Abstract. Financing Social Security benefits at current levels implies significant increases in payroll taxes within the next 20 years under current U.S. demographic developments. Using a general-equilibrium overlapping-generations model with realistic patterns of fertility and lifespan extension, this study shows that future generations would be harmed during the demographic transition due to rising payroll taxes and declining real wages. A faster rate of technological progress would mitigate only some of the payroll tax increase and would not prevent the decline in real wages. Addressing the problem by reducing Social Security benefits as needed or by raising the eligibility age imposes major welfare losses on current or near term retirees. By contrast, pre-funding Social Security through consumption taxes more evenly spreads the welfare losses across generations, and it helps future generations, especially the poor, by stimulating capital formation.

JEL classification: E62, H55, J18
Keywords: Demographic transition, Social Security, life cycle model.

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