

Stationary consistent equilibrium coalition structures constitute the recursive core

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Abstract

We study coalitional games where the coalitional payoffs depend on the entire coalition structure. The recursive core (Kóczy, *Theory and Decision*, 2007) is a generalisation of the coalition structure core for such games.

We introduce a noncooperative, sequential coalition formation model and show that the set of equilibrium outcomes coincides with the recursive core. In order to extend past results limited to totally recursive-balanced partition function form games we introduce subgame-consistency that requires perfectness in relevant subgames only, while dominated subgames are ignored. Due to the externalities, the profitability of deviations depends on the partition formed by the remaining players: the stability of core payoff configurations is ensured by a combination of the pessimism of players going for certain profits only and the assumption that players base their stationary strategies on a made-up history punishing some of the possible deviators – and getting this sometimes right.