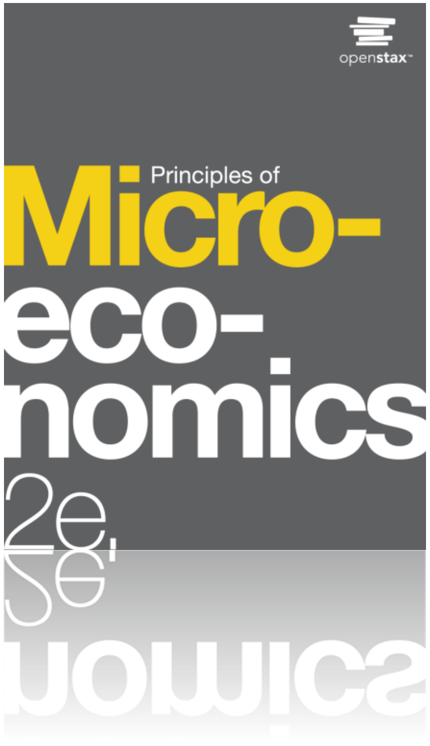
PRINCIPLES OF ECONOMICS 2e

Chapter 10 Monopolistic Competition and Oligopoly

PowerPoint Image Slideshow



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CH.10 OUTLINE

10.1: Monopolistic Competition

10.2: Oligopoly

Competing Brands?

The laundry detergent market is one that is characterized neither as perfect competition nor monopoly.

(Credit: modification of work by Pixel Drip/Flickr Creative Commons)

10.1 Monopolistic Competition

- **Imperfectly competitive** - firms and organizations that fall between the extremes of monopoly and perfect competition.

- **Monopolistic competition** - many firms competing to sell similar but differentiated products.

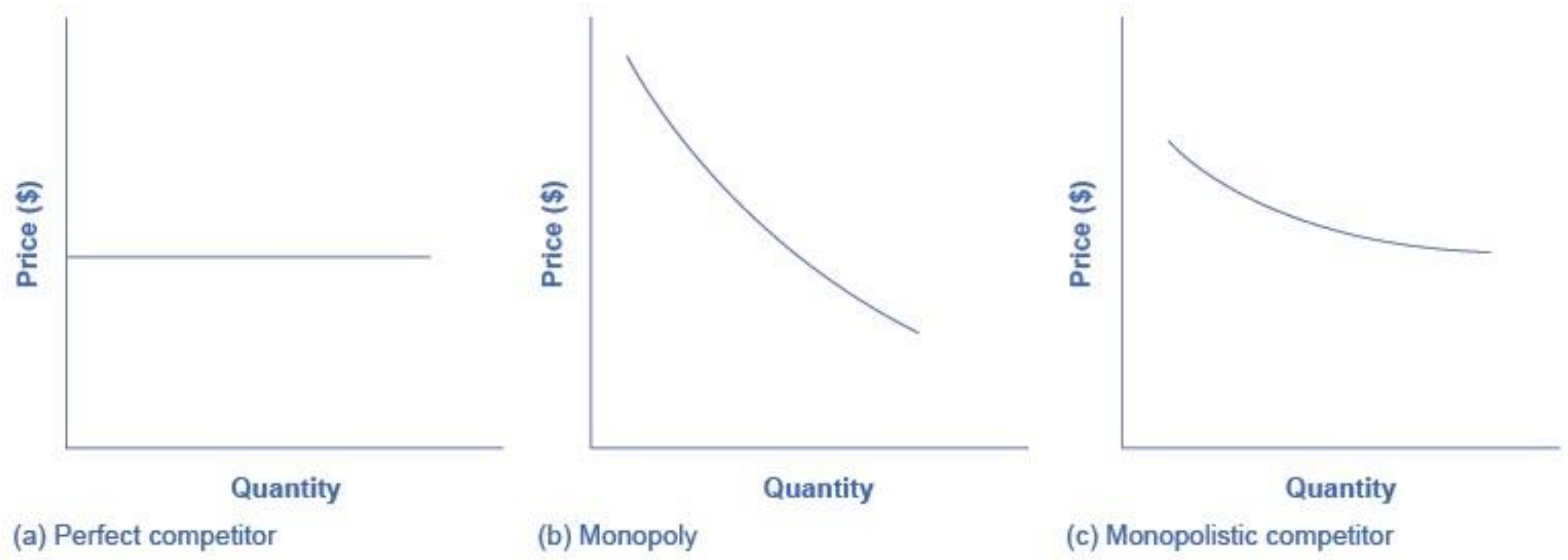
- **Oligopoly** - when a few large firms have all or most of the sales in an industry.

Differentiated Products

- **Differentiated product** - a product that consumers perceive as distinctive in some way.

- Ways for a product to be differentiated:
  - physical aspects
  - location from which it sells
  - intangible aspects
  - perceptions

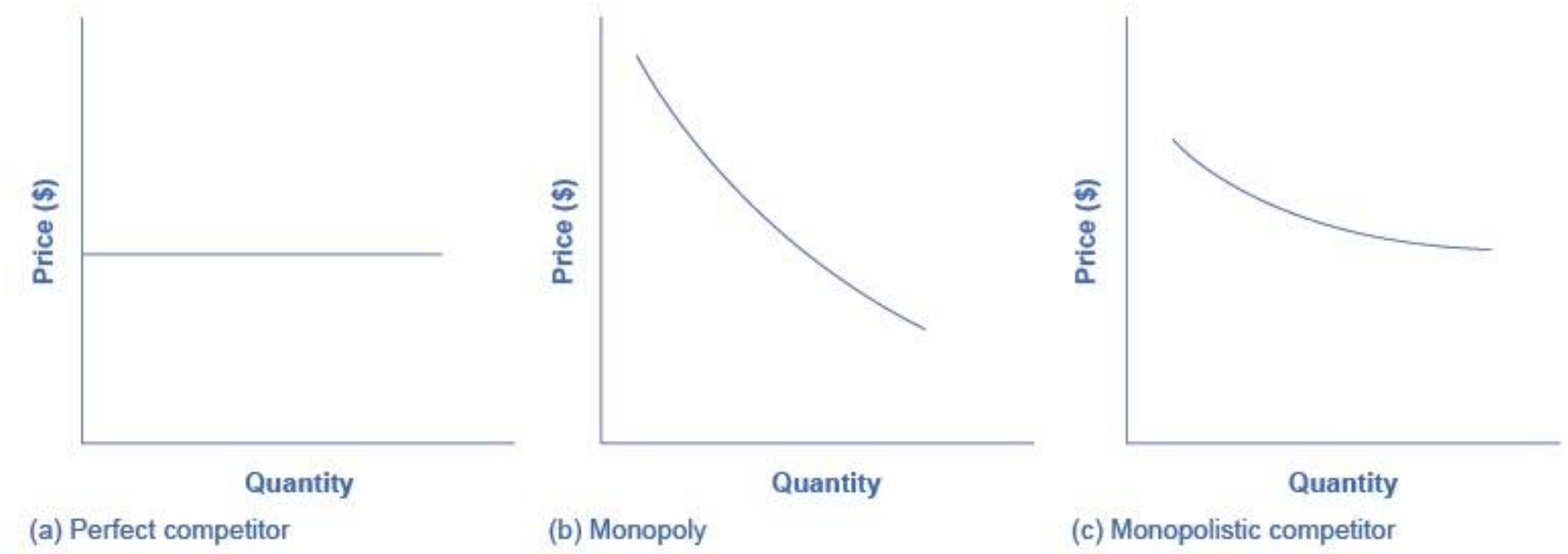
Perceived Demand for Firms in Different Competitive Settings



(a)

- The demand curve faced by a perfectly competitive firm is perfectly elastic.
- It can sell all the output it wishes at the prevailing market price.

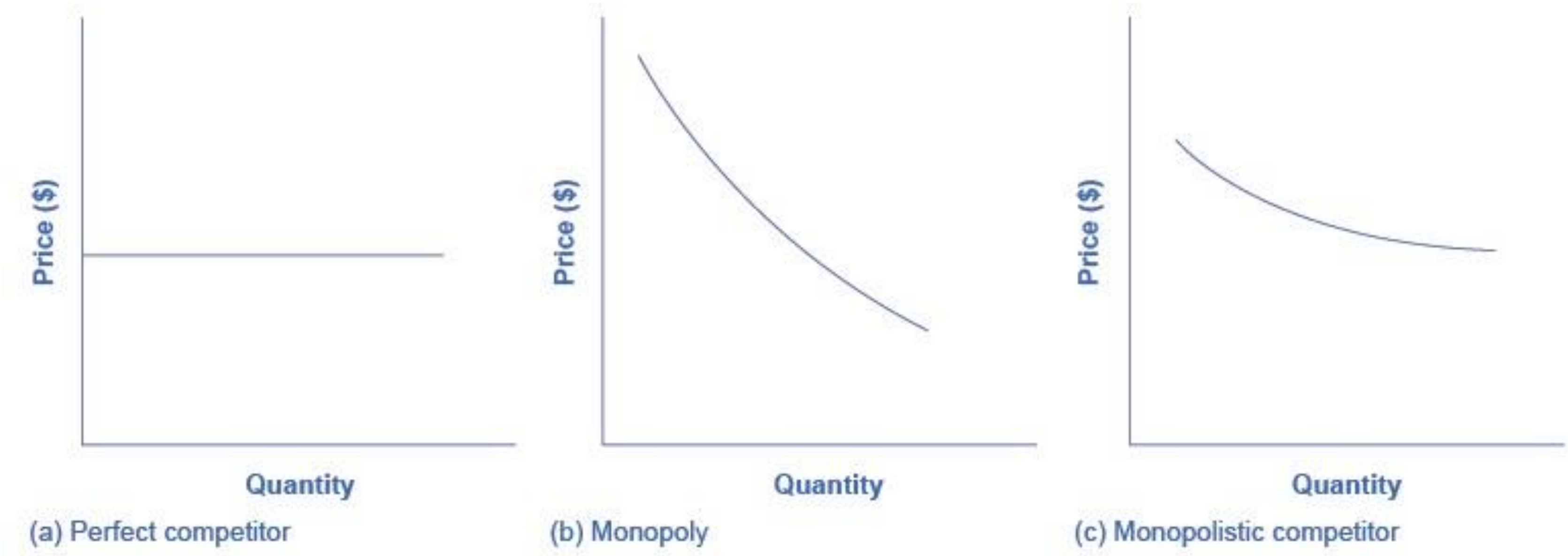
Perceived Demand for Firms in Different Competitive Settings



(b)

- The demand curve faced by a <u>monopoly</u> is the market demand.
- It can sell more output only by decreasing the price it charges.

Perceived Demand for Firms in Different Competitive Settings



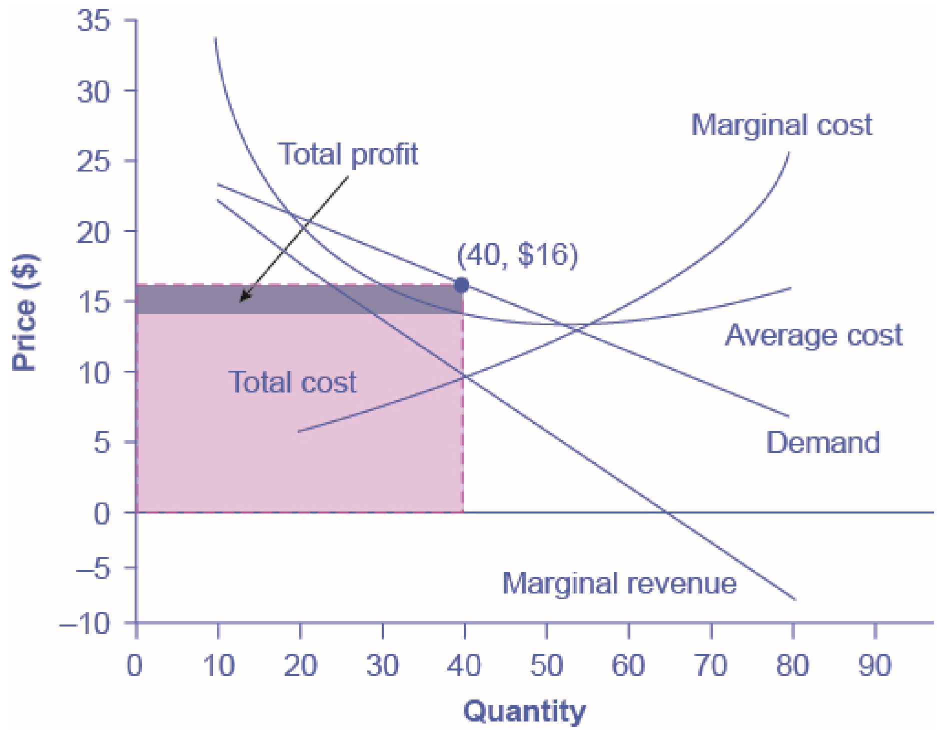
(c)

- The demand curve faced by a monopolistically competitive firm falls in between.

How a Monopolistic Competitor Chooses Price and Quantity

- The monopolistically competitive firm decides on its profit-maximizing quantity and price in much the same way as a monopolist.
- A monopolistic competitor, like a monopolist, faces a *downward-sloping* demand curve,
- It will choose some combination of price and quantity along its perceived demand curve.

Example: How a Monopolistic Competitor Chooses its Profit Maximizing Output and Price



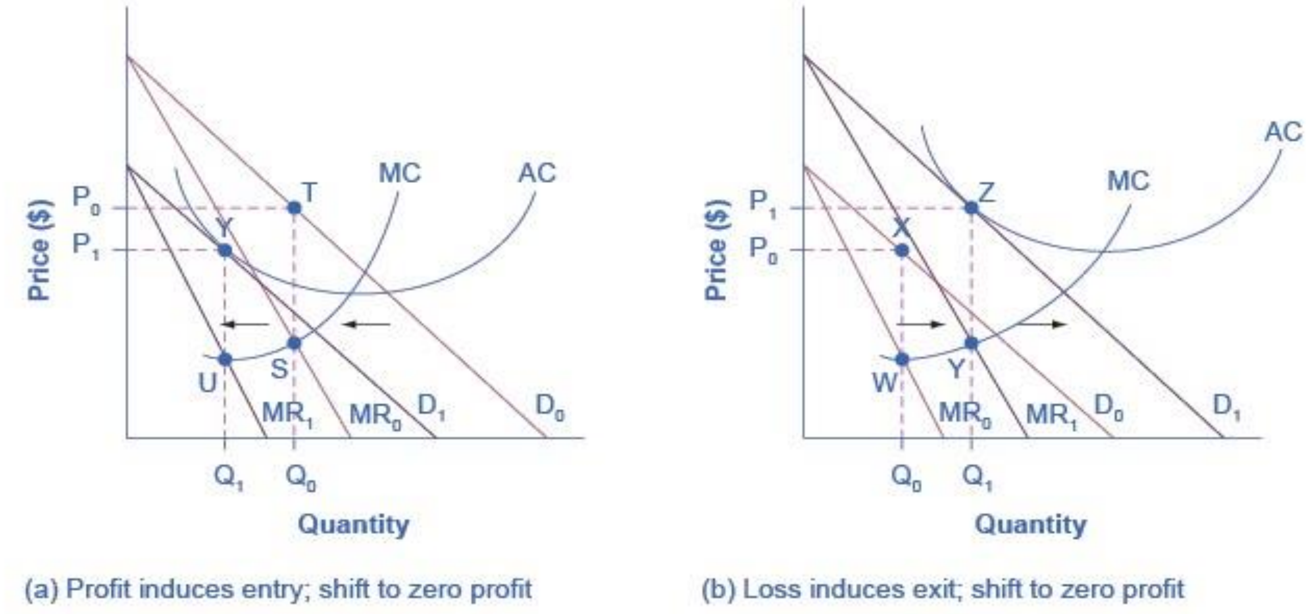
- To maximize profits, a firm would choose a quantity, Q, where MR = MC.
- Here it would choose a quantity of 40 and a price of $16.

Monopolistic Competitors and Entry

- If one monopolistic competitor earns positive economic profits, other firms will be tempted to enter the market.

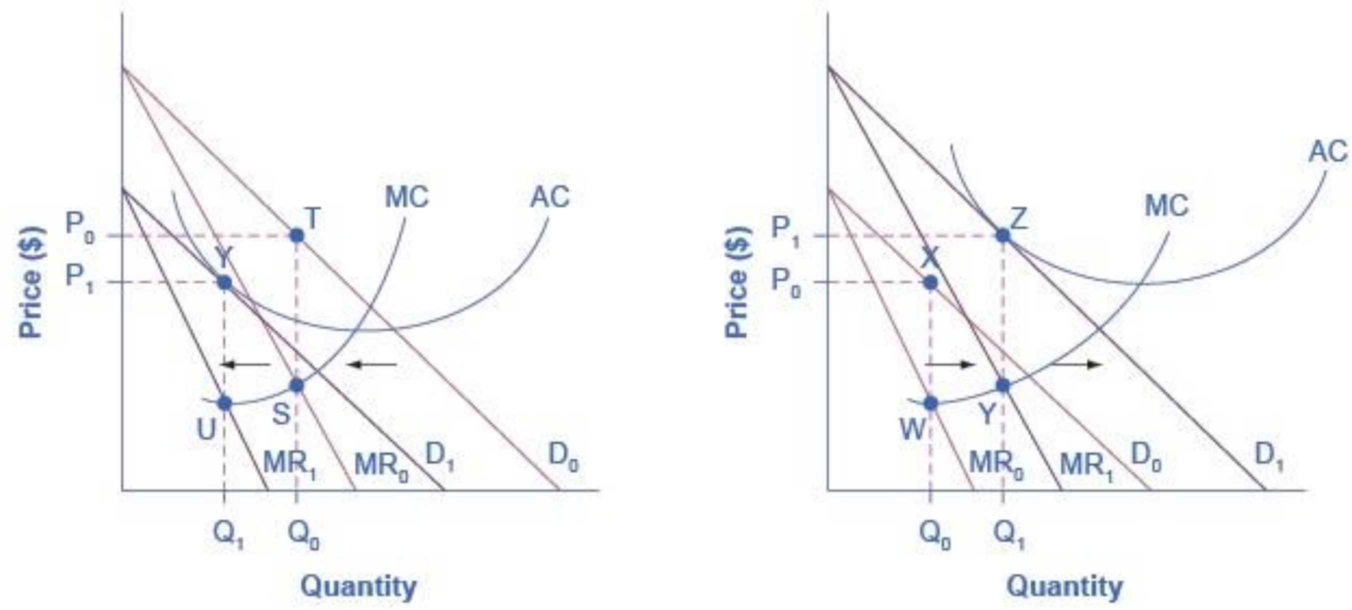
- The entry of other firms into the same general market shifts the demand curve that a monopolistically competitive firm faces.

Monopolistic Competition, Entry, and Exit



- At P_0 and Q_0, the monopolistically competitive firm shown in this figure is making a <u>positive economic profit.</u>
- This is clear because if you follow the dotted line above Q_0, you can see that price > AC.
- Positive economic profits attract competing firms to the industry, driving the original firm's demand down to D_1.
- At the new equilibrium quantity (P_1, Q_1), the original firm is earning <u>zero economic profits</u>, and entry into the industry ceases.

Monopolistic Competition, Entry, and Exit, Continued



(a) Profit induces entry; shift to zero profit (b) Loss induces exit; shift to zero profit

- In (b) the opposite occurs.
- At P_0 and Q_0, the firm is losing money.
- If you follow the dotted line above Q_0, you can see that AC > price.
- Losses induce firms to leave the industry.
- When they do, demand for the original firm rises to D_1, where once again the firm is earning zero economic profit.

Monopolistic Competition and Efficiency

- The long-term result of entry and exit in a perfectly competitive market:
  - Firms sell at the price level determined by the lowest point on the AC curve.
  - *Displays productive efficiency*: goods are produced at the lowest possible average cost.

- In monopolistic competition, the end result of entry and exit:
  - Firms end up with a price that lies on the downward-sloping portion of the AC curve, not at the very bottom of the AC curve.
  - Thus, monopolistic competition *will not be productively efficient*.

10.2 Oligopoly

- **Oligopoly** - when a small number of large firms have all or most of the sales in an industry.

  - If oligopolists compete hard, they act similarly to perfect competitors, *driving down costs* and leading to *zero profits* for all.
  - If oligopolists collude with each other, they may act like a monopoly, and succeed in *pushing up prices* and earning consistently *high levels of profit*.

Discussion Question: What are examples of oligopolies?

Collusion and Cartels

- **Collusion** - when firms act together to reduce output and keep prices high. They do this by:
  - holding down industry output,
  - charging a higher price,
  - and dividing the profit among themselves.

- **Cartel** - a group of firms that have a formal agreement to collude to produce the monopoly output and sell at the monopoly price.

The Prisoner's Dilemma

- **Game theory** - a branch of mathematics that analyzes situations in which players must make decisions and then receive payoffs based on what other players decide to do.

- **Prisoner's dilemma** - a scenario in which the gains from cooperation are larger than the rewards from pursuing self-interest.

Choices		Prisoner B	
		Remain Silent (cooperate with other prisoner)	Confess (do not cooperate with other prisoner)
Prisoner A	Remain Silent (cooperate with other prisoner)	A gets 2 years, B gets 2 years	A gets 8 years, B gets 1 year
	Confess (do not cooperate with other prisoner)	A gets 1 year, B gets 8 years	A gets 5 years B gets 5 years

The Oligopoly Version of the Prisoner's Dilemma

Choices		Firm B: Hold Down Output (cooperate with other firm)	Firm B: Increase Output (do not cooperate with other firm)
Firm A	Hold Down Output (cooperate with other firm)	A gets $1,000, B gets $1,000	A gets $200, B gets $1,500
	Increase Output (do not cooperate with other firm)	A gets $1,500, B gets $200	A gets $400, B gets $400

- **Duopoly** - an oligopoly with only two firms.

How to Enforce Cooperation

- The way out of a prisoner’s dilemma is to find a way to penalize those who do not cooperate.
- Oligopolists may choose to act in a way that generates pressure on each firm to stick to its agreed quantity of output.
- **Kinked demand curve** - a perceived demand curve that arises when competing oligopoly firms commit to match price cuts, but not price increases

A Kinked Demand Curve

- A member firm in an oligopoly cartel is supposed to produce a quantity of 10,000 and sell at a price of $500.
- The other members of the cartel can encourage this firm to honor its commitments by acting so that the firm faces a kinked demand curve.

A Kinked Demand Curve, Continued

- If the member firm expands output to 11,000, the price per unit falls dramatically, to $300.
  - Because other firms also cut prices immediately.
- If the firm raises its price to $550, its sales decline sharply to 5,000.
  - Because other firms will not raise prices also.
- Thus, the members of a cartel can discipline each other to stick to the pre-agreed levels of quantity and price through a strategy of <u>matching all price cuts</u> but <u>not matching any price increases</u>.