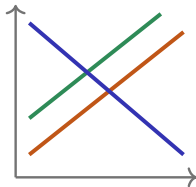


Market Failure & Government

AP Microeconomics ■ Unit 6

AP Microeconomics



What we will cover

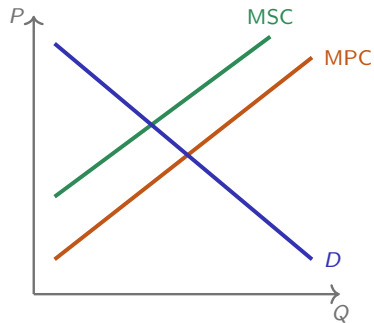
1 Efficiency & market failure

2 Externalities

3 Public & private goods

4 Regulating market power

5 Inequality



Efficient & inefficient outcomes

Society does best where the last unit's benefit to everyone meets its cost to everyone:

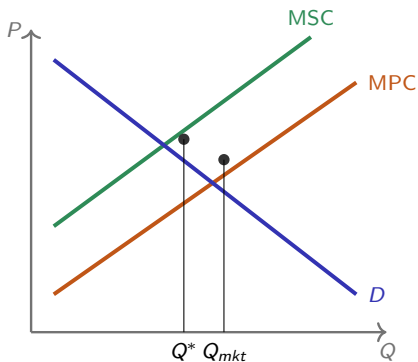
MSB 边际社会收益

=

MSC 边际社会成本

At $MSB = MSC$ total surplus is greatest – **socially efficient** 社会有效. Any other quantity is a **market failure** 市场失灵 with a **deadweight loss** 无谓损失.

Externalities

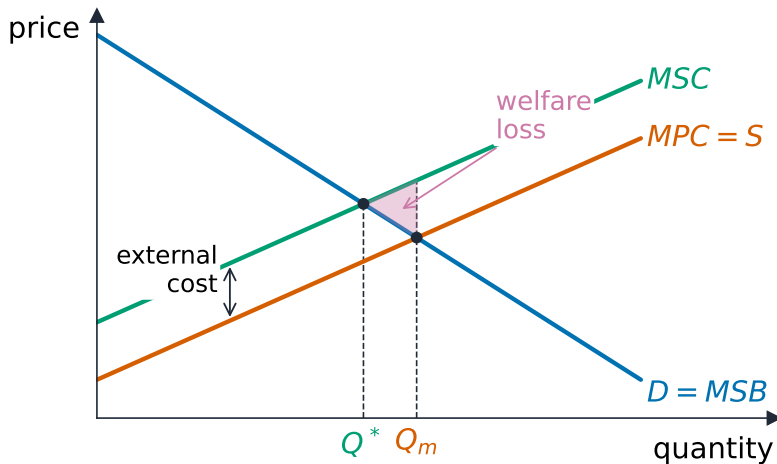


An **externality** 外部性 spills onto a **third party** 第三方.

- **negative** 负外部性 (pollution):
 $MSC > MPC$, market
overproduces 过度生产
- **positive** 正外部性 (vaccines):
 $MSB > MPB$, market
underproduces 生产不足

The gap creates a deadweight loss from Q^* .

Externalities



Correcting externalities

- **Pigouvian tax** 庇古税 = external cost
→ cut output
- **Subsidy** 补贴 = external benefit →
raise output
- **Tradable permits** 可交易许可证 – cap
& trade pollution

Worked example

Steel private cost \$200; smoke harm \$30.
A \$30 Pigouvian tax internalises the cost
and cuts to Q^* .



Taxes and permits internalise external costs

Public & private goods

	Excludable	Non-excl.
Rival	Private 私人物品	Common 公共资源
Non-rival	Club 俱乐部物品	Public 公共物品

Two properties: **rivalry** 竞争性 and **excludability** 排他性.

- **free-rider problem** 搭便车问题: public goods underproduced
- **tragedy of the commons** 公地悲剧: common resources overused

Public & private goods

		Excludable	Non-excludable
Non-rival	Rival	Private good food, clothes	Common resource ocean fish, air
	Non-rival	Club good cinema, toll road	Public good street light, defence

Regulating market power

Marginal-cost pricing 边际成本定价

$P = MC$: efficient quantity, but a natural monopoly then makes a loss

Average-cost pricing 平均成本定价

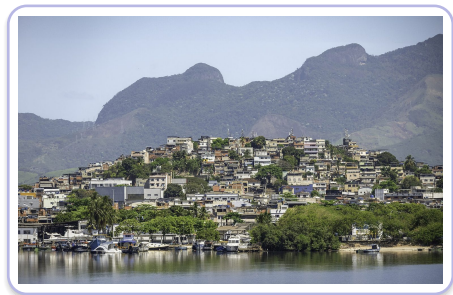
$P = ATC$: firm breaks even, slight inefficiency

Antitrust policy 反垄断政策 blocks anti-competitive mergers. But **government failure** 政府失灵 – when the cure costs more than the failure – means intervention is not free.

Inequality – the Lorenz curve

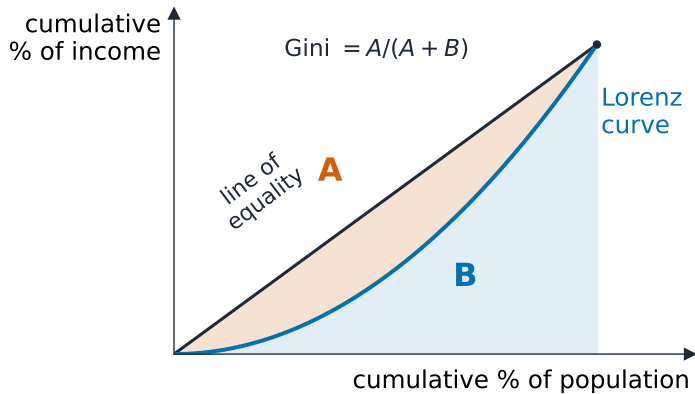
The **Lorenz curve** 洛伦兹曲线 plots cumulative income vs population. The more it sags, the more unequal.

Gini coefficient 基尼系数 = $\frac{A}{A+B}$, from 0 (equal) to 1 (one person has all).



Income shares diverge across households

Inequality – the Lorenz curve



Taxes & redistribution

Progressive 累进

higher % from
high incomes –
reduces inequality

Proportional 比例

same % from everyone

Regressive 累退

higher % from low
incomes – widens it

Inequality has many sources: differences in **human capital** 人力资本, discrimination, and inherited wealth. **Wealth inequality** 财富不平等 usually exceeds income inequality.

Key points

Efficient at $MSB = MSC$;
any gap is a **market failure**

Externalities: negative over-
produce, positive underproduce

Public goods → free rid-
ers; **commons** → overuse

Lorenz & Gini measure inequality

Check yourself

- 1 A factory pollutes. Which cost is missing from its decision?
- 2 What are the two features of a public good?
- 3 What does a Lorenz curve further from the diagonal mean?
- 4 Name one way to correct a negative externality.

Answers 1. the external cost – so $MSC > MPC$ 2. non-rival and non-excludable
3. more inequality 4. a Pigouvian tax, regulation, or tradable permits