

Firms, costs, growth and competition

Edexcel IAL Economics WEC13 sections 3.3.1-3.3.3 full package on the shared model

1. Topic 5 at a glance

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WEC13 first half: spec sections 3.3.1 to 3.3.3 - business types and growth, objectives, revenue and the full cost machinery, economies of scale, the efficiency concepts and the whole market-structures spectrum to monopsony and contestability. 57 objectives.

Must-know: $TR = PQ$, $AR = TR/Q$, MR with twice the slope of AR ($70 - Q$ here); the cost table with MC 5-4-3-2-3-4-5-6-7, AVC min 3.4 (shutdown), ATC min 5.43 (break-even); profit max $MR = MC$; monopoly Q_m 40, P_m 50, profit 800, deadweight loss 200; CR_4 90 percent.

2. Types, sizes and growth

Types, sizes and growth

Types: private sector, state-owned, for-profit and not-for-profit, co-operatives, joint ventures. Sizes: SMEs to large corporations. Growth: organic, or merger and takeover - forward and backward vertical, horizontal, conglomerate - each with advantages (secured supply, less rivalry, spread risk) and disadvantages (cost, culture clash, diseconomies).

Growth constraints: market size, finance, owner objectives, regulation. Firms stay small where markets are local and finance thin; demergers reverse failed conglomerates - with mirror effects on businesses, workers and consumers.

3. Business objectives

Business objectives

Profit maximisation at $MR = MC$; revenue maximisation at $MR = 0$ ($Q = 70$ here - the unitary-PED point); sales-volume maximisation subject to covering costs; satisficing as the behavioural alternative.

The divorce of ownership from control: shareholders (principals) want profit; managers (agents) run the firm and may prefer growth or quiet lives - the principal-agent problem explains observed objectives that are not profit maximisation.

4. Revenue, costs and profits

Revenue, costs and profits

AR $P = 70 - Q/2$ gives MR $P = 70 - Q$ and $TR = 70Q - Q^2/4$; $TR(40) = 2000$ at price 50. PED links to revenue: MR positive in the elastic range. The short run has a fixed factor: diminishing returns raise MC eventually - the cost table (TFC 12) has MC falling 5 to 2 then rising to 7.

MC crosses AVC at its minimum 3.4 ($Q = 5$) and ATC at 5.43 ($Q = 7$). Normal profit is an opportunity cost inside ATC; shutdown when P is below min AVC; the long-run exit point is min ATC.

5. Economies of scale

Economies of scale

The LRAC falls with internal economies - financial, technical, managerial, marketing, purchasing, risk-bearing - flattens at the minimum efficient scale, then rises with diseconomies: communication and coordination problems and X-inefficiency.

External economies are industry-wide: skilled labour availability, transport links, shared knowledge. MES shapes market structure: a high MES relative to demand leaves room for few firms.

6. Efficiency and concentration

Efficiency and concentration

Allocative efficiency $P = MC$; productive at minimum ATC; dynamic through investment and innovation; X-inefficiency is waste above the achievable cost floor. Structures score differently: perfect competition is statically efficient but dynamically weak; monopoly the reverse.

Concentration: with shares 40, 25, 15, 10, 10 the four-firm ratio is 90 percent - concentrated, but ratios miss import competition and how contestable the market is.

7. Market structures

Market structures

Perfect competition: price takers, long-run $P = \min ATC$, normal profit, both efficiencies. Monopolistic competition: differentiation (physical, marketing, distribution) earns short-run profit; entry drives demand tangent to ATC - normal profit, excess capacity. Oligopoly: interdependence behind barriers (economies of scale, limit pricing, patents, branding, sunk costs, legal); the prisoners' dilemma - defecting dominates, Nash (2, 2) though collusion (4, 4) pays more; cartels, price leadership, price wars; predatory and limit pricing; non-price competition through advertising, quality, endorsement, product placement, after-sales service.

Monopoly: $MR = MC$ at Q 40, price 50 on AR , supernormal profit 800 with ATC 30; against the competitive (60, 40) the deadweight loss is 200. Natural monopoly: falling average costs over the whole market - regulate it. Third-degree price discrimination needs market power, separable groups with different PEDs, no resale.

8. Monopsony and contestability

Monopsony and contestability

Monopsony: one buyer - it pushes the input price below the competitive level; the firm gains, suppliers and employees lose, consumers only gain if savings are passed on. The existing sheet 5.2 works this at full essay standard with the $MRP = MCL$ diagram.

Contestability: cheap entry and exit with LOW SUNK COSTS disciplines incumbents - profits near normal, limit pricing even with one firm; consumers gain low prices, but low commitment can starve quality investment.

Check yourself

Check yourself

The five business types; growth routes and the four integrations; constraints; demergers.

Objectives with their optimising conditions; the principal-agent problem.

TR/AR/MR; the cost table with its minima; shutdown and break-even; normal and supernormal profit.

The efficiency concepts; $CR4 = 90$ percent; each structure's assumptions and long-run outcome; the prisoners' dilemma; monopoly arithmetic (40, 50, 800, 200); price discrimination; monopsony; contestability.