

**Chapter 16: Oligopoly**  
(Lecture Outline)

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**I. Between Monopoly and Perfect Competition**

- A. Imperfect competition—market structures that fall between *perfect competition* and *pure monopoly*
- i. Includes industries in which firms have competitors but *do not* face so much competition that they are *price takers*
  - ii. Types of Imperfectly Competitive Market
    - Oligopoly—only a *few* sellers, each offering a *similar* or *identical product* to the others (Ex: tennis balls, crude oil, etc.)
    - Monopolistic Competition—*many* firms selling products that are *similar* but *not identical* (Ex: novels, movies, CDs, video games, etc.)
- B. *Not always easy* to decide what structure best describes a market

**II. Markets With Only A Few Sellers**

- A. Because of the few sellers, the key feature of oligopoly is the *tension* between *cooperation* and *self-interest*
- B. Characteristics of an Oligopoly Market
- i. *Few* sellers offering *similar* or *identical products*
  - ii. *Interdependent* firms
  - iii. Best off *cooperating* and acting like a *monopolist* by producing a small quantity of output and charging a price above marginal cost
- C. Duopoly—oligopoly with only *two* members; *simplest* type of oligopoly
- i. Price and Quantity Supplied
    - The price of water in a *perfectly competitive market* would be driven to where the *marginal cost is zero*:
      - a.  $P = MC = \$0$
      - b.  $Q = 120$  gallons
      - c.  $Profit = \$0$
    - The price and quantity in a *monopoly market* would be where total *profit is maximized*
      - a.  $P = \$60$
      - b.  $Q = 60$  gallons
      - c.  $Profit = \$3600$
    - The socially efficient quantity of water is 120 gallons, but a *monopolist* would produce only 60 gallons of water, so is *inefficient*
  - ii. The duopolists may agree on a *monopoly outcome*
    - Collusion—an *agreement* among firms in a market about quantities to produce or prices to charge
    - Cartel—a group of firms acting in *unison*
  - iii. Although oligopolists would like to form cartels and earn monopoly profits, often that is *not possible*. *Antitrust laws* prohibit explicit agreements among oligopolists as a matter of public policy.
- D. The Equilibrium for an Oligopoly
- i. If duopolists individually pursue their *own self-interest* when deciding how much to produce, they:

- Produce a total quantity *greater* than the *monopoly quantity* but *less* than the *competitive industry quantity*
  - Charge a price *lower* than the *monopoly price* but *greater* than *competitive price* (which equals the marginal cost)
  - Earn total profits *less* than the *monopoly profit*
  - ii. Although the logic of self-interest increases the duopoly's output *above* the *monopoly level*, it *doesn't* push the duopolists to reach *competitive allocation*
  - iii. Nash equilibrium—situation in which economic actors interacting with one another each choose their best strategy given the strategies that all the others have chosen
- E. How the Size of an Oligopoly Affects the Market Outcome
- i. How *increasing* the *number of sellers* affects the price and quantity:
    - The output effect—because price is above marginal cost, *selling more* at the going price *raises profits*
    - The price effect—*raising production* will increase the amount sold, which will *lower* the *price* and the *profit* per unit on all units sold
  - ii. As the number of sellers in an oligopoly grows *larger*, an oligopolistic market looks more and more like a *competitive market*
  - iii. The *price* approaches *marginal cost*, and the *quantity* produced approaches the *socially efficient level*

### III. Game Theory and the Economics of Cooperation

- A. Game theory—study of how people *behave* in *strategic situations*
- B. Strategic decisions—those in which each person, in deciding what actions to take, must consider how *others might respond* to that action
- C. Because the number of firms in an oligopolistic market is *small*, each firm must act *strategically*
- D. Each firm knows that its profits depends not only on how much *it produces* but also on how much the *other firms produce*
- E. The Prisoners' Dilemma
  - i. A particular “game” between two captured prisoners that illustrates why *cooperation is difficult* to maintain even when it is mutually beneficial
  - ii. Often people (firms) *fail to cooperate* with one another even when cooperation would make them both better off
  - iii. The dominant strategy—*best strategy* for a player to follow *regardless* of the *strategies* chosen by the *other players*
  - iv. *Cooperation is difficult* to maintain, because cooperation is *not* in the *best interest* of the *individual player*
- F. Oligopolies as a Prisoners' Dilemma
  - i. *Self-interest* makes it *difficult* for an oligopoly to maintain cooperative outcome with low production, high prices, and monopoly profits
  - ii. Other Examples of the Prisoners' Dilemma—*Arms Races, Advertising, and Common Resources*
- G. Why People Sometimes Cooperate—firms that care about *future profits* will cooperate in *repeated games* rather than cheating in a single game to achieve a one-time gain

**IV. Public Policy Toward Oligopolies**

- A. *Cooperation among oligopolists is undesirable from the standpoint of society as a whole because it leads to production that is too low and prices that are too high*
- B. Restraint of Trade and the Antitrust Laws—antitrust laws make it *illegal to restrain trade* or attempt to *monopolize a market*
  - i. Sherman Antitrust Act of 1890
  - ii. Clayton Act of 1914
- C. Controversies over Antitrust Policy—antitrust policies sometimes may not allow business practices that have potentially positive effects:
  - i. Resale price maintenance—occurs when suppliers (like wholesalers) require retailers to *charge a specific amount*; illustrates the principle that business practices that appear to reduce competition may have *legitimate purposes*
  - ii. Predatory pricing—occurs when a large firm begins to *cut the price* of its product(s) with the intent of driving its *competitor(s) out* of the market
  - iii. Tying—when a firm offers *two (or more) of its products together* at a *single price*, rather than separately