Journal website : https://pse.razi.ac.ir

Razi University

Public Sector Economics Studies
Qurterly
6
PSE
Department of Economics, Faculty of Social Sciences, Economics and Entrepreneurship, Razi University
Vol. 2, Issue 4, Winter 2024 | Online ISSN: 2821-2681

Investigating the Threshold Effects of Public Debt on Inflation, With Smooth Transition Regression (STR) Approach

1. Purpose

Considering that Iran is an oil-exporting country and its budget is heavily dependent on oil revenues, the unsustainability of debt and the ever-increasing growth of the volume of debts in Iran's economy can lead to spending the revenues from exports to repay debts. To be invested. Therefore, to reduce the risk of debt crises, the government should try to diversify the economy and sources of income and reduce the dependence of the budget on oil revenues. Due to recent events such as oil sanctions, reduction in oil prices and the government's oil revenues, stagnation in various economic sectors has caused more attention to be paid to the issue of government debt. Providing resources in the form of debt from domestic and foreign sources aims to fill the gap between savings and investment. But not paying attention to debt and its role in the process of economic stability may lead to negative effects of debt on inflation and affect economic stability.

2. Methodology

The present study investigates the threshold effects of public debt on the inflation rate in Iran's economy using the Smooth Transition regression model during the period 1973 to 2021. The use of the STR model makes it possible that the relationship between public debt and inflation rate depends on the state of the economic system, and the dynamic equation between them can be unstable and depend on the regime and the state in which the economy is located. Also, the STR model, in addition to being able to specify the number of times and time of regime change, also shows the speed of transition from one regime to another regime.

3. Findings and Discussion

The estimation results of the linear part of the model (first regime) show that the variables of economic growth, investment, money supply and trade openness have a significant and positive effect on the inflation rate in Iran at the confidence level of 95%. The results also confirm the existence of a negative relationship between the government debt rate and trade openness with the inflation rate. The estimation results of the nonlinear part of the model (second regime) show that the variables of public debts, trade openness and money supply have positive effects on the inflation rate. Also, the economic growth and investment variables have a negative relationship with the inflation rate. The non-linear and U-shaped effects of public debt on inflation are due to debt coverage by oil revenues. In Iran, as a developing country with natural resource rents, it is faced with the inefficiency and large size of the government. To compensate for the structural deficit, the government creates a capital surplus in the budget by reducing construction costs and allocates the created capital surplus to current expenses. This has long-term negative lasting effects on inflation. The continuation of these conditions in the long term can cause instability of the government's debts and as a result reduce economic growth and increase inflation. The important point is the threshold of public debt, which shows the number of 6.55%, which indicates that if the ratio of public debt to GDP exceeds the number of 6.55%, the intensification of inflation and its negative effects will be more visible.

4. Conclusion and Policy Implications

The results of the investigation show that the public debts in the first and second regimes had a positive effect on the inflation rate, in other words, the accumulation of government debts led to borrowing from the central bank, increasing bank liabilities and debts. will increase the money supply and eventually increase the inflation rate. Considering that in the past years, a significant part of the budget deficit in Iran is financed by borrowing from the central bank and creating debt, which has a significant expansionary effect on the total demand and the price level, it is necessary That the government budget deficit be financed by other means than borrowing from the banking system, such as borrowing from the people and selling government bonds to the people, rather than creating debt to the central bank and other banks. Since in Iran's economy, the government budget is highly dependent on oil export revenues, oil price fluctuations have made it difficult to forecast oil revenues in the budget and have caused random fluctuations in the government budget. Therefore, it is recommended to rely on an economic model without oil in order to destabilize the behavior of the public sector in Iran's economy. The government should be extremely careful in setting the annual budget and by operationalizing the budget, it should provide more favorable use of the budget resources as far as possible to reduce the budget deficit and the accumulation of debts, which have become a chronic disease in the Iranian economy has been reduced. One of the solutions that can be used to reduce the amount of government debt is to try to increase government receipts, the most important option being to increase tax revenues. Regarding the increase in tax revenue, paying attention to the performance of the government shows a significant lack of success in this sector, which can be attributed to the legal and executive aspect of the country's tax system. If the government is able to reform the country's tax structure, in such a way that the tax policy is able to fulfill its duties, it can be considered as one of the appropriate methods to increase the government's income, reduce the government's debts and As a result, inflation was considered to be contained in the existing conditions. Economic growth and investment have also had a negative effect on the inflation rate in the two regimes. Consider production. According to the results of the present study, the degree of trade openness will not always have a constant and uniform effect on the inflation rate, in other words, the extent of the effect of trade openness on inflation is highly dependent on the inflation rate, and in higher inflations, and the size of the effect will be different. Therefore, the economic policy maker in the country to make a decision on the size of foreign trade, must take into account the important fact that the increase in foreign trade cannot always improve the domestic inflation rate, and for this important economic variable, the optimal point There will be primary inflation and economic structure of the country.