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Analyzing the effect of changing the central bank's foreign assets in the economic system by dynamic simulation

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EXTENDED ABSTRACT

INTRODUCTION

The present study attempts to specifically analyze the impact of the central bank's foreign assets by emphasizing the systemic impact on the economy using dynamic system simulations. A model has simulated and analyzed based on the relationships of variables in Iran such as: output, investment, price level and employment.

The relationship among central bank's foreign assets and output, investment, price level and employment has not been considered in a comprehensive model in Iran yet. Therefore, this study has analyzed the effect of changing the central bank's foreign assets in the economic system by dynamic simulation.

METHODOLOGY

In order to simulate, a model based on the relationships of variables in the economy should be developed focusing on the role of the central bank in these relationships to be able to track the impact of changes in the economic system and extract the final effects. Therefore, methodology contain a development of a structural macroeconomic model and using bounding ARDL to estimate.

FINDINGS

The findings of this study indicate how output, investment, price level and employment in Iran are strongly affected by increasing one unit standard deviation in the foreign assets of the Central Bank .With an increase of 12.3% of the foreign assets of the Central Bank, it leads to an increase in output, investment and employment by 7.82, 4.62 and 0.08%, respectively. While, the increase in foreign assets of the central bank will lead to an increase in price level and consequently inflation by 11.29%.

CONCLUSION

The present study attempts to specifically analyze the impact of the central bank's foreign assets by emphasizing the systemic impact on the economy using dynamic system simulations. In order to simulate, a model based on the relationships of variables in the economy should be developed focusing on the role of the central bank in these relationships to be able to track the impact of changes in the economic system and extract the final effects. the results of this study indicate that output, investment, inflation and employment in Iran are strongly affected by increasing one unit standard deviation in the foreign assets of the Central Bank .With an increase of 12.3% of the foreign assets of the Central Bank, it leads to an increase in output, investment and employment by 7.82, 4.62 and 0.08%, respectively. While, the increase in foreign assets of the central bank will lead to an increase in inflation by 11.29%. Based on these results, it is proposed, the central bank should pay attention to the severe inflationary effects of the increase in foreign assets for implementing its foreign exchange policies in order to manage the floating exchange rate and implement appropriate monetary and exchange rate policy depending on the current situation in the country.

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