Chapter 20
Repeated Games: Cooperation vs The End Game

We discuss repeated games, aiming to unpack the intuition that the promise of rewards and the threat of punishment in the future of a relationship can provide incentives for good behavior today. In class, we play prisoner's' dilemma twice and three times, but this fails to sustain cooperation. The problem is that, in the last stage, since there is then is future, there is no incentive to cooperate, and hence the incentives unravel from the back. We related this to the real-world problems of a lame duck leader and of maintaining incentives for those close to retirement. But it is possible to sustain good behavior in early stages of some repeated games (even if they are only played a few times) provided the stage games have two or more equilibria to be used as rewards and punishments. This may require us to play bad equilibria tomorrow. We relate this to the trade off between *ex ante* and *ex post* efficiency in the law. Finally, we play a game in which the players do not know when the game will end, and we start to consider strategies for this potentially infinitely repeated game.

Repeated Games - Cooperation

Lesson: In ongoing relationships, the promise of future rewards and the threat of future punishments may sometimes provide incentives for a good behavior today. But for this to work it helps to have a future. The lame duck effect. For example retirement, economics major's relationships.

Temptation to defect today <= Value of reward - Value of punishment tomorrow.

Lesson: If a stage game has more than one Nash equilibrium then we may be able to use the prospects of playing different equilibria tomorrow to provide incentives (rewards and punishments) for cooperation today.

There may be a problem of renegotiation.

Examples

- Bankruptcy - Trading off between ex ante efficiency and ex post efficiency.