Negative Effect of the Central Government's Debt/GDP ratio on Birth Rate and Countermeasure by RDF

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Abstract

Lapan HE. & Enders W. (1990) developed a fertility model in which dynamic families make child-bearing decision making and choose optimally to determine using utility function of overlapping generations, They suggested that government debt reduces welfare using the utility function, resulting in distorting and declining fertility.

In this study, I examined the relationship between the recent rapid decline of the birth rate and the highest worldwide increase in the debt/GDP ratio in Japan. I also conduct a graphical and empirical analysis of the relationship between the debt/GDP ratio and birth rate. As a result of these analyses, I found that debt/GDP impacts the decline of the birth rate, and its decline impacts the contraction of GDP growth and the increase of the debt/GDP ratio, that is, the vicious circle of public finance breaks out.

Furthermore, I examine the role of Rainy Day Funds (RDF) in reducing the high debt/GDP ratio, which has a negative and intense effect on the birth rate, stopping the negative effect and bringing a higher birth rate.

Keywords: central government; debt/GDP ratio; birth rate; GDP growth; Rainy Day Funds