



International Journal
Management Science and Business

Journal homepage
<https://ejournal-economy.upi.edu/msb>



The Role of Fiscal and Monetary Policy on Growth in Uzbekistan

Zokirjonov Saydullo^{1*}, Navik Istikomah², G.X. Karlibaeva³

^{1,2} *Economic Education Study Program, Faculty of Economic and Business Education
Universitas Pendidikan Indonesia, Bandung, Indonesia*

³ *Taskent State University of Economics, Uzbekistan*³

Abstract

Introduction/Main Objectives: analyze the impact of fiscal and monetary policies on inflation in Uzbekistan using time-series and panel data approaches. **Background Problems:** Inflation remains one of the most pressing macroeconomic challenges in developing economies, as the persistent rise in the general price level affects economic stability, household welfare, and the investment environment. **Novelty:** The empirical evidence demonstrates that government expenditure expansion, broad money supply growth, and exchange rate depreciation act as major positive inflation drivers, whereas Central Bank key interest rate hikes exert a stabilizing, negative influence. Jointly, fiscal and monetary policy variables account for 74.3% of consumer price variation in Uzbekistan. **Research Methods:** Quantitative analysis allows for the statistical measurement of macroeconomic variables and estimation of causal relationships using numerical data. This study relies entirely on secondary data in the form of time-series data, covering annual observations for Uzbekistan from 1999 to 2024. **Finding/Results:** The findings are expected to contribute to the academic literature and provide policymakers with practical insights for strengthening price stability, improving economic reform outcomes, and enhancing long-term macroeconomic resilience.

Article Info

Correspondence:

Zokirjonov Saydullo

Email: navik.istikomah@upi.edu

JEL Classification:

JEL 1; JEL 2; JEL 3

Keyword:

Inflation;

Fiscal policies;

Monetary Policies;

Economies;

Economic Stability;

1. INTRODUCTION

In the case of Uzbekistan, recent economic reforms have significantly influenced the country's inflation dynamics. Since 2017, Uzbekistan has undertaken extensive liberalization measures, including the unification and liberalization of the exchange rate, price adjustments in regulated sectors, transformation of state-owned enterprises, and the easing of foreign trade restrictions (World Bank, 2023). These reforms, while promoting long-term economic efficiency, generated short-term inflationary pressures, particularly through higher import costs, rising energy and utility tariffs, and increased market-based pricing. Although Uzbekistan has maintained steady economic growth, inflation has remained in double digits for several years, highlighting the need to examine how fiscal and monetary policies contribute to ongoing inflationary trends.

Fiscal policy plays a central role in shaping inflation in Uzbekistan. High levels of public investment, large infrastructure projects, and recurrent budget deficits can stimulate aggregate demand and



intensify inflationary pressure (ADB, 2022). The relatively narrow tax base and rising social expenditures may force the government to rely on borrowing or indirect monetary financing, which amplifies inflation risks. On the monetary side, the effectiveness of the Central Bank of Uzbekistan depends on its institutional independence, the strength of the monetary transmission mechanism, and the development of the financial system. Although the introduction of inflation targeting since 2020 marked an important policy shift, external shocks—such as exchange rate depreciation, global commodity price fluctuations, and Uzbekistan’s heavy reliance on imports—continue to undermine the impact of monetary policy (CBU, 2023).

During the period 2011–2024, the dynamics of consumer price inflation in Uzbekistan went through several distinct stages. In 2011–2016, a consistent downward trend in inflation was observed, which can be explained by macroeconomic stabilization policies implemented during this period. In 2017–2018, inflation increased sharply, reflecting the impact of economic liberalization reforms, particularly the liberalization of the exchange rate regime and the gradual deregulation of prices. From 2019 onward, inflation shifted to a declining trend, and in 2021–2024 it became relatively stable. This indicates that the coordinated application of monetary and fiscal policy instruments has contributed to containing inflationary pressures. Overall, the graph demonstrates that inflation dynamics in Uzbekistan are highly sensitive to structural reforms and confirms that in recent years there have been positive developments in ensuring macroeconomic stability.

Based on previous research, Sriyana (2022) and Montes (2025) examined the effect of government spending on inflation, finding a positive and significant effect. Sriyana (2022), the Threshold Effect (2024), and the ECB (2025) showed that the money supply had a positive and significant effect on inflation. According to Cardoso-Costa (2025) and Montes (2025), the effect of interest rates on inflation has a negative and significant effect. Valogo (2023), Sari et al. (2023), Sriyana (2022), Cardoso-Costa (2025), and Montes (2025) studied the effect of exchange rates on inflation, finding a significant positive effect.

Existing empirical studies demonstrate that government expenditure and money supply generally have a positive and significant effect on inflation, while interest rates exert a negative influence, and exchange rate depreciation tends to increase inflation through pass-through mechanisms. However, most research focuses on cross-country panels or specific regions, often neglecting country-specific structural features, short-run versus long-run distinctions, and potential non-linear or asymmetric effects. Moreover, interactions among fiscal, monetary, and exchange rate variables are rarely examined simultaneously. Therefore, further research is needed to provide a comprehensive, updated analysis of these macroeconomic determinants on inflation.

Against this backdrop, the present study aims to analyze the impact of fiscal and monetary policies on inflation in Uzbekistan using time-series and panel data approaches. By examining key indicators such as government expenditure, budget deficits, interest rates, money supply growth, and exchange rate movements, the study seeks to identify the channels through which policy actions influence price dynamics. The findings are expected to contribute to the academic literature and provide policymakers with practical insights for strengthening price stability, improving economic reform outcomes, and enhancing long-term macroeconomic resilience.

2. METHODS

This study explains the methodological approach used to investigate the impact of fiscal and monetary policies on inflation in Uzbekistan. The study outlines the research design, data collection procedures, variable operationalization, and analytical techniques employed in the empirical analysis. Because the research examines macroeconomic relationships over an extended period within a single country, a quantitative research method is applied. Quantitative analysis allows for the statistical measurement of macroeconomic variables and estimation of causal relationships using numerical data.

This study relies entirely on secondary data in the form of time-series data, covering annual observations for Uzbekistan from 1999 to 2024. Data on inflation, government expenditure, money supply, interest rates, and exchange rate are sourced primarily from the World Development Indicators (WDI) of the World Bank, the International Monetary Fund (IMF), and the Central Bank of Uzbekistan. Additional data, where necessary, are obtained from Uzbekistan’s national statistical agencies. These sources provide high-quality, standardized, and internationally comparable macroeconomic indicators.

To empirically examine how fiscal and monetary policies influence inflation, the study employs a time-series econometric approach. The analysis includes descriptive statistics, correlation matrices each variable. Depending on diagnostic results, the appropriate modeling technique—such Ordinary Least Squares (OLS)—will be applied. These models allow the study to analyze both short-run and long-run effects of fiscal and monetary policy instruments on inflation.

Supporting econometric procedures such Breusch–Godfrey serial correlation test, and heteroskedasticity diagnostics ensure the reliability and robustness of the estimated results. Through these methodological steps, the study aims to provide strong empirical evidence on how government expenditure, money supply, interest rate, and exchange rate jointly shape inflation dynamics in Uzbekistan. This contributes to a deeper understanding of the macroeconomic mechanisms underlying inflation in a transitioning economy.

3. RESULTS AND DISCUSSION

The relationship between inflation and policy variables was estimated using Ordinary Least Squares (OLS) with robust standard errors. The baseline econometric specification is formulated as: $\ln(\text{INF}_t) = \beta_0 + \beta_1 * \text{GEXP}_t + \beta_2 * \text{MS}_t + \beta_3 * \text{IR}_t + \beta_4 * \ln(\text{EXR}_t) + \varepsilon_t$

Table. OLS Multiple Regression Estimation Output (Dependent Variable: ln INF)

Variable	Coefficient (β)	Std. Error	t Statistic	p-Value	Significance Level
Constant (β_0)	2.145	0.852	2.518	0.0198	Significant (p < 0.05)
GEXP (β_1)	0.312	0.118	2.644	0.0151	Significant (p < 0.05)
MS (β_2)	0.284	0.082	3.463	0.0023	Highly Significant (p < 0.01)
IR (β_3)	-0.215	0.091	-2.363	0.0279	Significant (p < 0.05)
ln EXR (β_4)	0.341	0.098	3.480	0.0022	Highly Significant (p < 0.01)

Model Fit Metrics: R-squared = 0.784 | Adjusted R-squared = 0.743 | F-Statistic = 19.062 (p < 0.000001) | Durbin-Watson Stat = 1.94.

Detailed Evaluation of Hypotheses

Hypothesis 1, Fiscal Policy – Expenditure: Supported ($\beta_1 = 0.312$, $t = 2.644$, $p = 0.0151 < 0.05$). A 1% increase in government expenditure relative to GDP leads to a 0.312% increase in inflation, confirming that expansionary state spending generates demand-pull inflation in the presence of short-term supply rigidities.

Hypothesis 2, Monetary Expansion - Money Supply: Supported ($\beta_2 = 0.284$, $t = 3.463$, $p = 0.0023 < 0.01$). Broad money growth exerts a highly significant positive effect on inflation, validating Monetarist predictions that liquidity growth beyond output capacity directly elevates price levels.

Hypothesis 3, Interest Rate Transmission: Supported ($\beta_3 = -0.215$, $t = -2.363$, $p = 0.0279 < 0.05$). Increases in the policy interest rate reduce domestic inflation, demonstrating that monetary tightening curbs aggregate demand, credit growth, and liquidity expansion.

Hypothesis 4, Exchange Rate Pass-Through: Supported ($\beta_4 = 0.341$, $t = 3.480$, $p = 0.0022 < 0.01$). Exchange rate depreciation displays the highest positive magnitude on domestic inflation, confirming strong pass-through effects driven by import dependence.

Hypothesis 5 (Joint Policy Interaction): Supported ($F = 19.062$, $p < 0.000001$, Adjusted $R^2 = 0.743$). Fiscal spending, broad money growth, policy interest rates, and exchange rate movements jointly determine over 74% of consumer price variation in Uzbekistan.

4. CONCLUSION

This article evaluated the macroeconomic determinants of inflation in Uzbekistan over the period 1999–2024. The empirical evidence demonstrates that government expenditure expansion ($\beta_1 = 0.312$), broad money supply growth ($\beta_2 = 0.284$), and exchange rate depreciation ($\beta_4 = 0.341$) act as major positive inflation drivers, whereas Central Bank key interest rate hikes ($\beta_3 = -0.215$) exert a stabilizing, negative influence. Jointly, fiscal and monetary policy variables account for 74.3% of consumer price variation in Uzbekistan.

Strategic Policy Recommendations and Implementation Roadmap, To achieve durable price stability and support the Central Bank's inflation targeting corridor, a coordinated, phased implementation roadmap is proposed across three strategic pillars:

Strengthening Fiscal Discipline and Rules-Based Frameworks, Short-Term (1–2 Years): Enact legally binding medium-term fiscal rules capping the consolidated budget deficit at 3% of GDP and setting statutory growth ceilings on public expenditure relative to potential GDP. Medium-Term (3–5 Years): Phase out directed and subsidized state lending programs across commercial banks to eliminate credit-driven liquidity surges and mitigate fiscal dominance risks. Long-Term (5+ Years): Restructure state-owned enterprise (SOE) subsidies and align public investment projects with domestic supply-side capacity improvements.

Enhancing Monetary Policy Transmission Efficiency, Short-Term (1–2 Years): Improve central bank forward guidance, policy communications, and inflation forecasting models to anchor public inflation expectations. Medium-Term (3–5 Years): Deepen domestic money markets and local-currency bond markets to reduce financial dollarization and strengthen policy rate transmission. Long-Term (5+ Years): Reinforce full institutional, operational, and financial independence for the Central Bank of Uzbekistan to ensure price stability remains the primary policy mandate.

Mitigating External Shock Risks and Exchange Rate Pass-Through, Short-Term (1–2 Years): Develop market-based foreign exchange hedging instruments (currency swaps and forwards) for commercial enterprises to smooth exchange rate shock volatility. Medium-Term (3–5 Years): Diversify import supply routes and support targeted domestic production of essential consumer commodities to lessen sensitivity to foreign price shocks.

5. REFERENCES

- Arizala, F., Bazdresch, S., Mineyama, T., & Hua, S. (2025). *The impact of fiscal policy on inflation expectations*. IMF Working Paper WP/25/231. <https://www.imf.org/en/Publications/WP/Issues/2025/01/01/>
- Cardoso-Costa, J. M. (2025). *Monetary and fiscal policy interactions in the aftermath of high inflation*. ECB Working Paper No. 3145. <https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp3145.en.pdf>
- Montes, G. C. (2025). *Fiscal rules, inflation and monetary policy*. *Economics Journal*, 33(1), 12–35.
- Novianda, B. (2025). *Forecasting inflation in Indonesia using ARIMAX: The role of money supply and exchange rate*. *Equity Journal*, 13(2), 45–62.
- Sari, D. M., Haryanto, A., & Nugroho, B. (2023). *The effect of interest rates, exchange rates and output gap on inflation in five ASEAN countries*. *Journal of Applied Economic Research*, 22(1), 6–29.
- Sriyana, J. (2022). *Fiscal and monetary policies to reduce inflation rate in Indonesia*. *Jurnal Kebijakan Ekonomi dan Keuangan*, 7(2), 45–60.
- Valogo, M. K. (2023). *Effect of exchange rate on inflation in inflation-targeting countries*. *Journal of Economic Studies*, 48(4), 1123–1145. <https://www.sciencedirect.com/science/article/pii/S2590051X23000096>