

Resilience Index of Budgeting System of Iran's Economy

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Abstract:

The purpose of this paper is to define and calculate Iran's budgeting system resilience index. Iran's economy is among those with low resilience and high vulnerability. Economic resilience which means enduring the effects of economic shocks and recovering quickly from them to return to the pre-crisis functioning, can help make the economy more flexible. In the literature of economic resistance, the concept of economic resilience has been introduced as a comprehensive measure in the literature of economic stabilization. Economic resilience is the result of predicted policies, while economic vulnerability is one of the inherent characteristics of the economy. On the other hand, areas that reduce the ability to resist exogenous shocks and that cause the government budget sectors to be exposed to shocks and to be affected and lose their resistance recovery are referred to as areas of vulnerability. Because different markets are related to this sector in various ways, in the event of a crisis or external shock and instability in this sector (as was the case with UN Security Council sanctions and US sanctions) other sectors are affected as well. This makes the need to pay more attention to the stability of the sector and, to a greater degree, its resilience apparent. Since the estimation of the resilience index for Iran economy has been done in the macro studies in the past, identifying the resilience categories and the vulnerability of the budgeting system sectors and estimating the related index are innovations of this study.

In order to calculate the budgeting system resiliency index, its constituents must be defined and identified. Grounded theory (GT) is used for this purpose. Accordingly, categories affecting resiliency components are studied and a conceptual model is

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presented to summarize the results. In order to quantify the concept of government budget resilience, a variable corresponding to the resilience concept is considered. By using Bayesian Model Averaging approach, the most important variables are identified and the normalized average of these variables is used to construct the index.

The topics of government budget resilience were divided into four general categories: (1) budget provision; (2) budget allocation; (3) social, political, and economical institutions; (4) policy making and policy rules. A category-related variable is considered to represent the effects of that variable to illustrate the impact of that concept on the resilience of the government budget sector. For this purpose, Bayesian Model Averaging was used to identify unfragile variables (in terms of maintaining influence in the presence of other variables). The calculations were performed using 320,000 regressions and sampling. Four variables including oil revenue to total government revenue ratio, budget deficit to GDP ratio, inflation rate and current budget to development budget ratio were calculated. In the two steps of calculations, unfragile variables were calculated. To construct the index, the variables were normalized and averaged. The time series of government budget sector resilience index were calculated for the years 1993 to 2016. Four variables, as unfragile variables (this means that it retains its work as an effective factor in the resilience of the government budget sector in the presence of other variables and is meaningful), were identified in the presence of 18 variables, which shows that these variables should be emphasized more than others in assessing the effect of government budget sector. In this regard, decreased dependence of the budget on oil revenues, minimized government size and increased sensitivity in budget allocation are recommended to reduce the vulnerability. The sharp fall in the index after 2009 compared to its limited fluctuation between 1997 and 2008, the impact of economic uncertainty and external shocks such as oil revenue constraints (specifies the economy of Iran) indicates high vulnerability and low resilience to external shocks and internal crises.

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