

Week 12

Oligopoly

Oligopoly

- a small number of firms produce most output
- a standardized or differentiated product
- recognized mutual interdependence, and
- difficult entry.

Strategic behaviour

- Strategic behaviour occurs when the best outcome for one party depends upon the actions and reactions of other parties.

Kinked demand curve model

- Other firms are assumed to match price decreases, but not price increases.
- There is little evidence suggesting that this model describes the behaviour of oligopoly firms.
- Game theory models are more commonly used.

The Collusion Model

- A group of firms that get together and makes price and output decision to maximize joint profits is called a cartel.
- Collusion occurs when price- and quantity-fixing agreements are explicit.
- ***Tacit collusion*** occurs when firms end up fixing price without a specific agreement, or when such agreements are implicit.

The Price- Leadership Model

- ***Price leadership*** is a form of oligopoly in which one dominant firm sets prices and all the smaller firms in the industry follow its pricing policy.

The Price-Leadership Model

- The price-leadership model outcome:
 - The quantity demanded in the industry is split between the dominant firm and the group of smaller firms.
 - This division of output is determined by the amount of market power of the dominant firm.
 - The dominant firm has an incentive to push smaller firms out of the industry in order to establish a monopoly.

Predatory Pricing

- The practice of a large, powerful firm driving smaller firms out of the market by temporarily selling at an artificially low price is called *predatory pricing*.
- Such behavior became illegal in the United States with the passage of antimonopoly legislation around the turn of the century.

Game Theory

- ***Game theory*** analyzes oligopolies behaviour as a complex series of strategic moves and reactive counter-moves among rival firms.
- In game theory, firms are assumed to anticipate rival reactions.

Payoff Matrix for Advertising Game

		B's Strategy	
		Do not advertise	Advertise
A's Strategy	Do not advertise	A's profit = \$50,000 B's profit = \$50,000	A's loss = \$25,000 B's profit = \$75,000
	Advertise	A's profit = \$75,000 B's loss = \$25,000	A's profit = \$10,000 B's profit = \$10,000

- The strategy that firm A will actually choose depends on the information available about B's likely strategy.

Game Theory

- Regardless of what B does, it pays for A to advertise. This is the ***dominant strategy***, or the strategy that is best no matter what the opposition does.

Game Theory

- The ***Prisoners' Dilemma*** is a game in which:
 - The players are prevented from cooperating with each other;
 - Each player in isolation has a dominant strategy;
 - The dominant strategy makes each player worse off than in the case in which they could cooperate.

Repeated Games

- Game theory has been used to help understand many phenomena – from the provision of local public goods and services to nuclear war.

Contestable Markets

- A market is ***perfectly contestable*** if entry to it *and* exit from it are costless.
- In contestable markets, even large oligopolies firms end up behaving like perfectly competitive firms. Prices are pushed to long-run average cost by competition, and positive profits do not persist.

Contestable Markets

- The only necessary condition of oligopoly is that firms are large enough to have some control over price.

Contestable Markets

- Oligopolies are concentrated industries. At one extreme is the cartel, in essence, acting as a monopolist. At the other extreme, firms compete for small contestable markets in response to observed profits. In between are a number of alternative models, all of which stress the interdependence of oligopolies firms.

Price Cartels

- Price cartels are legal in some countries.
- A cartel arrangement can maximize industry profits.
- Each firm can increase its profits by violating the agreement.
- Cartel agreements have generally been unstable.

Imperfect information

- Brand name identification – serves as a signal of product quality. Customers are willing to pay a higher price for products produced by firms that they recognize.
- Product guarantees also serve as a signal of product quality.