

Monopolistic Competition

- *Monopolistic Competition* is a market structure in which many firms sell products that are similar but not identical.
- Characteristics of Monopolistic Competition:
 1. Many Sellers \implies Firms compete.
 2. Product Differentiation \implies Each firm faces downward-sloping demand curve.
 3. Free Entry \implies Economic profits are zero.
- Examples of monopolistic competition: Books, CDs, movies, computer software, restaurants, furniture, and so on.

Competition with Differentiated Products

The Monopolistically Competitive Firm in the Short Run

- Each firm in monopolistic competition faces a downward-sloping demand curve.
- The monopolistically competitive firm follows the monopolist's rule for maximizing profit.
 1. It chooses the output level where marginal revenue is equal to marginal cost.
 2. It sets the price using the demand curve to ensure that consumers will buy the amount produced.
- We can determine whether or not the monopolistically competitive firm is earning a profit or loss by comparing price and average total cost.
 1. If $P > ATC$, the firm is earning a profit.
 2. If $P < ATC$, the firm is earning a loss.
 3. If $P = ATC$, the firm is earning zero economic profit.

The Long-Run Equilibrium

- When firms in monopolistic competition are making profit, new firms have an incentive to enter the market.
 1. This increases the number of products from which consumers can choose.
 2. Thus, the demand curve faced by each firm shifts to the left.
- When firms in monopolistic competition are incurring losses, firms in the market will have an incentive to exit.
 1. Consumers will have fewer products from which to choose.
 2. Thus, the demand curve for each firm shifts to the right.
- The process of exit and entry continues until firms are earning zero profit.
 1. This means that the demand curve and the average total cost curve are tangent to each other.
 - Question: Why can't the demand curve cross the *ATC* curve?
 - Answer: This would mean that $P > ATC$ at some output level.
 2. At this point, price is equal to average total cost and the firm is earning zero economic profit.

Monopolistic Versus Perfect Competition

- Excess Capacity

1. The quantity of output produced by a monopolistically competitive firm is smaller than the quantity that minimizes average total cost (the efficient scale).
2. This implies that firms in monopolistic competition have excess capacity, because the firm could increase its output and lower its average total cost of production.
3. Because firms in perfect competition produce where price is equal to the minimum average total cost, firms in perfect competition produce at their efficient scale.

- Markup over Marginal Cost

1. In monopolistic competition, price is greater than marginal cost because the firm has some market power.
2. In perfect competition, price is equal to marginal cost.

Monopolistic Competition and the Welfare of Society

- One source of inefficiency is the markup over marginal cost. This implies a deadweight loss (similar to that caused by monopolies).
- Because there are so many firms in this type of market structure, regulating these firms would be difficult.
- Also, forcing these firms to set price equal to marginal cost would force them out of business (since they are already earning zero economic profit).
- There are also externalities associated with entry.
 1. *The product-variety externality* occurs because as new firms enter, consumers get some consumer surplus from the introduction of a new product. (Positive externality.)
 2. *The business-stealing externality* occurs because as new firms enter, other firms lose customers and profit. (Negative externality.)
 3. Depending on which externality is larger, a monopolistically competitive market could have too few or too many firms.

- Question: Is the excess capacity a problem?
- Answer: It is not clear that firms should always produce at the level which minimizes average total cost. For example, if the fixed cost of writing a book is \$500,000 and each book costs \$5 to reproduce,

$$ATC = \frac{\$500,000 + N \times \$5}{N}.$$

ATC is minimized when $N = \infty$.

Advertising

The Debate over Advertising

- The Critique of Advertising:
 1. Firms advertise to manipulate people's tastes.
 2. Advertising reduces competition because it increases the perception of product differentiation.
- The Defense of Advertising:
 1. Firms use advertising to provide information to consumers.
 2. Advertising increases competition because it allows consumers to be better informed about all of the firms in the market.
 3. Advertising is a complementary good. Advertising increases the pleasure one gets from purchasing a good.

Advertising as a Signal of Quality

- The willingness of a firm to spend a large amount of money on advertising may be a signal to consumers about the quality of the product being offered.
- Example: Kellogg and Post have each developed a new cereal that it would sell for \$3 per box. (Assume that the marginal cost of producing the cereal is zero.) Each company knows that if it spends \$10 million on advertising, it will get 1 million new consumers to try the product. If consumers like the product, they will buy it again.
 1. Post has discovered through market research that its new cereal is not very good. After buying it once consumers would not be likely to buy it again. Thus, it will only earn \$3 million in revenue, which would not be enough to pay for the advertising. Therefore, it does not advertise.
 2. Kellogg knows that its cereal is great. Each person that buys it will likely buy one box per month for the next year. Therefore, its sales would be \$36 million, which is more than enough to justify the advertisement.
 3. By its willingness to spend money on advertising, Kellogg signals to consumers the quality of its cereal.

- Note that the content of the advertisement is unimportant; what is important is that consumers know that the advertisements are expensive.
- This is also the reason why banks (at least used to) have very fancy offices and men buy expensive (but completely useless) pieces of rock to their women.

Brand Names

- In many markets there are two types of firms; some firms sell products with widely recognized brand names while others sell generic substitutes.
- Critics of brand names argue that they cause consumers to perceive differences that do not really exist.
- Economists have defended brand names as a useful way to ensure that goods are of high quality.
 1. Brand names provide consumers with information about quality when quality cannot be easily judged in advance of purchase.
 2. Brand names give firms an incentive to maintain high quality, since firms have a financial stake in maintaining the reputation of their brand names.
- This is one reason why Hollywood pays obscene amounts of money for its action stars.