

Dynamic optimal income taxation with indivisible labor: The roles of the public pension system and a limited times benefit to low-income households*

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Abstract

In this paper, we investigate the optimal labor income tax policy in a two-period economy with indivisible labor. We assume that households face stochastic preference/productivity shocks, which are privately informed, and can make hidden savings, meaning that the realized allocation must satisfy the Euler condition. We calculate the optimal allocation of an example economy and show that it is implementable under the market economy that bases its taxation policy on labor income history. The optimal allocation is not, however, implementable under commonly observed tax systems that are based on current labor income. Given this limitation, we propose two social security policies that can supplement the ordinary income tax system: one is a compulsory pension insurance system and the other is the provision of a limited times benefit to low-income households. We find that the combination of taxation based on current labor income and either of these two supplemental policies makes the optimal allocation implementable.

JEL classification: D82, E62, H21, H24, H55

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