

Abstract

The present paper analyzes how equilibrium outcomes of three-stage games change if two players are allowed to alternately make binding offers of strategy contingent side payments before playing the game. The contribution of the present paper is to derive the conditions under which the introduction of side-payment stages differentiates the equilibrium outcomes from the outcomes of the underlying game and improves the efficiency of the outcomes in the sense that the total of the payoffs of the two players is maximized. The result of the present study clarifies that there exist cases in which the efficiency improves if the players can alternately make offers, but not if the players make offers simultaneously. Moreover, the proposed characterization suggests that second-mover advantage holds theoretically.