Cartels

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Two approaches to oligopoly

- Imperfect competition
  - Cournot
  - Differentiated products (Hotelling)
- Imperfect collusion
  - What does that mean?

Cartel: shared monopoly

- "Our competitors are our friends. Our customers are the enemy."
  - ADM executive participating in lysine cartel
- The fundamental prisoner's dilemma game among competitors
  - How are such games "solved"?
- Agreements not enforceable
  - In fact, illegal…
  - Honor among thieves (E. Leonard)

When can a cartel be stable?

- Not too much incentive to "cheat"
  - Recall: agreements not enforced by courts
- What is the incentive to cheat?
  - Assume all others follow the agreement
  - Selfishly, should you?
  - Checking whether "all follow agreement" is an equilibrium or not

Incentive to Cheat

- Presumably short-run incentive to cheat
  - Maybe not quite… NASDAQ?
- What can overcome that?
  - Downside comes later
    - Retaliation
    - Breakdown of agreement
  - We can say something even if retaliation is "worst credible"

Worst Credible Retaliation

- You can always just exit
  - Sopranos?
- Measure other payoffs relative to exit
  - So exit is zero payoff
- Payoff under agreement?
- Payoff from cheating?
  - How long will it last?
- "Overall" or time-weighted-average payoff

What does this suggest?

- Suppose same products, no capacity limits
- Then cheating could give N times agreement
- Implies limit on N relative to discounting
  - At that level, fits with what we believe is true
- Some numbers
  - Much more going on

Three Policy Responses

- Anticompetitive contracts not enforceable in court
  - Denies powerful means of resolving prisoner's dilemma
- Negotiating anticompetitive agreement highly illegal
- Leniency policy
  - The surprise-attack game
    - Even if all want peace, unstable if first strike is huge advantage