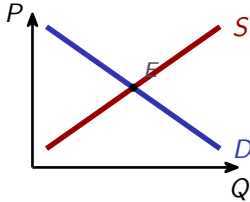


Basic Economic Concepts

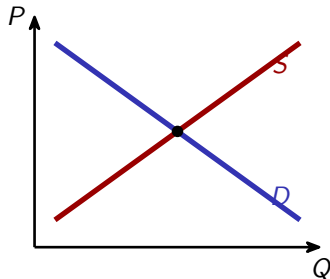
AP Macroeconomics ■ Unit 1

AP Macroeconomics



What we will cover

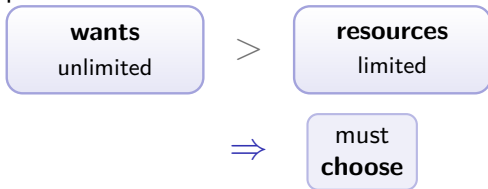
- 1 Scarcity and the factors of production
- 2 Opportunity cost and the PPC
- 3 Comparative advantage and trade
- 4 Demand
- 5 Supply
- 6 Market equilibrium





Scarcity: the starting point of economics

Every economy faces the same basic problem:



Three questions – and every choice has a cost:

- **what** to produce?
- **how** to produce?
- **for whom?**



Limited resources force every society to choose

The four factors of production

The scarce **resources** an economy uses to make everything:

Land

natural resources

Labour

human effort and skill

Capital

tools, machines, factories

Entrepreneurship

initiative and risk-taking

Entrepreneurs combine the other three and bear the risk of the venture.



Opportunity cost

The **opportunity cost** of a choice is the value of the **single best alternative** you give up.

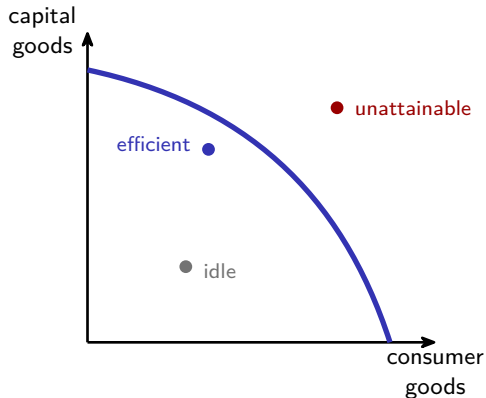
- measured in what you *sacrifice*, not only in money
- every choice has one – because resources are scarce

A new road's real cost is the schools or hospitals the **same resources** could have built.



Every choice gives up the next-best option

The production possibilities curve



The **PPC** shows every efficient mix of two goods:

- **on** the curve – **efficient**, all resources used
- **inside** – resources lie idle (a recession)
- **outside** – unattainable today

Its outward *bow* = **increasing opportunity cost** .

The PPC, and what it is made of

The curve

The **production possibilities curve (PPC)** shows the most of two goods an economy can make with its resources fully employed.

Labor

Labor is one of the four factors – with land, capital and entrepreneurship – and more or better of any of them shifts the curve out.

Trade-offs

Points on the curve are **trade-offs** : more of one good is less of the other, and the slope is the opportunity cost.

Bowed outward

Resources are not equally good at both jobs, so the opportunity cost rises as you specialise – which is what bows the curve.

Inside the curve is not a choice, it is waste. On it is efficient; beyond it is unattainable today.

Worked example – reading a trade-off

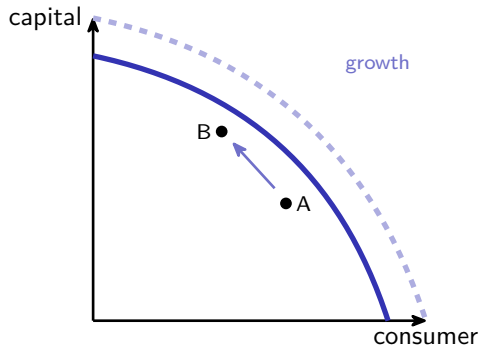
A → B along the curve

A: 60 consumer, 10 capital. B: 50 consumer, 25 capital.

give up 10 consumer $\Rightarrow$ gain 15 capital

cost of 1 capital = $\frac{10}{15} \approx 0.67$ consumer

Building **capital** today shifts the whole curve outward later – **economic growth**.





Absolute vs comparative advantage

Absolute

make *more* with the same resources

Comparative

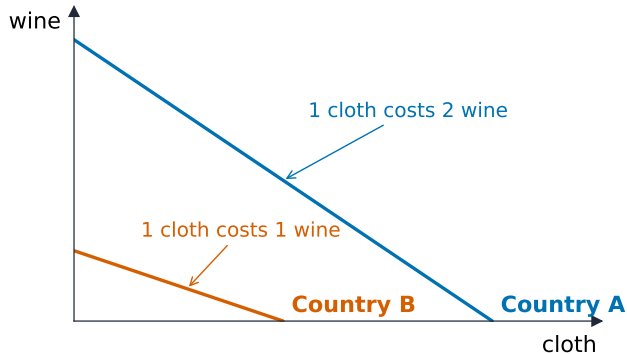
make it at a *lower opportunity cost*



Specialize, then trade – both sides can gain

Both sides gain even if one is better at everything – as long as costs differ.

Comparative Advantage and Gains from Trade



Comparative advantage comes from differently-sloped production possibilities curves

Gains from trade – worked example

per day	wheat	cloth
Country A	12	6
Country B	4	4



Compare opportunity costs

Cost of 1 cloth: $A = \frac{12}{6} = 2$ wheat, $B = \frac{4}{4} = 1$ wheat.

⇒ B is cheaper at cloth

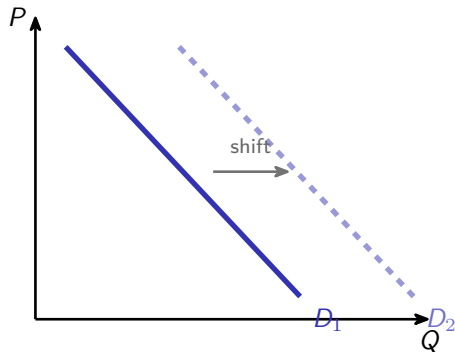
Cost of 1 wheat: $A = 0.5$ cloth, $B = 1$ cloth.

⇒ A is cheaper at wheat

The **terms of trade** must fall *between* the two costs for both to win.



The law of demand

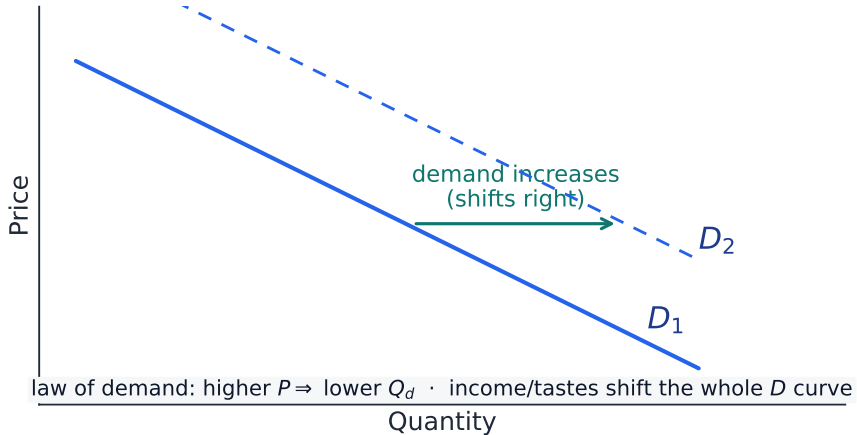


Demand : how much buyers will buy at each price. Higher price $\rightarrow$ lower **quantity demanded** – the curve slopes **down**.

Own price changes $\Rightarrow$ move **along**.

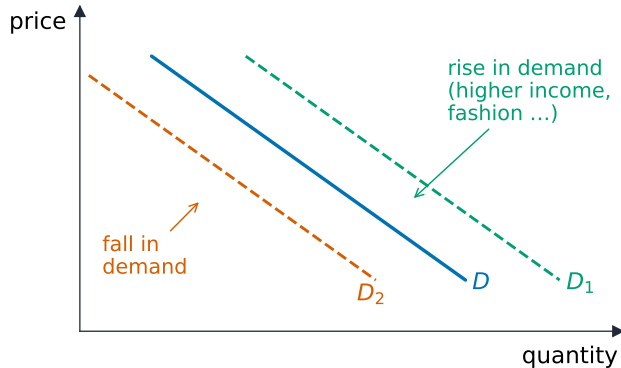
Anything else $\Rightarrow$ the whole curve **shifts**.

The law of demand slopes the curve – one



The law of demand slopes the curve downward; a determinant shifts the whole curve

The law of demand slopes the curve – two



The demand curve slopes down; income, tastes, and related prices shift it

What shifts demand? Remember TRIBE

Tastes

Related prices

Income

Buyers

Expectations

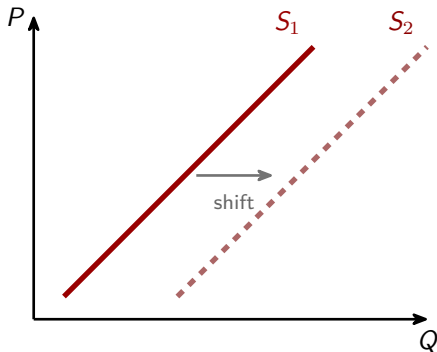
Substitutes : coffee up $\Rightarrow$ demand for tea up

Complements : petrol up $\Rightarrow$ demand for cars down

Normal good : more income $\Rightarrow$ more demand. **Inferior good** : more income $\Rightarrow$ *less* demand.



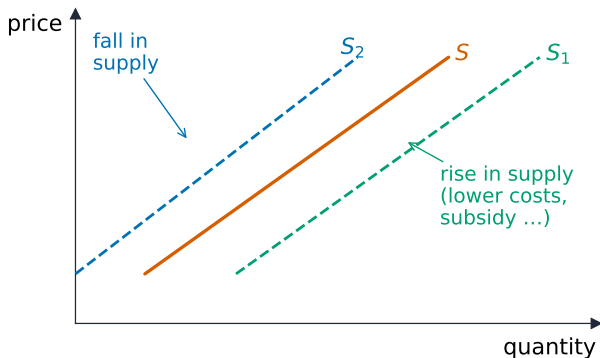
The law of supply



Supply : how much sellers will sell at each price. Higher price $\rightarrow$ higher **quantity supplied** – the curve slopes **up**. Shifters: input **costs** , technology, number of sellers, taxes, **subsidies** .

- lower costs / better tech $\Rightarrow$ shift **right**
- a new tax $\Rightarrow$ shift **left**

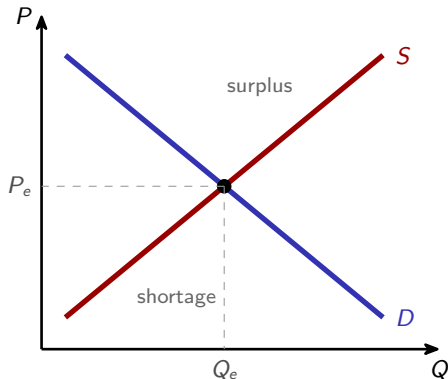
The supply curve slopes up; costs



The supply curve slopes up; costs, technology, tax, and subsidy shift it



Market equilibrium

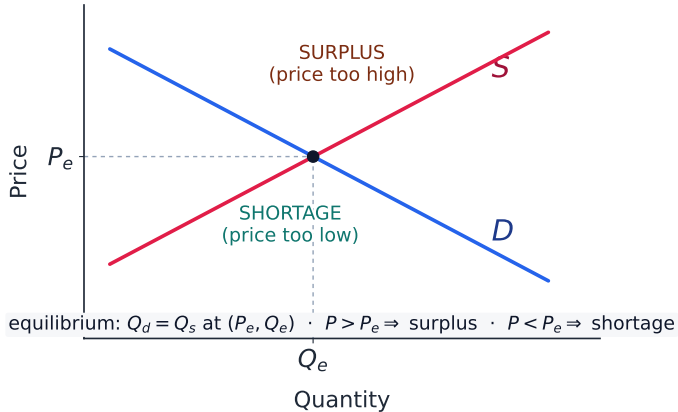


Equilibrium : where supply meets demand – no pressure to change.

- price **above** P_e : a **surplus** $\Rightarrow$ sellers cut price
- price **below** P_e : a **shortage** $\Rightarrow$ buyers bid it up

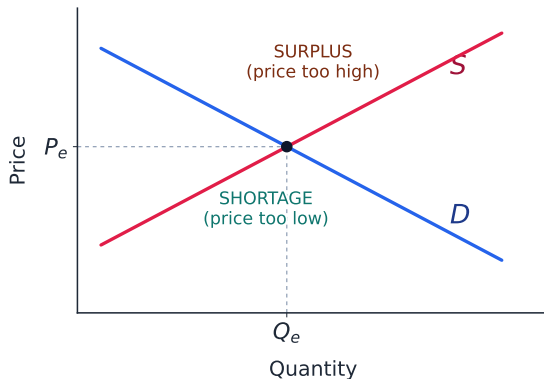
Both push the market back toward P_e .

Market equilibrium sits where supply meets d – one



Market equilibrium sits where supply meets demand; away from it lie surplus and shortage

Market equilibrium sits where supply meets d – two



Equilibrium price and quantity where demand meets supply

Four cases – how a shift moves equilibrium

Demand rises

$P \uparrow$ $Q \uparrow$

Demand falls

$P \downarrow$ $Q \downarrow$

Supply rises

$P \downarrow$ $Q \uparrow$

Supply falls

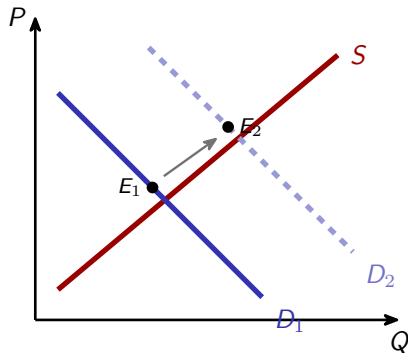
$P \uparrow$ $Q \downarrow$

Worked example – a hot summer

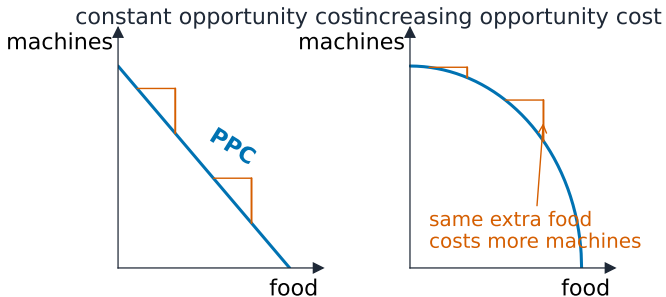
Demand for ice cream rises

The curve shifts **right** ($D_1 \rightarrow D_2$). At the old price a **shortage** appears, so the price rises to a new equilibrium at a **higher price and higher quantity**.

If input costs *also* rise (supply shifts left), price rises even more – but the effect on quantity becomes **ambiguous**.

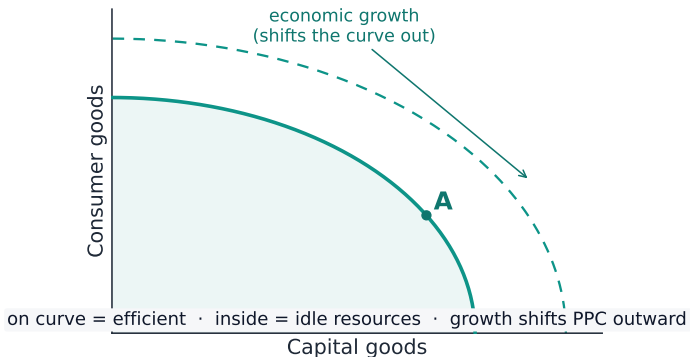


Opportunity Cost and the Production Possibilities Curve (PPC)



A straight PPC means constant opportunity cost; a bowed one means increasing cost

A production possibilities curve; investing in



A production possibilities curve; investing in capital goods shifts it outward

Exam tips

- Opportunity cost is what you **give up** – read it off a PPC as the slope; a bowed-out PPC shows increasing opportunity cost.
- **Comparative advantage** (lower opportunity cost), not absolute advantage, decides who should specialise and trade.
- Points inside the PPC are inefficient, outside unattainable; more resources/technology shift it out (growth).
- Distinguish a **movement along** a demand/supply curve (own price) from a **shift** (a determinant).
- These micro tools drive the aggregate models later – draw and shift the correct curve in the correct direction.



Unit 1 – key takeaways

1

Scarcity

limited resources force choice;
every choice has an opportunity
cost

2

PPC

efficient points on the curve; the
bow shows rising opportunity cost

3

Comparative advantage

specialize at your lowest cost,
then trade – both gain

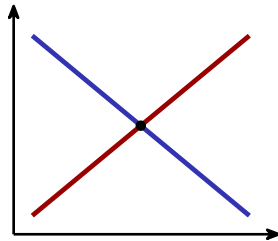
4

Supply & demand

equilibrium clears the market;
shifts move price and quantity

Check yourself

- 1 A point *inside* the PPC means what about resources?
- 2 Who has the comparative advantage – lower cost or more output?
- 3 Coffee's price rises. What happens to demand for tea?
- 4 Demand rises and supply falls. What happens to price?



Answers 1. some lie idle (inefficient) 2. lower opportunity cost 3. it rises (substitutes) 4. price rises