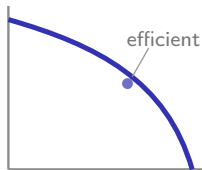


Basic Economic Concepts

AP Microeconomics ■ Unit 1

AP Microeconomics



What we will cover

- 1 Scarcity & choice
- 2 Economic systems & prices
- 3 Production possibilities curve
- 4 Comparative advantage & trade
- 5 Costs & thinking at the margin
- 6 Consumer choice



The economic problem

- Unlimited **wants** > finite **resources** $\Rightarrow$ **scarcity**
- Scarcity forces choice; every choice has an **opportunity cost**
- Three questions: what? how? for whom?

Scarcity is not poverty: even a billionaire has only 24 hours a day, so **everyone** must choose.



Scarce goods force every buyer to choose

Scarcity, and the resources it applies to

economics

begins with one stubborn fact: wants are effectively **unlimited**, and the **resources** to satisfy them are not

land

natural resources, and the rent they earn

labor

human effort, and wages

capital

tools, machines and buildings, and interest

entrepreneurship

organising the other three and **bearing the risk** – and profit

the consequence

every choice has an **opportunity cost**: the next best alternative given up

Scarcity is not poverty. Even a rich society must choose, which is why the subject applies to every economy at every income level.

Factors of production

Land

natural resources

Labour

human effort

Capital

tools & machines

Entrepreneur

combines &
takes risk

The four **factors of production** are the scarce resources every economy allocates.



Three economic systems

Market

buyers & sellers decide through **prices**

Command

central **government** owns & plans

Mixed

markets + government;
almost every country

Market, command, mixed – in words



- A **market economy** : private buyers and sellers decide through **prices** – self-interest and competition coordinate them.
- In a **command economy** , the government owns resources and plans production.
- Real economies are **mixed** – mostly markets, with government providing some goods and correcting problems.

Prices coordinate a market

A high **price** does two jobs at once:

- **signal** : the good is scarce / wanted
- **incentive** : rewards producers to supply more

Adam Smith's **invisible hand** : no one is in charge, yet resources flow toward what people value most.



Prices guide goods across markets

How the three systems answer the three questions

an economic system a society's way of answering **what, how, and for whom** to produce

market decentralised: prices and profit decide, with no planner

command the state decides all three

mixed markets for most goods, the state for public goods and redistribution

why markets work prices carry **information** and **incentives** automatically – no one needs to know the whole system

where they fail public goods, externalities, market power, and inequality of outcome

The information argument is the strong one: a price summarises millions of separate facts that no planner could collect in time.



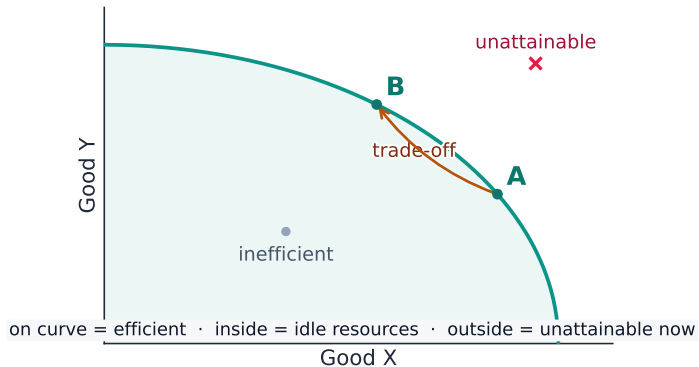
The production possibilities curve

The **PPC** shows the most an economy can make of two goods.

- **On** the curve – efficient
- **Inside** – wasteful (idle resources)
- **Outside** – unattainable

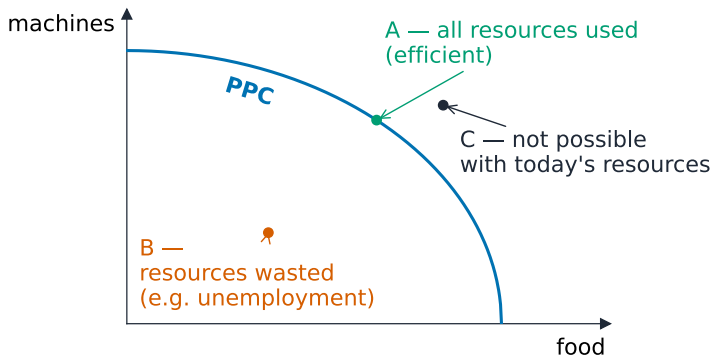
Economic growth shifts the whole curve **outward**.

The production possibilities curve, in detail



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

Points on



Points on, inside, and outside the production possibilities curve

Why the curve bows outward

The **law of increasing opportunity cost** : resources are not equally suited to both goods, so each extra unit of one costs ever more of the other.

Worked example – opportunity cost

A country makes wheat and steel. At A: 100 wheat, 0 steel. At B: 80 wheat, 30 steel.

Moving A→B gains 30 steel by giving up 20 wheat, so

$$\text{opp. cost of 1 steel} = \frac{20}{30} = 0.67 \text{ wheat.}$$



Absolute vs comparative advantage

absolute advantage

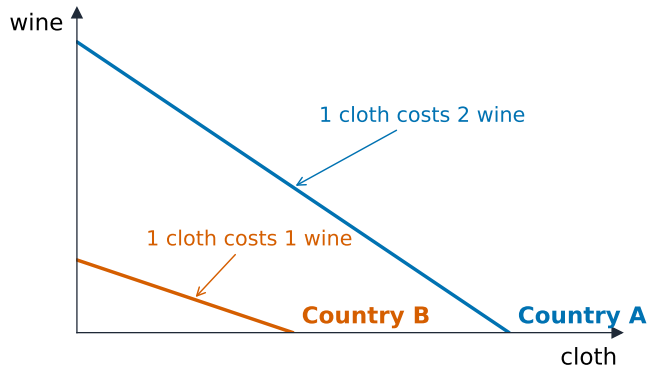
makes **more** with
the same resources

comparative advantage

has the **lower opportunity cost**

Specialize where your opportunity cost is lower, then **trade** – this gains for both sides **even if one is better at everything**.

Absolute vs comparative advantage, in detail



Comparative advantage comes from differently-sloped production possibilities curves

Comparative advantage – worked example

In a day: X makes 10 phones **or** 20 shirts; Y makes 4 **or** 4.

■ X: 1 phone costs $\frac{20}{10} = 2$ shirts

■ Y: 1 phone costs $\frac{4}{4} = 1$ shirt

⇒ **Y** makes phones; **X** makes shirts

X has the absolute advantage in both, yet trade still helps both. The **terms of trade** lie between the two costs.

Comparative advantage: the calculation the exam repeats

absolute advantage

producing **more** of a good with the same resources

comparative advantage

producing it at a **lower opportunity cost** – and this is what decides trade

from an output table

opportunity cost of $X = \frac{\text{the other good's output}}{X\text{'s output}}$

from an input table

the ratio runs the *other* way – $X\text{'s input}$ over the other good's input

then

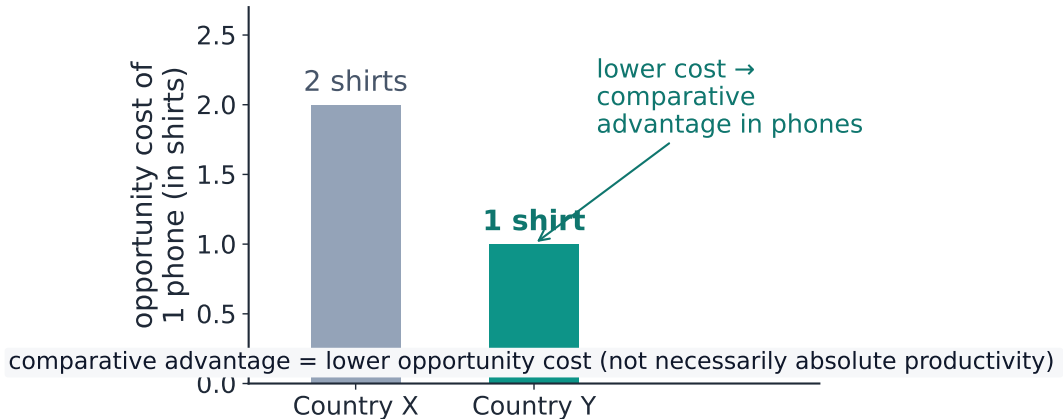
each side **specialises** where its opportunity cost is lower, and trades

terms of trade

any rate **between** the two opportunity costs makes both sides better off

These calculations appear **almost every year**. Practise from both output and input tables, because the ratio inverts between them.

Comparative advantage – worked example, in detail



One country can be better at **both** goods and trade still helps both: the **terms of trade** lie between the two opportunity costs.



Cost-benefit analysis & sunk costs

Cost-benefit analysis : act only when $\text{benefit} \geq \text{cost}$ – and the real cost is the **opportunity cost**, not just money spent.

The sunk-cost fallacy

You paid \$50 for a concert ticket (a **sunk cost**). That night you feel ill and would rather stay home.

The \$50 is gone **either way**, so ignore it – choose what you now prefer. Going just “to get your money’s worth” is the **sunk-cost fallacy** .

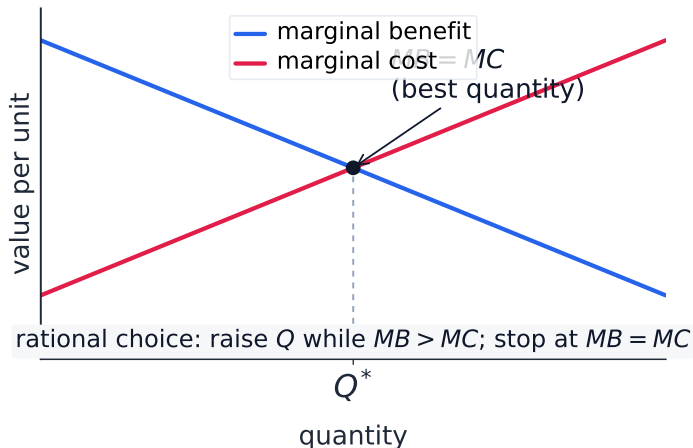
Think at the margin

Decide one **margin** at a time – one more unit.

- **marginal benefit** (MB): extra gain
- **marginal cost** (MC): extra cost

Keep going while $MB > MC$; stop at $MB = MC$ – the greatest net benefit.

Think at the margin, in detail



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

Marginal analysis: the two rules that are tested

cost–benefit

an action is worthwhile only when its **benefit is at least as large as its cost**

the marginal rule

do the action while $MB \geq MC$; the optimum is where $MB = MC$

reading it from a table

take each extra unit while its marginal benefit still covers its marginal cost, and stop at the crossover

consumer choice

spend so that the **marginal utility per dollar** is equal across all goods

why equal

if one good gave more utility per dollar, shifting a dollar to it would raise total utility – so you were not at the optimum

“ $MB = MC$ ” and “equal MU per dollar” are **tested repeatedly**. Be able to find the optimal quantity from a table, not only to state the rule.

Consumer choice

The **law of diminishing marginal utility** : each extra unit adds less **utility** – the fifth slice of pizza satisfies far less than the first. This is why demand curves slope **down**.

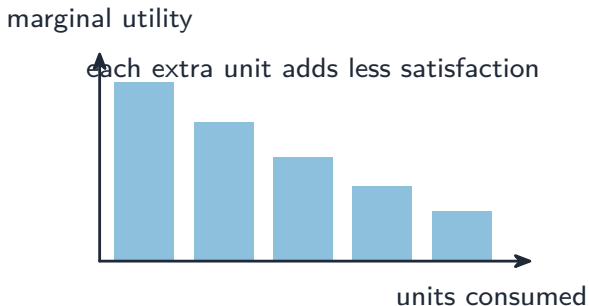
The utility-maximizing rule

Spread a fixed budget so the marginal utility **per dollar** is equal across all goods:

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y}.$$

If one good gives more utility per dollar, shift spending toward it until the ratios balance.

Marginal Analysis and Consumer Choice



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

Key points

Scarcity forces choice; every choice has an **opportunity cost**

The **PPC** shows efficient, wasteful & unattainable output

Comparative advantage
+ trade gains for both sides

Choose at the **margin**: act while $MB > MC$, stop at $MB = MC$

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.



Unit 1 – key takeaways

1

Opportunity cost

next-best alternative; ignore sunk costs

2

Trade

comparative advantage (lower OC) sets specialisation

3

Margin

keep going while $MB > MC$; stop at $MB = MC$

4

PPC

slope is OC; bowed curve $\Rightarrow$ increasing cost

Check yourself

- 1 Why does the PPC bow outward?
- 2 Absolute or comparative advantage: which drives trade?
- 3 Should a sunk cost affect your next decision?
- 4 What rule does marginal analysis give?

Answers 1. resources are not equally suited to both goods 2. comparative 3. no – it is already spent 4. do it while $MB > MC$; stop where $MB = MC$