Basic Economic Concepts

AP Microeconomics

Scarcity

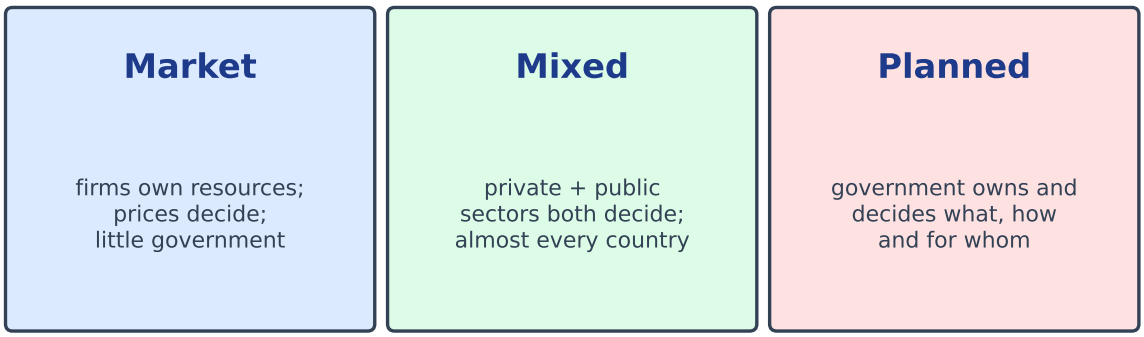
Economics 经济学 begins with one stubborn fact: people's wants are effectively unlimited, but the **resources** 资源 to satisfy them are limited. This gap is **scarcity** 稀缺性, and it is why economics exists –if everything were free and endless, there would be nothing to decide.

The resources (the **factors of production** 生产要素) are **land** (natural resources), **labor** 劳动 (human effort), **capital** 资本 (tools, machines, buildings), and **entrepreneurship** 企业家才能 (organizing the other three and taking risks). Because these are scarce, every economy must answer three questions: **what** to produce, **how** to produce it, and **for whom** to produce.

Scarcity forces **choice**, and every choice has an **opportunity cost** 机会成本–the value of the next-best alternative you give up. This single idea runs through the whole course: the true cost of anything is what you sacrifice to get it, not just the money you pay.

Resource Allocation and Economic Systems

An **economic system** 经济体制 is a society's way of answering the three questions.



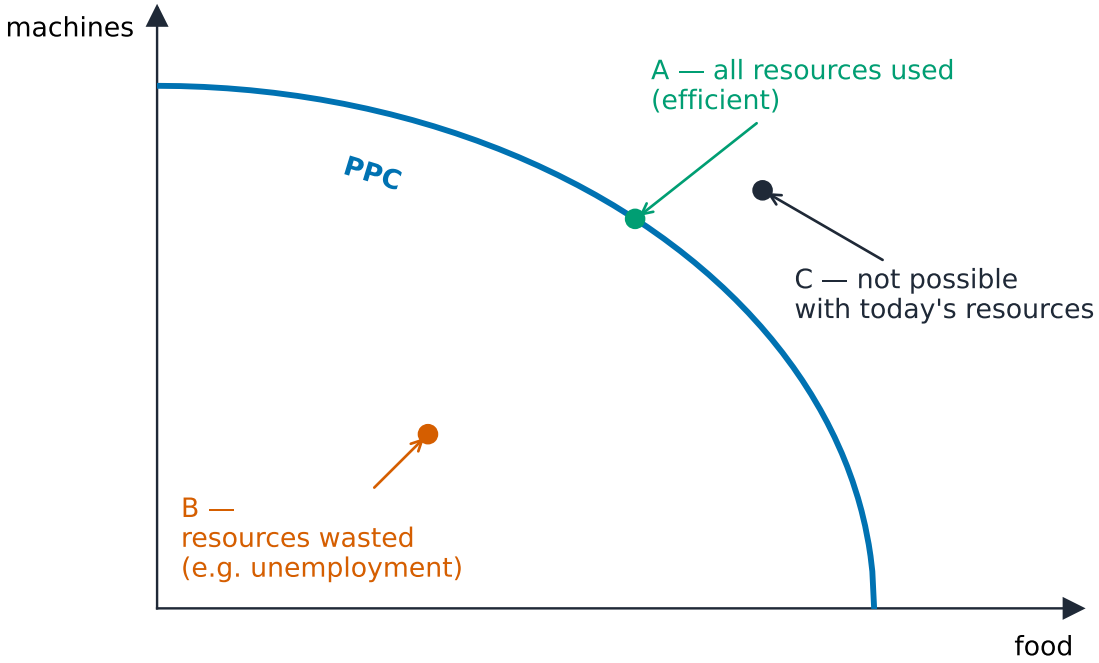
Economic systems form a spectrum from a free market to full government planning

- In a **market economy** 市场经济, private buyers and sellers decide through prices; self-interest and competition coordinate them (the "invisible hand").
- In a **command economy** 计划经济, the government owns resources and plans production.
- Real economies are **mixed** 混合经济–mostly markets, with government providing some goods and correcting problems.

The key advantage of markets is that prices carry information and **incentives** 激励 automatically, with no central planner needed.

The Production Possibilities Curve

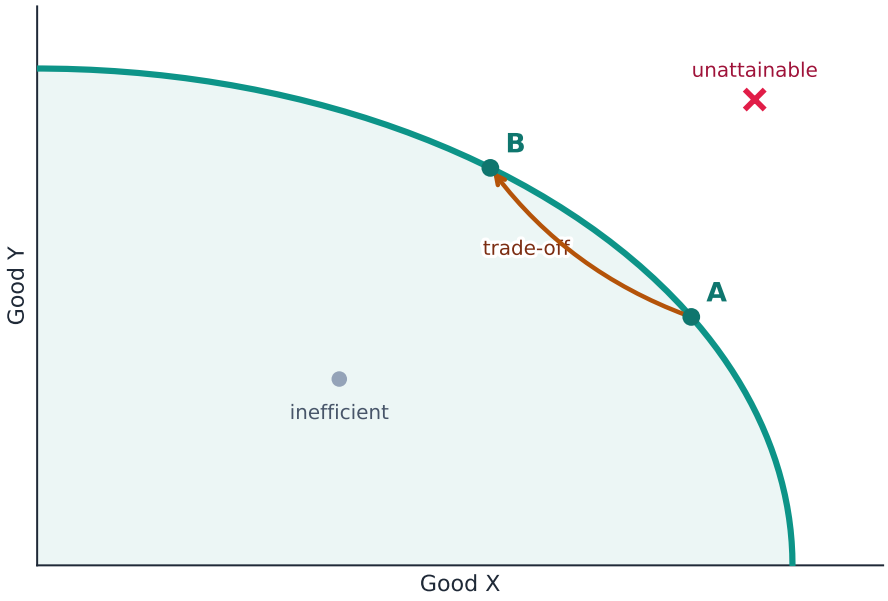
The **production possibilities curve (PPC)** 生产可能性曲线 shows the maximum combinations of two goods an economy can produce with its resources and technology fully and efficiently used.



Points on, inside, and outside the production possibilities curve

- Points **on** the curve are **efficient** 有效率; points **inside** are inefficient (wasted or unemployed resources); points **outside** are currently **unattainable** 无法实现.
- The PPC's downward slope shows **opportunity cost**: making more of one good means making less of the other. The **slope** at a point *is* the opportunity cost of the good on the horizontal axis.
- A **bowed-out** (concave) PPC shows **increasing opportunity cost** –resources are not equally suited to both goods, so making more of one costs ever more of the other. A **straight-line** PPC means constant opportunity cost.
- **Economic growth** 经济增长 (more resources, better technology) shifts the whole curve **outward**.

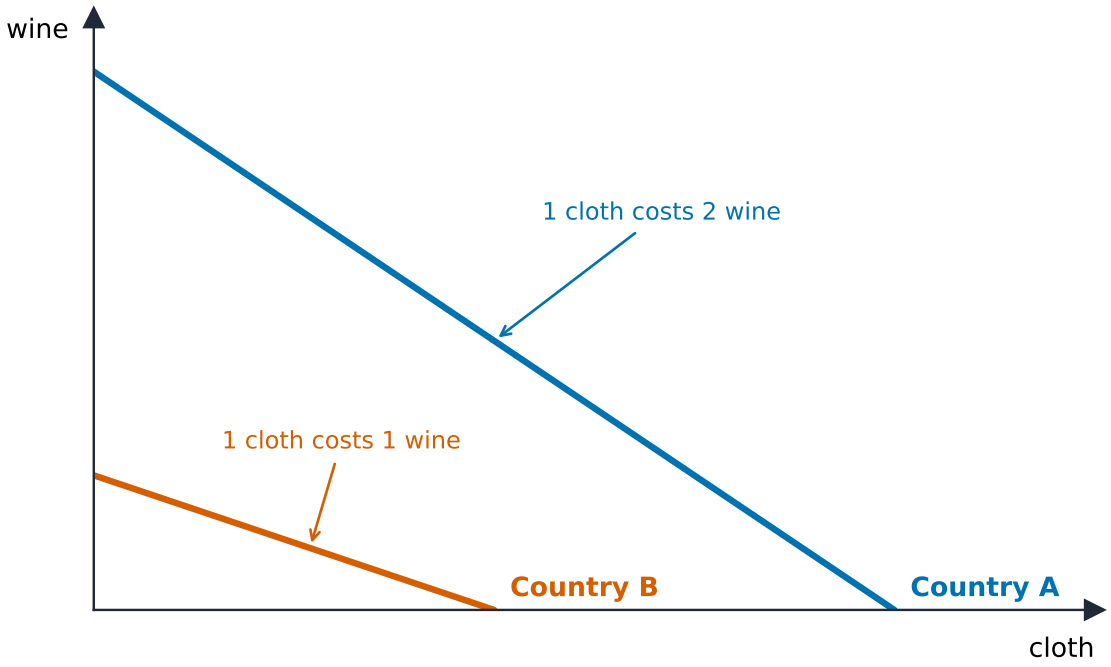
Exam skill: be ready to read opportunity cost off a PPC, decide if a point is efficient/inefficient/unattainable, and explain what shifts the curve.



A production possibilities curve: efficient, inefficient, and unattainable points

Comparative Advantage and Gains from Trade

Two producers can both gain from trade by **specializing** 专业化.



Comparative advantage comes from differently-sloped production possibilities curves

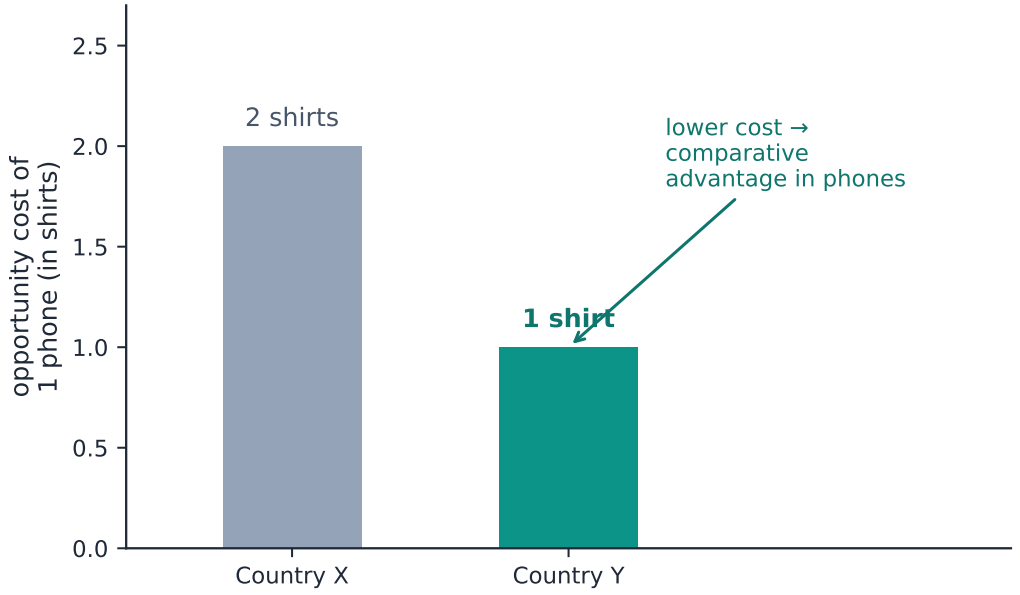
- A producer has an **absolute advantage** 绝对优势 in a good if it can make more of it with the same resources.
- A producer has a **comparative advantage** 比较优势 if it has the **lower opportunity cost** for that good. Comparative advantage –not absolute –determines who

should specialize.

- Compute opportunity cost from output data: for each producer, one unit of good X costs (units of Y) ÷ (units of X). The producer who gives up less Y should make X.
- Both sides gain if they trade at a rate **between** their two opportunity costs –the **terms of trade** 贸易条件. Specializing by comparative advantage lets total output exceed what either could make alone, so consumption can lie **outside** each producer's own PPC.

Worked example. Anna can make 20 shirts **or** 10 tables a day; Ben can make 12 shirts **or** 12 tables. For Anna one table costs $\frac{20}{10} = 2$ shirts; for Ben it costs $\frac{12}{12} = 1$ shirt. Ben gives up fewer shirts, so **Ben specializes in tables** and Anna in shirts. Any terms of trade **between** 1 **and** 2 **shirts per table** –say 1.5 –leaves both better off than producing alone.

Exam skill: these calculations appear almost every year –practice finding comparative advantage from both output tables and input tables, and stating a valid terms-of-trade range.



Comparative advantage goes to the producer with the lower opportunity cost

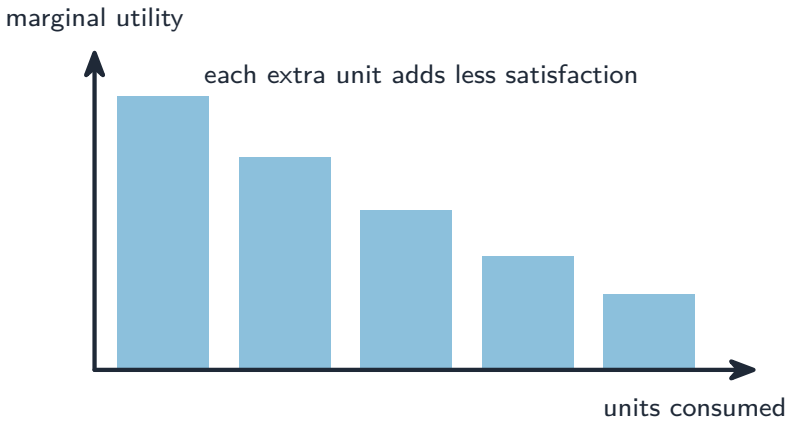
Cost-Benefit Analysis

Rational decision-makers weigh **benefits against costs**. An action is worthwhile only when its benefit is at least as large as its cost –including the opportunity cost. Money already spent and unrecoverable is a **sunk cost** 沉没成本 and should be **ignored** in decisions: only future costs and benefits matter.

Marginal Analysis and Consumer Choice

Most real decisions are not "all or nothing" but "a little more or a little less." **Marginal analysis** 边际分析 compares the **marginal benefit** 边际收益 (the benefit of one more

unit) with the **marginal cost** 边际成本 (the cost of one more unit).

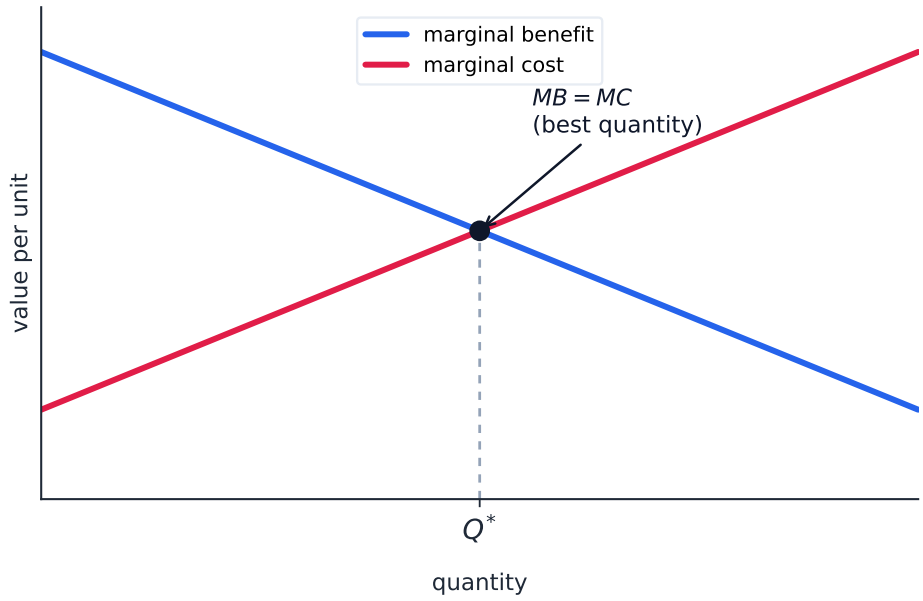


Each extra unit consumed gives less extra satisfaction (diminishing marginal utility)

- **Decision rule:** keep doing the activity while marginal benefit > marginal cost; stop where **MB = MC**. That point maximizes net benefit (total benefit minus total cost).
- Consumers get **utility** 效用 (satisfaction) from goods, but each extra unit usually gives less added satisfaction –the **law of diminishing marginal utility** 边际效用递减法则.
- A consumer maximizes total utility by the **utility-maximizing rule**: spend so that the **marginal utility per dollar** is equal across all goods, $\frac{MU_x}{P_x} = \frac{MU_y}{P_y}$, using up the whole budget. If one good gives more utility per dollar, buy more of it until the ratios equalize.

Worked example. A consumer is choosing between good X ($MU_x = 20$, $P_x = \$2$) and good Y ($MU_y = 15$, $P_y = \$1$). The utility per dollar is $\frac{20}{2} = 10$ for X but $\frac{15}{1} = 15$ for Y. Y delivers more satisfaction per dollar, so the consumer should buy **more Y and less X**; as they do, MU_y falls and MU_x rises until $\frac{MU_x}{2} = \frac{MU_y}{1}$ and the budget is spent.

Exam skill: the "MB = MC" logic and the "equal MU-per-dollar" rule are tested repeatedly –be able to find the optimal quantity from a table and explain *why* it is optimal.



Rational choice: keep going while marginal benefit exceeds marginal cost, stopping where they are equal

Exam tips

- Opportunity cost is the next-best alternative given up; **ignore sunk costs** in any decision.
- Comparative advantage (lower opportunity cost) determines specialisation and the gains from trade.
- Apply marginal analysis: keep doing an activity while **MB > MC**, stopping where **MB = MC**.
- Maximise utility by equalising the **marginal utility per dollar** across goods.
- Read opportunity cost off the PPC slope; a bowed curve shows increasing cost.