PRINCIPLES OF

MICROECONOMICS

ELEVENTH EDITION

CASE · FAIR · OSTER

PEARSON

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Monopolistic Competition

15

CHAPTER OUTLINE

▼ **FIGURE 15.1** Characteristics of Different Market Organizations

	Number of firms	Products differentiated or homogeneous	Price a decision variable	Easy entry	Distinguished by	Examples
Perfect competition	Many	Homogeneous	No	Yes	Market sets price	Wheat farmer Textile firm
Monopoly	One	One version or many versions of a product	Yes	No	Still constrained by market demand	Public utility Patented drug
Monopolistic competition	Many	Differentiated	Yes, but limited	Yes	Price and quality competition	Restaurants Hand soap
Oligopoly	Few	Either	Yes	Limited	Strategic behavior	Automobiles Aluminum

Product differentiation and advertising are characteristics more commonly found in what type of market structure?

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b. Monopolistic competition.
c. Oligopoly.
d. Monopoly.

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Industry Characteristics

monopolistic competition A common form of industry (market) structure characterized by a large number of firms, no barriers to entry, and product differentiation.

TABLE 15.1 Percentage of Value of Shipments Accounted for by the Largest Firms in Selected Industries, 2002

Industry Designation	Four Largest Firms	Eight Largest Firms	Twenty Largest Firms	Number of Firms
Travel trailers and campers	38	45	58	733
Games, toys	39	48	63	732
Wood office furniture	34	43	56	546
Book printing	33	54	68	560
Curtains and draperies	17	25	38	1,778
Fresh or frozen seafood	14	24	48	529
Women's dresses	18	23	48	528
Miscellaneous plastic products	6	10	18	6,775

What are the characteristics of monopolistic competition?

a. Many firms, homogeneous product, and barriers to entry.
b. Many firms, differentiated product, and barriers to entry.
c. Many firms, differentiated product, and no barriers to entry.
d. Few firms, differentiated product, and no barriers to entry.
e. Few firms, homogeneous product, and barriers to entry.

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Product Differentiation and Advertising

product differentiation A strategy that firms use to achieve market power. Accomplished by producing goods that differ from others in the market.

How Many Varieties?

In well-working markets, the level of product variety reflects the underlying heterogeneity of consumers' tastes in that market, the gains if any from coordination, and cost economies from standardization.

In industries that are monopolistically competitive, differences in consumer tastes, lack of need for coordination, and modest or no scale economies from standardization give rise to a large number of firms, each of which has a different product.

Even within this industry structure, however, these same forces play a role in driving levels of variety.

Which of the following is the preferred strategy of the monopolistic competitor to achieve market power?

a. Size. Expand plant size in order to achieve economies of scale.
b. Price. Try to charge the lowest price possible.
c. Cost. Try to minimize the cost of production.
d. Product differentiation. Try to produce a unique product or establish a good reputation.
e. Close substitutes. Try to reproduce the output of other firms as accurately as possible.

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How Do Firms Differentiate Products?

horizontal differentiation Products differ in ways that make them better for some people and worse for others.

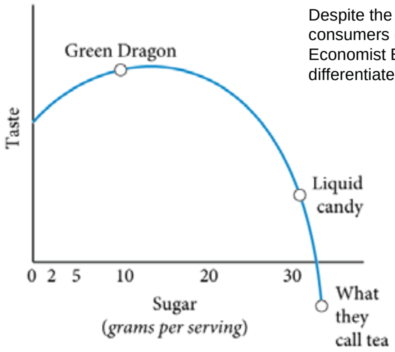
vertical differentiation A product difference that, from everyone's perspective, makes a product better than rival products.

behavioral economics A branch of economics that uses the insights of psychology and economics to investigate decision making.

commitment device Actions that individuals take in one period to try to control their behavior in a future period.

ECONOMICS IN PRACTICE

An Economist Makes Tea



Despite the higher price of Honest Tea, some consumers choose it over the alternatives. Economist Barry Nalebuff used economic theory to differentiate his tea from others in the industry.

The graph shows how taste varies with sugar for potential customers. Notice the placement of the popular flavor, Green Dragon, to the left of the taste peak.

Nalebuff discovered that sugar beyond some point adds little taste, yet comes at a health cost—more calories. Given consumers' new awareness of healthy and natural foods, Honest Tea became an overnight success.

THINKING PRACTICALLY

1. What would you expect to see happen to the placement of Green Dragon Tea if we discovered sugar was good for us?

Advertising

One role advertising plays is to inform people about the real differences that exist among products.

Advertising can also *create* or contribute to product differentiation, creating a brand image for a product that has little to do with its physical characteristics.

The Case for Advertising

Differentiated products and advertising give the market system its vitality and are the basis of its power.

Product differentiation helps to ensure high quality and variety, and advertising provides consumers with valuable information on product availability, quality, and price that they need to make efficient choices in the marketplace.

The Case Against Product Differentiation and Advertising

The bottom line, critics of product differentiation and advertising argue, is waste and inefficiency.

Enormous sums are spent to create minute, meaningless, and possibly nonexistent differences among products.

Advertising raises the cost of products and frequently contains very little information. Often, it is merely an annoyance.

Advertising can lead to unproductive warfare and may serve as a barrier to entry, thus reducing real competition.

Open Questions

There are strong arguments on both sides of the advertising debate, and even the empirical evidence yields conflicting conclusions.

Some studies show that advertising leads to concentration and positive profits; others, that advertising improves the functioning of the market.

Advertising has its supporters and its critics. The critics of advertising argue that:

a. Advertising is intended to change people's preferences and to create wants that otherwise would not have existed.
b. The information content of advertising is minimal at best and deliberately deceptive at worst.
c. Advertising leads to unproductive warfare, creates a barrier to entry, and by its very nature, imposes a cost on society.
d. All of the above.

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ECONOMICS IN PRACTICE

Can Information Reduce Obesity?

Policy makers have been working to increase the level of information that consumers have about products.

In the early 1990s, the Food and Drug Administration passed rules requiring most processed foods sold in grocery stores to carry nutrition labels.

The current hot topic in the labeling area involves restaurant meals.

With obesity growing in the United States, many policy makers think that one way to fight the problem is to require calorie and fat labeling in restaurants.

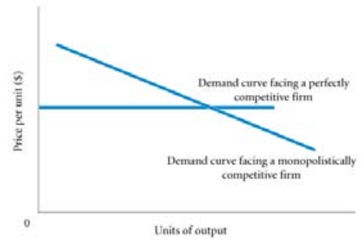
In Europe, which is facing its own obesity issues, there have been calls to regulate how certain foods are marketed, especially to children.

THINKING PRACTICALLY

1. Using supply and demand curves, contrast taxes on sugar with advertising limits on sugar-laden goods as ways to reduce the consumption of these goods.

Price and Output Determination in Monopolistic Competition

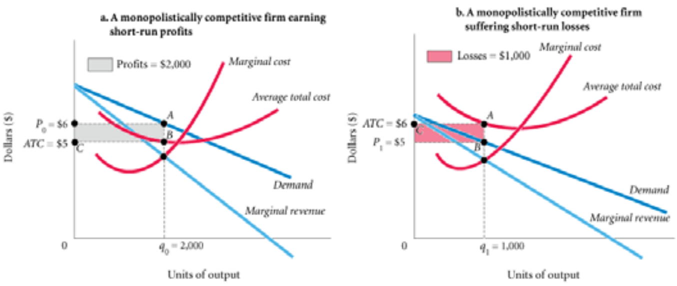
Product Differentiation and Demand Elasticity



▲ **FIGURE 15.2 Product Differentiation Reduces the Elasticity of Demand Facing a Firm**

The demand curve that a monopolistic competitor faces is likely to be less elastic than the demand curve that a perfectly competitive firm faces.
Demand is more elastic than the demand curve that a monopolist faces because close substitutes for the products of a monopolistic competitor are available.

Price/Output Determination in the Short Run

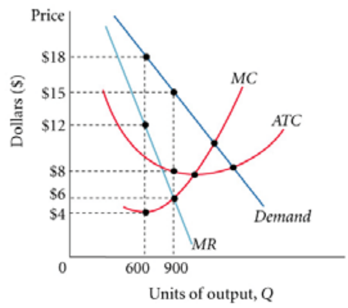


▲ **FIGURE 15.3 Monopolistic Competition in the Short Run**

In the short run, a monopolistically competitive firm will produce up to the point $MR = MC$. At q_0 = 2,000 in panel a, the firm is earning short-run profits equal to P_0ABC = $2,000.
In panel b, another monopolistically competitive firm with a similar cost structure is shown facing a weaker demand and suffering short-run losses at q_1 = 1,000, equal to $CABP_1$ = $1,000.

Refer to the figure below. In order to maximize profit, what price should the firm charge?

a. $18
b. $15
c. $8
d. $4



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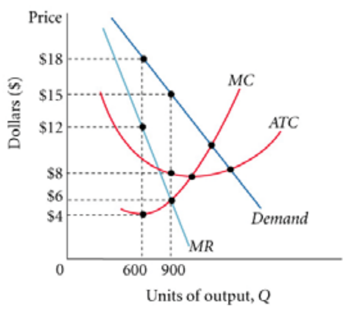
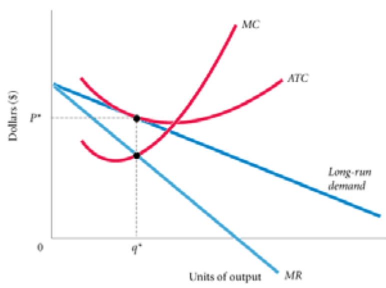


Price/Output Determination in the Long Run



▲ **FIGURE 15.4 Monopolistically Competitive Firm at Long-Run Equilibrium**

As new firms enter a monopolistically competitive industry in search of profits, the demand curves of existing profit-making firms begin to shift to the left, pushing marginal revenue with them as consumers switch to the new close substitutes.
This process continues until profits are eliminated, which occurs for a firm when its demand curve is just tangent to its average total cost curve.

In the long run, a monopolistically competitive firm does not realize all of the economies of scale available. Which condition below best describes this outcome?

a. Price is greater than marginal cost.
b. Average total cost is not minimized.
c. Marginal revenue equals marginal cost.
d. Price is greater than marginal revenue.
e. Marginal cost and average cost are equal when average total cost is minimum.

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Economic Efficiency and Resource Allocation

Because entry is easy and economic profits are eliminated in the long run, we might conclude that the result of monopolistic competition is efficient. There are two problems, however.

First, once a firm achieves any degree of market power by differentiating its product (as is the case in monopolistic competition), its profit-maximizing strategy is to hold down production and charge a price above marginal cost.

Second, the final equilibrium in a monopolistically competitive firm is necessarily to the left of the low point on its average total cost curve, which means a typical firm in this industry will not realize all the economies of scale available.

Nonetheless, if product differentiation leads to the introduction of new products, improvements in old products, and greater variety, an important gain in economic welfare may counteract (and perhaps outweigh) the loss of efficiency from pricing above marginal cost or not fully realizing all economies of scale.

REVIEW TERMS AND CONCEPTS

behavioral economics

commitment device

horizontal differentiation

monopolistic competition

product differentiation

vertical differentiation