The Impact of Monetary Policy on Economic Growth and Development

Teona Grigolashvili

Doctor of Business Administration, Associate professor, Kutaisi University

Abstract

Interest rate, currency supply, and other financial instrument management are all part of monetary policy, which is mostly within the jurisdiction of central banks. Controlling inflation, promoting investment, maintaining stability, and eventually promoting economic growth are its many objectives. Strong institutions and a high level of confidence in their monetary policies are frequently advantages of developed economies. Georgia and other growing economies, on the other hand, have unique difficulties. Market instability, limited access to international finance, and dependence on external markets frequently influence their policy decisions and results.

1. A Brief Overview

Monetary policy, largely controlled by central banks, involves managing interest rates, currency supply, and other financial instruments. Its aims are multifold: controlling inflation, encouraging investment, ensuring stability, and ultimately fostering economic growth.

Developed economies often benefit from robust institutions and high trust in their monetary policies. In contrast, emerging economies like Georgia face distinct challenges. Limited access to global capital, market volatility, and reliance on external markets often impact their policy choices and outcomes.

2. Case Studies from Developed Countries: The U.S. and the Eurozone

The United States

In the U.S., the Federal Reserve has played a critical role in stabilizing the economy during crises, such as the 2008 financial downturn and the recent COVID-19 pandemic. By using aggressive interest rate cuts and quantitative easing, the Fed spurred economic growth, boosted employment, and tempered the risk of deflation. The U.S. has leveraged these tools effectively due to its currency's status as a global reserve. This allows it greater latitude in expanding money supply without suffering inflationary backlash that other economies might face.

Fig. 1

Value of Federal Reserve Balance sheet 2007-2024 years
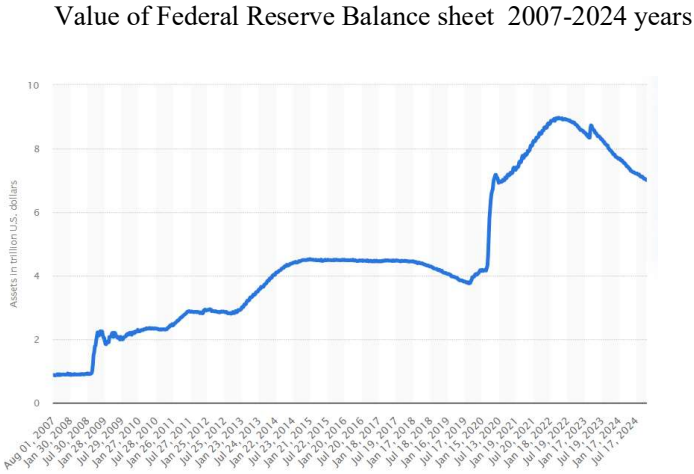
Source: Statista.com

The Eurozone

Turning to the Eurozone, the European Central Bank (ECB) has faced the unique challenge of implementing a cohesive monetary policy across diverse economies. For instance, Germany and Greece operate under very different economic conditions yet share a common currency and monetary policy framework. The ECB's low-interest-rate policy post-2008 provided relief and fueled growth but also brought challenges like high sovereign debt and asset bubbles in real estate. The ECB's response demonstrates how monetary policy can stabilize growth but can also strain economies, especially when fiscal policies are not aligned.

Fig. 2

Monthly central bank interest rates in the U.S., EU, and the UK 2003-2024
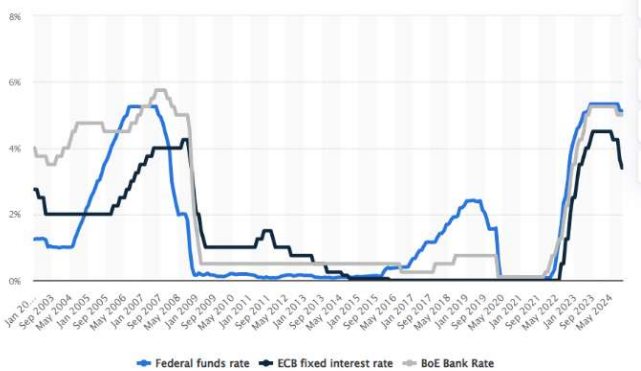
3. Comparing with Georgia: Context and Constraints

Georgia, like many emerging economies, grapples with limitations in its monetary policy. The National Bank of Georgia (NBG) works within constraints unique to smaller, open economies:

- **High Dollarization**: Unlike the U.S. or Eurozone, Georgia's economy experiences high dollarization. This reduces the effectiveness of its monetary policy, as fluctuations in the dollar affect loan prices and savings behavior domestically.

Fig. 3
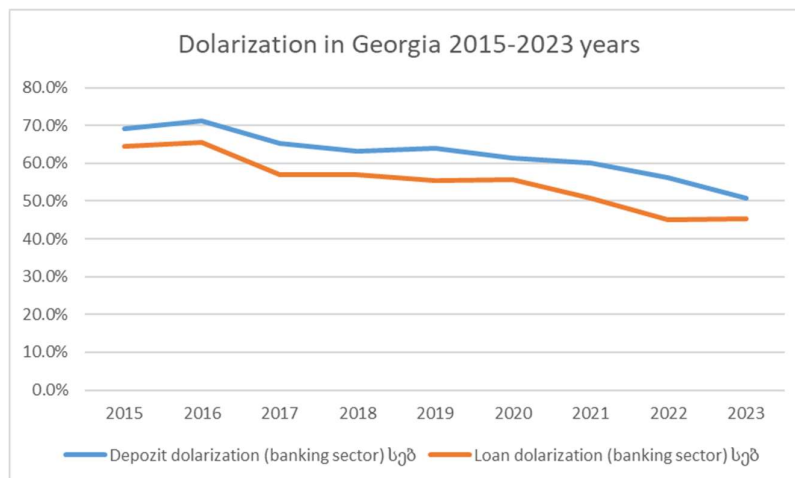
Source.nbg.gov.ge

- **Inflation Control and Growth Trade-off**: Georgia has frequently needed to focus on controlling inflation rather than fostering growth, as high inflation erodes purchasing power and reduces investment incentives. This trade-off can be seen in periods where the NBG raised interest rates to curb inflation, such as during the global inflationary period post-COVID-19. However, higher rates can stifle growth, especially in a developing economy.
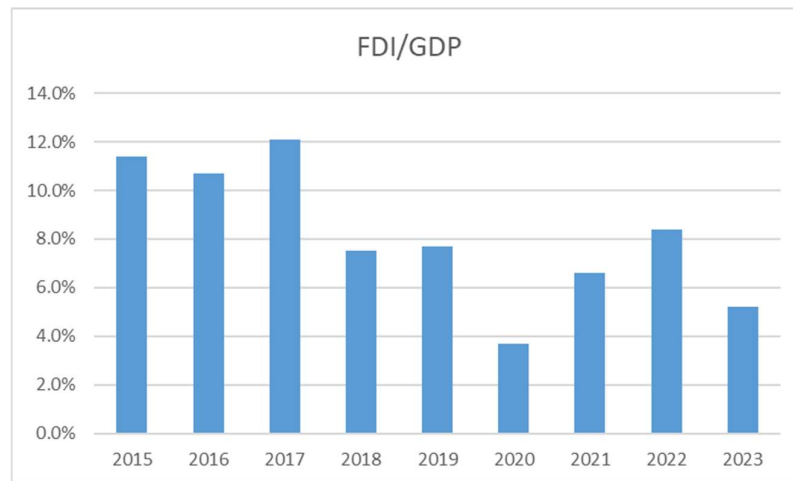
Fig. 4
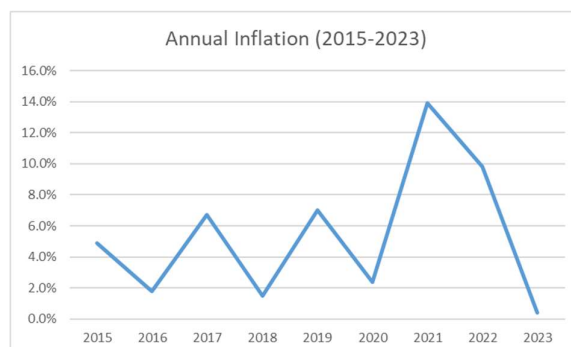
- **Reliance on External Markets**: Georgia's reliance on foreign direct investment (FDI) and remittances from countries like Russia and the EU makes it vulnerable to external economic shocks. Unlike the U.S., Georgia cannot shield its economy from global volatility through monetary tools alone.

Fig. 5

4. Developmental Impacts: Developed Countries vs. Georgia

Inflation Control and Development

In developed economies, controlled inflation contributes to steady, predictable growth. For instance, Japan's low-interest rates encourage consumer spending, though it battles deflation risks. By contrast, Georgia's inflation control aims to maintain currency stability, crucial given its import-reliant structure. However, this sometimes means slowing growth—a difficult trade-off for developing economies that need faster growth rates to improve living standards.

Stimulus Measures

During crises, developed countries inject capital directly into their economies. The U.S. did this through quantitative easing, fueling rapid recovery. Georgia, however, has fewer tools at its disposal for large-scale stimulus and often relies on international aid and remittances. Although the NBG has adopted some progressive measures—such as liquidity injections for banks—it lacks the capacity for the same scale of intervention.

Investment and Savings

Monetary policy in developed nations incentivizes both investment and savings. For example, Europe's negative rates encouraged borrowing and spending but decreased savings returns. In Georgia, high lending rates discourage borrowing for startups and SMEs, while high inflation erodes savings. This has implications for growth, as access to affordable capital is essential for business development.

For a country like Georgia, where the economy may have unique characteristics, limited historical data, and sensitivity to external shocks, a **Bayesian Structural Vector Autoregression (B-SVAR)** model is an effective choice. B-SVAR can incorporate expert beliefs and prior data, improving robustness in cases where data is scarce or volatile.

Here's a basic setup for a B-SVAR model tailored to assess the impact of monetary policy on economic growth in Georgia:

1. Model Variables

Define key economic variables commonly influenced by monetary policy:

- Y_t: Real GDP growth (measures economic growth)
- π_t: Inflation rate
- i_t: Interest rate (e.g., central bank policy rate)
- E_t: Exchange rate (to capture currency stability and external factors)

These variables are modeled as a vector X_t:

$$X_t = \begin{bmatrix} Y_t \\ \pi_t \\ i_t \\ E_t \end{bmatrix}$$

2. B-SVAR Model Structure

The B-SVAR model represents the relationships between these variables over time and incorporates structural shocks, such as a sudden change in monetary policy or an economic crisis. The model equation is:

$$X_t = A_0 + A_1 X_{t-1} + A_2 X_{t-2} + \cdots + A_p X_{t-p} + \epsilon_t$$

where:

- X_t —is the vector of endogenous variables (growth, inflation, interest rate, and exchange rate) at time t.
- A_0 is the vector of intercept terms.
- $A_1, A_2 \ldots A_p$ are matrices of autoregressive coefficients for each lag up to p periods.
- ϵ_t-epsilon is a vector of structural shocks (error terms).

3. Identifying Structural Shocks with Economic Theory

Structural shocks (e.g., shocks to monetary policy) are identified by imposing theoretical restrictions, typically using a **Cholesky decomposition** or **sign restrictions**. For instance:

- **Monetary policy shock**: An unexpected increase in the central bank rate i_t assumed to affect inflation and growth after a lag.
- **Exchange rate shock**: A sudden change in the exchange rate E_t, which can influence inflation and growth quickly, given Georgia's trade exposure.

An identification scheme (e.g., Cholesky ordering) could be:

$$X_t = \begin{bmatrix} Y_t \\ \pi_t \\ i_t \\ E_t \end{bmatrix}$$

This ordering implies:

- Monetary policy changes (interest rate adjustments) impact growth and inflation with a lag.
- Exchange rate changes affect inflation and growth contemporaneously, capturing Georgia's external sensitivity.

4. Bayesian Priors for Parameter Estimation

To address limited data, use Bayesian priors to inform estimates for the coefficients $A_1, A_2 \dots A_p$. Common priors include:

- **Minnesota Prior**: This shrinks the coefficients of higher-order lags towards zero, making the model more stable.
- **Normal-Wishart Prior**: Useful for constraining the variance-covariance matrix of shocks, ensuring realistic variability.

The posterior distribution of the parameters is then derived from combining the likelihood of observed data with these priors.

5. Model Estimation and Simulation

Using the specified B-SVAR model, simulate the impact of a monetary policy shock on growth by examining impulse response functions (IRFs):

- **Impulse Response Function (IRF)**: This measures the dynamic effect of a one-unit shock in the policy rate i_t on GDP growth Y_t, inflation π_t and the exchange rate E_t over time.
- **Variance Decomposition**: This shows the proportion of changes in growth due to shocks in monetary policy, inflation, and exchange rates.

Summary

This B-SVAR model can effectively capture the short- and medium-term dynamics of monetary policy's impact on growth in Georgia. Bayesian methods improve the reliability of estimates under limited data, and impulse responses illustrate how variables like growth and inflation react to monetary shocks, providing practical insights for policymakers.

5. Lessons for Georgia: Adapting and Innovating

Georgia's policy landscape can evolve by drawing insights from the experiences of more developed economies:

- **Diversifying Monetary Policy Tools**: Developing more innovative policy instruments could help the NBG better respond to economic shifts without relying heavily on interest rates. For instance, supporting digital finance solutions might broaden financial inclusion and improve domestic capital mobilization.
- **Institutional Development**: Strengthening monetary policy institutions can improve market confidence, stabilize currency, and make monetary policy more effective. Developed economies benefit from high levels of transparency and trust in their institutions, which Georgia could emulate by building stronger, independent financial oversight bodies.

Conclusion

In conclusion, while Georgia's monetary policy challenges are distinct, understanding how developed countries manage these dynamics provides invaluable insight. By leveraging lessons from advanced economies and tailoring them to its unique context, Georgia can continue advancing toward sustainable growth and development. Monetary policy, while complex, remains one of the most potent tools in shaping economic futures. Together, as scholars and policymakers, we have a responsibility to adapt these policies thoughtfully to meet the evolving demands of our societies.

References:

Bernanke, B., & Blanchard, O. (2023). What caused the US pandemic-era inflation?. *Peterson Institute for International Economics Working Paper*, (23-4).

Bernanke, B., Gertler, M., (1999). Monetary Policy and Asset Price Volatility. NBER Working Paper 7559.

National Bank of Georgia. Nbg.gov.ge

National Statistic office of Georgia. www.geostat.ge

Reifschneider, David and David Wilcox (2022). "The Case for a Cautiously Optimistic Outlook for US Inflation," Peterson Institute for International Economics, Policy Brief 22-3, March.

Taylor, J. B., (1993). Discretion versus policy rules in practice. Carnegie-Rochester conference series on public policy 39.195-215. North-Holland.

Taylor, J. B., (1993). Discretion versus policy rules in practice. Carnegie-Rochester conference series on public policy 39.195-215. North-Holland.

www.statista.com