### Fiscal Inflation in Japan: The Role of Unfunded Fiscal Shocks

#### December 2023

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The increasing Japanese government debt has become a concern. After fiscal measures such as subsidies during the COVID-19 pandemic, the ratio of general government debt to GDP has reached around 250%. This is a very high value compared to other countries. Due to supply constraints after the pandemic and the surge in raw material prices caused by the Ukraine war, both the United States since 2021 and Japan since 2022 have experienced high inflation rates. During this period, while the Federal Reserve Board (FRB) has raised interest rates in response to inflation, the Bank of Japan has continued with accommodative monetary policies such as negative interest rates.

In this context, some research point out that fiscal factors may contribute to the rise in inflation. According to the Fiscal Theory of the Price Level (FTPL), when monetary policy is passive and fiscal policy is active regarding inflation, the real debt (nominal debt divided by the price level) adjusts not through increased tax revenue but through an increase in the price level in response to the rise in nominal government debt (Leeper, 1991). In the United States, Bianchi et al. (2023) noted that post-pandemic inflation and the inflation of the 1970s during the implementation of President Johnson's "Great Society" policies can be explained by fiscal factors.

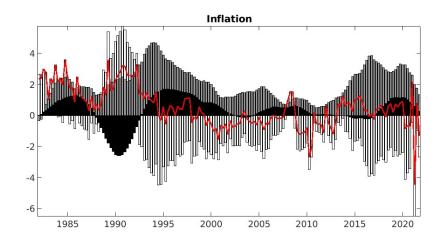
In Japan, to what extent are there fiscal factors contributing to such inflation? In Japan, since the burst of the bubble in the 1990s, there has been a prolonged period of low growth and low inflation. During this time, government debt has consistently risen, accompanied by several large fiscal stimuli. Therefore, analyzing the fiscal factors of inflation is not only important for understanding the current high inflation but also crucial for explaining past periods of low inflation.

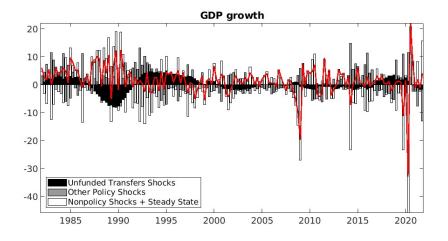
In this study, following Bianchi et al. (2023), a new general equilibrium model is employed to analyze the fiscal factors of inflation in Japan. The model suggests that shocks to government

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expenditures without repayment guarantees by fiscal authorities explain sustained inflation. In response to shocks to funded government transfers (with repayment guarantees), monetary authorities control inflation while fiscal authorities stabilize debt. In contrast, for shocks to unfunded transfers (without repayment guarantees), monetary authorities tolerate sustained movements in inflation and real interest rates to stabilize debt.

According to the model estimated using Japanese data, the historical trends in inflation can be explained as follows: Unfunded fiscal shocks, excluding the bubble period, have pushed up the inflation rate in Japan. In particular, the large fiscal stimuli following the burst of the bubble and recent fiscal policies such as subsidies during the COVID-19 pandemic have acted as factors contributing to the rise in the inflation rate. However, mainly due to non-policy shocks to the real economy, the actual inflation rate has remained low. During this period, policy shocks, including monetary policy, have been working in the direction of pushing up the inflation rate.





# References

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