

Designing responsibility-sensitive egalitarian tax

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Abstract

We examine designing the fair redistributive system through income tax. As a criterion of fairness, we investigate the responsibility-sensitive egalitarianism. First, we propose a social welfare ordering (SWO) as a tax and transfer scheme which lexicographically maximizes the minimum; i.e., the leximin, value of the Dalton's measure. By this scheme, we obtain a binary relation based on Lorenz criterion which satisfies completeness. Furthermore, we can treat heterogeneous preferences under the tax system. Second, we present an axiomatic analysis of the SWO. We introduce a new strict axiom for the principle of responsibility, which asserts that individuals be treated equally depending on their contributions to the society. We show that the SWO satisfies both compensation and responsibility fairness principles under a certain assumption on the relation between earning ability and labor supply. In addition, with some basic conditions derived from social choice theory, we offer axiomatic characterizations of the SWO. Third, we demonstrate that the tax mechanism is Nash implementable. Lastly, we present simulation results of the fair income tax using empirical earning distributions.

Keywords: Income tax; Fairness; Responsibility; Lorenz criterion; Leximin

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