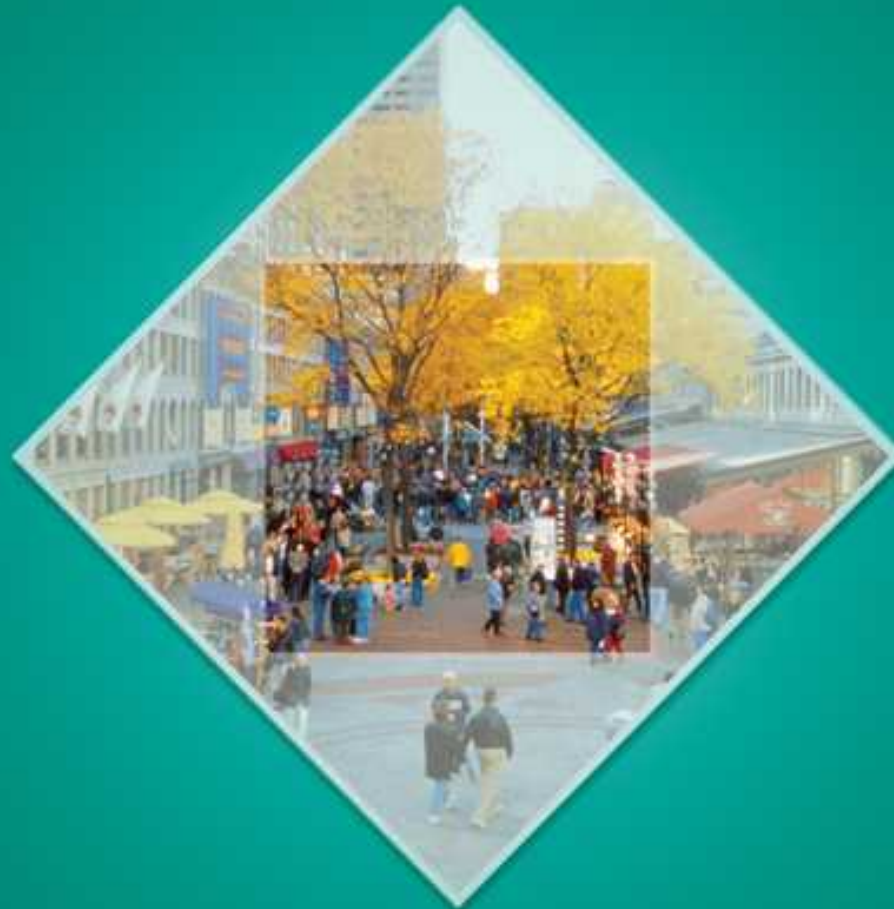


PARKIN  
MICROECONOMICS  
TENTH EDITION



14

MONOPOLISTIC COMPETITION



After studying this chapter,  
you will be able to:

- ◆ Define and identify monopolistic competition
- ◆ Explain how a firm in monopolistic competition determines its price and output in the short run and the long run
- ◆ Explain why advertising costs are high and why firms use brand names in a monopolistically competitive industry

The online shoe store [shoebuy.com](http://shoebuy.com) lists athletic shoes made by 56 different producers in 40 different categories and price between \$25 and \$850.

It offers 1,404 different types for women and 1,757 different types for men.

Athletic shoe producers compete, but each has a monopoly on its own special kind of shoe.

With so many different types of athletic shoes, the market isn't perfectly competitive.

The model of monopolistic competition helps us to understand the competition that we see in the markets for athletic shoes and most other goods and services we buy.

# What Is Monopolistic Competition?

**Monopolistic competition** is a market structure in which

- A large number of firms compete.
- Each firm produces a differentiated product.
- Firms compete on product quality, price, and marketing.
- Firms are free to enter and exit the industry.

# Monopolistic Competition

## Large Number of Firms

The presence of a large number of firms in the market implies:

- Each firm has only a small market share and therefore has limited market power to influence the price of its product.
- Each firm is sensitive to the average market price, but no firm pays attention to the actions of others. So no one firm's actions directly affect the actions of others.
- Collusion, or conspiring to fix prices, is impossible.

# What Is Monopolistic Competition?

## Product Differentiation

A firm in monopolistic competition practices **product differentiation** if the firm makes a product that is slightly different from the products of competing firms.

# What Is Monopolistic Competition?

## Competing on Quality, Price, and Marketing

Product differentiation enables firms to compete in three areas: quality, price, and marketing.

- Quality includes design, reliability, and service.
- Because firms produce differentiated products, the demand for each firm's product is downward sloping. But there is a tradeoff between price and quality.
- Because products are differentiated, a firm must market its product. Marketing takes the two main forms: advertising and packaging.



# Monopolistic Competition

## Entry and Exit

There are no barriers to entry in monopolistic competition, so firms cannot make an economic profit in the long run.

## Examples of Monopolistic Competition

Producers of audio and video equipment, clothing, jewelry, computers, and sporting goods operate in monopolistic competition.



# Price and Output in Monopolistic Competition

## The Firm's Short-Run Output and Price Decision

A firm that has decided the quality of its product and its marketing program produces the profit-maximizing quantity (the quantity at which  $MR = MC$ ).

Price is determined from the demand for the firm's product and is the highest price that the firm can charge for the profit-maximizing quantity.

Figure 14.1 shows a firm's economic profit in the short run.

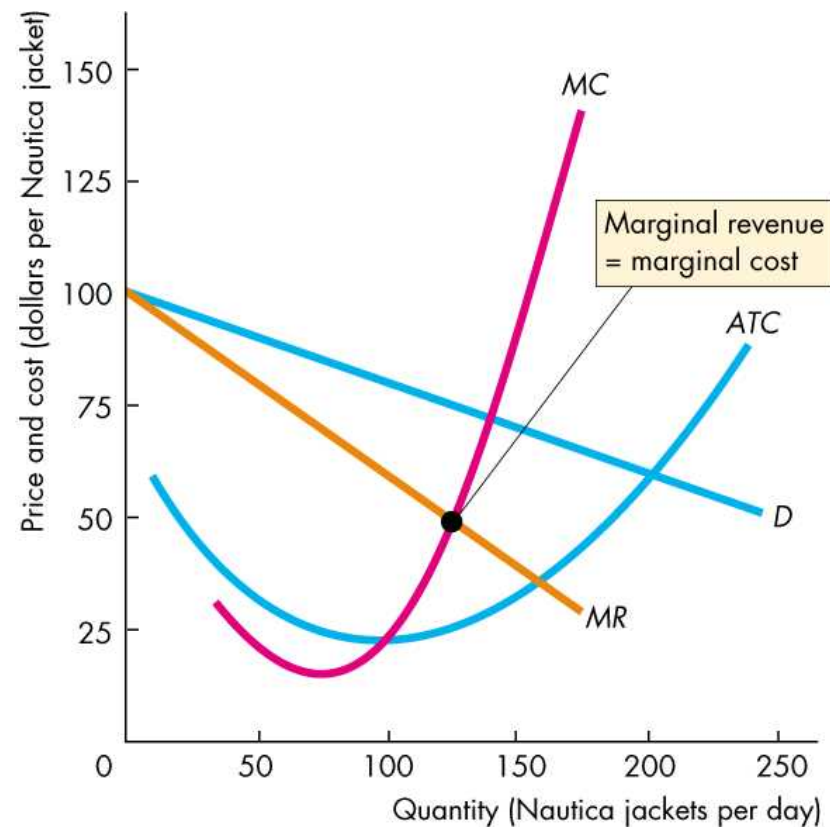
# Price and Output in Monopolistic Competition

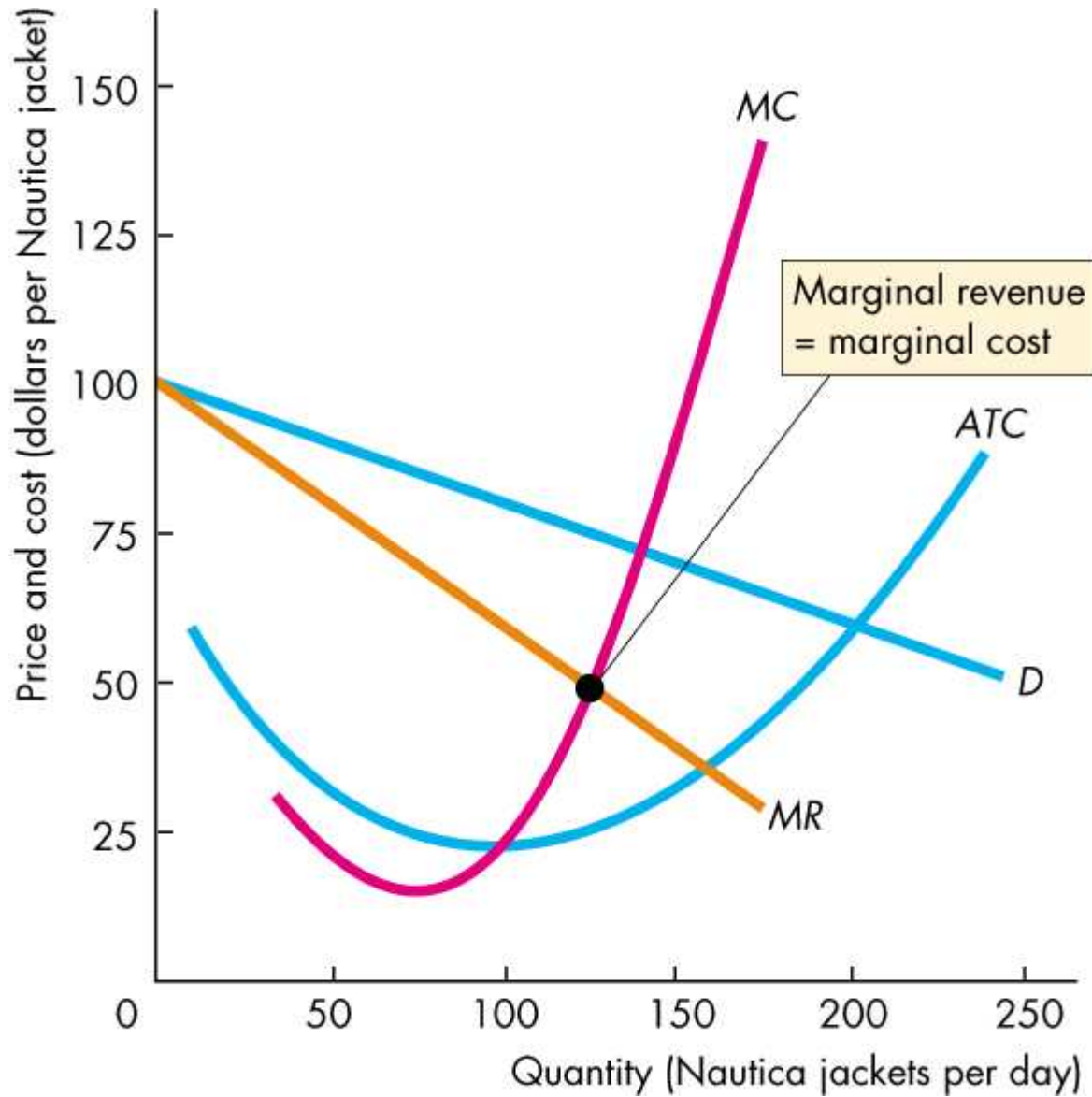


The firm in monopolistic competition operates like a single-price monopoly.

The firm produces the quantity at which  $MR$  equals  $MC$  and sells that quantity for the highest possible price.

It makes an economic profit (as in this example) when  $P > ATC$ .





# Price and Output in Monopolistic Competition

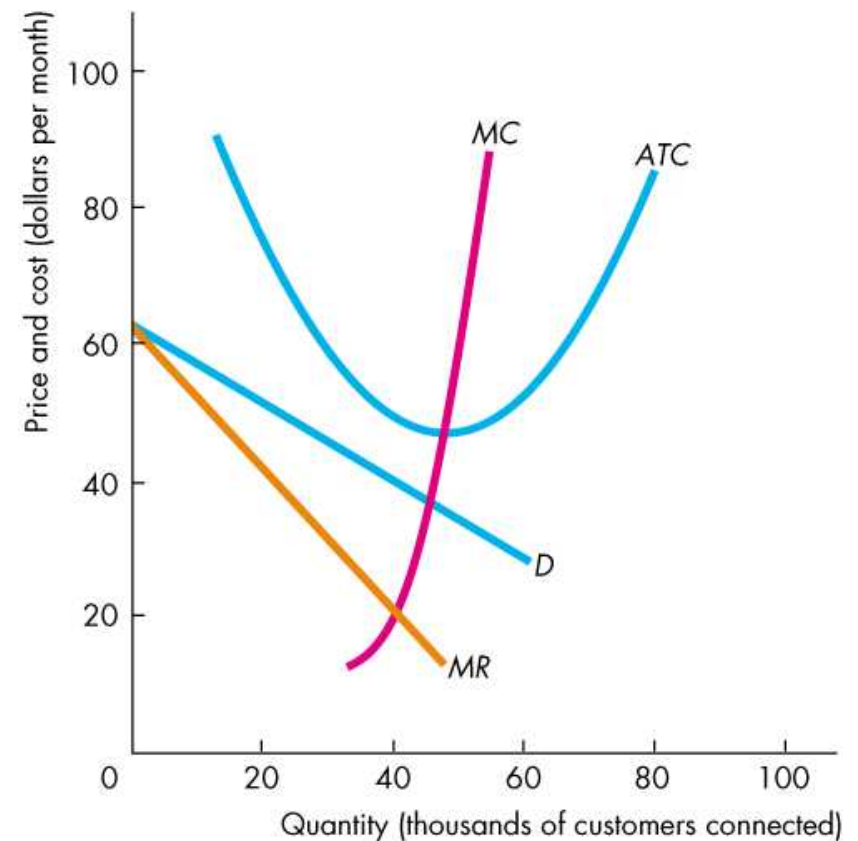


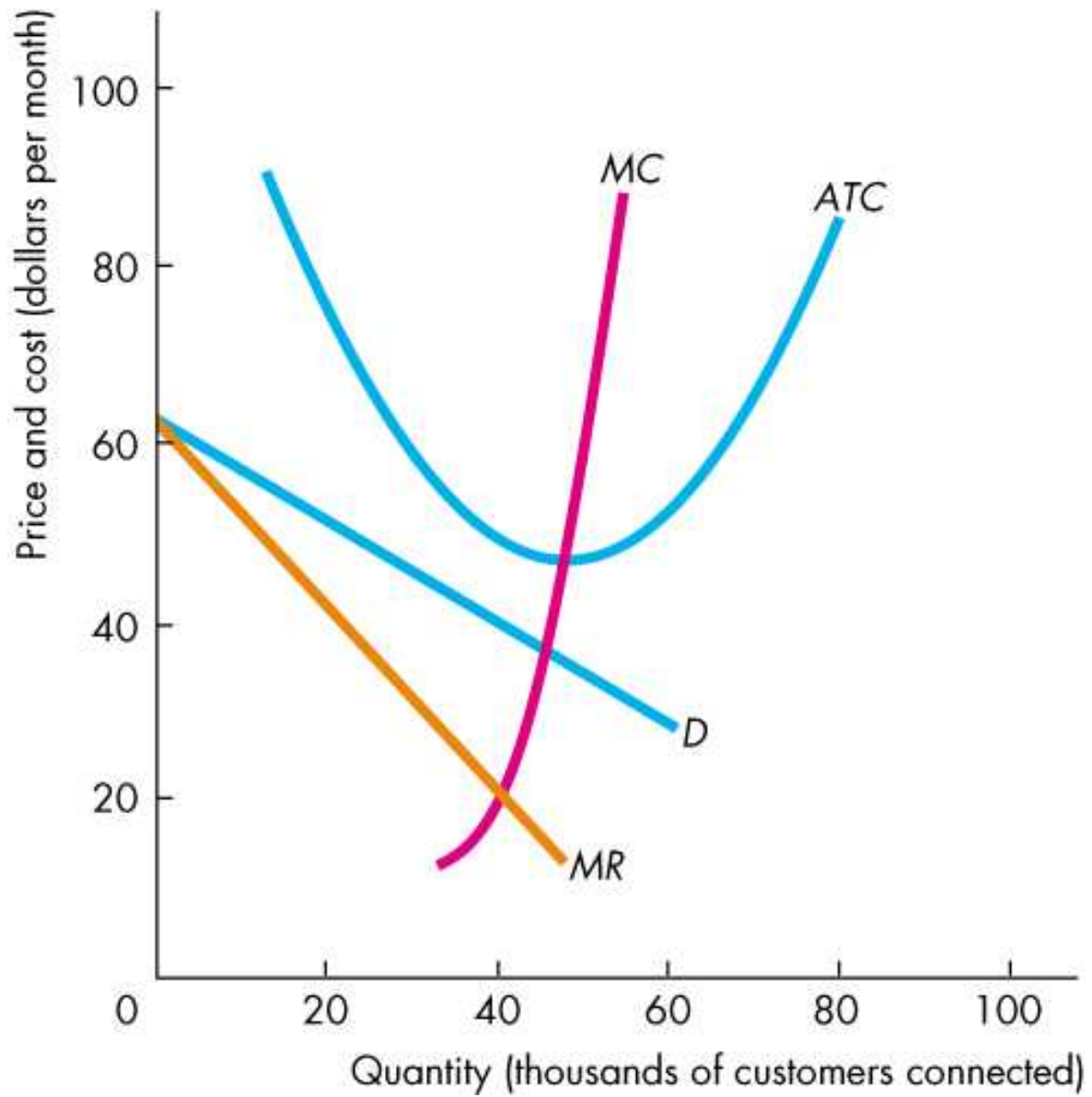
## Profit Maximizing Might Be Loss Minimizing

A firm might incur an economic loss in the short run.

Here is an example.

At the profit-maximizing quantity,  $P < ATC$  and the firm incurs an economic loss.







# Price and Output in Monopolistic Competition

## Long Run: Zero Economic Profit

In the long run, economic profit induces entry.

And entry continues as long as firms in the industry earn an economic profit—as long as ( $P > ATC$ ).

In the long run, a firm in monopolistic competition maximizes its profit by producing the quantity at which its marginal revenue equals its marginal cost,  $MR = MC$ .



## Price and Output in Monopolistic Competition

As firms enter the industry, each existing firm loses some of its market share. The demand for its product decreases and the demand curve for its product shifts leftward.

The decrease in demand decreases the quantity at which  $MR = MC$  and lowers the maximum price that the firm can charge to sell this quantity.

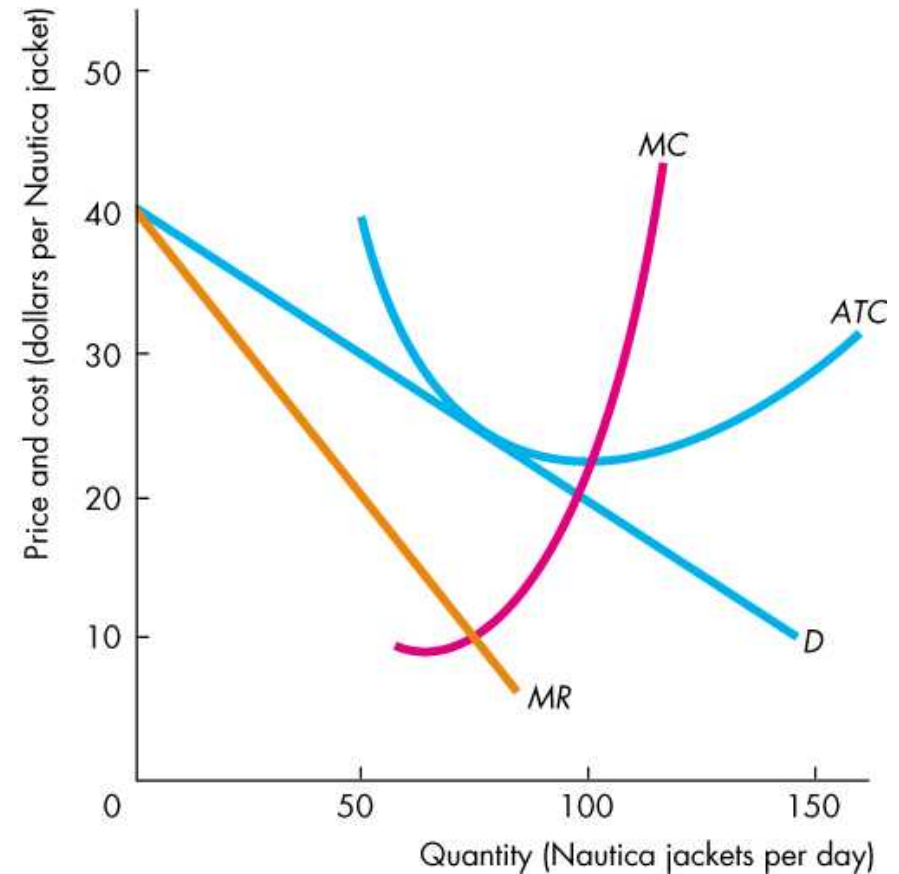
Price and quantity fall with firm entry until  $P = ATC$  and firms earn zero economic profit.

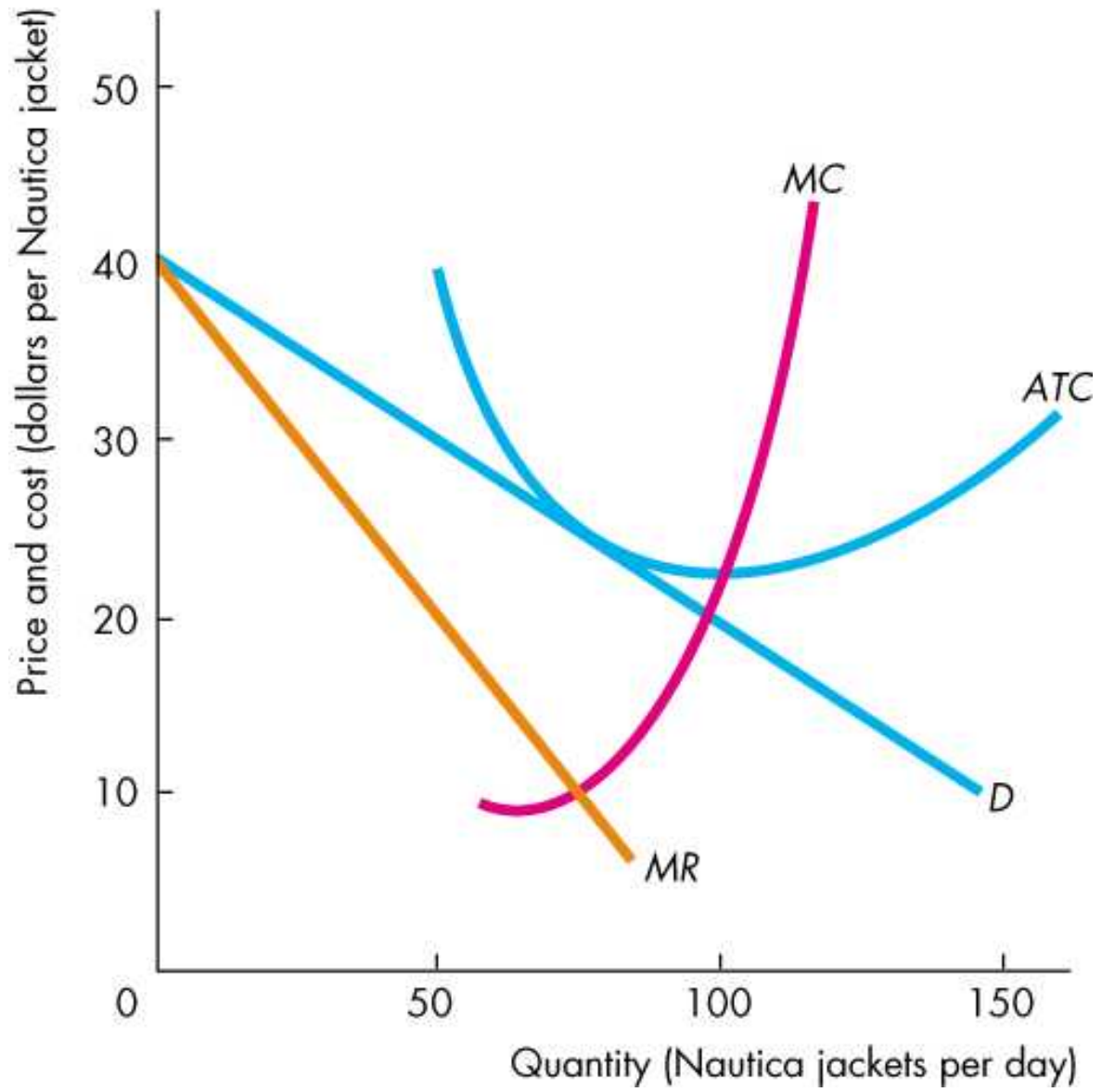


# Price and Output in Monopolistic Competition



Figure 14.3 shows a firm in monopolistic competition in long-run equilibrium.







# Price and Output in Monopolistic Competition

## Monopolistic Competition and Perfect Competition

Two key differences between monopolistic competition and perfect competition are:

- Excess capacity
- Markup

A firm has **excess capacity** if it produces less than the quantity at which *ATC* is a minimum.

A firm's **markup** is the amount by which its price exceeds its marginal cost.

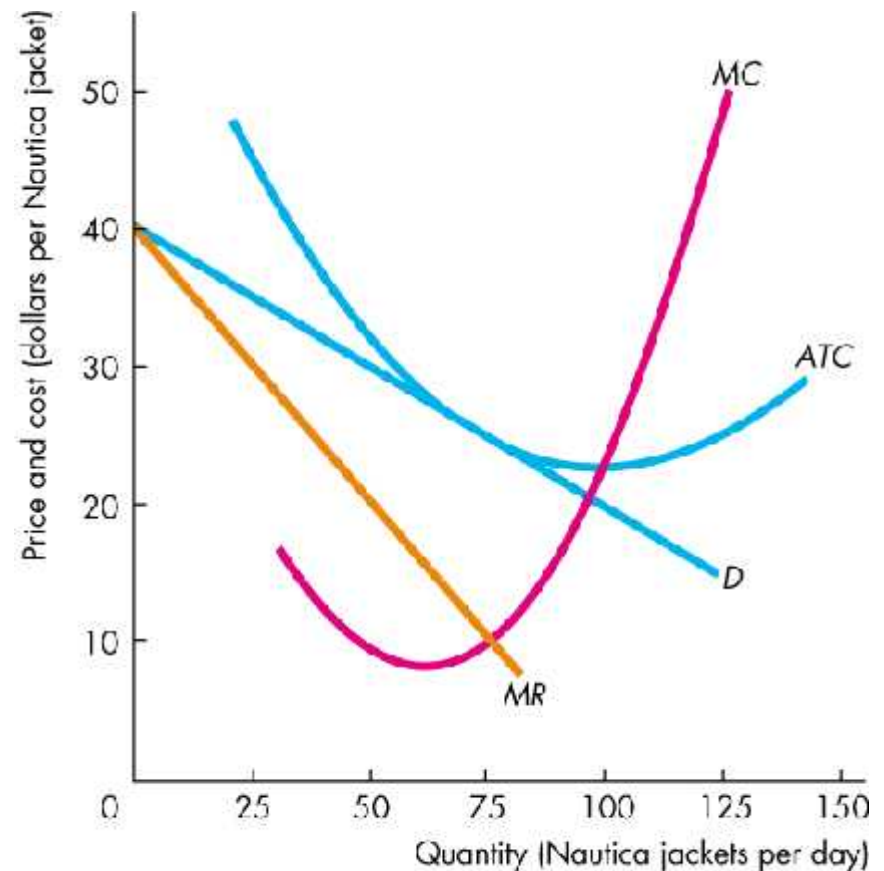
# Price and Output in Monopolistic Competition



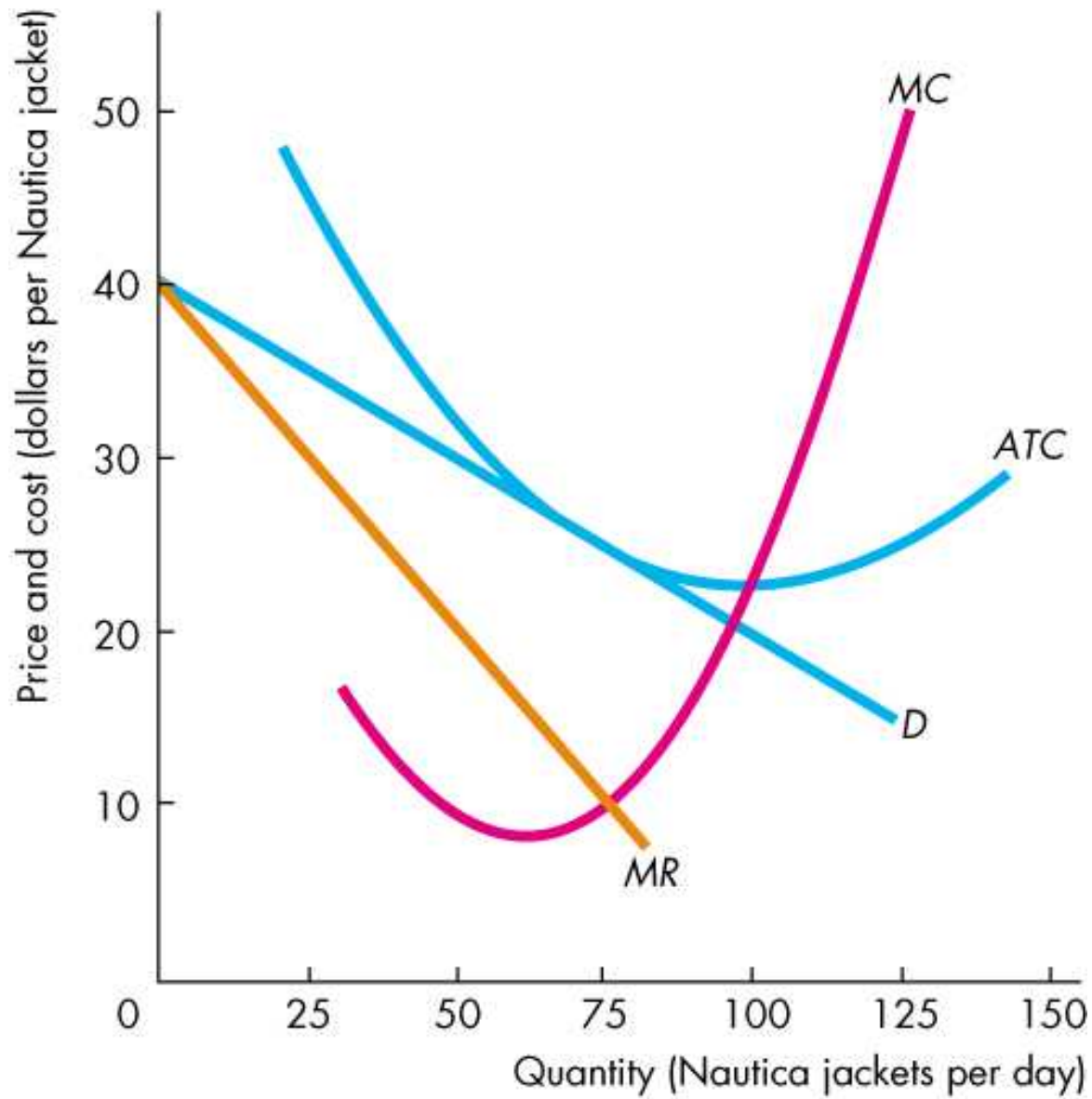
Firms in monopolistic competition operate with *excess capacity* in long-run equilibrium.

Firms produce less than the **efficient scale**—the quantity at which *ATC* is a minimum.

The downward-sloping demand curve for their products drives this result.



(a) Monopolistic competition

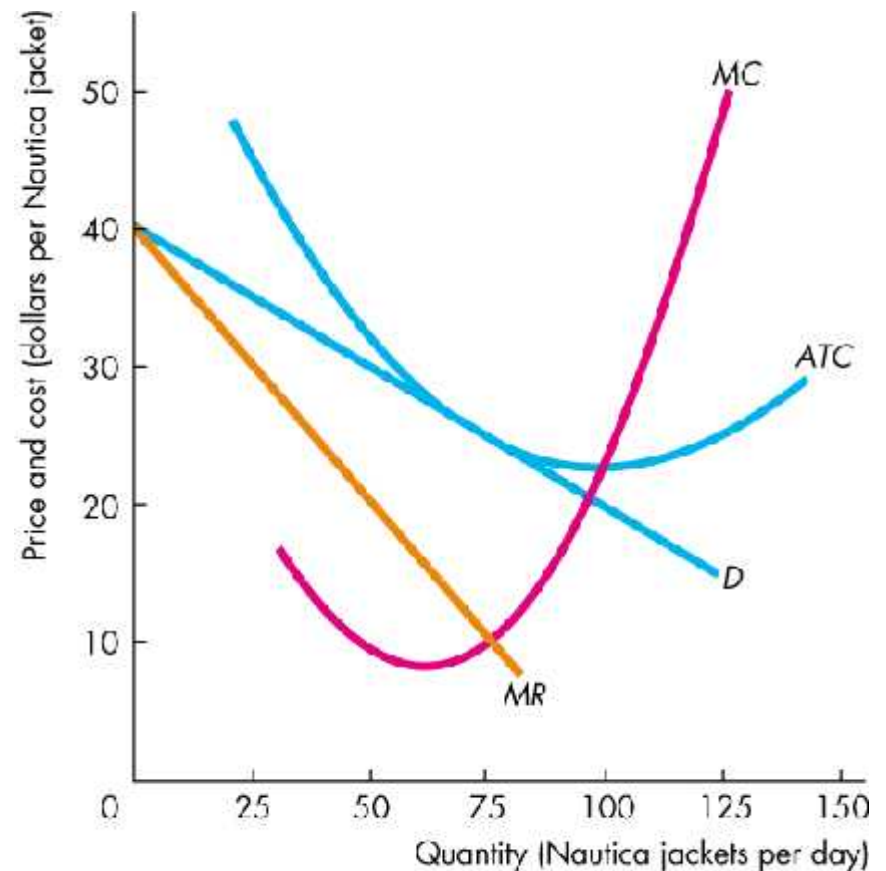


**(a) Monopolistic competition**

# Price and Output in Monopolistic Competition

Firms in monopolistic competition operate with positive *markup*.

Again, the downward-sloping demand curve for their products drives this result.



(a) Monopolistic competition

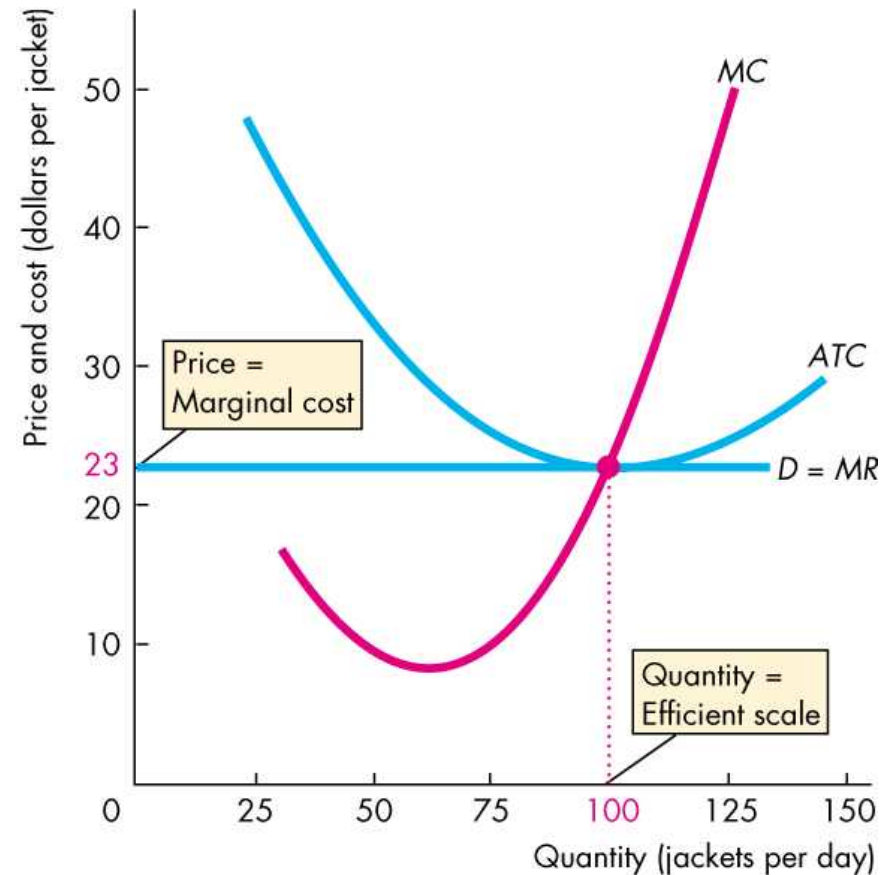
# Price and Output in Monopolistic Competition



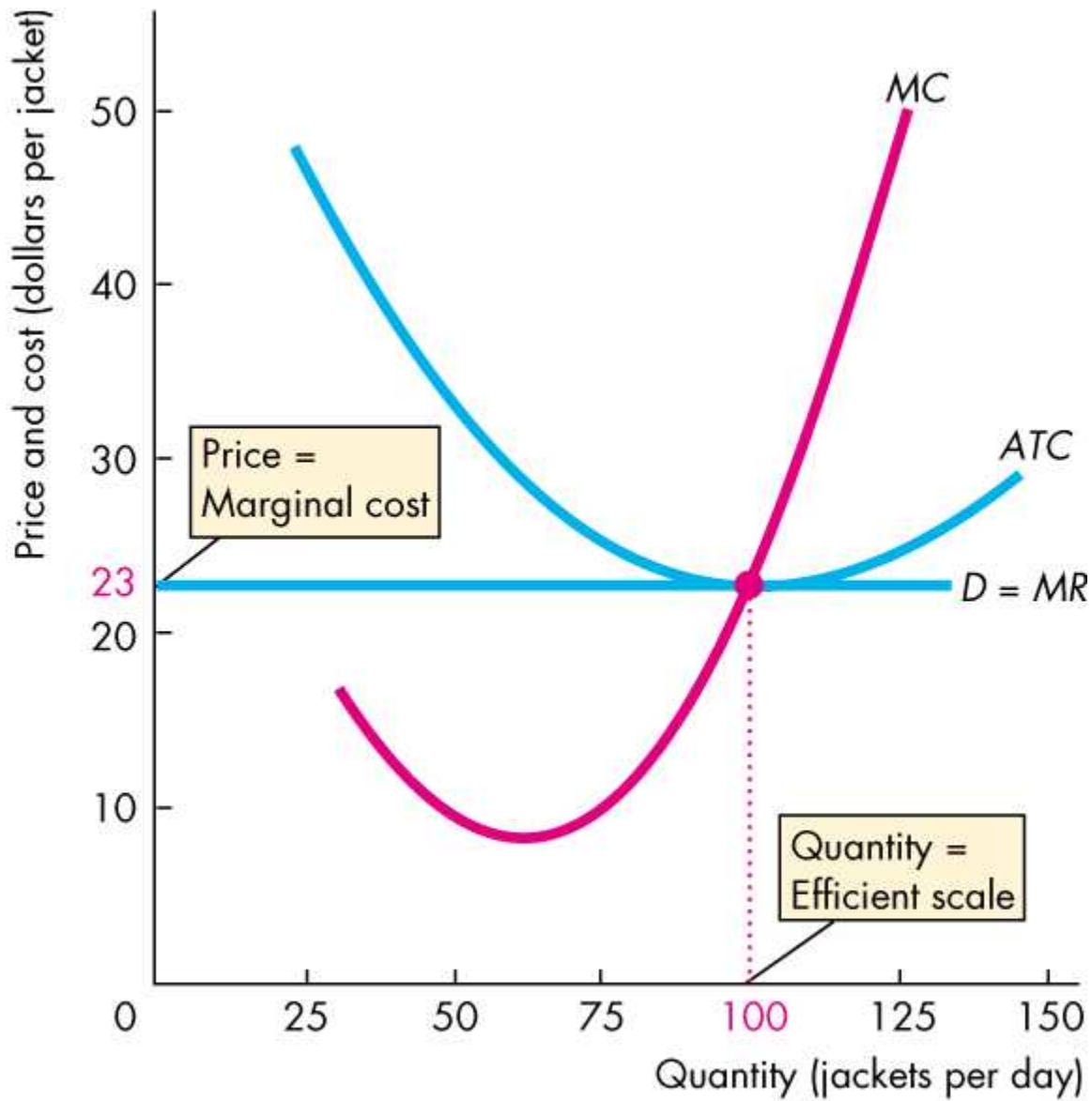
In contrast, firms in perfect competition have:

no excess capacity and no markup.

The perfectly elastic demand curve for their products drives this result.



**(b) Perfect competition**



**(b) Perfect competition**





# Price and Output in Monopolistic Competition

## Is Monopolistic Competition Efficient?

Price equals marginal social benefit.

The firm's marginal cost equals marginal social cost.

Price exceeds marginal cost, so marginal social benefit exceeds marginal social cost.

So the firm in monopolistic competition in the long run produces less than the efficient quantity.



# Price and Output in Monopolistic Competition

## Making the Relevant Comparison

The markup that drives a gap between price and marginal cost arises from product differentiation.

People value product variety, but product variety is costly.

The efficient degree of product variety is the one for which the marginal social benefit of product variety equals its marginal social cost.

The loss that arises because the quantity produced is less than the efficient quantity is offset by the gain that arises from having a greater degree of product variety.

# Product Development and Marketing

## Innovation and Product Development

We've looked at a firm's profit-maximizing output decision in the short run and in the long run, for a given product and with given marketing effort.

To keep making an economic profit, a firm in monopolistic competition must be in a state of continuous product development.

New product development allows a firm to gain a competitive edge, if only temporarily, before competitors imitate the innovation.

# Product Development and Marketing

Innovation is costly, but it increases total revenue.

Firms pursue product development until the marginal revenue from innovation equals the marginal cost of innovation.

The amount of production development is efficient if the marginal social benefit of an innovation (which is the amount the consumer is willing to pay for the innovation) equals the marginal social cost that firms incur to make the innovation.

# Product Development and Marketing

## Advertising

A firm with a differentiated product needs to ensure that customers know that its product differs from its competitors.

Firms use advertising and packaging to achieve this goal.

A large proportion of the price we pay for a good covers the cost of selling it.

Advertising expenditures affect the firm's profit in two ways:

They increase costs, and they change demand.

# Product Development and Marketing

## Selling Costs and Total Costs

Selling costs, like advertising expenditures, fancy retail buildings, etc. are fixed costs.

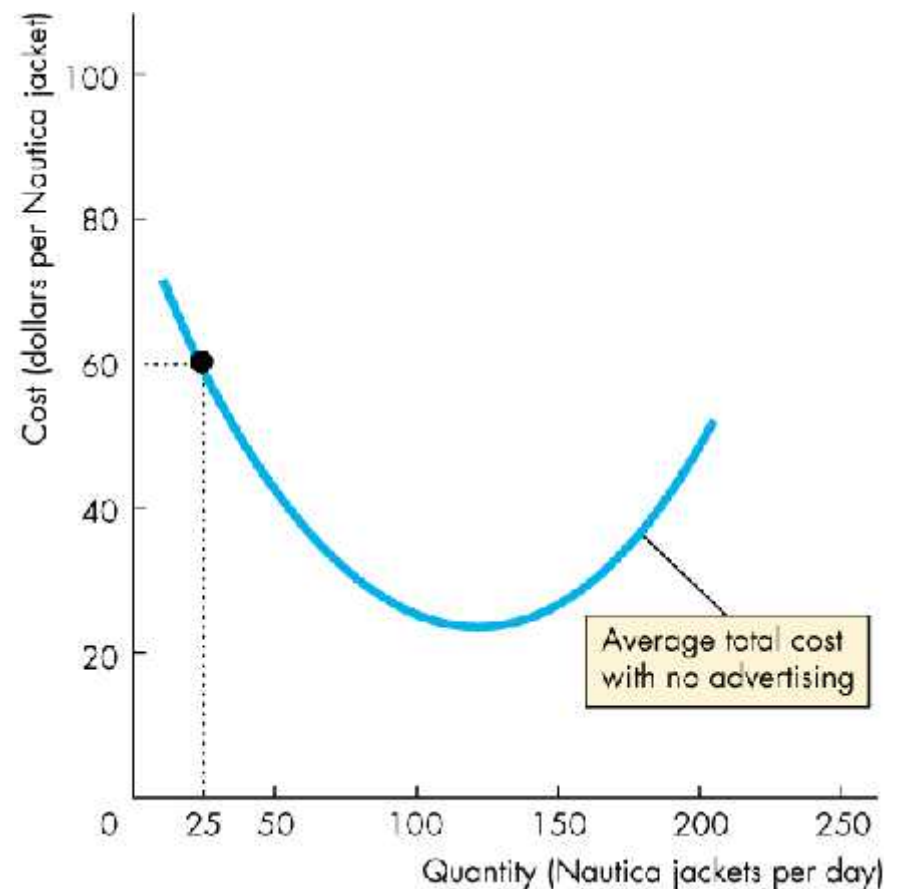
Average fixed costs decrease as production increases, so selling costs increase average total costs at any given quantity but do not affect the marginal cost of production.

Selling efforts such as advertising are successful if they increase the demand for the firm's product.

## ◆ Product Development and Marketing

Advertising costs might lower the average total cost by increasing equilibrium output and spreading their fixed costs over the larger quantity produced.

Here, with no advertising, the firm produces 25 units of output at an average total cost of \$60.



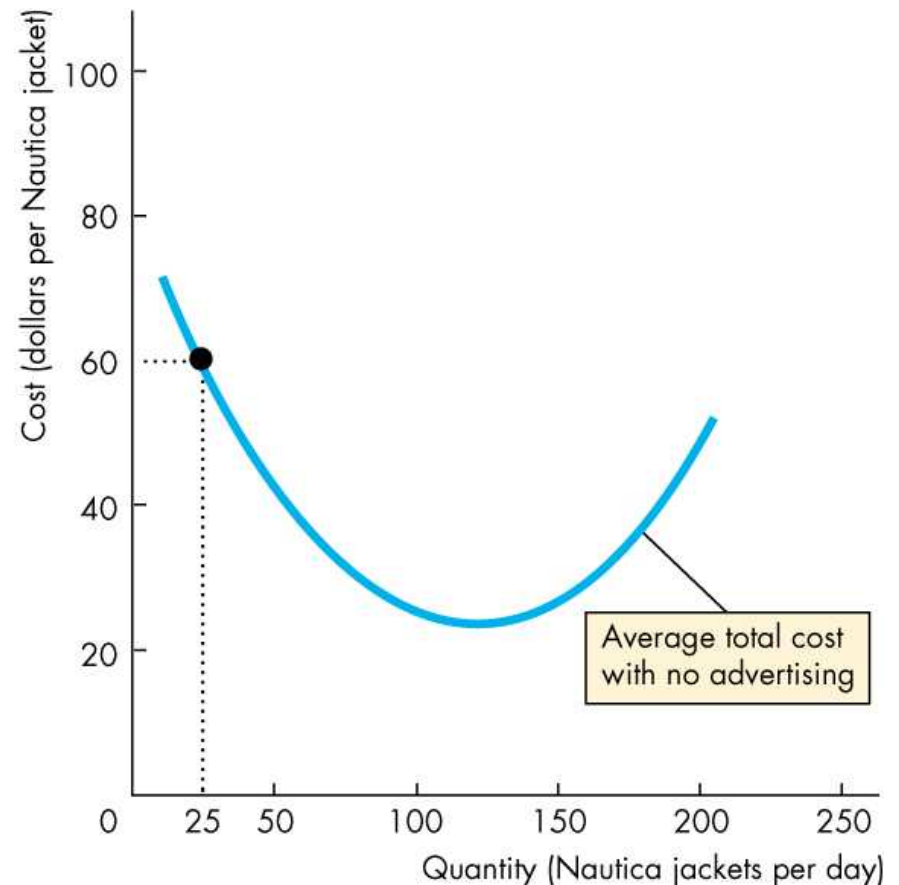
# Product Development and Marketing



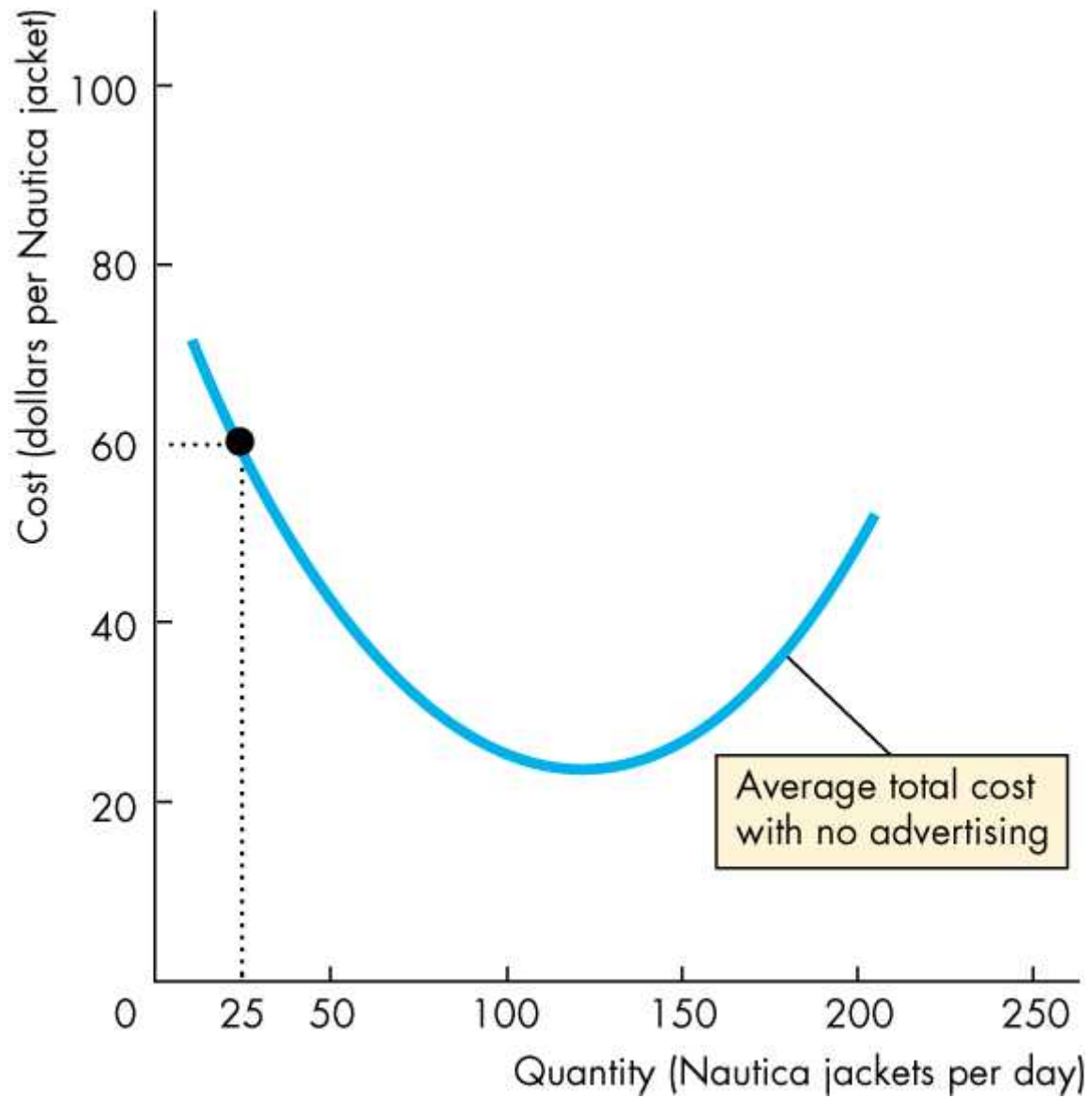
With advertising, the firm produces 100 units of output at an average total cost of \$40.

Advertising expenditure shifts the *ATC* curve upward, but

the firm operates at a larger output and lower average total cost than it would without advertising.







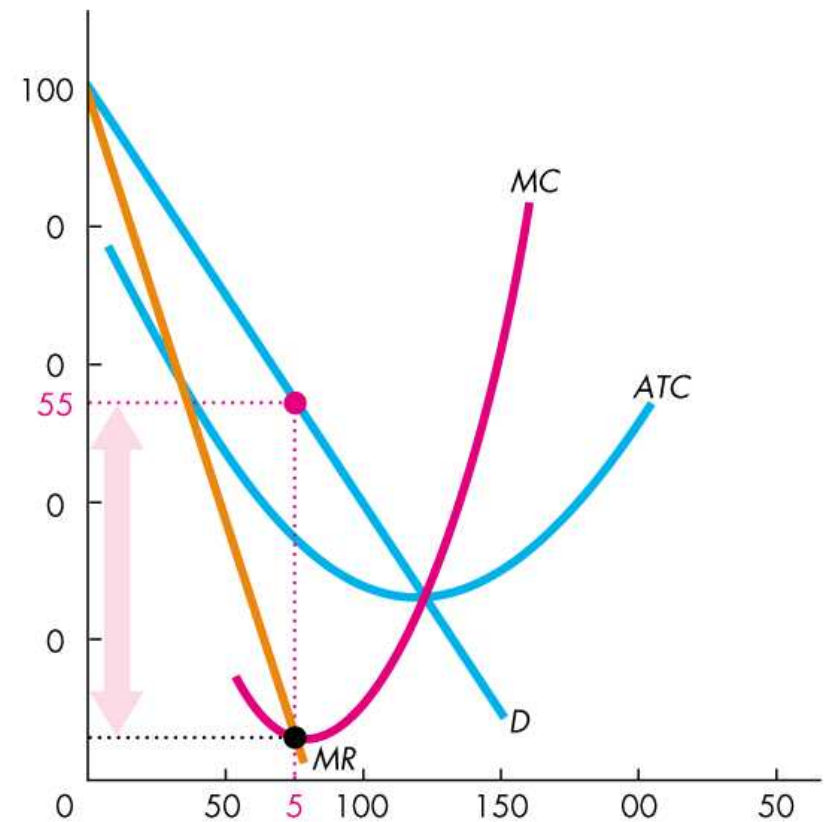
# Product Development and Marketing



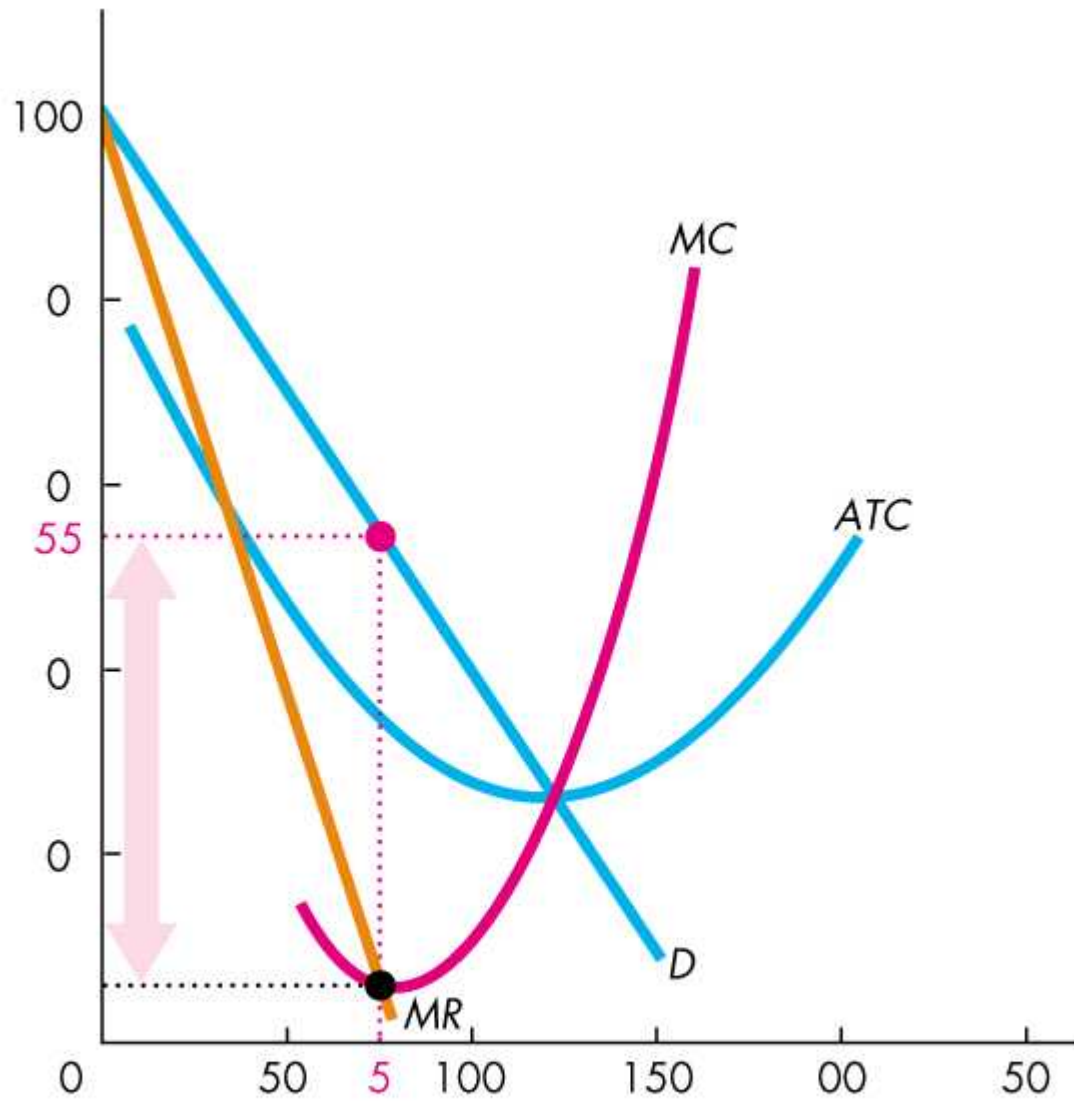
Advertising might also decrease the markup.

In Figure 14.6(a), with no advertising, demand is not very elastic and the markup is large.

In Figure 14.6(b), if all firms advertise demand becomes more elastic, the quantity increases, the price falls and the markup decreases.



(a) firms advertise



**(a) firm advertises**

# Product Development and Marketing

## Using Advertising to Signal Quality

Why do Coke and Pepsi spend millions of dollars a month advertising products that everyone knows?

One answer is that these firms use advertising to signal the high quality of their products.

A **signal** is an action taken by an informed person or firm to send a message to uninformed people.

## Product Development and Marketing

Coke is a high quality cola, and Oke is a low quality cola.

If Coke spends millions on advertising, people think “Coke must be good.”

If it is truly good, when they try it, they will like it and keep buying it.

If Oke spends millions on advertising, people think “Oke must be good.”

If it is truly bad, when they try it, they will hate it and stop buying it.

# Product Development and Marketing

So if Oke knows its product is bad, it will not bother to waste millions on advertising it.

And if Coke knows its product is good, it *will* spend millions on advertising it.

Consumers will read the signals and get the correct message.

None of the ads need mention the product. They just need to be flashy and expensive.

# Product Development and Marketing

## Brand Names

Why do firms spend millions of dollars to establish a brand name or image?

Again, the answer is to provide information about quality and consistency.

You're more likely to overnight at a Holiday Inn than at Joe's Motel because Holiday Inn has incurred the cost of establishing a brand name and you know what to expect if you stay there.

# Product Development and Marketing

## Efficiency of Advertising and Brand Names

To the extent that advertising and selling costs provide consumers with information and services that they value more highly than their cost, these activities are efficient.