

Coalitionally Strategy-Proof Rules in Allotment Economies of Homogeneous Indivisible Objects*

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Abstract

We consider the allotment problems of homogeneous indivisible objects among agents with single-peaked and risk-averse von Neumann-Morgenstern expected utility functions. We establish that the rule satisfies coalitional strategy-proofness, same-sidedness, and strong symmetry if and only if it is the uniform probabilistic rule. By constructing an example, we show that if same-sidedness is replaced by respect for unanimity, the statement does not hold even with additional requirements of peaks-onlyness and continuity.

Keywords: coalitional strategy-proofness, homogeneous indivisible objects, single-peakedness, risk-averseness, uniform probabilistic rule

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