

## Effect of Monetary Policy on Poverty: An Analysis from Developing Countries

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### ABSTRACT

In this research work, we have focused on the impact of monetary policy on poverty reduction in developing countries. We have used data from 1991 to 2024 from these developing countries. Poverty was used as the dependent variable. However, money supply, interest rate, inflation, and urban population were taken as independent variables. For the sake of analysis, we have used OLS regression analysis. The regression result showed that money supply tended to reduce poverty in developing economies. Though the real interest rate has increased the poverty level of the concerned nations. The study findings also showed inflation has increased the poverty level. Finally, the urban population has caused less poverty in developing countries. The study has concluded that monetary policy affects poverty in developing economies. The study has suggested a stable interest rate for the financial stability of the economies. The role of money supply should be positive in reducing poverty in the concerned developing countries. There is a dire need to control inflation in the developing countries. Finally, there should be more investment and usage of technology in industries in urban areas for reducing poverty and increasing growth.

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### INTRODUCTION

Money supply and mild inflation rate are major causes of tremendous economic growth rate, able to develop job chances, lessen poverty, and higher per capita income and living standard, that concludes high development (Phibian, 2010). Interest rate, alternatively, is considered as a monetary policy rate and it is one of the transitional monetary policy instruments at the power of the Central Bank to manage money supply and therefore inflation rate (Anyaele, 2003). If the apex Bank experience to restrict money supply by reducing the authority of contributors (commercial banks), it will augment interest rates. At the same time, regarding an expansionary monetary policy, the reverse will be the case. Inflation normally involves a continued increase in prices of commodities and services in the nation (Medee & Nembee, 2010; Andy, 2001).

The money supply and economic growth nexus is one of the most essential up till now multifaceted problems in macroeconomic theory and strategy, in view of the fact that the previous three decades. The money supply, or the entirety of assets or possessions obtainable in the nation at a precise time, has an important effect on financially viable action (Challoumis, 2024). It influences inflation, rate of interest, investment, and customer expenditure (which are significant variables in growth potential) (Avelino & Coronel, 2021). Widespread literature has found the connection between money supply and growth in rich and underdeveloped nations, frequently showing contradictory consequences, as these nations differ in financial arrangement, institutional planning, and policy environments.

Monetary policy is all about the work of the central bank to affect the improvement of economic factors to achieve the preferred goals. The same as an element of macroeconomic strategy, the monetary purpose is to assist in achieving macroeconomic objectives, such as economic growth, job creation, price stability, and trade balance. The four tasks are the final objective of monetary strategy (Natsir, 2011). Monetary policy is a strategy of economic power or a state bank for controlling the monetary economy to achieve anticipated growth and development.

Romer and Romer (1999) investigated the monetary policy, poverty, and inequality relationship in America. The result showed that growth was increased because of monetary policy. This will result in more growth and greater well-being for the people. Yusuf (2013) focused on the association between monetary policy and poverty and income inequality. The study findings indicated that monetary policy (inflation) in the long term and macro instability have a greater impact on poverty levels. Kang et al. (2013) emphasized the role of monetary policy in affecting poverty. The findings indicated that the real interest rate tended to increase the poverty level. It was also found that income growth has decreased poverty and improved income distribution. Inflation has also reduced poverty.

Goshit and Longduut (2016) also checked the role of monetary policy in alleviating poverty in Nigeria. The authors have used time series data for the analysis. The study result showed that money supply, GDP, unemployment, and balance of payments affected the poverty rate in Nigeria. Goshit and Longduut (2016) checked the indirect effect of monetary policy instruments on plummeting poverty. They used data from 1986 to 2012. The regression results showed that money supply, real gross domestic product, unemployment rate, and balance of payments affected poverty rate. Nasution et al. (2022) analyzed the monetary policy effects on the poverty rate. The data were used from 2005 to 2019. They used panel ARDL. The findings indicated that interest rates and exchange rates resulted in increased poverty rates in the long-term in five ASEAN countries. Saeed (2020) examined the effect of interest rate and money supply on poverty in Pakistan. They have used data from 2001 to 2017. The result showed that money supply and interest rate have increased poverty in the case of Pakistan.

Ogunrinlade et al. (2026) emphasized the effect of Nigeria’s monetary policy on poverty elimination. The ARDL result showed that money supply has reduced poverty. However, interest rate and exchange rate remained insignificant. The study recommended a balanced monetary policy. Misa et al. (2025) utilized data from 2015 to 2024 and checked the influence of inflation on poverty reduction in Nigeria. The result showed that inflation has increased poverty in Nigeria. The study suggested reducing the money supply and inflation. Olaleyey et al. (2025) emphasized poverty reduction by using data from 2010 to 2023. They used ARDL and ECM methods for the analysis. The study result showed the positive relationship between ATM transactions and POS services on poverty lessening, with mobile money showing a negative effect on poverty reduction.

Considering the importance of monetary policy variables discussed above, we make an effort to highlight the significance of monetary policy influencing the poverty rate of three developing countries. Our independent factors include money supply, interest rate, inflation, and urban population in the developing economies. This research will provide good suggestions for further development.

The existing work will show the impact of money supply, interest rate, inflation, and urban population on poverty in developing countries.

Hypothesis:

The important hypotheses are presented as follows.

H1: Money supply tends to decrease poverty in the countries.

H2: The higher the interest rate, the higher the poverty in developing countries.

H3: Inflation will increase the poverty level of the countries.

H4: Urban population and poverty are negatively related.

In this research, we have used factors such as money supply, budget deficit, government expenditures, interest rate, etc., affecting poverty in underdeveloped and developed nations of the world.

**METHODOLOGY**

To investigate the effect of monetary policy on poverty, we have used the poverty headcount ratio as the dependent variable. The independent variables were used as money supply, interest rate, inflation, and urban population. Interest rate, inflation, and urban population were used as control variables. We have taken data from 1991 to 2024 for this analysis. The OLS regression technique has been used in this analysis. We have taken data from the World Development Indicators and Pakistan Economic Surveys.

The model is explained as:

$$POVRTY_{it} = \beta_0 + \beta_1 MONYSUP_{it} + \beta_2 REALINTRT_{it} + \beta_3 INFLAT_{it} + \beta_4 URBNPOP_{it} + \mu_{it} \tag{1}$$

Where:

POVRTY= Poverty headcount ratio (% population)

MONYSUP= Money supply (% of GDP)

REALINTRT= Real interest rate

INFLA= Consumer price index

URBNPOP= Urban population % of GDP

$\mu_t$  = Error term

The details of the variables are explained in Table 1.

Table 1: Details of the variables

Variable	Symbol	Description	Source	Time
Poverty	POVRTY	Poverty headcount ratio (% Population)	WDI	1991 to 2024
Money supply	MONYSUP	Money Supply % of GDP	WDI	1991 to 2024
Interest rate	REALINTR	Real interest rate	WDI	1991 to 2024
Inflation	INFLA	Consumer price index	WDI	1991 to 2024
Urban population	URPOPP	Urban population % total population	WDI	1991 to 2024

**RESULTS AND DISCUSSION**

The results of the unit root test are given in Table 2. It is found that most factors are stationary at the level. Table 3 explain the summary statistics and OLS results. It is found that on average, the poverty ratio is 34.7078 percent, and the value of the standard deviation is less than the mean value. Though the money supply is 44.6143 percent on average in these three developing countries. On average, the real interest rate is 5.1057 percent. The variations have been observed from -24.6002 percent to 15.6069 percent. On average, the inflation rate is 8.0974 percent. Finally, the urban population is observed as 36.0315 percent in three developing countries.

Table 2: Results of Panel unit technique

Variables	Probability	Levin, Lin & Chu t*	IP & Shin W-stat	ADF Fisher Chi-square	ADF Fisher Chi-square
POVRTY	At level	0.0223	0.6365	0.7409	0.0224
		0.0005	0.0000	0.0000	0.0000
MONYSUP	At level	0.01526	0.0028	0.0090	0.0083
REALINTR	At level	0.0004	0.0005	0.0008	0.0000
INFLA	At level	0.0028	0.0014	0.0028	0.0001
URBNPOP	At level	0.0541	0.0142	0.0000	0.0000

Table 3: Summary statistics

Variables	Mean	St. deviation	Minimum	Maximum
POVRTY	34.7078	16.6056	9.3	67.3
MONYSUP	44.6143	9.2250	24.0087	64.5666
REALINTR	5.1057	5.5054	-24.6002	15.6069
INFLA	8.0974	6.6941	1.5608	58.4510
URBNPOP	36.0315	9.9882	202667	58.7510

Table 4 highlights regression results. The money supply may influence the poverty of developing countries in the world. The study findings pointed out that a one percent increased money supply caused for decreased poverty ratio by 0.5316 percent. The reason may be that people spend more money on more consumption. This will increase businesses and production of goods for use. The result is supported by Ogunrinlade et al. (2026).

The role of the interest rate cannot be ignored in poverty reduction in developing countries. It has negative effects on the poverty level. A one percent increased interest rate will result in increased poverty level by 0.7314 percent. It is found that the interest rate is the result of a reduction in investment and production. The result is high poverty. Our result is supported by Saeed (2020).

Table 4: Regression Results, Dependent variable is Poverty

Variables	Coefficients, Standard Errors and T-values
MNYSUP	-0.5316* 0.1144 (-4.64)
REALINTR	0.7314** 0.2196 (3.33)
INFLA	0.6204* 0.1792 (3.46)
URBNPOP	-1.1014* 0.1022 (-10.78)
C	89.4614 6.8597 (13.04)
F-Statistics	102
Probability	0.000
R Square	0.64
Adjusted R-Square	0.63

\*\* p&lt;0.05, \* p&lt;0.1

Inflation also affects the poverty level of the developing countries. Due to inflation, people consume fewer goods, which decreases purchasing power. The result shows that a one percent increase in inflation will cause more poverty among the people of these economies by 0.6204 percent in developing countries. The study is supported by Misa et al.'s (2025) findings.

The urban population also affects the poverty ratio in developing countries. More increases in urban population will cause a decrease in poverty in underdeveloped economies. The result shows that a one percent increase in urban population results in a decrease in poverty by 1.1014 percent in developing countries.

## CONCLUSIONS

In this research, we have checked the effect of monetary policy on poverty in developing countries. Our dependent variable is the poverty headcount ratio. Though our explanatory variables are money supply, interest rate, inflation, and urban population. For the sake of analysis, we have applied OLS regression analysis. The data is taken from three developing economies, such as Bangladesh, Indonesia, and Pakistan. We have used data from 1991 to 2024 for this analysis. The study results pointed out that money supply has decreased poverty in developing countries. Though real interest rates result in increased poverty in these economies. The result also showed that inflation has increased the poverty ratio in the concerned economies. Finally, the urban population has decreased the poverty level of developing countries. The study has concluded that monetary policy affected the poverty level of these countries. The study recommends for the stable interest rate for the financial stability of the economies. The role of money supply should be positive in decreasing poverty in these countries. Finally, there is a dire need to control inflation in developing countries. There should be more investment and use of modern technology in all sectors of the economy for poverty reduction and growth.

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