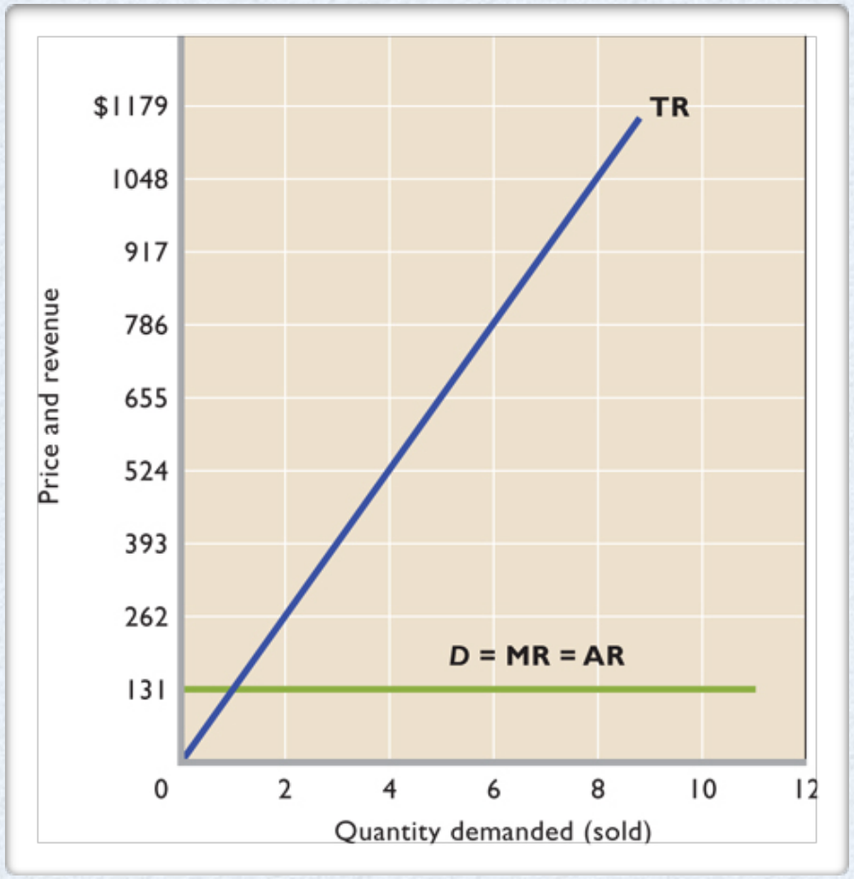
CHAPTER 10

Four Market Models

- **Pure competition**
  - Large number of sellers and buyers in the market
  - Standardized product
  - Individual firms are price takers
  - Free entry and exit
- **Monopolistic competition**
  - Relatively large number of sellers, differentiated products, easy entry and exit, heavy advertising
- **Oligopoly**
  - Few sellers, standardized or differentiated product, each firm is affected by the decisions of its rivals
- **Pure monopoly**
  - One firm is the sole seller of a product or service, entry is blocked

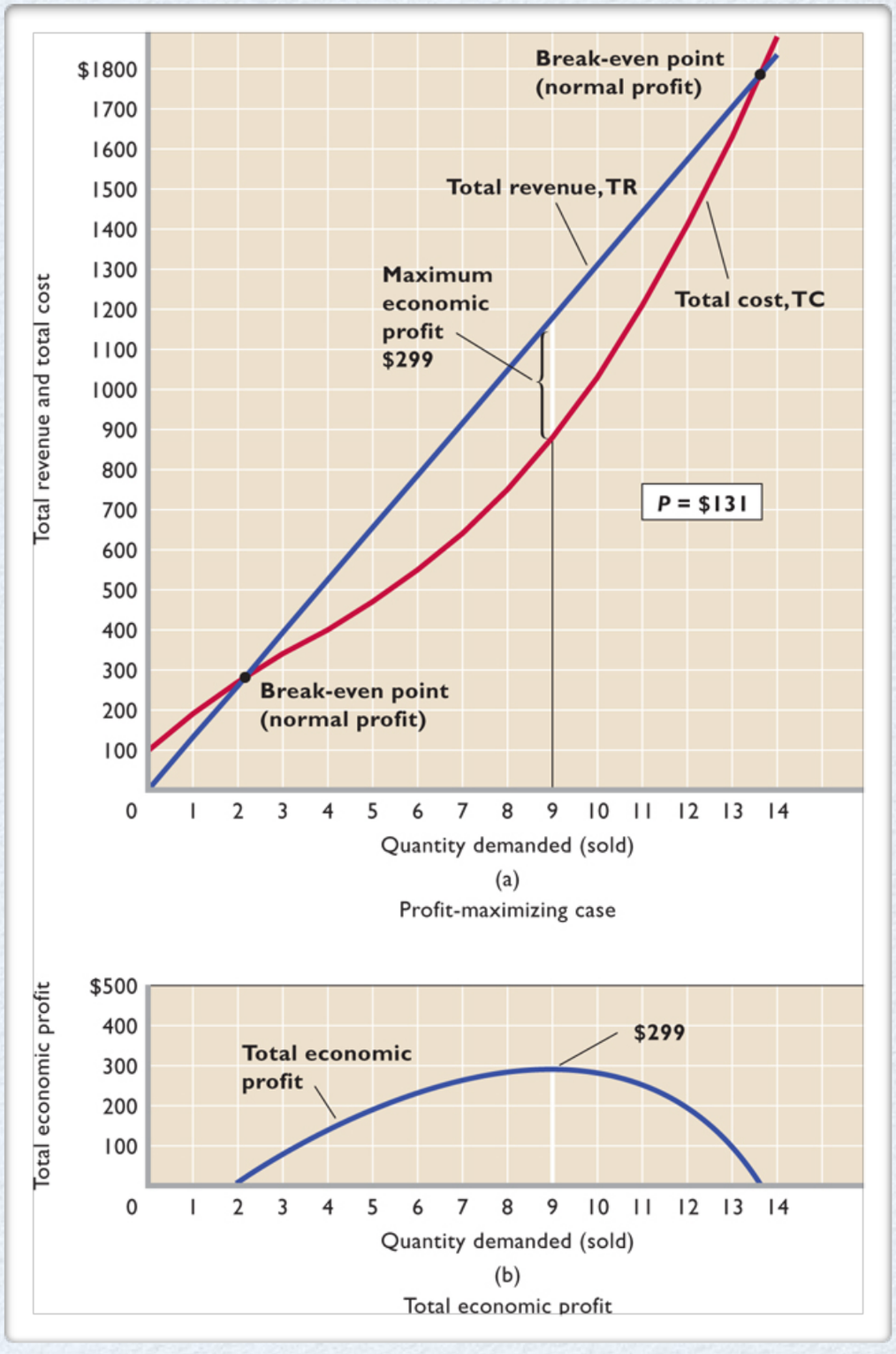
Demand by a Purely Competitive Seller

- **Perfectly elastic demand** for the competitive **firm**. The firm cannot obtain a higher price by restricting output. And it does not need to lower its price to sell a higher volume of goods. The **market demand curve**, however is **down sloping**.
- **Average, Total and Marginal Revenues**
  - Because price is constant, **D = MR = AR** - demand curve is perfectly elastic



Profit Maximization in the Short Run: TR-TC Approach

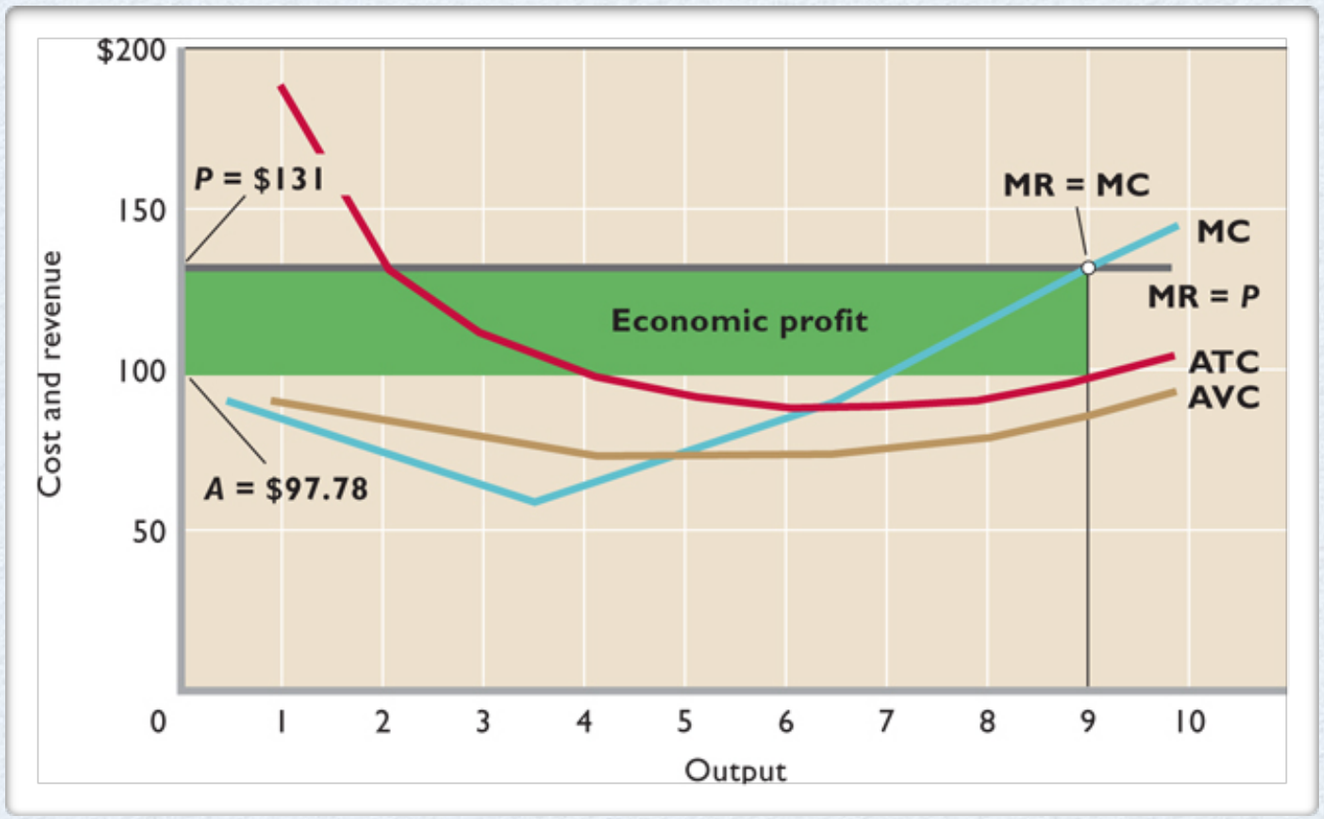
- Firms can maximize profit by adjusting output
- Plant is fixed, therefore, a firm can adjust its output by changing its variable resources (labor, materials ...)
- 2 approaches to profit maximization
  1. **TR -TC** approach
  2. MR -MC approach



Profit Maximization in the Short Run: MR-MC Approach

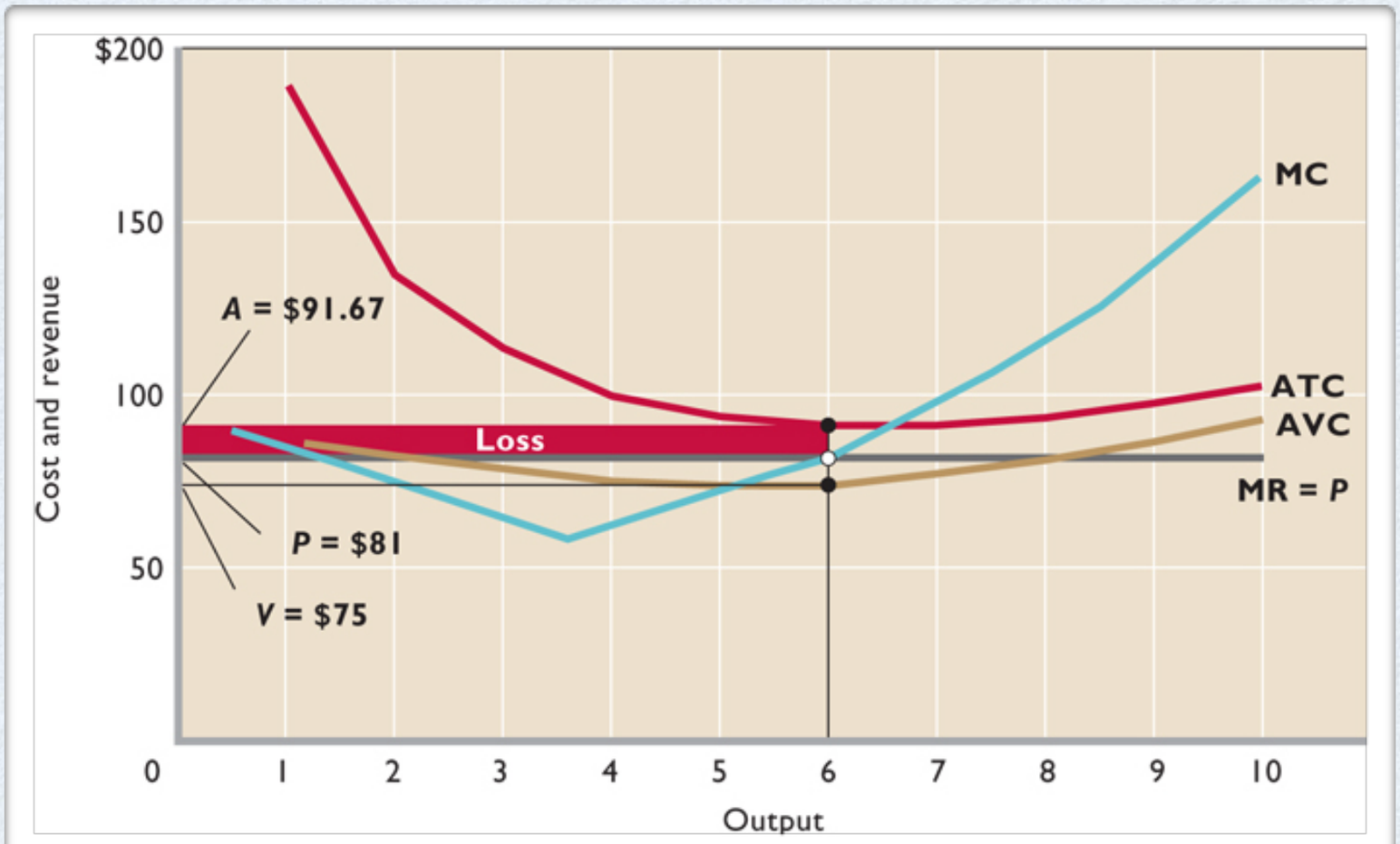
- The firm will maximize profit (or minimize loss) where **MR = MC**
- ***Assumptions:***
  - *Applies only if producing is preferable to shutting down (MR < AVC)*
  - *The rule applies to all firms*
  - *The rule can be stated as **P = MC** when applied to a purely competitive firm*
- **Profit maximizing case:**

$$TR - TC =$$
$$(P * Q) - (ATC * Q) =$$
$$(P - ATC) * Q$$



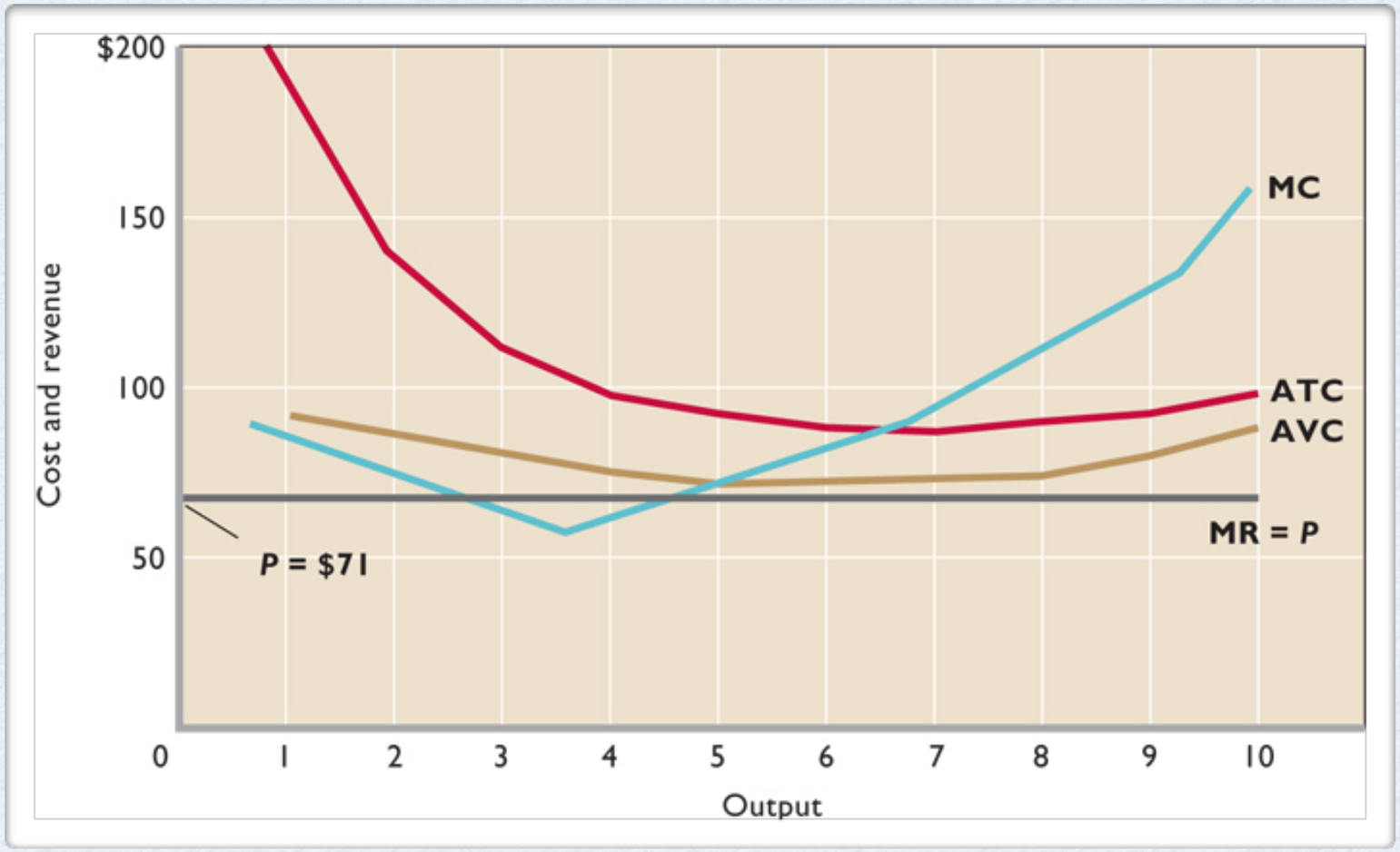
Loss Minimization in the Short Run: MR-MC Approach

- The firm can still cover its AVC an part of its AFC. It **should not** shut down yet.



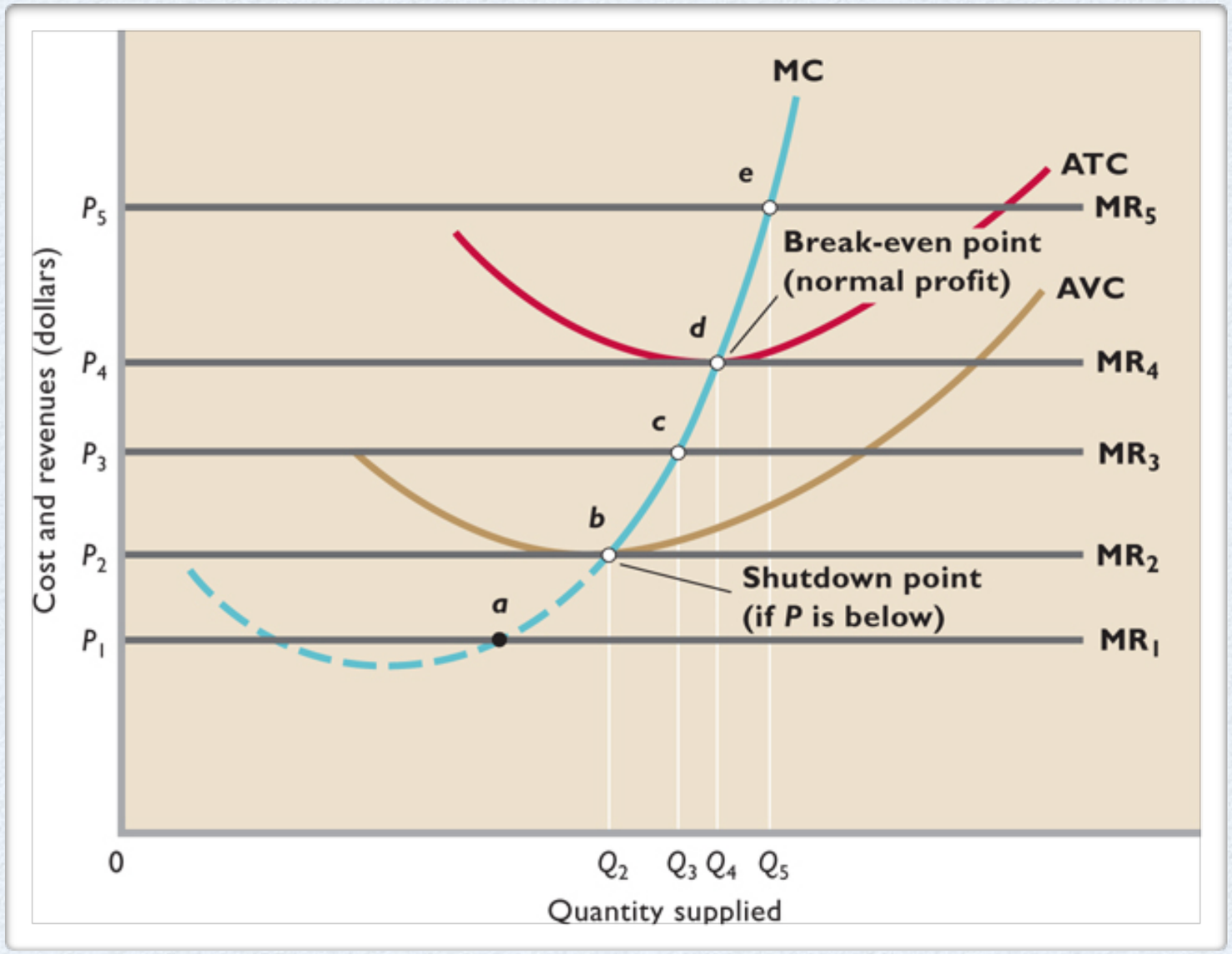
Shut down in the Short Run: MR-MC Approach

- A firm should shut down as its price is not enough to cover its TFC
- When **P ≤ AVC** the firm should **shut down**

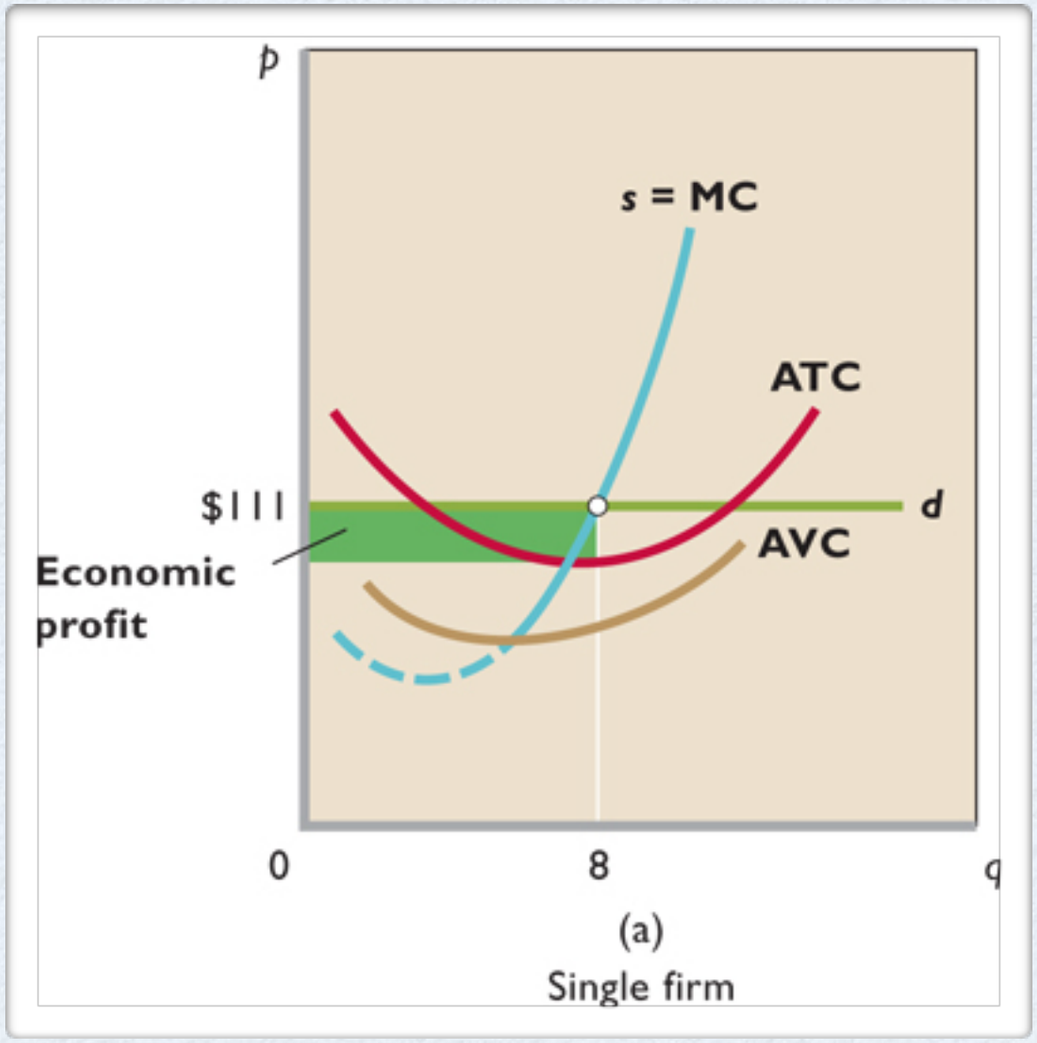


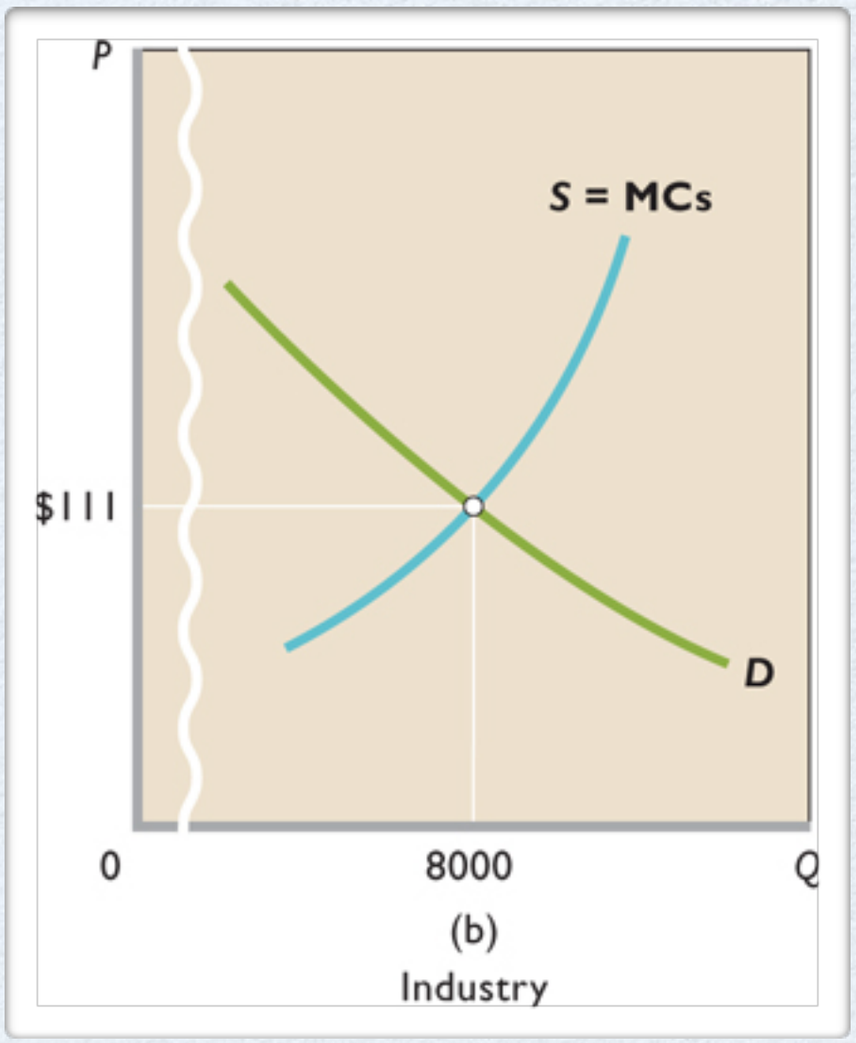
Marginal Cost and Short Run Supply

- The MC curve, above the AVC curve, is the firm's supply curve



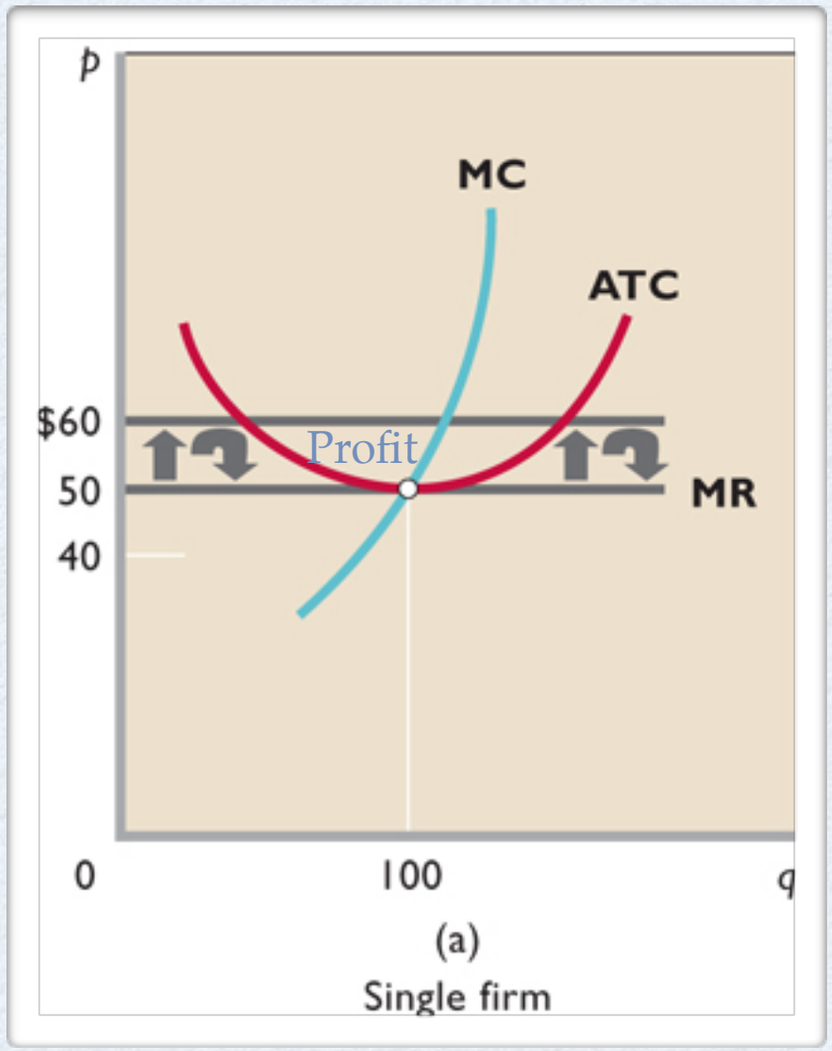
Individual Firm vs Market Equilibrium

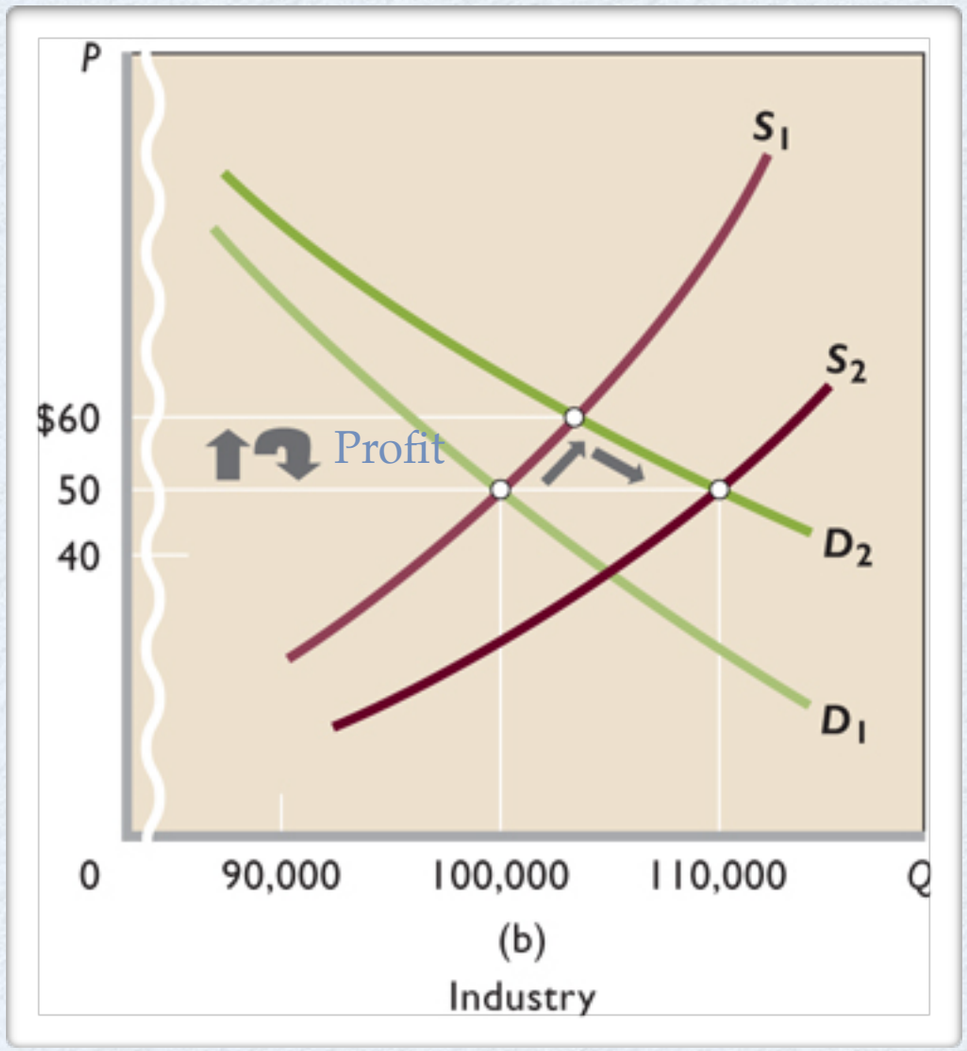




Profit Maximization in the Long Run

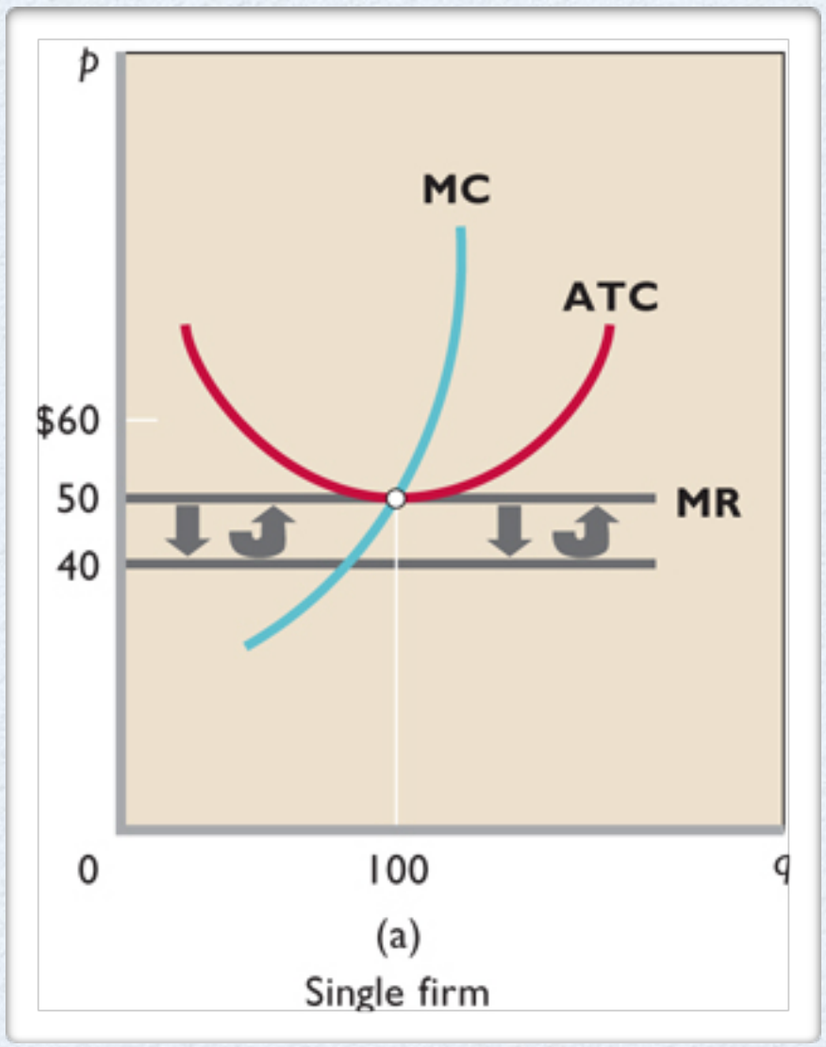
- ***Assumptions:***
  - *Easy entry and exit long run adjustment*
  - *Identical costs - constant cost industry*
- **Entry eliminates profit** - Consumer tastes go up

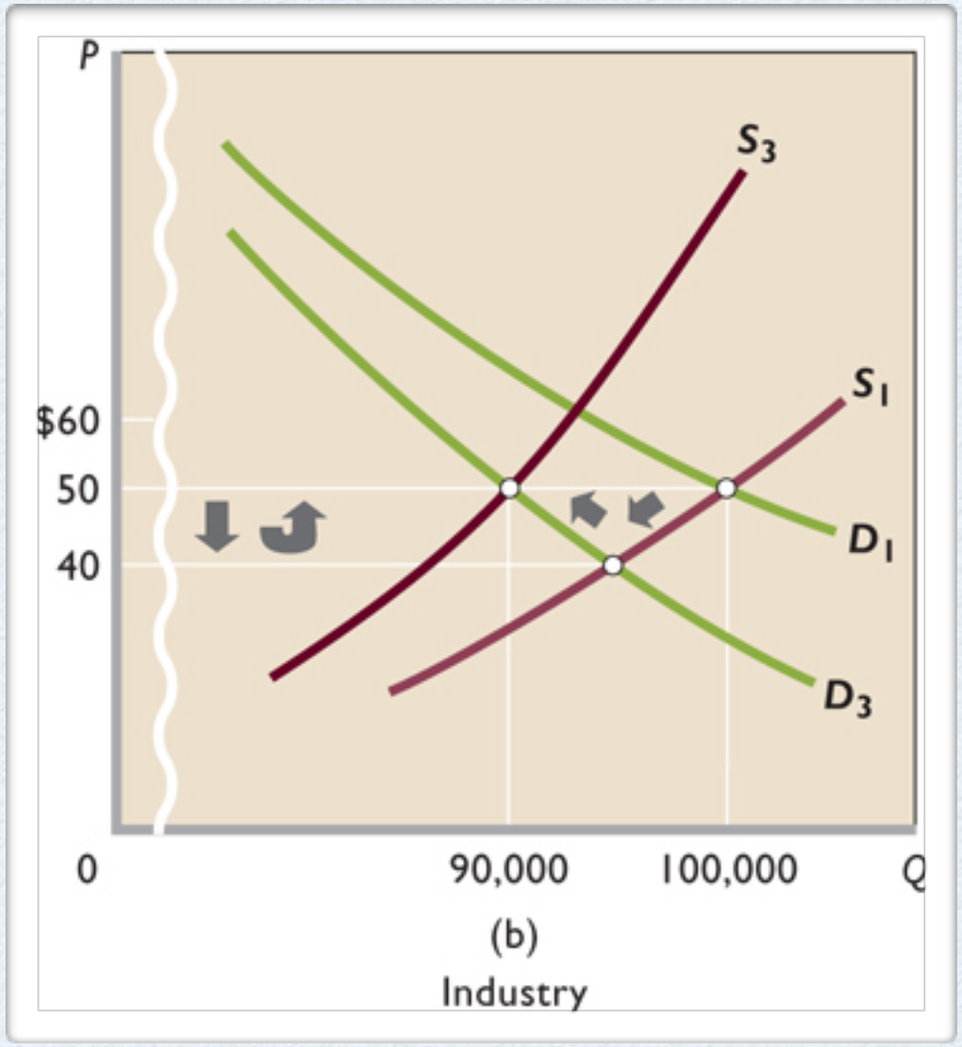




Profit Maximization in the Long Run

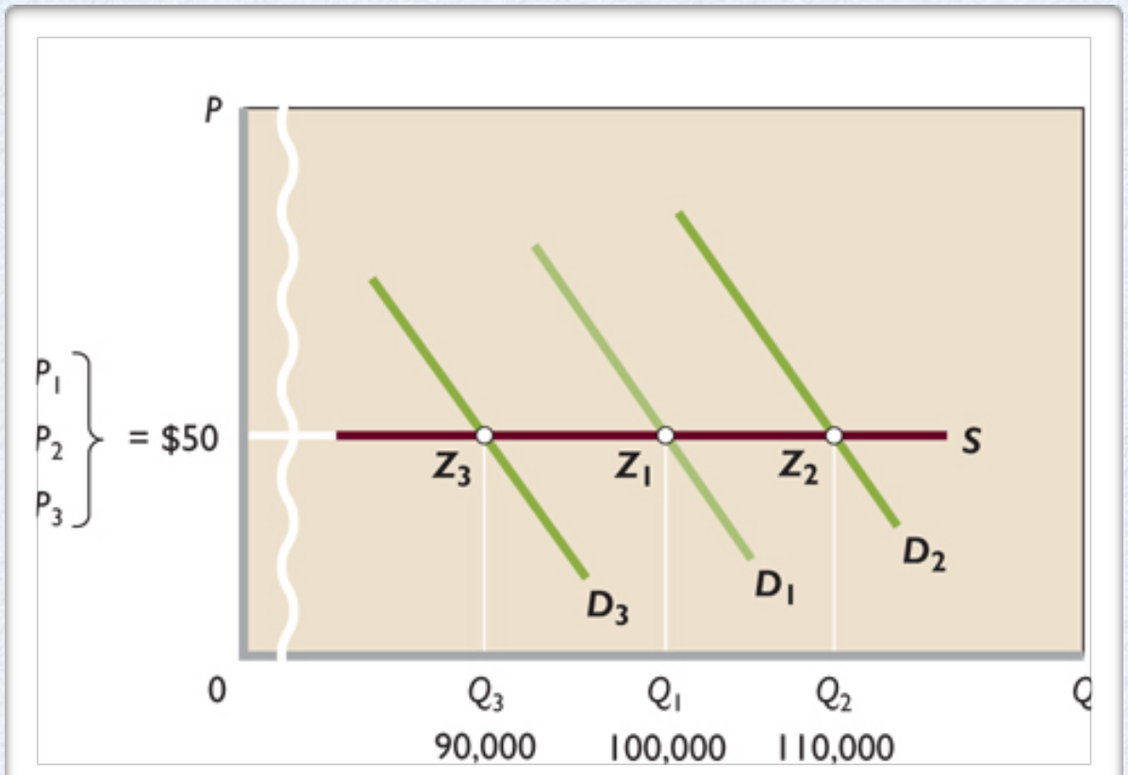
- ***Assumptions:***
  - *Easy entry and exit long run adjustment*
  - *Identical costs - constant cost industry*
- **Exit eliminates losses** - Consumer demand goes down



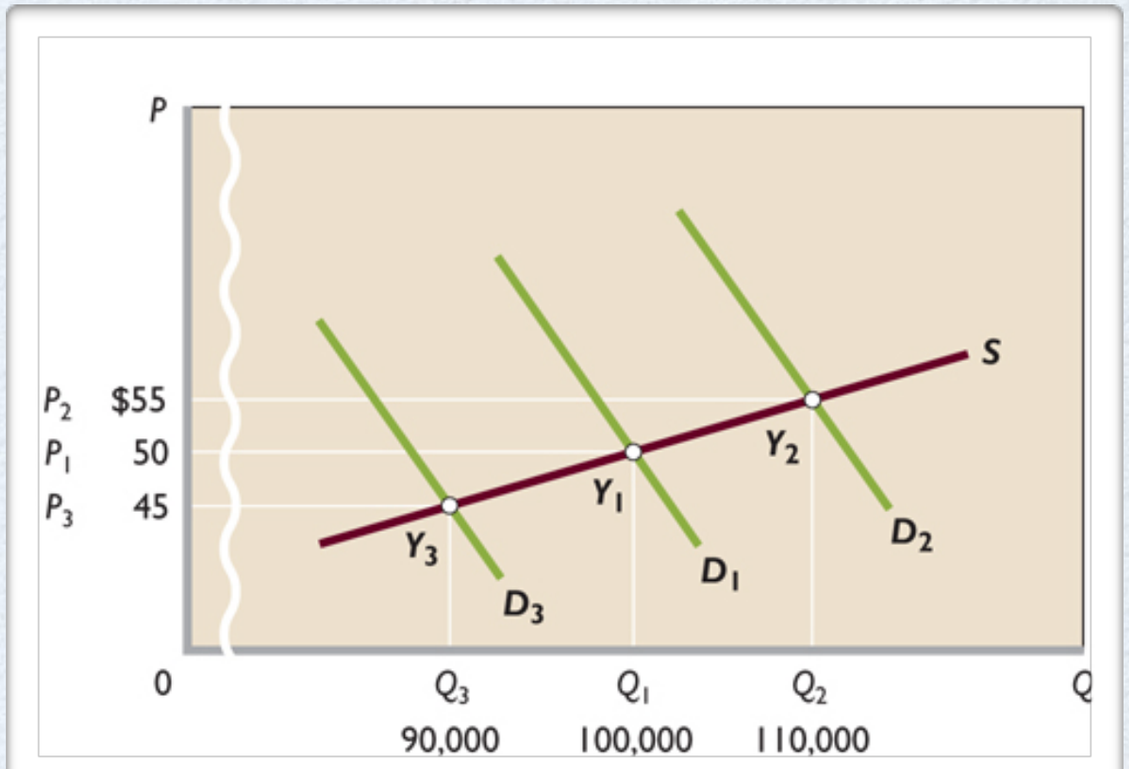


Long Run Supply Curve - Constant and Increasing Cost

Constant Cost



Increasing Cost



Pure Competition and Efficiency

- **Productive efficiency: P = Minimum ATC** - requires that goods be produced in the least cost way
- **Allocative efficiency: P = MC** - requires that resources be divided among irms and industries so they yield the mix of products and services that is most wanted by society - P > MC = under allocation of resources, P < MC = overallocation of resources

- **In a purely competitive market there is productive and allocative efficiency**