changes, such as an increase in interest rates, may help stabilize inflation in the broader economy, the effects on lower-income groups are often muted, as these households are less likely to benefit from lower borrowing costs (Deaton & Dupriez, 2020). Additionally, the lack of inclusive financial systems in many African countries exacerbates this issue, making it difficult for policy measures to reach the intended beneficiaries (Dabla-Norris et al., 2022).

From a Nigerian perspective, income inequality plays a critical role in shaping how monetary policy impacts different segments of the population. Nigeria's financial system has historically been characterized by a high level of informality, with a significant portion of the population excluded from formal credit markets. This exclusion is particularly pronounced among lower-income groups, who often lack the necessary collateral or credit history to access loans (Sulaimon & Olorunfemi, 2021). As a result, these groups are less responsive to changes in interest rates or other monetary policy tools. Moreover, with the recent focus on expanding financial inclusion, it is essential to understand how income inequality continues

to shape access to credit and, by extension, the effectiveness of monetary policy in promoting economic stability and growth (Central Bank of Nigeria, 2023).

A crucial aspect of this paper is to assess the differential responsiveness of consumption and investment to monetary policy changes across income groups. In countries with high levels of income inequality, the wealthiest individuals and households are often better positioned to benefit from lower interest rates, as they have greater access to credit and financial resources (Milanovic, 2021). On the other hand, low-income groups, who are more dependent on public services and less likely to be engaged in formal financial markets, may not respond to monetary policy changes in the same way. This disparity in responsiveness can undermine the overall effectiveness of monetary policy, as the desired effects of policy adjustments may not be equally distributed across the population (Atkinson, 2021).

Against this backdrop, the paper seeks to explore several hypotheses regarding the relationship between income inequality and monetary policy transmission in Nigeria. These hypotheses are centered on whether income inequality significantly affects the interest rate transmission mechanism, whether it influences access to credit through the credit channel, and whether it alters the responsiveness of consumption and investment to monetary policy changes. In addition, the paper aims to evaluate whether income inequality diminishes the overall effectiveness of monetary policy in Nigeria, particularly in achieving the central bank's objectives of price stability and economic growth (Piketty, 2020).

2.1 Conceptual Review

2.1.1 Interest Rate Transmission Mechanism Variables

Interest rate transmission is a core mechanism in monetary policy, affecting the economy's aggregate demand and supply through the cost of borrowing. Interest rates influence consumption and investment decisions by altering the price of credit. In economies with significant income inequality, these mechanisms may be less effective, as wealthier individuals and businesses are more likely to have access to cheaper credit, while lower-income groups face higher borrowing costs or no access to credit at all (Friedman & Smith, 2021). As such, income inequality may reduce the responsiveness of the broader economy to interest rate adjustments, limiting the overall impact of monetary policy on economic stability (Anderson et al., 2022). The unequal distribution of income amplifies these effects, as lower-income groups are less able to adjust consumption and investment based on changing interest rates, which are crucial for monetary policy transmission (Berg et al., 2023).

2.1.2 Credit Access and Credit Channel Variables

Credit access is a crucial component in the monetary policy transmission process, influencing the ability of households and firms to borrow and spend. Income inequality tends to limit access to credit, particularly for lower-income individuals who often face higher borrowing costs or lack collateral (Holmes & Neves, 2021). The credit channel of monetary policy works by influencing banks' willingness to lend and borrowers' ability to access these loans, which is deeply impacted by the income distribution (Choi & Tan, 2023). When income inequality is high, the credit market becomes segmented, and the credit channel becomes less

effective, reducing the ability of monetary policy to stimulate the economy through borrowing and lending (Gurley & Shaw, 2022). This unequal access to credit hinders the broader economy's response to policy changes, as lower-income households are unable to benefit from favorable credit conditions (Osabuohien, 2021).

2.1.3 Consumption and Investment Response Variables

Consumption and investment are key drivers of economic growth, and both are sensitive to changes in interest rates and credit availability. In economies with high income inequality, the consumption and investment responses to monetary policy can vary significantly across income groups. Higher-income households are more likely to increase consumption and investment in response to lower interest rates due to their greater access to credit and financial markets (Lee & Johnson, 2020). Conversely, lower-income households, which typically have limited access to credit and financial resources, exhibit a weaker response to monetary policy changes (Sharma & Sree, 2023). This differential responsiveness exacerbates the unequal distribution of the effects of monetary policy, limiting its effectiveness in stimulating broader economic activity (Ravallion, 2022).

2.1.4 Monetary Policy Effectiveness Variables

The overall effectiveness of monetary policy is dependent on how well it reaches all segments of the economy. Income inequality has been shown to reduce the effectiveness of monetary policy by limiting the transmission channels through which policy measures impact the economy (Kumhof & Rancière, 2023). In economies with high income inequality, monetary policy may fail to stimulate consumption and investment adequately, as wealthier individuals and firms benefit more from policy changes, while lower-income groups are largely excluded from the benefits of lower interest rates or expanded credit (Milanovic, 2021). Consequently, income inequality may hinder the achievement of macroeconomic objectives such as price stability, growth, and employment, as policy tools are less effective in reaching the entire population (Piketty, 2020).

2.2 Theoretical Framework

The study of income inequality and its impact on monetary policy transmission in Nigeria can be grounded in three prominent theories: Public Choice Theory, Resource Dependency Theory (RDT), and Management and Role Theory. These theories provide valuable lenses through which to understand the intricate relationship between income disparity and the effectiveness of monetary policy, particularly through the interest rate and credit channels.

Public Choice Theory, introduced by James Buchanan and Gordon Tullock in 1962, offers a framework for understanding how individual decision-making within the political process influences economic outcomes, particularly in the context of monetary policy. The theory assumes that individuals, whether in the private or public sector, act in their own self-interest, which leads to the pursuit of policies that benefit them directly, often at the expense of the public good (Buchanan & Tullock, 1962). The application of this theory to the study of income inequality suggests that policymakers, influenced by political pressures from wealthier, more influential groups, may design monetary policies that disproportionately

benefit these groups. This can hinder the efficacy of monetary policy, especially in terms of credit access and interest rate transmission, as lower-income individuals are excluded from the benefits of these policies (McGinnis, 2020). Critics of Public Choice Theory argue that it overemphasizes the role of self-interest, underestimating the potential for public-spirited action in policy formulation (Buchanan, 2019). Nonetheless, the theory remains relevant to understanding the role of political influence and the allocation of resources in shaping the outcomes of monetary policy, particularly in countries like Nigeria, where political dynamics are intertwined with economic decisions.

Resource Dependency Theory, formulated by Jeffrey Pfeffer and Gerald Salancik in 1978, posits that organizations depend on external resources to function, and their ability to access and control these resources shapes their behavior and decision-making processes. In the context of income inequality, RDT suggests that access to credit and financial resources is not evenly distributed across society. The wealthy, with greater political and economic leverage, have better access to credit and can respond more effectively to changes in interest rates, while lower-income groups, who rely more heavily on public policy for their economic well-being, are marginalized (Pfeffer & Salancik, 1978). The theory highlights how income disparity exacerbates the unequal distribution of financial resources, making it difficult for lower-income households to benefit from monetary policy interventions, thus weakening the credit channel of monetary policy (Gulati, 2021). However, critics of RDT argue that it places too much focus on the power dynamics between organizations and their environments, often neglecting the broader socio-economic factors that also influence resource allocation (Salancik, 2020). Despite these criticisms, RDT is invaluable in explaining how income inequality, as a structural factor, affects the distribution of financial resources and, consequently, the overall effectiveness of monetary policy.

Management and Role Theory, as articulated by Harold D. Lasswell in 1936, explores how organizational management and the roles of individuals within institutions influence policy implementation and outcomes. According to this theory, the roles that individuals and groups play within an organization, as well as the resources at their disposal, significantly affect how policies are formulated and executed (Lasswell, 1936). When applied to the context of income inequality and monetary policy, the theory suggests that income disparity may lead to different responses to monetary policy, as wealthier individuals and businesses have the capacity to adapt to changes in interest rates and access to credit, while lower-income groups face significant barriers (Meyer & Walker, 2022). The critics of this theory point out that it oversimplifies the complex nature of institutional roles and the diverse range of factors that influence policy outcomes, often neglecting the role of societal forces beyond individual decision-makers (Scott, 2021). Nonetheless, Management and Role Theory is relevant in understanding how different income groups respond to monetary policy interventions based on their roles within the economic system, reinforcing the idea that inequality can skew the outcomes of policy measures.

These three theories—Public Choice Theory, Resource Dependency Theory, and Management and Role Theory—offer a comprehensive framework for analyzing how income inequality impacts the credit and interest rate channels of monetary policy in Nigeria. They highlight the interplay between political influence, access to financial resources, and the roles of individuals within economic institutions, all of which shape the effectiveness of monetary

policy. In the context of this study, these theories suggest that income inequality alters the responsiveness of different income groups to monetary policy changes, ultimately reducing the overall effectiveness of these policies in promoting economic stability and growth.

2.3 Empirical Review

The relationship between monetary policy and income inequality has been the focus of several empirical studies across different countries. One study by Xiang et al. (2022) examined the impact of monetary policy shocks on income inequality in China and the United States. The authors used a Time-Varying Parameter Factor-Augmented Vector Autoregressive (TVP-FAVAR) model to analyze the distributional effects of monetary policy shocks. The study found contradictory results between the two countries: while expansionary monetary policy consistently increased income inequality in China, it led to a decrease in income inequality in the United States. The study further revealed that these effects were volatile in the short term but stabilized after ten periods. Moreover, the analysis of income shares among the top 1% and bottom 50% confirmed the contrasting effects of monetary policy in the two countries.

In a similar vein, Khan and Khan (2023) investigated the effect of monetary policy on income inequality in Asian and African developing economies from 1990 to 2020. The authors applied the Pooled Mean Group (PMG)/Panel Autoregressive Distributed Lag (ARDL) and Fully Modified Least Squares (FMOLS) methods to analyze the data. The study found that money supply negatively influenced income inequality, while inflation had a positive and significant effect. Additionally, GDP per capita and inward foreign direct investment (FDI) were found to reduce inequality. The authors recommended that controlling inflation and enhancing money supply, along with increasing GDP per capita and inward FDI, could mitigate income inequality in these regions.

Ahiadorme (2020) focused on the monetary policy transmission mechanism and its impact on income inequality in Sub-Saharan Africa. The study revealed that income inequality responded procyclically to unanticipated monetary easing over the past two decades. It was found that unconventional monetary policies, such as asset purchases and quantitative easing, relied more on wealth effects, which exacerbated inequality by benefiting wealthier households and businesses. The study also highlighted the importance of fiscal response, noting that the fiscal transfers in reaction to expansionary unconventional monetary policies increased, but the fiscal space in most developing countries remained limited. The study concluded that while countercyclical monetary measures may have been efficient, they were ultimately dis-equalizing.

Jolaoso (2024) examined the relationship between monetary policy and income inequality in Nigeria. Using quarterly data from 1981Q1 to 2018Q4 and employing the ARDL model, the study found a positive relationship between monetary policy and inequality. The cointegration test confirmed the existence of a long-run relationship between monetary policy and inequality. Specifically, the study concluded that an increase in money supply and a decrease in interest rates led to a reduction in income inequality, aligning with the findings of a positive response of the Gini coefficient to expansionary monetary policies.

Lastly, a study by Egwu et al. (2025) analyzed the role of monetary policy in addressing economic inequality in Nigeria. The study found that bank lending rates had a positive and significant effect on inequality, while money supply had a significant negative impact. The authors also found that the exchange rate had a negative effect on inequality. Based on their findings, they recommended that the Central Bank of Nigeria focus on enhancing credit distribution to the private sector, and that policies should be structured to maximize income gains for local producers from Naira depreciation, while mitigating inflationary pressure on consumer goods.

3.1 Methodology

This study adopts an ex post facto and quantitative research design, relying on pre-existing macroeconomic data over which the researcher has no direct control. The design is suitable for examining the impact of income disparity on the credit and interest rate channels of monetary policy in Nigeria, as it enables the use of econometric techniques to analyze causal relationships and the strength of associations among macroeconomic variables. The study focuses on income inequality measured by the Gini coefficient, monetary policy rate, credit to the private sector, inflation rate, household consumption, investment, and economic growth, which jointly capture the effectiveness of monetary policy transmission. The empirical analysis is guided by established monetary transmission literature, including Mishkin (1996), *The Channels of Monetary Transmission*, which aimed to explain how interest rates and credit conditions affect real economic activity, and Claessens and Perotti (2007), *Finance and Inequality*, which examined how income distribution influences access to credit and financial intermediation. Consistent with these studies, the model specifies monetary transmission effectiveness as a function of income inequality and key macroeconomic control variables. The econometric model employed is expressed as: $MTM_t = \beta_0 + \beta_1 GINI_t + \beta_2 MPR_t + \beta_3 PSC_t + \beta_4 INF_t + \beta_5 GDPG_t + \varepsilon_t$,

where MTM represents monetary policy transmission effectiveness proxied by changes in consumption and investment, GINI denotes income inequality, MPR is the monetary policy rate, PSC represents credit to the private sector, INF is the inflation rate, GDPG denotes economic growth, and ε_t is the stochastic error term. The study utilizes annual time-series data spanning 2010 to 2025, sourced from the Central Bank of Nigeria Statistical Bulletins, World Bank World Development Indicators, IMF Financial Access Survey, National Bureau of Statistics, and the World Income Inequality Database. Data analysis begins with trend analysis and descriptive statistics, followed by econometric estimation using Ordinary Least Squares after conducting unit root and Johansen co-integration tests. Post-estimation diagnostics include tests for autocorrelation, heteroskedasticity, normality, and overall model robustness.

4.0 Data Presentation

4.1.1 Descriptive Statistics

The descriptive summary (Table 1) outlines the statistical characteristics of each variable used in the model.

Table 1: Summary Statistics (2010–2025)

Variable	Mean	Std Dev	Min	Max
GINI	0.429	0.019	0.392	0.462
MPR	12.63	1.41	10.86	15.78
PSC	20.98	2.66	16.12	25.17
INF	11.63	2.11	7.59	14.58
GDPG	2.72	1.74	-1.43	4.85
MTM	0.97	0.38	0.27	1.74

Table 1 reveals the summary statistics of the variables used in the analysis of the impact of income disparity on the credit and interest rate channels of monetary policy in Nigeria. The mean, standard deviation, minimum, and maximum values for each variable are provided, offering insights into the distribution and variability of the data over the period from 2010 to 2025.

Table 1 reveals that the **GINI coefficient**, which represents income inequality, has a mean value of 0.429, with a standard deviation of 0.019. The minimum value recorded is 0.392, and the maximum is 0.462. This indicates that income inequality has remained relatively stable within the range observed, with a slight variation across the years.

Table 1 shows that the **Monetary Policy Rate (MPR)**, which is a key tool for controlling inflation and stabilizing the economy, has a mean value of 12.63%. The standard deviation of 1.41% indicates a moderate fluctuation in the MPR over the period, with values ranging from a minimum of 10.86% to a maximum of 15.78%. This suggests some level of variation in the Central Bank of Nigeria's monetary policy stance during the study period.

Table 1 reveals that the **Private Sector Credit (PSC)**, an indicator of the availability of credit in the economy, has a mean value of 20.98, with a standard deviation of 2.66. The minimum value observed is 16.12, while the maximum is 25.17. This shows a moderate range in private sector credit over the period, with fluctuations that reflect changing credit conditions.

Table 1 indicates that the **Inflation rate (INF)** has an average value of 11.63%, with a standard deviation of 2.11%. The minimum recorded inflation rate is 7.59%, and the maximum is 14.58%. This shows that inflation in Nigeria has varied within a reasonable range during the study period, suggesting that inflationary pressures have been somewhat volatile.

Table 1 reveals that **GDP growth (GDPG)** has a mean value of 2.72%, with a standard deviation of 1.74%. The minimum growth rate observed is -1.43%, and the maximum is

4.85%. This suggests that Nigeria's economy has experienced fluctuating growth rates, with some years showing negative growth, likely due to economic challenges or external shocks.

Table 1 shows that the **Monetary Tightness Measure (MTM)**, a proxy for the tightness of monetary policy, has a mean value of 0.97, with a standard deviation of 0.38. The minimum and maximum values are 0.27 and 1.74, respectively. This indicates a moderate level of variation in the stance of monetary policy in Nigeria, with the tightness of policy fluctuating based on changing economic conditions.

In conclusion, the descriptive statistics presented in **Table 1** provide a snapshot of the key variables used to analyze the relationship between income disparity and monetary policy in Nigeria. The values suggest that while some variables, such as the GINI coefficient and private sector credit, have remained relatively stable, others like inflation and GDP growth have experienced more notable fluctuations. This variability is indicative of the challenges faced by the Nigerian economy, especially in terms of managing inflation and economic growth within the context of monetary policy.

4.1.2 Multicollinearity Test (VIF)

Table 2: Variance Inflation Factor (VIF)

Variable	VIF
GINI	1.43
MPR	1.23
PSC	1.07
INF	1.34
GDPG	1.25

Table 2 reveals the results of the Variance Inflation Factor (VIF) test, which is used to detect multicollinearity among the explanatory variables. The VIF values for the variables range from 1.07 to 1.43, with the highest value being for **GINI** at 1.43 and the lowest for **PSC** at 1.07. Since all the VIF values are below the threshold of 5, there are no concerns regarding multicollinearity among the variables in the model. This suggests that the explanatory variables are not highly correlated with each other, allowing for reliable estimation of their individual effects on the dependent variables in the study. As highlighted by O'Brien (2017), the absence of multicollinearity is crucial for ensuring that the model results are not distorted by intercorrelations between predictors.

4.1.3 Stationarity Test (ADF)

Table 3: Augmented Dickey-Fuller Test Results

Variable	ADF Statistic	p-value	Stationary
GINI	2.26	0.999	No
MPR	-4.63	0.0001	Yes
PSC	-6.42	0.0000	Yes
INF	-3.18	0.021	Yes
GDPG	0.38	0.981	No
MTM	-4.64	0.0001	Yes

Table 3 shows the results of the Augmented Dickey-Fuller (ADF) test, which assesses whether the variables are stationary. Stationarity is an essential condition for conducting time series analysis, as non-stationary data can lead to spurious results.

GINI has an ADF statistic of 2.26 with a p-value of 0.999, indicating that the variable is **not stationary**. This suggests that the income inequality data may exhibit a trend or seasonality that needs to be differenced before further analysis.

MPR shows an ADF statistic of -4.63 with a p-value of 0.0001, which is **stationary** at the 1% level. This indicates that the **Monetary Policy Rate** series does not require differencing and can be used in its current form for the analysis.

PSC has an ADF statistic of -6.42 with a p-value of 0.0000, indicating that the **Private Sector Credit** variable is **stationary**. This means that the series of private sector credit does not exhibit a trend or unit root and can be included in the model without the need for transformation.

INF (Inflation) has an ADF statistic of -3.18 and a p-value of 0.021, indicating that it is **stationary** at the 5% significance level. The inflation series is stable over time, making it suitable for time series analysis without the need for differencing.

GDPG (GDP Growth) has an ADF statistic of 0.38 with a p-value of 0.981, showing that it is **not stationary**. This suggests that GDP growth data has a unit root, and further transformation may be necessary to make the series stationary.

MTM (Monetary Tightness Measure) has an ADF statistic of -4.64 with a p-value of 0.0001, indicating that it is **stationary** at the 1% level. This means the monetary tightness measure can be used in the analysis without further differencing.

In summary, **Table 3** reveals that while some variables like **MPR**, **PSC**, **INF**, and **MTM** are stationary, others like **GINI** and **GDPG** need to be differenced before being used in the model. This distinction is critical for ensuring that the analysis yields valid and reliable results

4.2 Regression Results (OLS Model)

The Ordinary Least Squares (OLS) technique was employed to estimate the effect of income inequality and selected macroeconomic variables on monetary policy transmission effectiveness (MTM) in Nigeria. The estimated model is specified as:

$$MTM_t = \beta_0 + \beta_1 GINI_t + \beta_2 MPR_t + \beta_3 PSC_t + \beta_4 INF_t + \beta_5 GDPG_t + \epsilon_t$$

Table 4: OLS Regression Output

Variable	Coefficient	Std. Error	t-Statistic	p-value	Inference
Intercept	-0.665	2.628	-0.253	0.805	Not Significant
GINI	0.409	5.629	0.073	0.944	Not Significant
MPR	-0.025	0.072	-0.341	0.740	Not Significant
PSC	0.024	0.036	0.684	0.510	Not Significant
INF	0.091	0.050	1.815	0.100	Marginally Significant
GDPG	0.076	0.059	1.304	0.222	Not Significant

R²=0.433

F-statistic = 1.528 (p = 0.265)

Table 4 Revealed that the coefficient of the OLS is -0.665 with a standard error of 2.628 and a t-statistic of -0.253. The p-value is 0.805, which indicates that the intercept is not statistically significant at the 5% significance level. This suggests that when all other variables are zero, the value of MTM is not significantly different from zero.

GINI: The coefficient for GINI (income inequality) is 0.409, with a standard error of 5.629 and a t-statistic of 0.073. The p-value is 0.944, which is much higher than the 0.05 threshold, indicating that GINI is not statistically significant in explaining variations in MTM. This suggests that income inequality does not have a strong direct impact on the monetary tightness measure in this model.

MPR: The coefficient for the Monetary Policy Rate (MPR) is -0.025, with a standard error of 0.072 and a t-statistic of -0.341. The p-value is 0.740, which is not significant at the 5% level, indicating that MPR does not significantly affect MTM in the model.

PSC: The coefficient for Private Sector Credit (PSC) is 0.024, with a standard error of 0.036 and a t-statistic of 0.684. The p-value is 0.510, which shows that PSC does not have a statistically significant effect on MTM. The result suggests that variations in private sector credit do not contribute meaningfully to the determination of monetary tightness in Nigeria.

INF: The coefficient for Inflation (INF) is 0.091, with a standard error of 0.050 and a t-statistic of 1.815. The p-value is 0.100, which is marginally significant at the 10% level but

not statistically significant at the 5% level. This indicates that inflation has a positive but weak impact on monetary tightness in the short run, with the relationship being marginal.

GDPG: The coefficient for GDP Growth (GDPG) is 0.076, with a standard error of 0.059 and a t-statistic of 1.304. The p-value is 0.222, indicating that GDPG is not statistically significant in the model, meaning that economic growth does not have a significant effect on the monetary tightness measure in the given period.

The R-squared value is 0.433, meaning that the model explains approximately 43.3% of the variation in MTM. However, the F-statistic is 1.528 with a p-value of 0.265, suggesting that the model is not jointly significant at the 5% level. This implies that the explanatory variables, when considered together, do not significantly explain the variations in MTM. Therefore, while the model explains some variation in monetary tightness, it does not adequately capture all factors influencing this measure in Nigeria.

Conclusion: Based on the regression results, GINI, MPR, PSC, GDPG, and INF have limited or no statistically significant impact on MTM at the 5% significance level. The findings suggest that other factors, possibly external or unobserved, might be influencing MTM in Nigeria during the period under study.

4.3 Discussion of Findings

The study titled *Exploring the Impact of Income Disparity on the Credit and Interest Rate Channels of Monetary Policy in Nigeria* aimed to assess how income inequality influences the transmission of monetary policy through the credit and interest rate channels. The empirical analysis revealed several critical insights, some of which align with existing literature while others offer contrasting results. These findings are analyzed below, drawing connections with the theoretical framework and previous empirical studies.

Table 1's descriptive statistics revealed that income inequality, measured by the GINI coefficient, averaged 0.43, indicating a moderate level of inequality in Nigeria. This finding supports the notion that income inequality in Nigeria, while not extreme, can still potentially influence policy outcomes. This aligns with the findings of Xiang et al. (2022), who argued that income inequality affects the distributional outcomes of monetary policy. While the relationship between income inequality and policy effectiveness remains complex, the findings suggest that the moderate level of income inequality in Nigeria could potentially skew the impact of monetary policies, particularly in the credit and interest rate channels. This result also resonates with Resource Dependency Theory (RDT), which emphasizes how the distribution of financial resources is unequal and how such disparities can affect access to monetary policy benefits, particularly credit and financial stability.

The results from the Variance Inflation Factor (VIF) test, presented in Table 2, showed no concerns regarding multicollinearity among the explanatory variables, as all the VIF values were below the threshold of 5. This finding supports the robustness of the regression model and aligns with the theoretical assumption of Management and Role Theory, which suggests that the effectiveness of policy implementation depends on how well the components (variables) work together without significant interference or overlapping influences. This also

supports the earlier assumption that no single variable is overly dominant in affecting the Monetary Tightness Measure (MTM), confirming the interdependence of macroeconomic factors.

Turning to the stationarity tests, the Augmented Dickey-Fuller (ADF) results in Table 3 indicated that GINI and GDPG were non-stationary, suggesting the need for further differencing or co-integration analysis to model long-term dynamics effectively. This outcome aligns with Public Choice Theory, which posits that the stability and distributional effects of monetary policy can be influenced by long-term political and economic conditions. In this case, the non-stationarity of GINI suggests that income inequality may evolve over time, impacting the overall effectiveness of monetary policy in the long run, as political and economic forces continue to shape its outcomes.

The OLS regression results in Table 4 revealed that none of the explanatory variables, including GINI, MPR, PSC, GDPG, and INF, had a statistically significant impact on the dependent variable, MTM, at the conventional 5% significance level. The coefficient for GINI (0.409) was not statistically significant (p -value = 0.944), which suggests that income inequality did not have a meaningful effect on the transmission of monetary policy in the Nigerian context. This finding contradicts Xiang et al. (2022), whose study found that income inequality played a significant role in the distributional effects of monetary policy, particularly in China. In contrast, this study's results indicate that while income inequality is a concern in Nigeria, its direct effect on monetary policy transmission is not as pronounced. This could be attributed to the fact that monetary policies, such as changes in interest rates, do not uniformly affect all income groups, as wealthier individuals and businesses have better access to credit, reducing the effectiveness of policy interventions for the poorer segments of the population, as suggested by Resource Dependency Theory.

On the other hand, INF (inflation) showed a marginally significant positive coefficient (p -value = 0.100), indicating that inflation might slightly erode the effectiveness of monetary policy transmission. This finding aligns with the work of Khan and Khan (2023), who suggested that inflation has a significant impact on income inequality, thereby influencing the effectiveness of monetary policy. The positive relationship between inflation and MTM in this study reflects how inflation, by undermining purchasing power and economic stability, may reduce the efficiency of monetary policy, particularly in terms of interest rate and credit channels.

The GDPG variable, representing economic growth, had a positive coefficient (0.076) but was not significant (p -value = 0.222). This suggests that, despite its theoretical importance in economic models, GDP growth did not significantly impact the MTM in this case, which contrasts with the findings of Jolaoso (2024), who reported a significant link between economic growth and income inequality in Nigeria. This may point to the fact that while growth is essential for overall economic stability, its effect on monetary policy transmission is mediated by other factors such as inflation, political decisions, and the unequal access to financial resources.

Overall, the empirical results support the view that income inequality has an indirect and less direct effect on monetary policy transmission. Public Choice Theory suggests that political

interests and the influence of wealthier groups may shape the policies, but in the Nigerian context, this did not translate into a strong statistical relationship between GINI and MTM. Similarly, the influence of inflation on monetary policy transmission echoes the theoretical emphasis on inflation's role in distorting monetary policy channels, as described by Resource Dependency Theory. In contrast, the limited effect of GDPG on MTM underscores the complex interplay between economic growth and monetary policy, where growth alone is insufficient to guarantee an effective policy transmission.

In conclusion, the findings suggest that while there are notable theoretical and empirical connections between income inequality, macroeconomic variables, and monetary policy effectiveness, the direct statistical relationships observed in Nigeria are weaker than expected. The lack of significant results for GINI, MPR, PSC, and GDPG highlights the complexity of monetary policy transmission and suggests that external factors, beyond income inequality, play a crucial role in shaping its outcomes.

5.1 Conclusion

The study *Exploring the Impact of Income Disparity on the Credit and Interest Rate Channels of Monetary Policy in Nigeria* examined the role of income inequality in the transmission of monetary policy. The analysis focused on how income disparity affects the credit and interest rate channels of monetary policy, particularly through variables such as the GINI coefficient, Monetary Policy Rate (MPR), Private Sector Credit (PSC), Inflation (INF), GDP growth (GDPG), and the Monetary Tightness Measure (MTM). Descriptive statistics revealed a moderate level of income inequality in Nigeria, which aligns with existing theoretical perspectives on income inequality's potential to affect policy outcomes. However, the study found that GINI did not exhibit a statistically significant relationship with MTM, suggesting that income inequality's impact on monetary policy transmission may be indirect or mediated by other factors, such as political and economic dynamics.

The Variance Inflation Factor (VIF) test confirmed that multicollinearity was not a concern, and the stationarity tests indicated that while some variables, like GINI and GDPG, were non-stationary, others, including inflation and private sector credit, were stationary, which provides a stable basis for short-run analysis. The OLS regression results further revealed that none of the macroeconomic variables had a significant impact on monetary policy transmission, particularly income inequality, which was not statistically significant in influencing the dependent variable. Inflation, however, showed a marginally significant effect, suggesting that price instability may slightly undermine the transmission process.

The findings from this study suggest that while income inequality is an important issue in Nigeria, its direct impact on the effectiveness of monetary policy through the credit and interest rate channels appears limited. Other factors, such as inflation and economic growth, may be more crucial in determining the strength of monetary policy transmission. The study, therefore, contributes to the understanding of the dynamics of monetary policy in a context characterized by moderate income inequality.

5.2 Recommendations

1. **Policy Focus on Inflation Control:** Given the marginally significant effect of inflation on monetary policy transmission, it is essential for the Central Bank of Nigeria to prioritize inflation control. Reducing inflationary pressures would help enhance the effectiveness of monetary policy, especially in the credit and interest rate channels, and improve the overall economic stability of the country.
2. **Targeted Monetary Policies for Income Inequality:** Although income inequality did not have a direct statistical effect on monetary policy transmission in this study, it remains a structural issue that can indirectly influence economic outcomes. Policymakers should consider incorporating targeted interventions aimed at reducing income inequality, particularly by improving access to credit for lower-income households and supporting financial inclusion initiatives.
3. **Improvement in Data Quality and Long-Term Analysis:** The study found non-stationary behavior in some key variables like **GINI** and **GDPG**, suggesting the need for further long-term analysis. Future research should focus on incorporating more granular data and exploring long-run dynamics, particularly through co-integration and error-correction models, to better understand the evolving relationship between income inequality and monetary policy.
4. **Strengthen Institutional Capacity for Policy Implementation:** The study highlights the importance of effective policy implementation. The government and central bank should focus on strengthening institutional capacity to better manage monetary policies, ensuring that they are adaptable to changing economic conditions. Training and capacity-building for financial institutions involved in policy implementation could ensure that the policy reaches all segments of society more effectively.
5. **Comprehensive Socio-Economic Reforms:** Addressing income inequality requires a broader socio-economic reform agenda. Policymakers should focus on promoting inclusive economic growth, improving access to education, healthcare, and job opportunities, especially for marginalized groups, to reduce the inequality gap. This could indirectly strengthen the credit and interest rate channels of monetary policy by ensuring that a greater proportion of the population can participate in and benefit from economic policies.

These recommendations aim to enhance the effectiveness of monetary policy in Nigeria by addressing underlying structural issues such as income inequality while fostering an environment conducive to sustainable economic growth.

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