

Fiscal sustainability under physical and human capital accumulation in an OLG setting

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Abstract

We consider the fiscal sustainability by using an overlapping generations (OLG) model with human capital accumulation (private and public education) and public debt. Based on the model, we explicitly show (i) the parameter region in which the economy cannot be fiscally sustainable for any initial endowment, and (ii) the threshold of initial endowment over (under) which the economy diverges (converges to the steady state). Importantly, the threshold is neutral to the level of initial human capital. Further, we consider the growth-maximizing policy variables (i.e., the tax rate and public education/production ratio) and show the existence and uniqueness of them.

Keywords: Human capital accumulation, Public education, Public debt, Fiscal sustainability.

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