
Econ 100A: Intermediate Microeconomic Analysis Lecture 14

Instructor Galina A. Schwartz
University of CA, Berkeley



Plan of Today's Lecture

- We will start Ch. 8:
- Perfectly Competitive Markets
- Profit Maximization
 - Marginal Revenue
 - Marginal Cost
- Choosing Output in the Short Run
- The Competitive Firm's Short-Run Supply Curve
- Short-Run Market Supply
- Choosing Output in the Long Run
- The Industry's Long-Run Supply Curve

Perfectly Competitive Markets

- Basic assumptions of Perfectly Competitive Markets
- 1. Price taking
 - The individual firm sells a very small share of the total market output and, therefore, cannot influence market price
 - Each firm takes market price as given – price taker
 - The individual consumer buys too small a share of industry output to have any impact on market price
- 2. Product homogeneity
 - The products of all firms are perfect substitutes
 - Product quality is relatively similar as well as other product characteristics
 - Agricultural products, oil, copper, iron, lumber
 - Heterogeneous products, such as brand names, can charge higher prices because they are perceived as better
- 3. Free entry and exit
 - When there are no special costs that make it difficult for a firm to enter (or exit) an industry
 - Buyers can easily switch from one supplier to another
 - Suppliers can easily enter or exit a market
 - Ex: Pharmaceutical companies are not perfectly competitive because of the large costs of R&D required; Close to perfect competition: small bakeries, coffee shops, flower shops, house cleaning services, etc.

Profit Maximization

- Do firms maximize profits?
 - Managers in firms may be concerned with other objectives
 - Revenue maximization
 - Revenue growth
 - Dividend maximization
 - Short-run profit maximization (due to bonus or promotion incentive)
 - Could be at expense of long run profits
- Implications of non-profit objective
 - Over the long run, investors would not support the company
 - Without profits, survival is unlikely in competitive industries
- Managers (of publicly traded corporations) have constrained freedom to pursue goals other than long-run profit maximization

Profit:

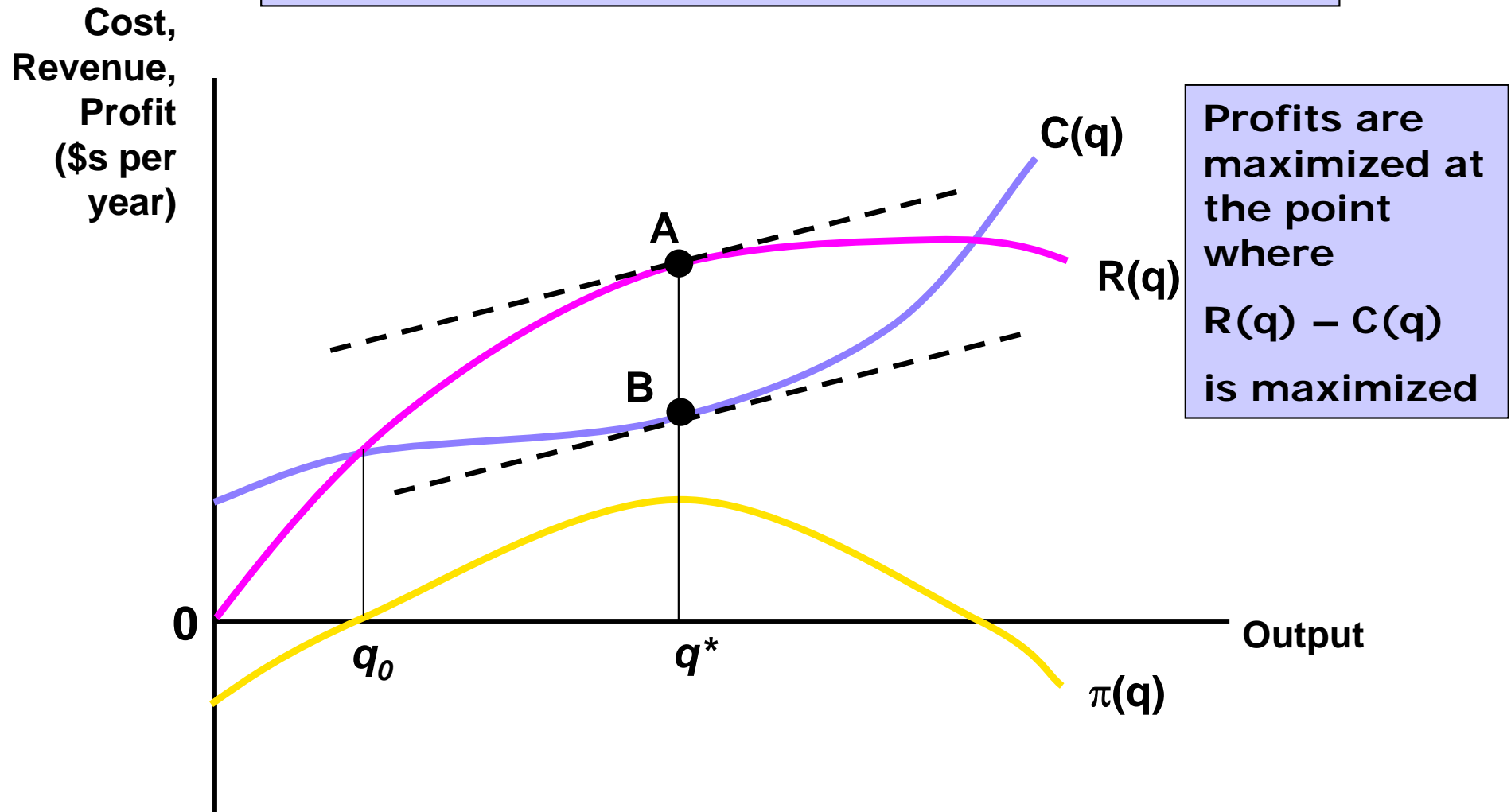
Total Revenue less of Total Cost

- Costs of production depends on output
 - Total Cost (C) = $C(q)$
- Profit for the firm, π , is difference between revenue and costs

$$\pi(q) = R(q) - C(q)$$

Profit Maximization – SR

Fig. 8.1, p. 265: Profits are maximized when MR (slope at A) and MC (slope at B) are equal



Marginal Revenue, Marginal Cost, and Profit Maximization

- Profit is maximized at the point at which an additional increment to output leaves profit unchanged

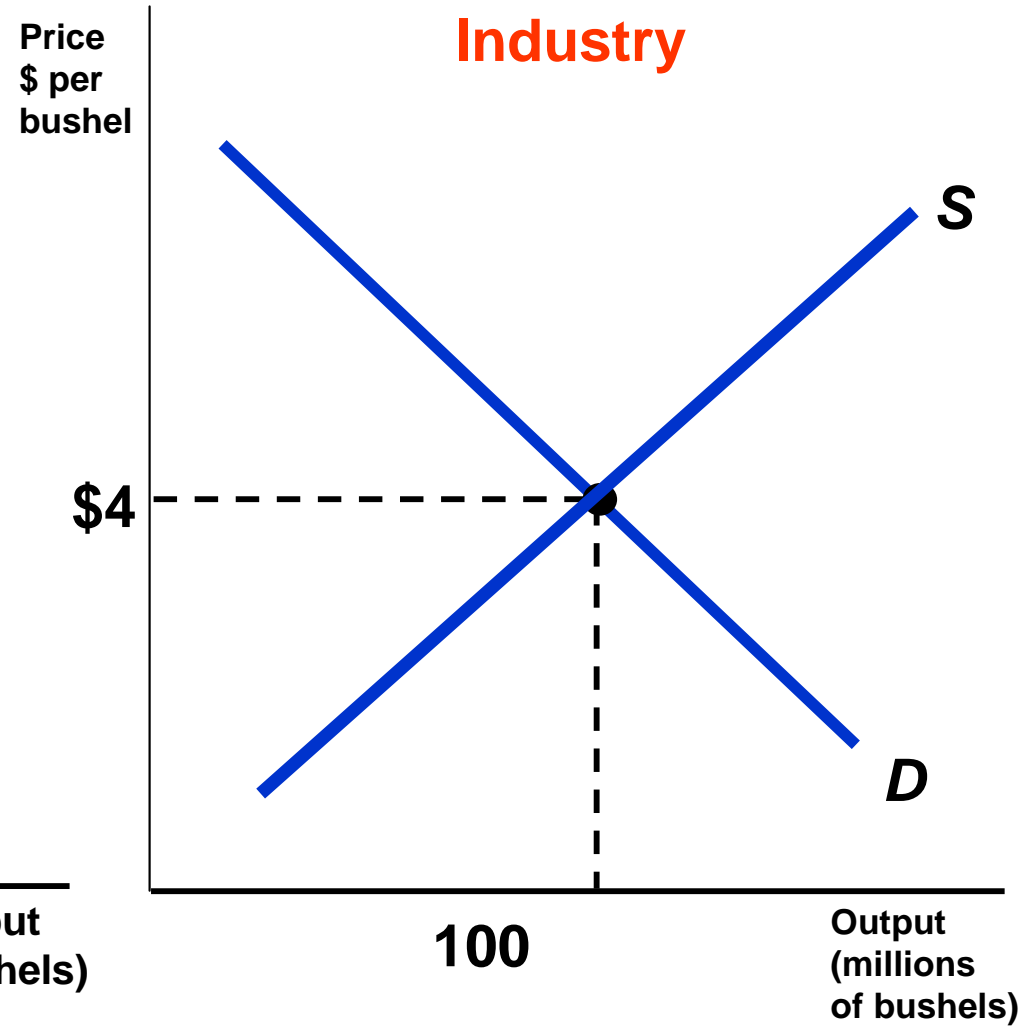
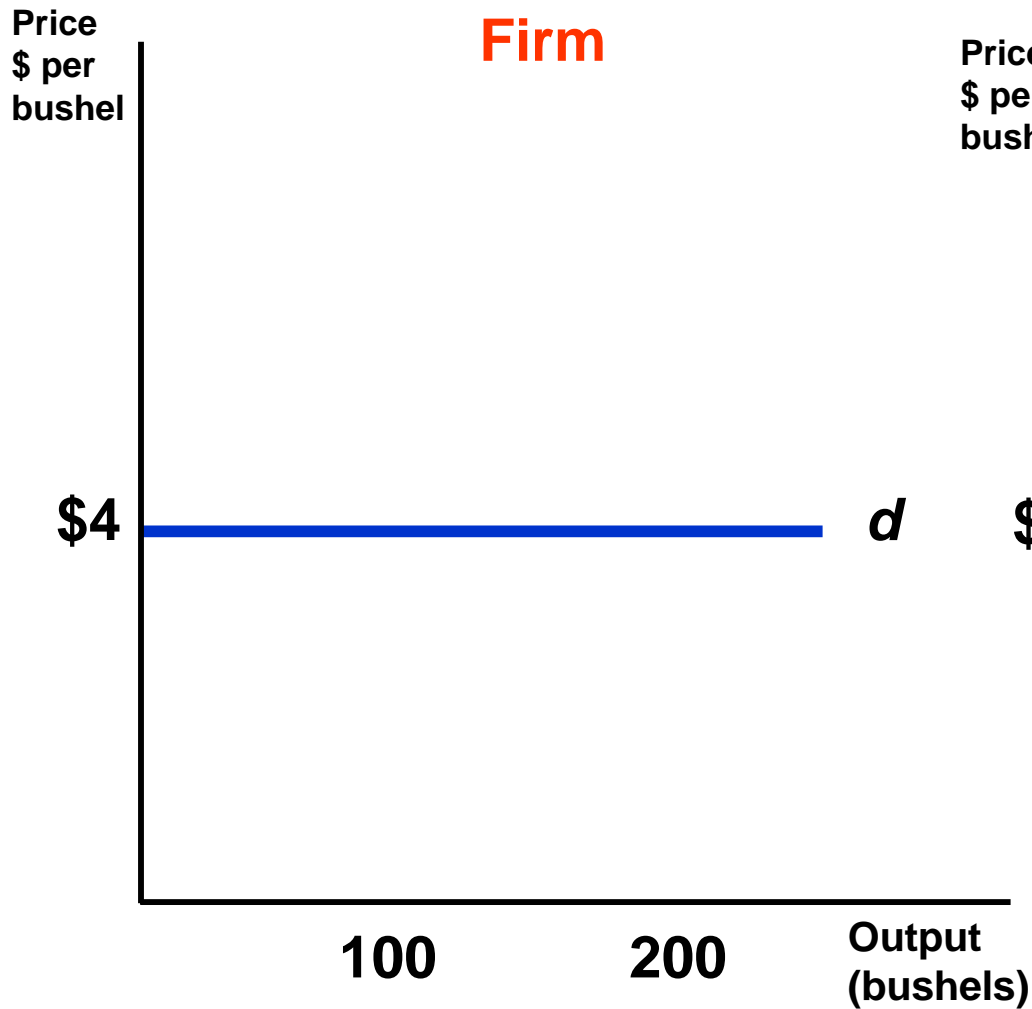
$$\pi = R - C$$

$$\frac{\Delta \pi}{\Delta q} = \frac{\Delta R}{\Delta q} - \frac{\Delta C}{\Delta q} = 0$$

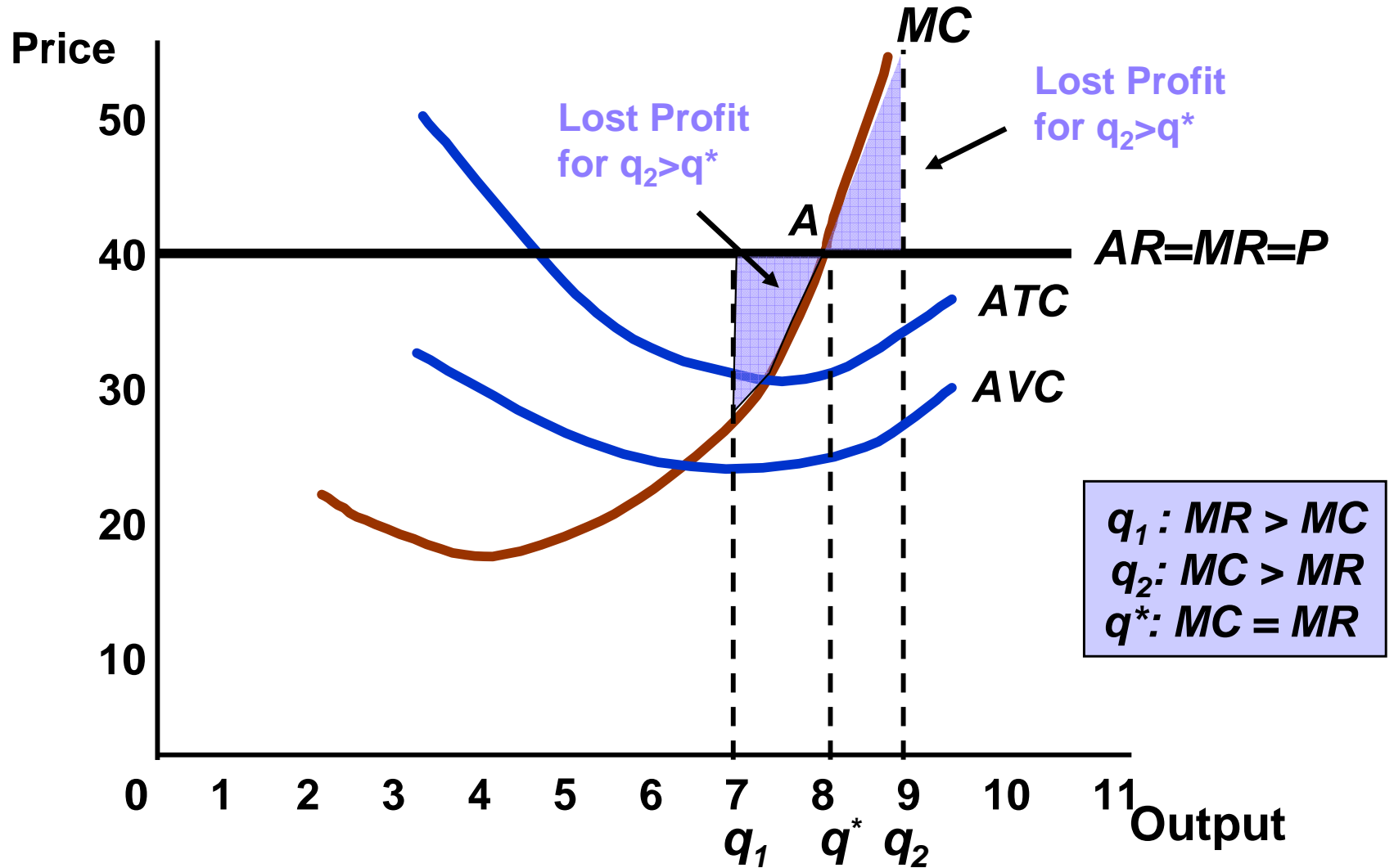
$$= MR - MC = 0$$

$$MR = MC$$

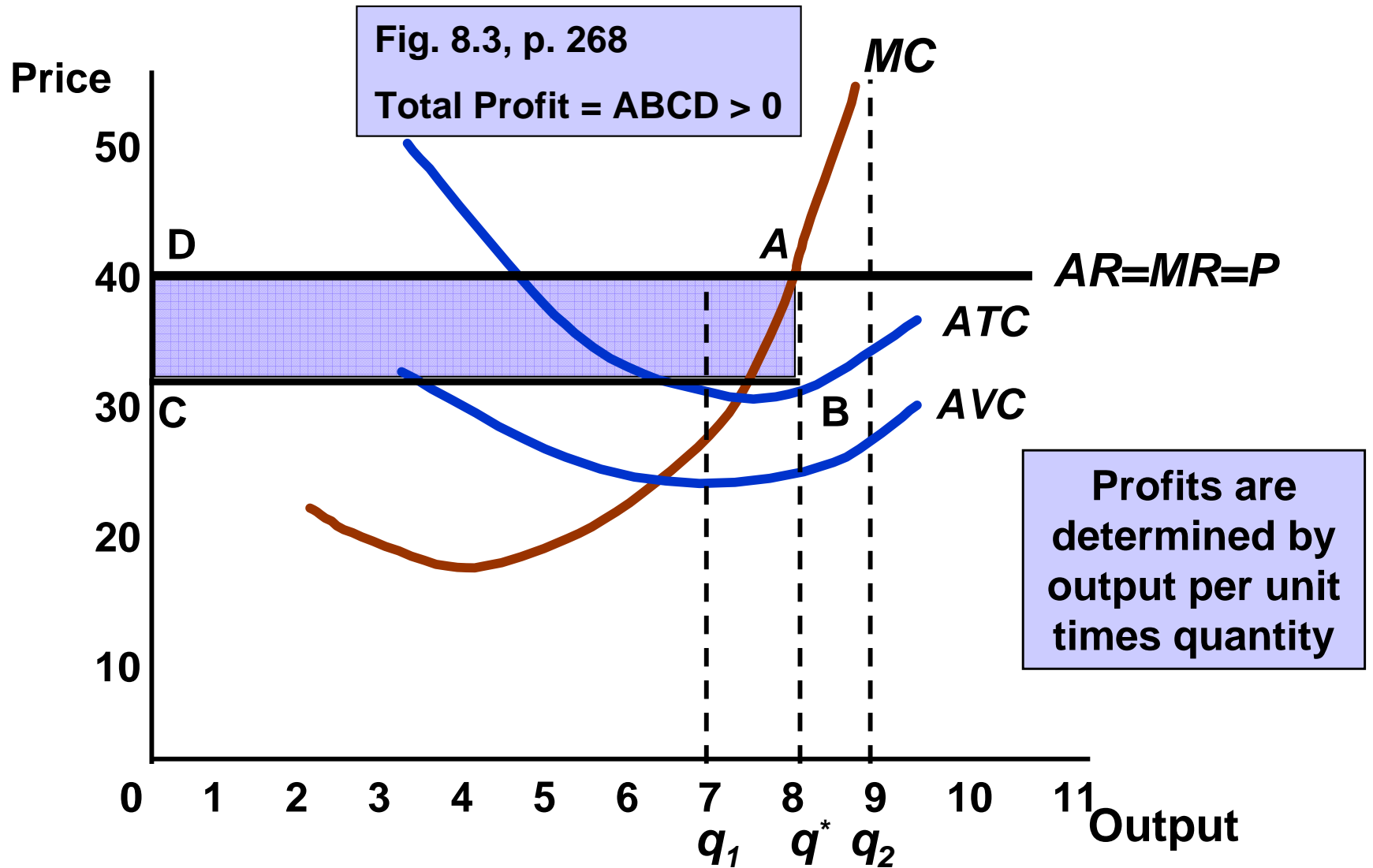
The Competitive Firm versus Industry, Fig. 8.2, p. 267



A Competitive Firm: SR



A Competitive Firm – Positive Profits



A Competitive Firm – Losses (negative profits), p. 270

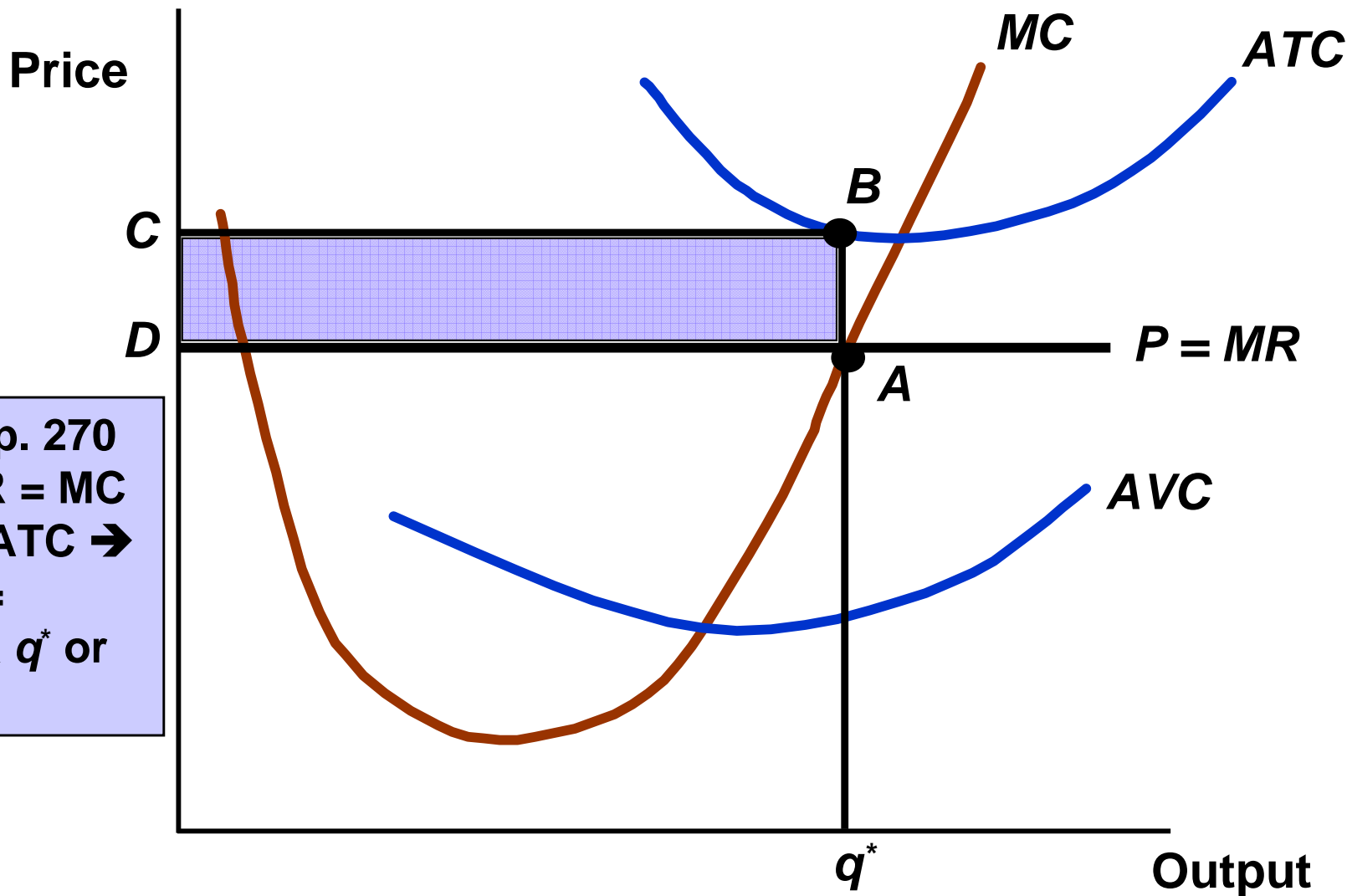


Fig. 8.4, p. 270
At q^* : $MR = MC$
and $P < ATC \rightarrow$
Losses =
 $(P - ATC) \times q^*$ or
ABCD

Summary of Today & Plan of Next Lecture

- Ch. 8 material:
- Perfectly Competitive Markets
 - Market contestability
- Profit Maximization [SR: $MC = MR$; and MC is rising at the point of profit maximization]
 - Summary of Production Decisions
 - Profit is maximized when $MC = MR$
 - If $P > ATC$ the firm is making profits
 - If $P < ATC$ the firm is making losses
- Next Lecture: Ch 8 – to finish