Collusion and Horizontal Agreements

What is collusion?

- Agreements on sale prices
- Quota allocation
- Market segmentation

- Explicit collusion
- Tacit collusion

- Definition:

  “Situation in which prices are higher than some benchmark”

Colluder Problems

- Example
- Temptation to deviate
- Therefore participants need….
  - Ability to detect
  - Possibility of punishment
- Comparison between short-term deviating gains with long-term collusive gains
- Where should we coordinate?

When is collusion more likely?

- Incentive constraint
- Collusion is more likely to arise when…
  - Lower immediate gains
  - Lower profits after punishment starts
  - More weight to the future
- Factors relax or tighten incentive constraint

Factors (1)

- Concentration
- Entry (and entry barriers)
- Cross-ownership and other links among competitors
- Regularity and frequency of orders
- Buyer power

Factors (2)

- Demand elasticity
- Product homogeneity
- Symmetry
- Multi-market contacts
- Price observability

Collusion in Practice

- Difficult to infer from market prices:
  - Limited available data
  - Difficult to define monopoly price
  - How high is “too high”?
  - High prices may reflect high willingness to pay
- Evolution of prices?
- Soda-Ash case

What should be illegal?

- Explicit agreements
- Hard evidence
- Avoid exchange of price and quantity info

- Can we avoid tacit collusion?
  - Difficult to enforce
  - Need to coordinate leads to communication

Policies against tacit collusion

- Ex-ante policies:
  - High expected fines
  - Black list of facilitating practices
  - Merger analysis
- Ex-post policies:
  - Surprise inspections
  - Leniency programs

Joint ventures

- Example: research joint venture
- Similar to merger analysis: market power versus efficiency
- Research joint ventures:
  - Spillovers and non-rivalry
  - Avoid cost duplication
  - Lenient treatment in competition law