Welfare and Generational Equity in Sustainable Unfunded Pension Systems

Alan J. Auerbach
Ronald Lee

National Bureau of Economic Research
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Policy Abstract

Actual and projected population aging threatens the financial viability of Pay-As-You-Go (PAYGO) pension programs in many countries. A new kind of pension program, called Notional Defined Contribution or Non-financial Defined Contribution (NDC), is intended to address both fiscal stability and the distortionary labor supply incentives in defined benefit systems. Sweden has developed and implemented an NDC system and some other countries have followed suit including Italy, Poland, Latvia, Mongolia and the Kyrgyz Republic. Germany has recently adopted pension reforms that reflect some of the NDC principles, and France is considering doing so. NDC plans are intended to mimic the structure and incentives of defined contribution plans, but without the painful transitional costs to a fully funded system. The goal of this paper is to analyze the generational uncertainty and risk sharing properties of NDC systems. We consider a number of actual and hypothetical PAYGO pension structures, including: (1) versions of the U.S. Social Security system in which taxes or benefits are adjusted annually to maintain fiscal balance with zero debt or assets in every period; (2) the actual Swedish NDC system, together with several modifications of it developed in an earlier paper; and (3) the actual reformed German system. A goal of the NDC systems is to deliver a rate of return to contributors that is warranted by the macroeconomic/demographic environment, while maintaining financial stability. Important feature of NDC system design are the rate of return paid in the notional accounts, and the use of a brake mechanism, if the financial stability of the program is jeopardized. Differences in these design features leads to different outcomes in terms of stability of returns, horizontal equity, and mean rates of return.