The twin hypothesis of education and retirement*

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Abstract

Common models examining the effects of demographic change and the efficiency of policy reforms often suffer from two important shortcomings: (i) interaction between an individual's schooling and retirement decision is disregarded and (ii) a realistic demographic population structure is absent. To overcome these limitations, I combine two papers of Ben J. Heijdra and Ward E. Romp and allow agents to choose both length of schooling and retirement age endogenously. The aggregate dynamics of the model are complex due to generational turnover effects and a human capital externality. The time path of per capita output follows a nonlinear Volterra integral equation. Therefore, only the long-run effects of demographic shocks and policy reforms are derived analytically, while the respective transition paths are numerically computed. I find that not controlling for individual adjustments in education and retirement at the same time will overestimate the negative impacts of aging on the macroeconomy. Similarly, the economic impact of education reforms is found to be much stronger if not only schooling but also retirement is treated as endogenous.

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