

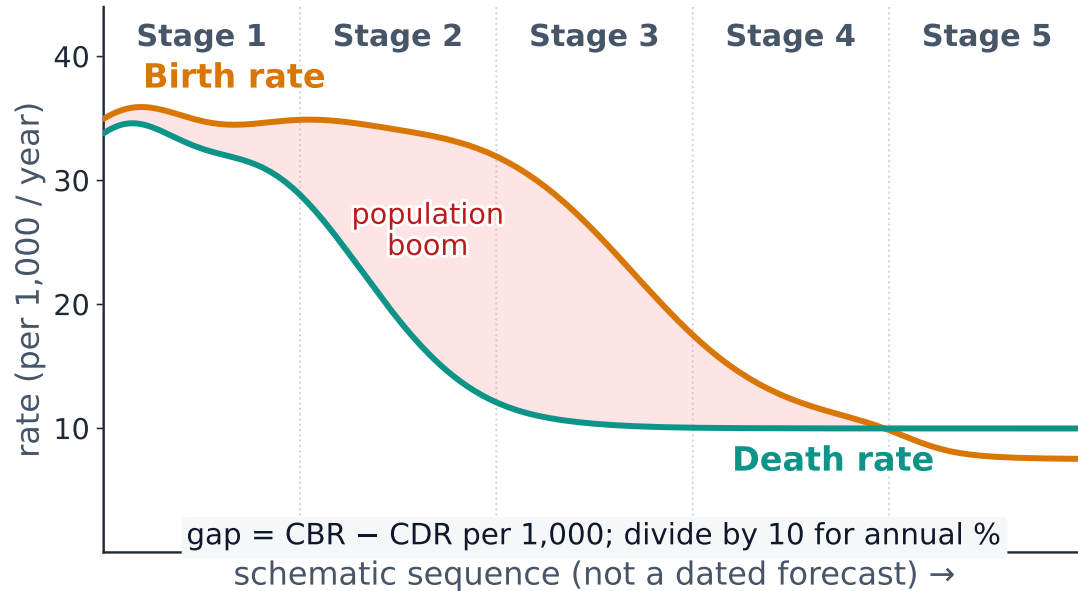
Exercise walk-through

2.5

The Demographic Transition Model

AP Human Geography

Birth and death rates in the DTM



The vertical gap is natural change per 1,000; divide by 10 for annual percent. Migration is excluded.

Demographic transition stages

Stage	Rate pattern and natural change
1	High, fluctuating births and deaths; typically small natural change.
2	Deaths fall while births remain high; a large positive birth–death gap.
3	Birth rates fall; the positive gap narrows.
4	Both rates low; natural change is small.
5 (extension)	Birth rate below death rate; natural decrease, not necessarily total decline.

The **Demographic Transition Model (DTM)**
obligatory sequence.

describes a pattern, not an

Explaining the transition and its limits

Safer water, sanitation, nutrition and healthcare can reduce mortality. Changing costs of children, schooling, reproductive agency and family planning can influence fertility. These changes can occur at different times.

The DTM developed from historical experience and simplifies variation within countries. Conflict, epidemics, policy and migration can interrupt or reshape the pattern.

For a country with CBR 8 and CDR 11, infer natural decrease. You still need net migration to decide whether total population falls.

Changing causes of death

Pattern	Explanation and qualification
Earlier mortality decline	Clean water and improved nutrition can reduce infectious deaths and premature mortality.
Longer survival	Chronic conditions can form a larger share of deaths as more people survive to older ages.
Limits	Infectious and chronic disease burdens can coexist. Outbreaks, inequality and access to care complicate a single sequence.
The epidemiological transition explains changing mortality patterns; it does not imply that infectious diseases disappear.	

Exercises 2.1-2.2

2.1 Describe the birth and death rates in Stage 2 of the DTM. [2]

2.2 Explain why the death rate falls before the birth rate. [2]

Exercises 2.1-2.2

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2.1

- death rate falling; birth rate still high
 - rapid natural increase
-

2.2 Explain why the death rate falls before the birth rate. [2]

2.2

- improved food, sanitation, and medicine quickly cut deaths; high fertility persists as cultural attitudes to family size change slowly

Exercise 2.3 (a)

2.3 Country Z has a low death rate and a birth rate that has recently begun to fall.

(a) Which DTM stage is it in?

[1]

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(a) Which DTM stage is it in?

[1]

(a)

- Stage 3

Exercise 2.3 (b)

2.3 Country Z has a low death rate and a birth rate that has recently begun to fall.

(b) State what is happening to its growth rate.

[1]

Exercise 2.3 (b)

2.3 Country Z has a low death rate and a birth rate that has recently begun to fall.

(b) State what is happening to its growth rate.

[1]

(b)

- growth is slowing (still positive but decelerating)

Exercises 3.1-3.2

3.1 In Stage 4 of the DTM, birth and death rates are both

[1]

☐

A high

B low

C rising

D unequal by 20 per 1000

3.2 One valid criticism of the DTM is that it

[1]

☐

A shows death rates

B is based on European history and ignores migration

C has five stages

D uses birth and death rates

Exercises 3.1-3.2

3.1 In Stage 4 of the DTM, birth and death rates are both

[1]

☐

A high

B low

C rising

D unequal by 20 per 1000

3.1 B

- Stage 4 has low birth and low death rates, near-stable population

3.2 One valid criticism of the DTM is that it

[1]

☐

A shows death rates

B is based on European history and ignores migration

C has five stages

D uses birth and death rates

3.2 B

- the model generalises from Europe and omits migration/policy

Exercise 3.3 (a)

3.3 A country has very high birth and death rates that roughly balance.

(a) Which DTM stage is this?

[1]

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3.3 A country has very high birth and death rates that roughly balance.

(a) Which DTM stage is this?

[1]

(a)

- Stage 1

Exercise 3.3 (b)

3.3 A country has very high birth and death rates that roughly balance.

(b) Explain why almost no countries are in this stage today.

[1]

Exercise 3.3 (b)

3.3 A country has very high birth and death rates that roughly balance.

(b) Explain why almost no countries are in this stage today. [1]

(b)

- modern medicine/sanitation have cut death rates almost everywhere, moving countries to Stage 2+