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Stability of jurisdiction structures: the case of general distributions without side payments

In this paper, an Alesina-Spolaore-type model is considered with multiple jurisdictions where each formed jurisdiction selects a public project from the given uni-dimensional set, equally shares its cost among its members and places the project at the location of its median resident. For an arbitrary continuous distribution of population over a segment, Nash equilibrium is shown to exist. Then, we examine a cooperative concept of core stability, and prove that if population distribution's density expresses the monotonicity property, then the stable jurisdiction structure always exists. However, existence result fails for the arbitrary distribution case. Also, we establish the existence of Nash-like solutions, where agents are free to migrate from jurisdiction to jurisdiction. This result is fairly general: it holds for arbitrary distributions with continuous, bounded away from zero, density and rests on the celebrated Nikkaido and Gale's proposition.