

MODERN PRINCIPLES OF ECONOMICS

Fifth Edition

Modern Principles of
Economics

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Perfect Competition

- **Assumptions:**
- Many buyers and sellers (no market power)
- Firms that sell in the market are free to either enter or exit the market
- Homogeneous goods
- Perfect information
- No costs of: searching, switching, adjustment.

Prisoner's dilemma

- Two members of a criminal organization are arrested and imprisoned.
- Each prisoner is in solitary confinement with no means of communicating with the other.
- The prosecutors lack sufficient evidence to convict the pair on the principal charge, but they have enough to convict both on a lesser charge.
- Simultaneously, the prosecutors offer each prisoner a bargain.
- Each prisoner is given the opportunity either to **betray** the other by testifying that the other committed the crime, or to **cooperate** with the other by remaining silent.

Prisoner's dilemma

- If A and B each betray the other, each of them serves two years in prison
- If A betrays B but B remains silent, A will be set free and B will serve three years in prison
- If A remains silent but B betrays A, A will serve three years in prison and B will be set free
- If A and B both remain silent, both of them will serve only one year in prison (on the lesser charge).

Coordination game - Stag hunt game

- Two hunters must decide separately, and without the other knowing, whether to hunt a **stag** or a **hare**.
- However, both hunters know the only way to successfully hunt a stag is with the other's help.
- One hunter can catch a hare alone with less effort and less time, but it is worth far less than a stag and has much less meat.