

報告セッション：契約と提携

The von Neumann-Morgenstern Stable Sets of Income Tax Rates in a Public Good Economy

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Abstract

This paper studies the von Neumann-Morgenstern stable sets in a public good economy, where any allocation is achieved through a proportional income tax system. The problem is to reach an agreement on the tax rate among all the agents, at which rate every agent must bear the cost for the public good.

It is assumed that each coalition, as well as the whole economy, is institutionally allowed to achieve an allocation under the proportional income tax system, and to propose a tax rate to the whole economy. A coalition may object to the currently proposed tax rate if the coalition can achieve a better allocation; and may propose an alternative tax rate which is beneficial to the coalition. A tax rate proposed by a coalition must be feasible within the coalition in terms of utility; that is, the coalition can achieve an allocation at some tax rate by itself without any contribution from the members outside the coalition; and the allocation is at least as preferable as the allocation generated by the proposed tax rate in the whole economy.

We show that whenever the core of the public good economy is nonempty, our core as the set of tax rates is the unique stable set. When the core is empty, it is shown that a set of tax rates is a stable set if and only if the set is a singleton of a tax rate which can be proposed by both of coalitions, one consisting of agents who prefer a higher tax rate, and one consisting of agents who prefer a lower tax rate. We also show that there exist such stable sets.