A-LEVEL ECONOMICS • EXERCISE SHEET

7.3 Efficiency and market failure

Name: ______________ Class: __________ Date: ____________ **Total: 24 marks**

KEY WORDS allocative efficiency 配置效率 • market failure 市场失灵 • productive efficiency 生产效率 • information failure 信息失灵 • pareto optimality 帕累托最优

Objective

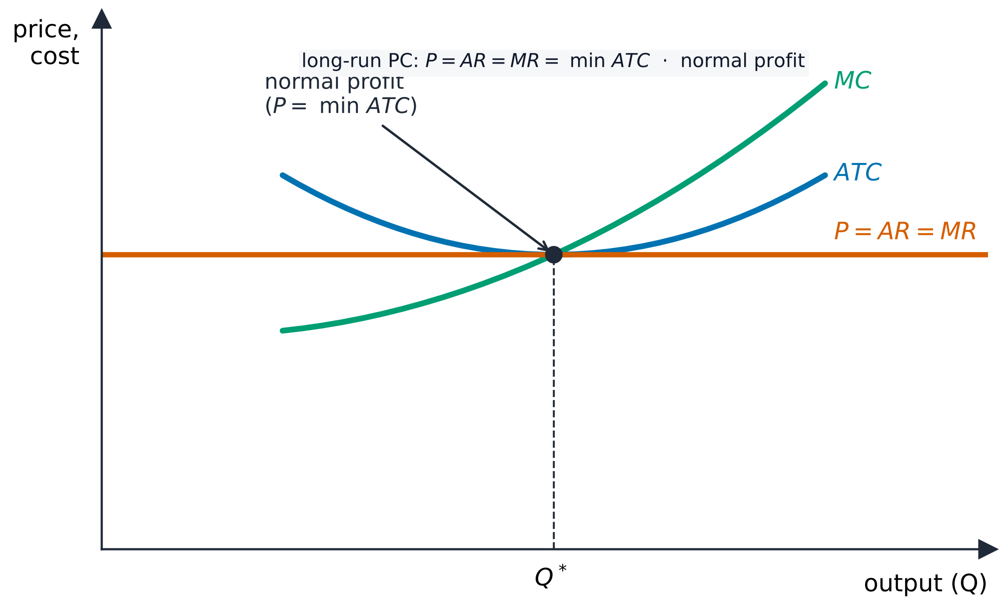
Build the skills to answer exam questions on **efficiency and market failure 效率与市场失灵** — **productive, allocative, dynamic efficiency** 生产、配置、动态效率, **Pareto optimality** 帕累托最优, and the causes of market failure.

You must be able to:

- define the types of efficiency
- explain Pareto optimality
- analyse the causes of market failure

1 Worked examples

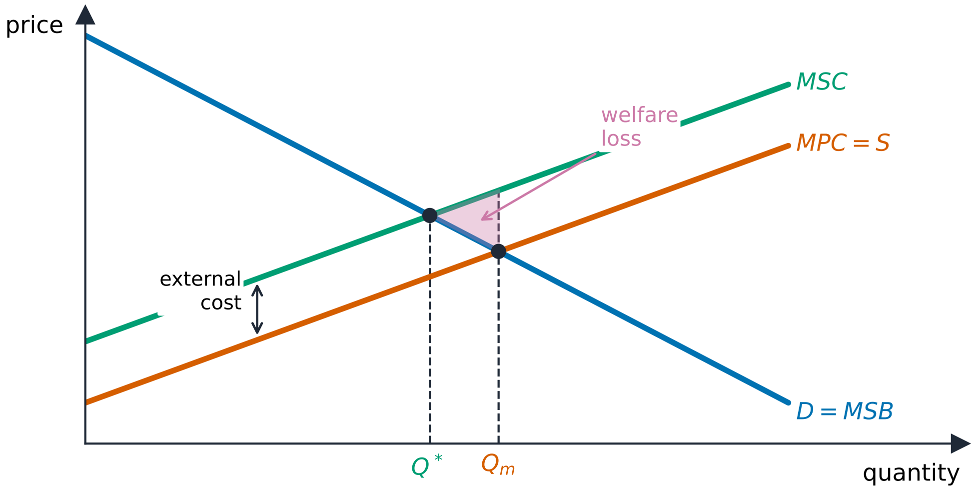
■ Types of efficiency



Productive efficiency: lowest cost; allocative efficiency: price = marginal cost

- **Productive efficiency 生产效率**: lowest possible cost (at the bottom of ATC).

- **Allocative efficiency** 配置效率: where **price = marginal cost** (making what people most want).
- **Dynamic efficiency** 动态效率: improving over time through innovation.
- **Pareto optimality** 帕累托最优: no one can gain without someone losing.
- **Market failure causes:** monopoly power, externalities, public goods, information failure, factor immobility.



$MSC > MPC \Rightarrow Q_m > Q^*$ · DWL from over-production

Externalities are a key cause of allocative inefficiency — the market output misses the social optimum

Answer shapes: AO1 + AO2 + AO3 (analysis) + AO4 (a supported judgement *in context*).

2 Practice

2.1 Define the term *allocative efficiency*. [2]

2.2 State the condition for productive efficiency. [1]

2.3 State two causes of market failure. [2]

3 Exam-style questions

3.1 Allocative efficiency is achieved where: [1]

- **A** average cost is at its minimum
- **B** price equals marginal cost
- **C** marginal revenue equals zero
- **D** supernormal profit is maximised

3.2 Explain the difference between productive and allocative efficiency. [6]

3.3 Discuss whether a free market can ever achieve an efficient allocation of resources. [12]

Solutions

Economics answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 producing the combination of goods that people most want, where price equals marginal cost (2 for a clear definition; 1 for a partial idea).

2.2 producing at the lowest possible average cost (at the minimum of the ATC curve) (1).

2.3 any two of: monopoly power; externalities; public goods; information failure; factor immobility (1 + 1).

3.1 B. Allocative efficiency is where price equals marginal cost.

3.2 *[6]* AO1 2 + AO3 up to 4 — productive efficiency means making goods at the lowest possible cost (minimum ATC), using the fewest resources; allocative efficiency means producing the goods consumers most want, at the point where price equals marginal cost → one is about *how* cheaply goods are made, the other about *which* goods are made.

3.3 *[12]* AO1/AO2/AO3 up to 8 + AO4 up to 4. **For:** perfect competition delivers both productive and allocative efficiency, and the price mechanism guides resources well. **Against:** real markets have monopoly power, externalities, public goods and information failure, so they fail to reach the social optimum. Judgement: a free market can be efficient under ideal (perfect-competition) conditions, but real-world failures usually require government intervention — it depends on the market.