LEARNING UNIT 8

MODULE: PMIC6111

TEXTBOOK REFERENCE: Chapter 12 pgs 223 - 239

THEME: Perfect Competition

OBJECTIVES: By end of Learning Unit 8 – you should know the following:

- Define perfect competition.
- Conditions which have to be met for perfect competition to exist.
- Draw the demand curve for the product of the firm.
- Draw the marginal and average cost curves of a firm.
- Explain the short run equilibrium condition for a perfectly competitive firm.

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OBJECTIVES continued:

- Explain why profits are maximised only on the rising part of the MC curve.
- Identify whether a firm is making an economic profit, normal or loss.
- Illustrate different profit conditions for a firm which is in equilibrium.
- Explain the supply curve of the firm and market supply curve.
- Describe the long-run equilibrium of the firm and the industry under perfect competition.

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Market structure: an overview

Four different market structures

- Perfect competition
- Monopolistic competition
- Oligopoly
- Monopoly

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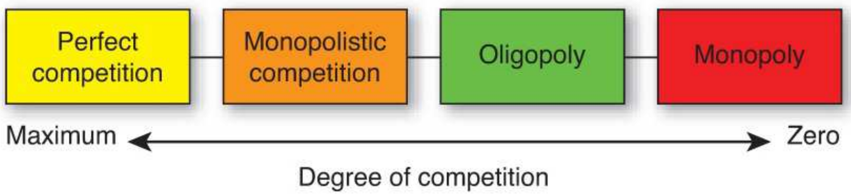

Market structures

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Key features of a market structure:

Feature/ criterion	*Perfect competition*	*Monopolistic competition*	*Oligopoly*	*Monopoly*
Number of firms	So many that no firm can influence the market price	So many that each firm thinks others will not detect its actions	So few that each firm must consider the others' actions and reactions	One
Nature of product	Homogeneous/ standardised	Heterogeneous/ differentiated	Homogeneous or heterogeneous	A unique product with no close substitutes
Entry	Completely free	Free	Varies from free to restricted	Completely blocked
Information	Complete	Incomplete	Incomplete	Complete
Collusion	Impossible	Impossible	Possible	Irrelevant
Firm's control over the price of the product	None	Some	Considerable, but less than in monopoly	Considerable, but limited by market demand and the goal of profit maximisation
Demand curve for the firm's product	Horizontal (perfectly elastic)	Downward-sloping	Downward-sloping, may be kinked	Equals market demand curve: downward-sloping
Long-run economic profit	Zero (normal profit only)	Zero (normal profit only)	May be positive	May be positive

Summary of market structures

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The equilibrium conditions (for any firm)

Two decisions:

- Should we produce?
- If yes, how much?

- The shut-down rule – produce only if total revenue is equal to, or greater than, total variable cost

- The profit-maximising rule – profit is maximised where marginal revenue is equal to marginal cost

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If MR > MC, output should be expanded

If MR = MC, profits are maximised

If MR < MC, output should be reduced

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Perfect competition

Perfect competition occurs when none of the individual market participants can influence the price of the product

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Requirements

- Large number of buyers and sellers
- No collusion
- Identical products (homogeneous)
- Complete freedom of entry and exit
- Perfect knowledge
- No government intervention
- All factors of production must be perfectly mobile

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The demand for the product of the firm

The firm is a price taker

The demand curve for the product of the firm is horizontal (perfectly elastic)

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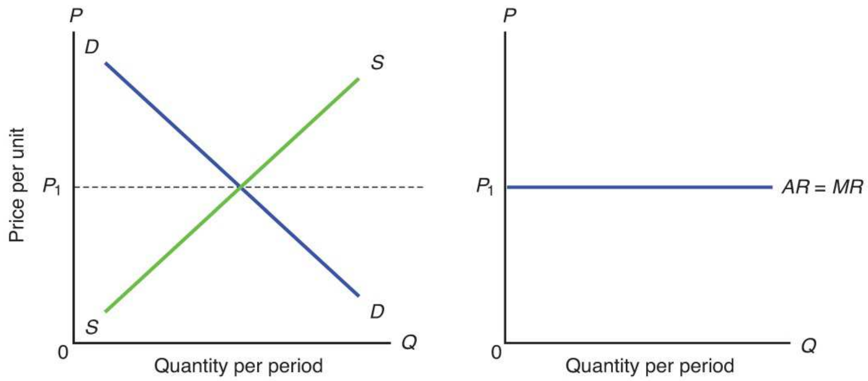

The demand curve for the product of the firm under perfect competition

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The equilibrium of the firm under perfect competition

Profit is maximised (or losses minimised) when a firm produces an output where marginal revenue equals marginal cost, provided marginal cost is rising and lies above minimum average variable cost.

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EXAMPLE 1

Quantity of the product	Price per unit (R) P	Total revenue (R) TR	Marginal revenue (R) MR	Total cost (R) TC	Marginal cost (R) MC	Total profit (R) TR-TC
0	10	0		5		–5
			10		4	
1	10	10		9		1
			10		6	
2	10	20		15		5
			10		8	
3	10	30		23		7
			10		10	
4	10	40		33		7
			10		12	
5	10	50		45		5

Revenue and cost of a hypothetical firm

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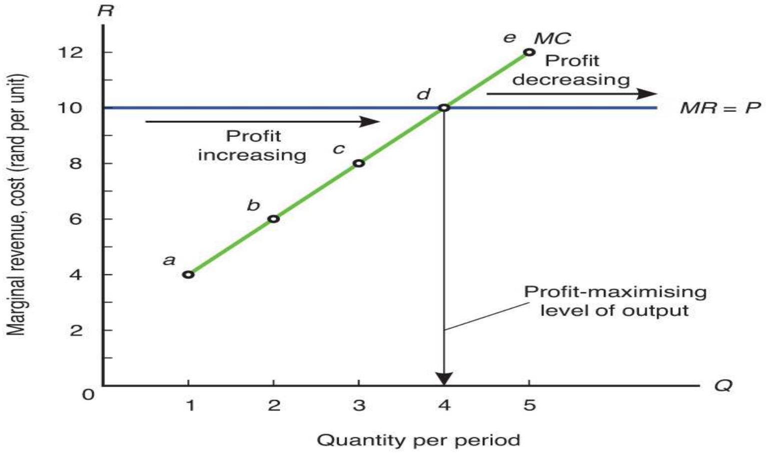
EXAMPLE 2



Marginal revenue and marginal cost of a firm operating in a perfectly competitive market

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Different possible short-run equilibrium positions of the firm under perfect competition

- Economic profit
- Break even
- Economic loss

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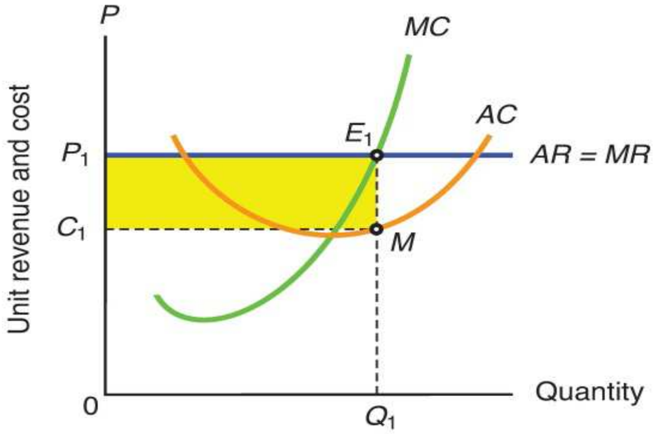
Different possible short-run equilibrium positions of the firm under perfect competition



(a) Economic profit

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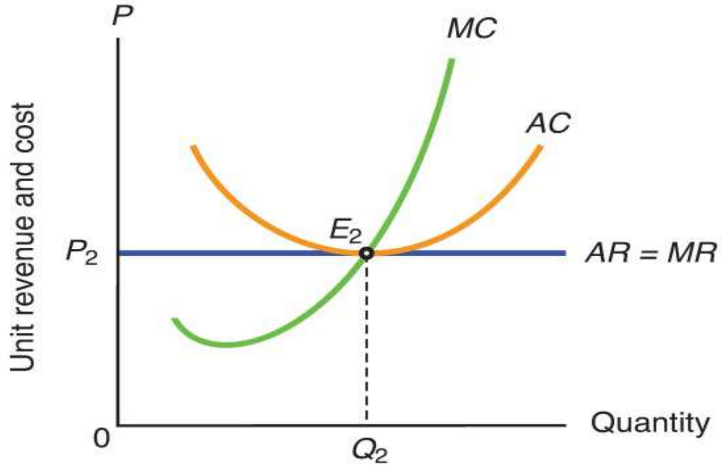

(b) Normal profit only

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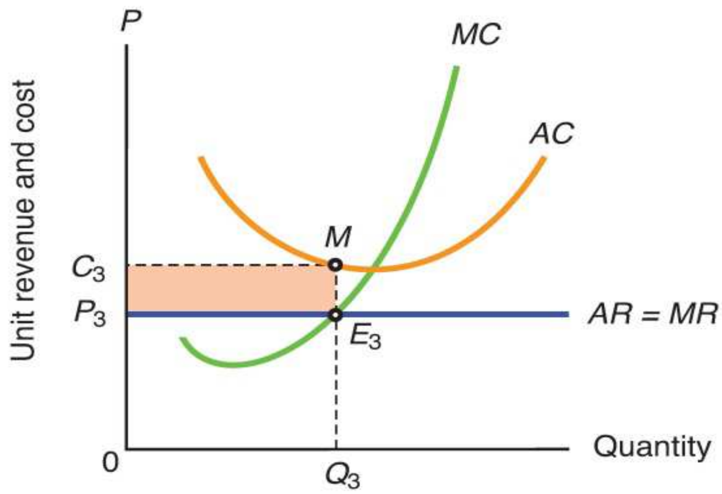

(c) Economic loss

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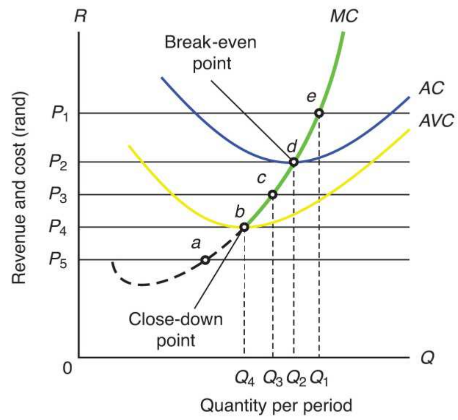
The supply curve of the firm and the market supply curve

Firm's supply curve – the rising part of the firm's MC curve above the minimum of AVC



The supply curve of the firm

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Market supply curve – add the supply curves of the individual firms horizontally

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Long-run equilibrium of the firm and the industry under perfect competition

The industry will be in equilibrium in the long run only if all the firms are making normal profits.

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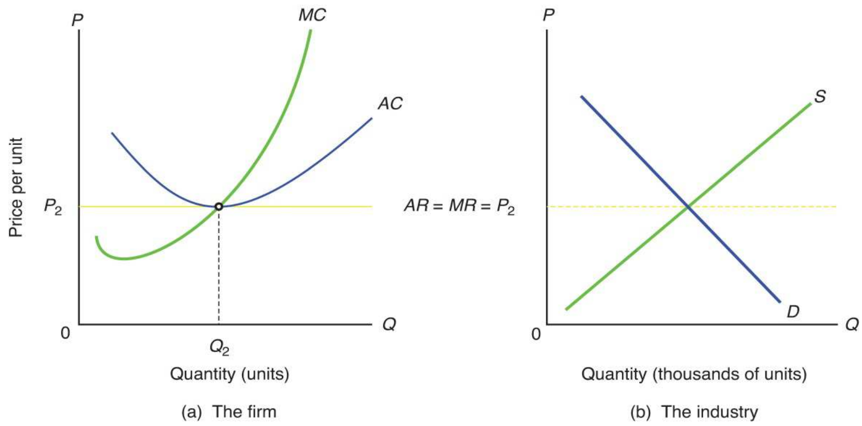

The firm and industry in equilibrium