A Universal Implementability of the Price Mechanism for Economies with Satiation

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Abstract

In this paper, we axiomatically characterize the *price mechanism* for economies with possibly *satiated* agents. The category theoretic argument in Sonnenschein (1974) is generalized and reinterpreted as a *universal implementability* of the price mechanism among other message mechanisms. We show that the *price mechanism* (with dividends) has the implementation property that uniquely or efficiently represents all of other allocation mechanisms satisfying several basic axioms including the weak core and Pareto properties. This theorem for the case with standard Arrow-Debreu *non-satiated* framework was firstly given in Sonnenschein (1974) as a corollary to the Debreu-Scarf core limit theorem. To obtain results in economies with *satiated* agents, we use a replica core limit theorem to *dividend equilibria* recently proved by the authors (Murakami and Urai 2016).

Keywords: Dividend Equilibrium, Price Mechanism, Universal Implementability, Satiation, Rejective Core, Core Limit Theorem

JEL Classification: C60, C71, D50, D71, D82

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