

An Axiomatic Characterization of the Price-Money Message Mechanism ^{*}

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Abstract

The essential property of money cannot be described in the static finite economic settings. The overlapping-generations model with a double infinity of commodities and agents is one of the most fundamental frameworks for introducing money into an economic model. In this model, competitive equilibria may not necessarily be Pareto-optimal and the outside money is known to be an important institutional instrument to recover the optimality of equilibria, although a simple game-theoretic or welfare characterization of this property is widely known to be difficult. We show in this paper, the *informational efficiency* axiomatic characterization like Hurwicz (1960), Mount and Reiter (1974) and Sonnenschein (1974) is possible for the price-money competitive mechanism for overlapping-generations economies among the class of *message mechanisms*. Our argument is also closely related to the *replica characterization* of Walrasian mechanism like Thomson (1988) and Nagahisa (1994).

KEYWORDS: Axiomatic Characterization, Message Mechanism, Informational Efficiency, Monetary Equilibrium, Overlapping-Generations Model, Replica Core Equivalence, Universal Mapping Property

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