Perfect Public Ex-Post Equilibria of Repeated Games with Uncertain Outcomes[*]

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Abstract

This paper studies repeated games with imperfect public monitoring where the players are uncertain both about the payoff functions and about the relationship between the distribution of signals and the actions played. To analyze these games, we introduce the concept of perfect public ex-post equilibrium (PPXE), and show that it can be characterized with an extenstion of the techniques used to study perfect public equilibria. We then develop identifiability conditions that are sufficient for a folk theorem; these conditions imply that there are PPXE in which the payoffs are approximately the same as if the monitoring structure and payoff functions were known.

Journal of Economic Literature Classification Numbers: C72, C73.

Keywords: repeated game, public monitoring, incomplete information, perfect public equilibrium, folk theorem, belief-free equilibrium, ex-post equilibrium.