

# Progressive Child Allowance as a Countermeasure to Declining Number of Births<sup>1</sup>

Ishida Ryo, Visiting Scholar, Policy Research Institute, Ministry of Finance, Japan

Oguro Kazumasa, Professor, Hosei University

Yasuoka Masaya, Professor, Kwansei Gakuin University

## **Abstract**

This article constructs a simple overlapping generations (OLG) model to analyze the progressive child allowance and related policies with the objective of addressing the declining number of births. The analysis assumes the existence of a pay-as-you-go pension system and a certain constraint on fiscal resources. The focus is on maximizing household utility in the steady state. Results of the analysis reveal the following findings: 1) The number of births that maximizes household utility in the steady state can be achieved by appropriately introducing a progressive child allowance. Moreover, the smaller the budget for measures to address the declining number of births, the more desirable it is to increase the progressivity of the child allowance. 2) A linear child allowance can also achieve the number of births that maximizes household utility in the steady state. However, unlike the progressive child allowance, by taking an example of Japan, the specific numerical examples presented in this article show that the linear child allowance may exceed the available budget for measures to address the declining number of births.

**Keywords:** overlapping generations (OLG) model, child allowance, birthrate, number of births, progressive system, pay-as-you-go pension system, endogenous population

**JEL classification:** H2, H24, H55, J13, J18

---

<sup>1</sup> This study was supported by the Research Institute of Economy, Trade and Industry (RIETI). The views expressed herein are those of the authors and do not necessarily represent the opinions of the organizations to which the authors belong. We extend our appreciation to Eiichi Tomiura (President of RIETI) and Daigo Nakata (Senior Fellow of RIETI) for offering us suggestions at an early stage of the drafting of this paper. Any remaining errors are the sole responsibility of the authors.