

Order of Moves and Tacit Collusion in Infinitely Repeated Contests

Nicholas Shunda*
University of Redlands

Abstract

In one-shot contests with endogenous timing, it is well known that players will choose to order their moves such that the weaker player moves first and the stronger player moves second (Baik and Shogren, 1992; Leininger, 1993). When such contests are repeated infinitely and players choose order of moves on the basis of ease of sustaining tacit collusion, this result no longer holds. This paper develops a model of an infinitely repeated contest between asymmetric players to study how players' incentives for collusion depend upon their order of moves in the contest. I derive the ranges of discount factors for which the players can sustain collusion tacitly, and identify when collusion is relatively easier or more difficult to sustain. In contrast to the well-known result in one-shot contests with endogenous timing where the weaker player leads and the stronger player follows, I show that players would not choose this order of moves since it makes collusion more difficult to sustain than other orders of moves. In particular, I derive the following ranking for orders of moves from where collusion is easiest to sustain to where it is most difficult to sustain: 1) sequential moves with the stronger player the leader; 2) simultaneous moves; 3) sequential moves with the weaker player the leader. Intuitively, sequential moves with the weaker player the leader makes collusion the most difficult to sustain because the "punishment" for deviations from collusion (i.e., reversion to Nash equilibrium play) is lenient, which is precisely what makes this order of moves attractive to players in a one-shot contest.

Journal of Economic Literature Classification Codes: C72, C73, D72, D74.

Keywords: Contest, Collusion, Endogenous timing, Repeated game, Folk theorem.

Baik, K. H., and Shogren, J. F. (1992). Strategic Behavior in Contests: Comment. *American Economic Review*, 82(1), 359-362.

Leininger, W. (1993). More Efficient Rent-Seeking—A Munchhausen Solution. *Public Choice*, 75(1), 43-62.

* University of Redlands, Department of Economics, 1200 East Colton Avenue, PO Box 3080, Redlands, CA 92373-0999. Tel.: 909-748-8569. Email: nicholas_shunda@redlands.edu.