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An Analysis of the Tanzi effect and Anti-Tanzi effects in the Iranian Economy: Discrete Wavelet Converter Approach and Threshold Vector Autoregression Pattern

Azam Kazem Zadeh

PhD student, Economics Department,, University of Mazandaran, Babolsar, Iran
a.kazemzadeh@stu.umz.ac.ir

Saeed Karimi Potanlar

Associate Professor of Economics, Faculty of Economics, University of Mazandaran
s.karimi@umz.ac.ir

Ahmad Jafari Samimi

Professor of Economics, Department of Economics, Faculty of Economics and Administrative Sciences, University of Mazandaran, Babolsar, Iran
jafarisa@umz.ac.ir

Extended Abstract

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Introduction

Inflation affects the government budget in two ways. Inflation, on the one hand, reduces the purchasing power of tax revenues, known as the Tanzi effect. Inflation, on the other hand, actually reduces the burden on government spending and its liabilities, which is known for its anti-Tanzi (Patinkin) effect. It should also be noted that inflation is also affected by the government budget deficit.

Objective

In the Iranian economy, the dependence of the government budget on oil revenues and the inflexibility of government spending have reduced the effectiveness of fiscal policies, which in turn has reduced the role of tax revenues in reducing the government budget deficit and its fluctuations. Because the results of some studies are contradictory, it seems necessary to examine the relationship between inflation and the budget deficit in terms of government revenue and expenditure. In addition, inflation in the Iranian economy has not been stable and has been subject to increase and decrease. Accordingly, the inflationary environment can affect the relationship between inflation and the budget deficit. Since the possibility of nonlinear relationship between inflation and government budget deficit has been less studied in domestic studies, the present study tries to offer a new insight in this regard by applying the threshold vector autoregression approach. In addition, the use of discrete wavelet converters with maximum overlap and analysis in the field of frequency and division of budget deficit to total budget deficit and operating budget deficit add to the distinction of the present study.

Data/methodology

In the present study, using a discrete wavelet converter with maximum overlap and threshold vector autoregression pattern, the interaction effects of inflation and government budget deficit in both total deficit and operating deficit in the Iranian economy during 1369: 1 - 1396: 3 from new angles Has been.

Results/Findings

The results based on the wavelet converter show that over a horizon of more than 8 years, there is a causal relationship between both types of budget deficits and bilateral inflation. According to the results of estimating the threshold vector autoregression pattern, in seasonal inflation less than 6.28%, the total budget deficit increases sharply in the face of the inflation shock. Also, the operating budget deficit before and after the threshold shows a positive response to the inflation impulse. Explaining that in seasonal inflation rates above 2.54%, the reaction intensity of this variable will be higher. In other words, a Tanzi effect is always stronger than an anti-Tanzi effect.

Implications

Since the total and operating budget deficits have no effect on inflation in the horizons of less than 4 and 2 years, respectively, expansionary policies and budget deficits can be used to stimulate the real sector. It is necessary to adopt tools based on the components of the total budget and the operating budget. In the meantime, paying attention to the estimated thresholds and analyzing the reaction functions can be useful in adopting

appropriate policies. At the same time, it should be noted that these policies are not effective in the long run and will be accompanied by rising inflation. According to the confirmation of the effect of tension in the environment of severe inflation, by efficiency of the tax system and reducing its interruptions, the effect of severe inflation can be neutralized and the instability caused by the budget deficit to macroeconomics can be prevented. The effect of tension is always observed, it is possible to weaken the effect of tension in the Iranian economy by imposing legal restrictions that lead to reducing the operating deficit.

Keywords: Budget deficit, Inflation, Discrete wavelet converter, Threshold vector Autoregression pattern