ECO101: Introduction to Microeconomics

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SECTION: 11

LECTURE 18

TOPIC: MONOPOLY

Monopoly

- A **monopoly** is a market with a single firm that produces a good or service for which no close substitute exists and that is protected by a barrier that prevents other firms from selling that good or service.

Monopoly arises for two key reasons:

- No close substitute
- Barrier to entry

A constraint that protects a firm from potential competitors is called a **barrier to entry**. The three types of barrier to entry are

- Natural
- Ownership
- Legal

Monopoly Price Setting Strategies

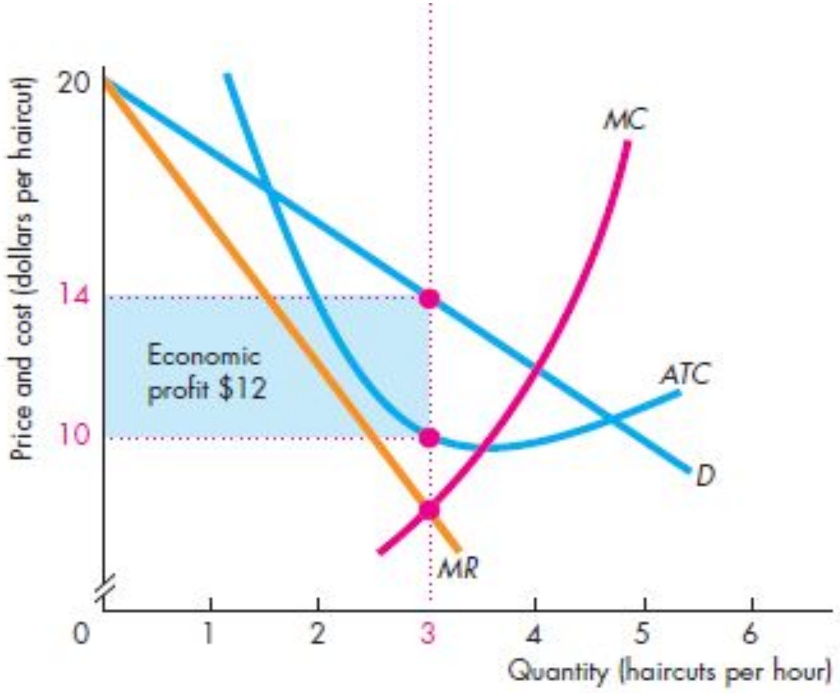
- A major difference between monopoly and competition is that a monopoly sets its own price.
- In doing so, the monopoly faces a market constraint: To sell a larger quantity, the monopoly must set a lower price.
- There are two monopoly situations that create two pricing strategies:
  - Single price : A **single-price monopoly** is a firm that must sell each unit of its output for the same price to all its customers.
  - Price discrimination: When a firm practices **price discrimination**, it sells different units of a good or service for different prices.

Price and Output Decision

- **In Monopoly, Demand Is Always Elastic.**
- If demand is elastic, a fall in the price brings an increase in total revenue—the revenue gain from the increase in quantity sold outweighs the revenue loss from the lower price—and marginal revenue is *positive*.
- **By adjusting the quantity produced (or the price charged, the monopolist can choose any point on the demand curve.**
- **But it can’t choose a point off the demand curve.**
- A monopolist is not seeking to maximize revenue. But instead earn the highest possible profit.
- A monopoly sets its price and output at the levels that maximize economic profit.
- A monopolist can use information on the MR and MC to seek out the profit-maximizing combination.

Economic Profit

- When *MC* equals *MR*, profit is maximized. A monopolist will produce at MC= MR
- Unlike a firm in perfect competition, a monopoly influences the price of what it sells.
- But a monopoly doesn't set the price at the maximum *possible* price.
- A monopoly produces the profit-maximizing quantity and sells that quantity for the highest price it can get.

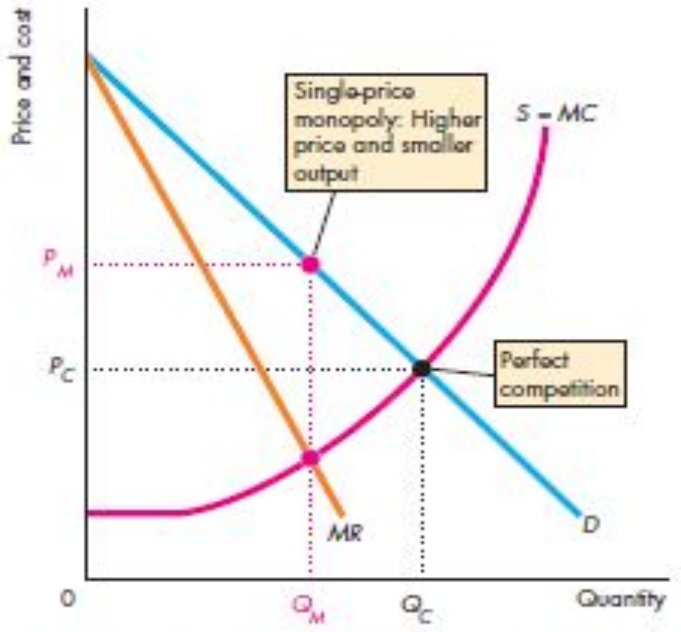


(b) Demand and marginal revenue and cost curves

Single Price Monopoly and Competition Compared

- In perfect competition, equilibrium occurs where the supply curve and the demand curve intersect.
- The price is *Pc*, and the quantity produced by the industry is *Qc*. Each firm takes the price *PC* and maximizes its profit by producing the output at which its own marginal cost equals the price.
- Now suppose that this industry is taken over by a single firm.
- But now the monopoly recognizes this demand curve as a constraint on the price at which it can sell its output. The monopoly's marginal revenue curve is *MR*.
- Compared to a perfectly competitive market, a single price monopoly produces a smaller output and charges a higher price.

FIGURE 13.5 Monopoly's Smaller Output and Higher Price

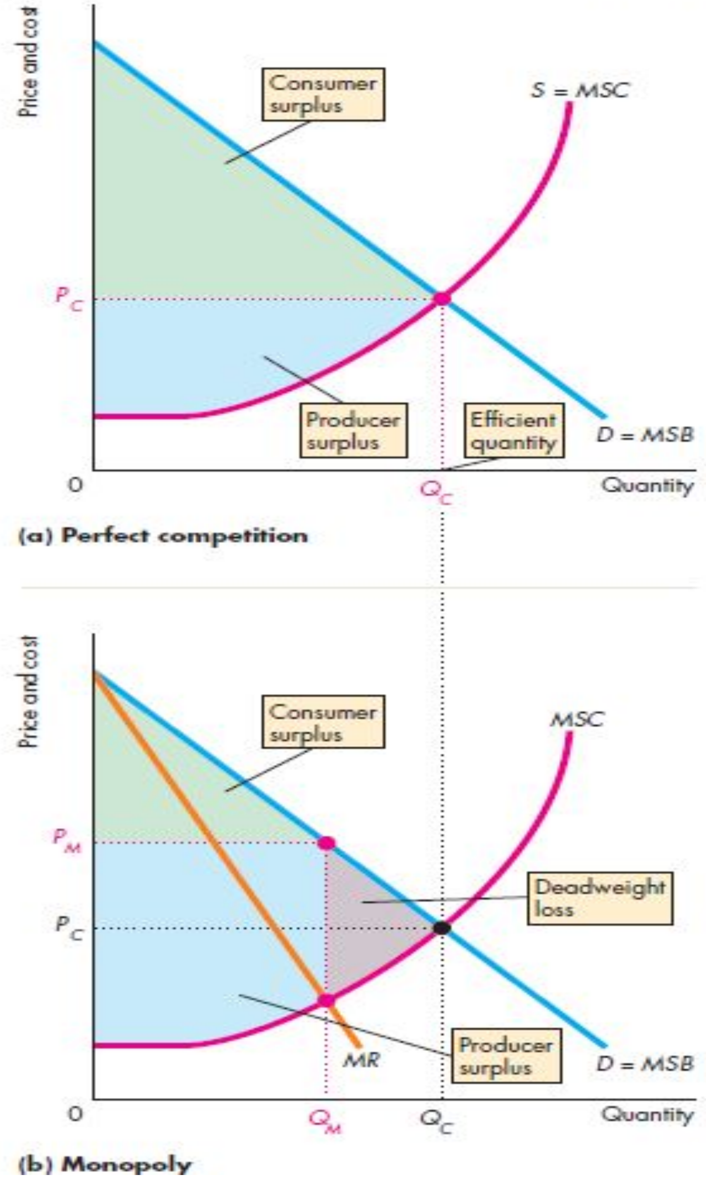


A competitive market produces the quantity Q_C at price P_C. A single-price monopoly produces the quantity Q_M at which marginal revenue equals marginal cost and sells that quantity for the price P_M. Compared to perfect competition, a single-price monopoly produces a smaller output and charges a higher price.

Efficiency Comparison

- In perfect competition in part (a), output is Qc and the price is Pc.
- Marginal social benefit (MSB) equals marginal social cost (MSC); total surplus, the sum of consumer surplus (the, green triangle) and producer surplus (the blue area), is maximized;
- and in the long run, firms produce at the lowest possible average cost.
- Monopoly in part (b) produces Qm and raises the price to Pm.
- Consumer surplus shrinks, the monopoly gains, and a deadweight loss (the gray triangle) arises.

FIGURE 13.6 Inefficiency of Monopoly



Practice Math (Monopoly)

a) What is the profit maximizing output, q*?
b) What is the profit maximizing price?
c) Calculate TR.
d) What is the ATC at q*?
e) Calculate Total Cost.
f) Calculate the Profit.