ECONOMICS 201: WEEK 5 MONOPOLY

DEFINITION

PROFIT MAXIMIZATION

PRICE DISCRIMINATION

MONOPOLY: Definition

A firm is considered a monopoly if . . .

- it is the sole seller of its product.
- its product does not have close substitutes.
- Very difficult or impossible for another firm to coexist

MONOPOLY: Definition

The fundamental cause of monopoly is barriers to entry due to:

- Economies of Scale
- Control of a Key Resource
- Legal Barriers
    - Intellectual Property
        - Patents
        - Copyrights
    - Government Franchise
- Technical superiority

MONOPOLY: Definition

Control of Essential Resources

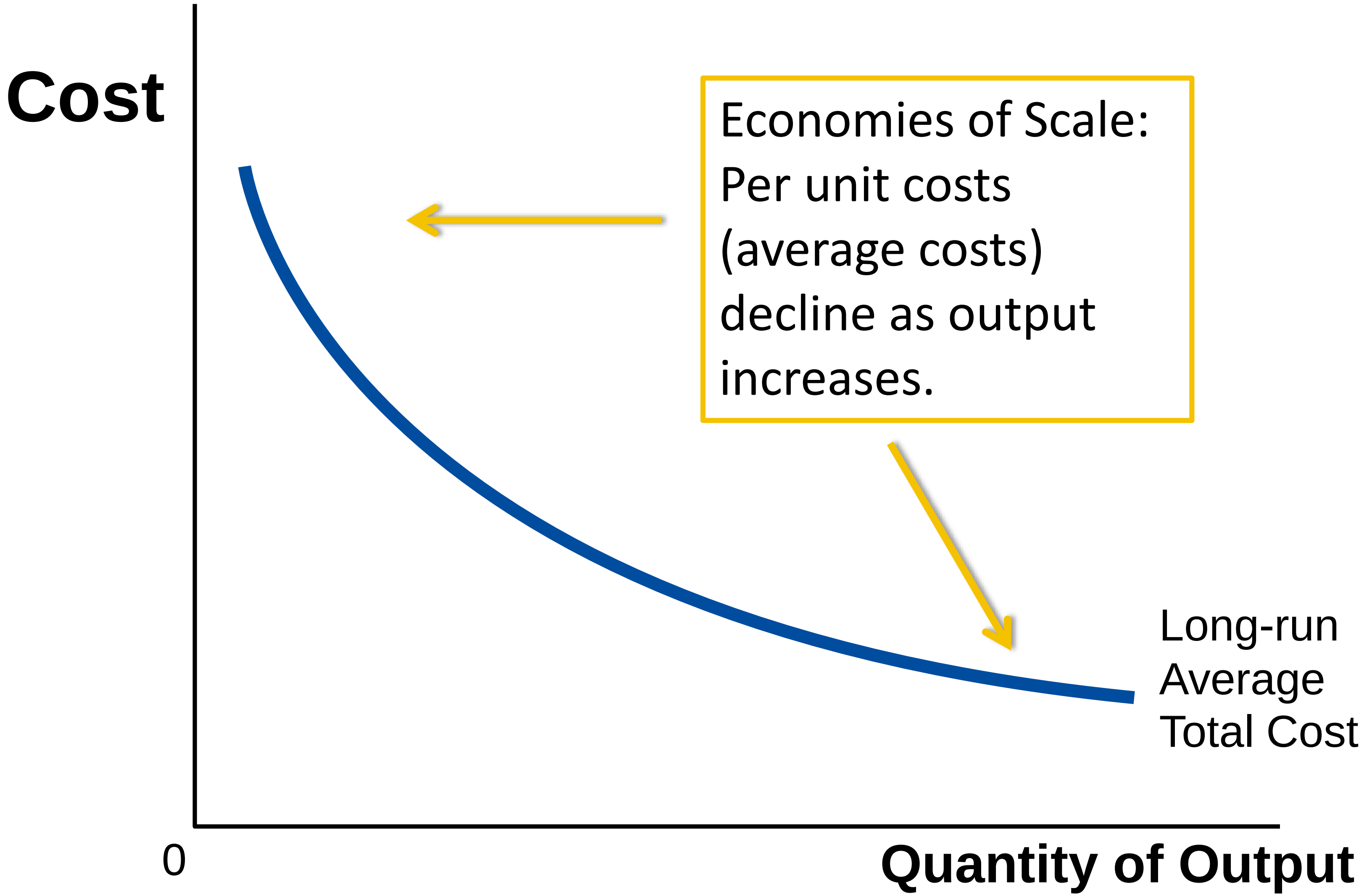
- Professional sports teams try to block the formation of competing leagues by signing the best athletes to long-term contracts
- Alcoa was the sole U.S. maker of aluminum for a long period of time because it controlled the supply of bauxite
- China is the monopoly supplier of pandas
- DeBeers controls the world’s diamond trade

NATURAL MONOPOLY

An industry is a natural monopoly when one firm can supply a good or service to an entire market at a smaller cost than could two or more firms.

- Arises when there are economies of scale over the relevant range of output.
- Example: public utilities

NATURAL MONOPOLY

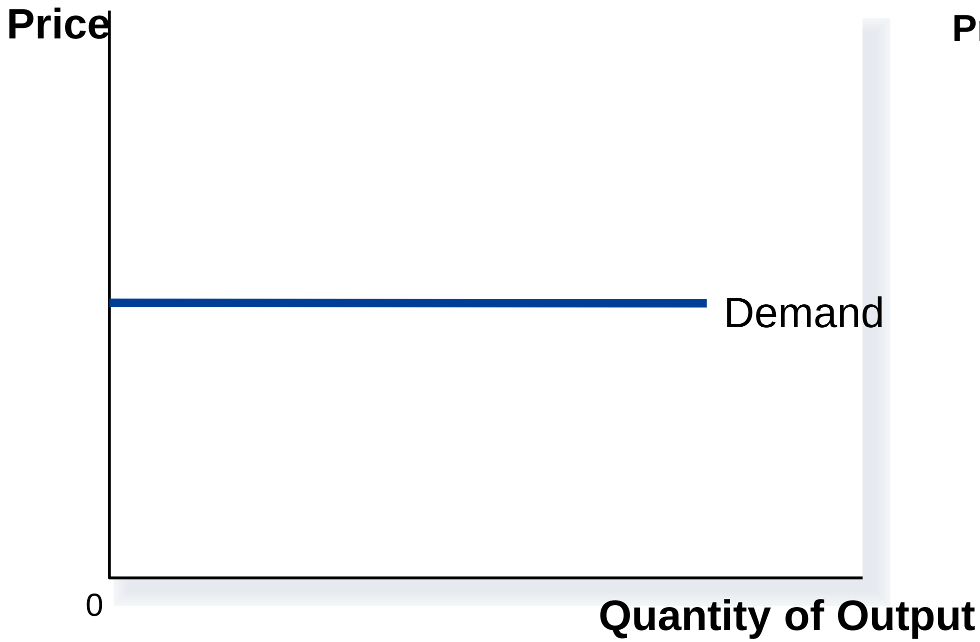


MONOPOLY VERSUS PERFECT COMPETITION

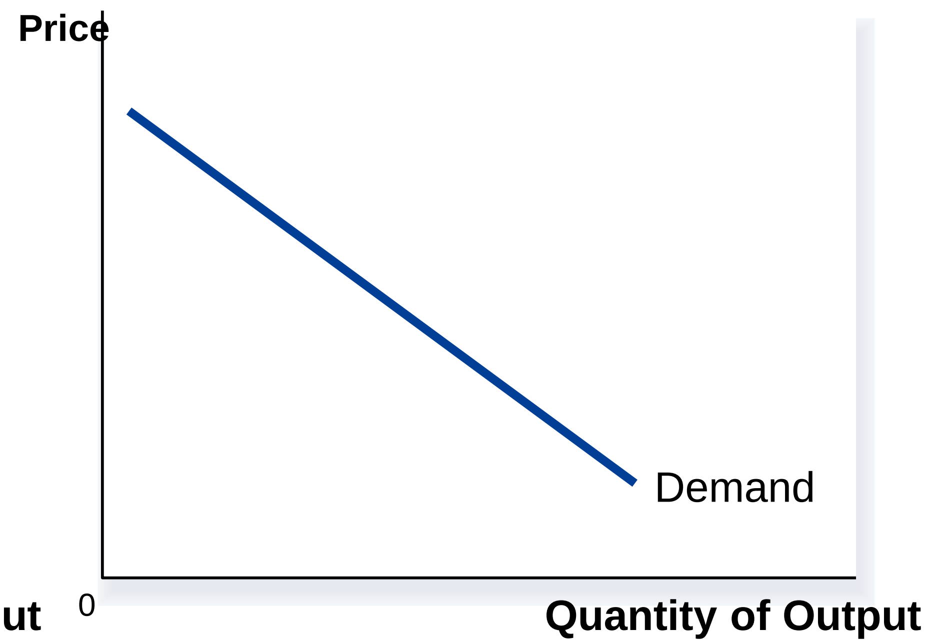
MONOPOLY	PERFECT COMPETITION
Is the sole producer	Is one of many producers
Faces a downward-sloping demand curve	Faces a horizontal demand curve
Is a price maker Chooses P and Q	Is a price taker Chooses Q only
Must reduces price to increase sales	Sells any output at same price.

DEMAND CURVES FOR COMPETITIVE FIRM AND MONOPOLIST

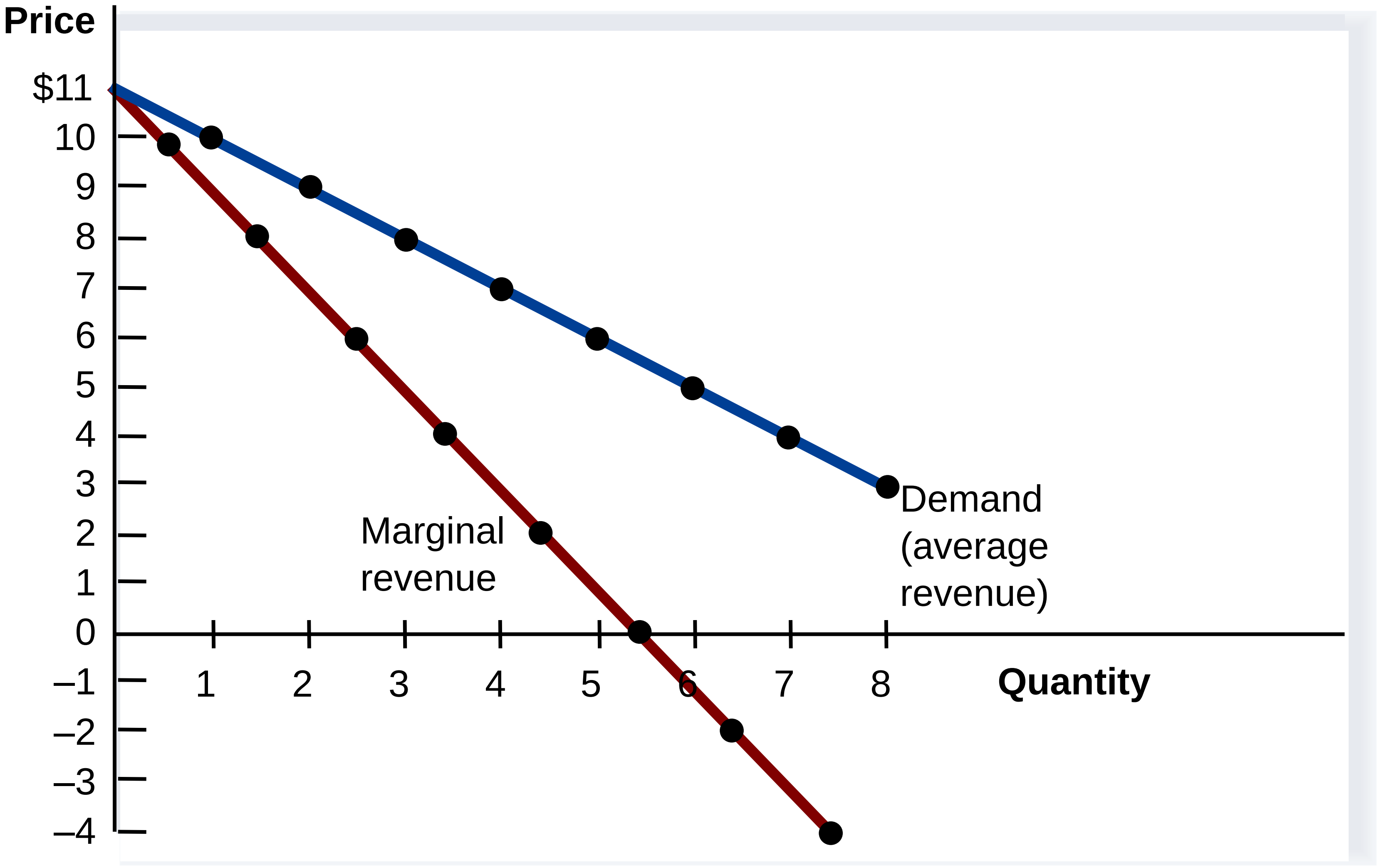
Competitive Firm



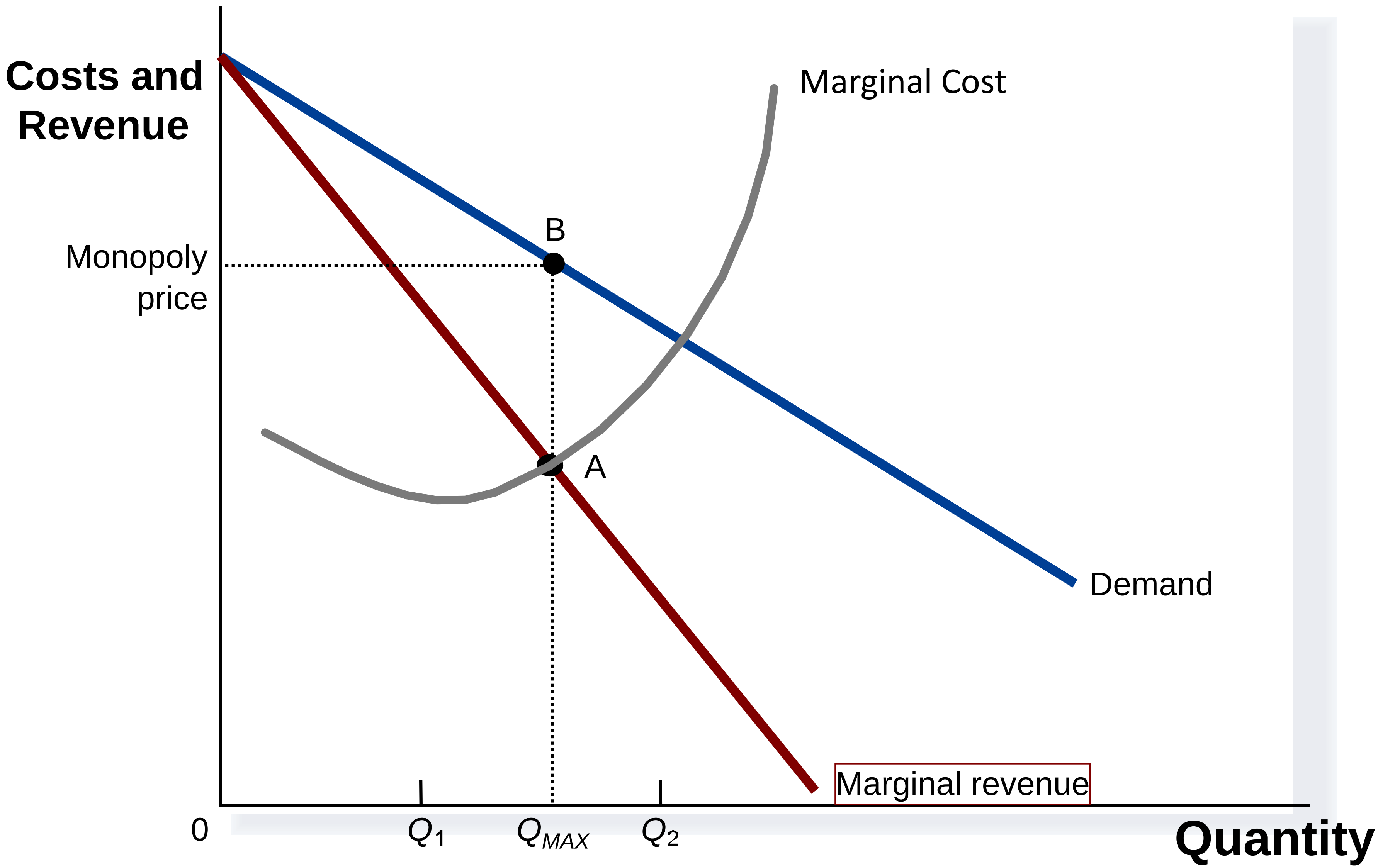
Monopolist



DEMAND AND MARGINAL-REVENUE CURVES FOR A MONOPOLY



PROFIT MAXIMIZATION FOR A MONOPOLY



COMPARING MONOPOLY AND COMPETITION

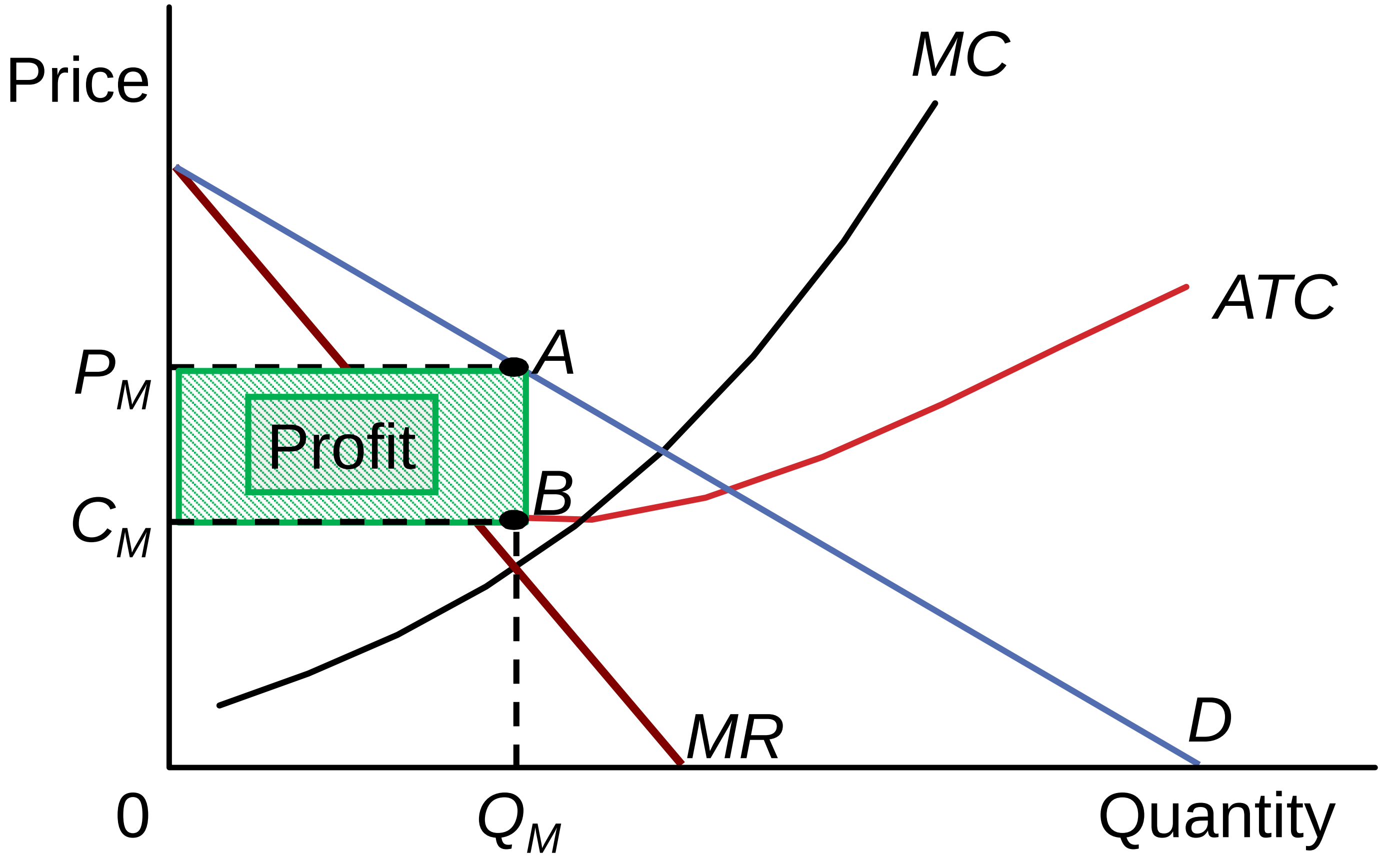
For a competitive firm, price equals marginal cost.

$$P = MR = MC$$

For a monopoly firm, price exceeds marginal cost.

$$P > MR = MC$$

A MONOPOLIST MAKING A PROFIT



PROFITS AND MONOPOLY

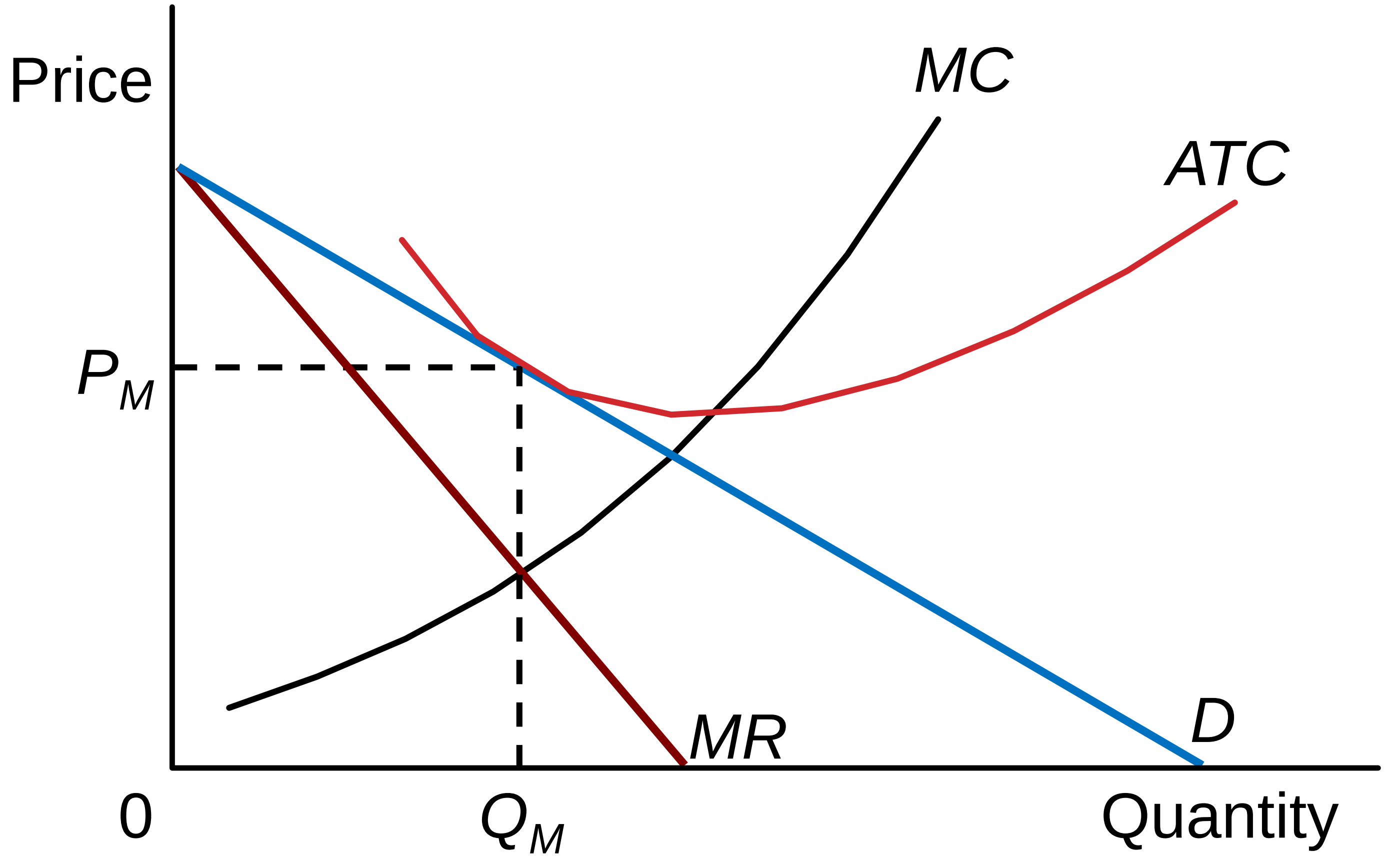
Profit equals total revenue minus total costs.

- Profit = TR - TC
- Profit = (TR/Q - TC/Q) $\times$ Q
- Profit = (P - ATC) $\times$ Q

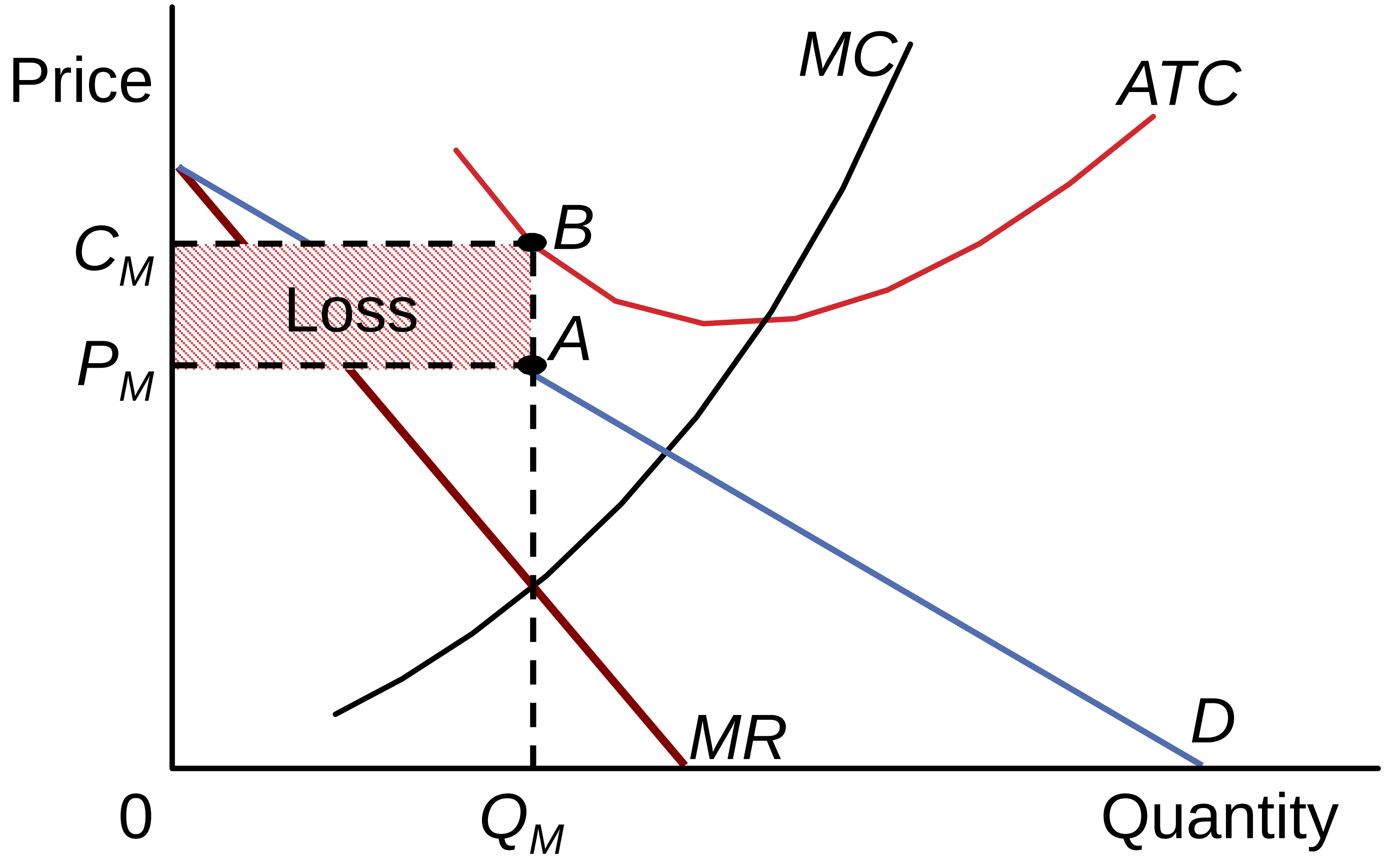
The monopolist will make a profit if price exceeds average total cost.

- P > ATC

A MONOPOLIST BREAKING EVEN



A MONOPOLIST MAKING A LOSS



MONOPOLY VS. PERFECT COMPETITION

1. Monopolist’s profit persists
   - Monopoly profits are those profits earned in excess of perfectly competitive profits
   - Persist due to barriers to entry
2. Monopoly restricts output to raise short-run prices
3. Monopoly restricts output to raise long-run price
4. Monopoly leads to inefficient resource allocation

MONOPOLY VS. PERFECT COMPETITION

What is too simple about previous comparison?

- Monopoly is likely to make an effort to increase demand through advertising, etc.
  - A monopoly may advertise since it increases demand
  - A perfectly competitive firm would not advertise, since it would not change outcome.
- If monopoly is successful at increasing demand, then prices will be higher and profits greater than previous analysis shows.

MONOPOLY VS. PERFECT COMPETITION

What is too simple about previous comparison?

Cost curves for a monopoly may shift cost curves

- Lower marginal and average cost curves
    - Monopoly firm may obtain inputs at lower cost
    - Large scale input purchases – quantity discounts
- Higher marginal and average cost curves
    - Advertising is an added expense.
    - Bureaucratic inefficiencies and coordination problems due to large size of firm.

PRICE DISCRIMINATION

Price discrimination **is the practice of selling the same good at different prices to different customers, even though the production costs are the same for these customers.**

Or selling the same good at the same price to different customers, when the production costs are different for these customers.

PRICE DISCRIMINATION

- ✓ Movie theaters give discounts to senior citizens, students or children.
- ✓ Automobiles are seldom sold at their sticker price to all customers.
- ✓ It costs the same to mail a first-class letter anywhere in the US.
- ✓ Doctors or hospitals charge different fees for the same medical care depending on type of insurance, etc.

PRICE DISCRIMINATION

In order to price discriminate, a firm must be able to:

- Identify groups of customers who have different elasticities of demand;
- Separate them in some way; and limit the ability to *resell* the product between groups.

PRICE DISCRIMINATION

A price-discriminating firm can increase both output and profit.

- It can charge customers with more **inelastic** demands a **higher** price.
- It can charge customers with more **elastic** demands a **lower** price.

PRICE DISCRIMINATION

Elastic Demand

- ***Lowering*** the price will increase quantity demanded and **increase Total Revenue**.

Inelastic Demand

- ***Raising*** the price will lower quantity demanded but will **increase Total Revenue**

PRICE DISCRIMINATION

Price discrimination is not possible in a competitive market since there are many firms all selling at the market price.

In order to price discriminate, the firm must have some *market power*.