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Reproduction of Power Law Tails of Chinese Income and Wealth Distributions

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ABSTRACT

Household income and wealth inequality are increasing in China. A key empirical fact shows that increasing inequality of capital income has played the most important role in the increase of overall income and wealth inequality. Thus, the aim of this paper is to investigate how this determining role works in increasing income inequality, and to study the dynamics of wealth inequality by building up a theoretical agent-based framework with capital income risk. By computer simulations and estimations, the Power law distributions of household income and wealth are reproduced by the proposed model, and the tail Pareto Index estimations of the above simulation distributions are found to be consistent with the empirical finding based on the CFPS 2016(China Family Panel Studies, 2016) and Forbes (2017) data. Then, the dynamics of wealth inequality are studied. Firstly, it is found that wealth and income distribution have a similar shape, but wealth is more unequally distributed than income. Secondly, the dynamics of wealth accumulation show that increase in net wealth gained from financial investment is the key factor to sustaining wealth accumulation. Finally, it is recovered that individuals' financial investment generates the power law tail.

KEYWORDS Income distribution; Wealth distribution; Agent-based modelling

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