

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

normal profit ($P = \min ATC$)

MC

ATC

$P = AR = MR$

Q^*

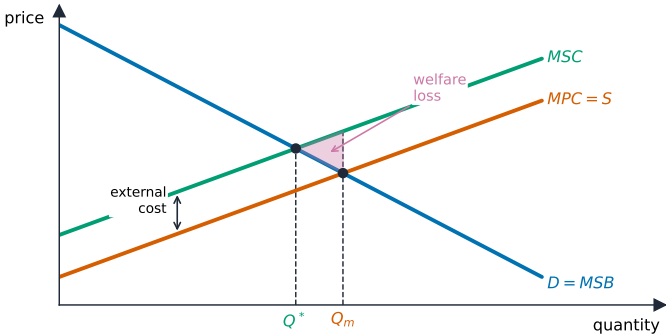
output (Q)

long-run PC: $P = AR = MR = \min ATC$ • normal profit

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.



$MSC > MPC \Rightarrow Q_m > Q^* \cdot \text{DWL from over-production}$

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

B

C

D
- 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]