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Stable sharing rules and participation in pools of essential patents. (English) Zbl 1425.91245 Games Econ. Behav. 117, 40-58 (2019).

Summary: For pools of essential patents I study whether a pool’s sharing rule is stable against arbitrage, so that the pool’s members have no incentive to trade patents. I show that the only stable rule is the numeric proportional rule, which gives each member a share of the pool’s profit equal to its share of the pool’s patents. I study how the stable rule affects firms’ incentives to participate, and I show that firms with few patents tend to remain outside the pool. I look at the trade-off between stability and participation, and I show that as trade dilutes their shares, members prefer the stable rule. I consider individual licenses, stand-alone patents, integration, and R&D. The results suggest that pools use the stable rule to maximize their founding members’ worth. They help us understand why the numeric proportional rule is so common among pools of essential patents.

MSC:
91B38 Production theory, theory of the firm

Keywords:
patent pools; sharing rules; arbitrage; pool formation

Full Text: DOI

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