

Cambridge AS & A Level · Economics 9708 · Notes

Economic development A2

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Read first: [National income statistics](#), [Economic growth and sustainability](#), [Addressing income and wealth inequality](#)

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What you need to know

This topic builds on AS National income statistics and A Level Economic growth and sustainability. By the end of it you should be able to:

1. **Classify economies by their level of development:** developed, developing and emerging economies, and what puts a country in each group.
2. **Classify economies by their level of national income:** the World Bank's low-income, lower-middle-income, upper-middle-income and high-income groups, based on GNI per head.
3. **Use indicators of living standards and economic development:**
 - **monetary indicators:** real national income per head (GDP, GNI and NNI per head) and purchasing power parity (PPP);
 - the **problems of comparing** living standards with monetary indicators;
 - **non-monetary indicators**, such as life expectancy, literacy and access to clean water;
 - **composite indicators:** the Human Development Index (HDI), the Measure of Economic Welfare (MEW) and the Multidimensional Poverty Index (MPI);
 - the **Kuznets curve**, linking inequality to income per head.
4. **Compare economic growth rates and living standards** over time in one country, and between countries.

Understand it

Growth and development are not the same thing

Economic growth is a rise in a country's real output, measured by real GDP. It is one number, and it says nothing about who gets the extra output or what it is.

Economic development is a broader improvement in people's quality of life: less poverty, better health and education, a fairer spread of income, more choice and freedom, and a cleaner, safer environment. It is about the **welfare** of the population, not just the size of the economy.

The two are linked. Growth **makes development possible**: more output means more income to spend and more tax revenue for schools, clinics and water supply. But growth does not **guarantee** development:

- the gains can go to a small group, so most people are no better off;
- growth may come from using up finite resources (oil, minerals, forests) or from polluting, which harms health now and the economy later;
- the extra output may be weapons, or spending to repair damage, not things that make life better.

Development can also happen with little growth, for example when a government moves spending from the armed forces to vaccination and primary schools. Because development is about welfare, the size of a country's **population** on its own tells you nothing about it.

Classifying economies

By level of development

- **Developed economies** have high income per head, most workers in services and manufacturing, high productivity, long life expectancy, near-universal schooling, and good infrastructure.
- **Developing economies** have lower income per head, a large share of workers in agriculture (often subsistence farming), lower productivity, faster population growth, more absolute poverty and weaker health and education systems. The poorest are often called **least developed countries**.
- **Emerging economies** are developing economies that are industrialising fast and catching up, with rapid growth, rising manufacturing exports and a growing middle class.

By level of national income

The World Bank sorts countries by **GNI per head** (converted into US dollars), into four groups. The limits are revised every July; roughly:

Group	GNI per head (approximately)
Low income	below about \$1100
Lower-middle income	about \$1100 to \$4500
Upper-middle income	about \$4500 to \$14 000
High income	above about \$14 000

In exam answers, "low-income" and "developing" are used for the same kind of country, and "high-income" and "developed" for the other. Income groups use one number only, so a country can move up an income group without much development, for example if an oil boom lifts GNI per head while poverty stays high.

Monetary indicators

The usual starting point is **real national income per head**:

- **GDP** (gross domestic product): the value of output produced within the country.

- **GNI** (gross national income): GDP plus net primary income from abroad (income residents earn from abroad, such as profits and interest, minus what foreigners earn in the country). It measures what the country's residents earn.
- **NNI** (net national income): GNI minus **depreciation** (capital consumption), the capital worn out in producing the year's output. "Gross" figures include it; "net" figures take it away.
- **GDP at market prices** includes indirect taxes and leaves out subsidies; **GDP at factor cost** = market prices – indirect taxes + subsidies. Output is measured by **value added** at each stage to avoid counting the same output twice, and **transfer payments** (pensions, unemployment benefit, gifts) are left out because no output is produced in return.

To use any of these for living standards, make it:

1. **real**, by removing the effect of price changes (measure at constant prices): a rise in money income with equal inflation buys nothing extra;
2. **per head**, by dividing by population: a bigger economy shared among even more people may mean less each;
3. **comparable**, by converting currencies at **purchasing power parity** when comparing countries.

$$\% \Delta \text{ real income per head} \approx \% \Delta \text{ money income} - \text{inflation rate} - \% \Delta \text{ population}$$

For example, money income +8%, inflation 5% and population +1% give about $8 - 5 - 1 = +2\%$. The exact figure is $\frac{1.08}{1.05 \times 1.01} - 1 = 1.84\%$; the approximation is close for small percentages. A rise in GDP with a **fall** in population and a **fall** in prices gives the biggest rise in real GDP per head.

Purchasing power parity (PPP) is the exchange rate at which the same basket of goods and services costs the same in both countries. Market exchange rates do not do this, because many goods and services (haircuts, rent, local food) are not traded and are much cheaper in low-income countries. Converting at the market rate therefore **understates** living standards there; converting at the PPP rate corrects it.

Problems of comparison using monetary indicators

Even real income per head at PPP can mislead, over time or between countries:

- **Distribution**: it is an average. A few very rich people can lift it while most stay poor, so it **overstates** typical welfare where inequality is extreme.
- **The hidden (informal) economy and non-market output**: unrecorded work, barter, subsistence farming and unpaid work at home are left out, which **understates** income, most of all in developing economies.
- **Leisure and hours worked**: two countries with the same income per head are not equally well off if one works far longer hours.
- **Quality of goods and services**: phones, medicine and cars improve; the figures count spending, not quality.
- **What is produced**: spending on defence, policing or cleaning up pollution adds to GDP but not to welfare.
- **Externalities and resources**: pollution, congestion and running down forests or oil reserves are not subtracted.

- **Different needs and tastes:** a cold country must spend on heating to be as comfortable as a warm one.
- **Data accuracy:** statistics are less complete in countries with large informal sectors, and methods differ between countries.
- **Non-material welfare:** freedom, security, health and the range of choice are not in the figures at all.

A per-head figure already allows for population, so "the population grew" is not a reason to doubt a rise in income **per head**.

Non-monetary indicators

These measure aspects of welfare directly:

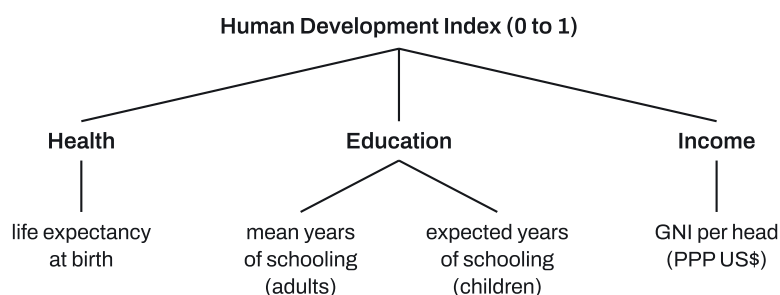
- **health:** life expectancy at birth, infant and child mortality, doctors or hospital beds per 1000 people, calorie intake;
- **education:** adult literacy rate, school enrolment, mean years of schooling;
- **living conditions:** access to clean water, sanitation and electricity, people per room, internet access, ownership of consumer durables.

They show how people live, not just what they earn, but each covers one aspect only, and a single indicator can be misleading (for example, more doctors per head matters only if the poor can reach them).

Composite indicators

Composite indicators combine several measures into one figure.

The Human Development Index (HDI), published by the United Nations Development Programme, scores countries from 0 to 1 on three dimensions:



HDI = geometric mean of the health, education and income indices
(infant mortality is not included)

Each indicator becomes an index by placing it between a minimum and a maximum "goalpost": with goalposts of 20 and 85 years, a life expectancy of 72 years gives $\frac{72-20}{85-20} = 0.8$. The three dimension indices are then combined. A higher HDI means better health, education and income; countries are ranked from "very high" to "low" human development.

- **Strengths:** it adds health and education to income, so it captures more of development than GNI alone; it is published for almost every country in the same way, so it is easy to compare.
- **Weaknesses:** it ignores the distribution of income, leisure, the environment, freedom and the quality of schooling and health care; it says nothing about poverty directly; and its weights are a choice.

The Measure of Economic Welfare (MEW), proposed by the economists Nordhaus and Tobin, starts from GNP (or GDP) and adjusts it towards welfare:

- **adds** the value of **leisure** and of **unpaid, non-marketed work** (housework, caring, DIY, volunteering);
- **subtracts** "**regrettable necessities**" (defence, policing, commuting costs) and the **cost of environmental damage** such as pollution.

So MEW can be **above** GNP when leisure and unpaid work are worth more than the deductions. With output per head constant and pollution rising, GDP, GNP and the HDI do not change, but MEW **falls**. It is hard to calculate, because putting a money value on leisure, housework and pollution means many estimates, so it is rarely published.

The Multidimensional Poverty Index (MPI), from the UNDP and Oxford University, measures **poverty** directly, household by household, using ten indicators in three dimensions, each dimension weighted one third:

Dimension (weight)	Indicators (weight each)
Health ($\frac{1}{3}$)	nutrition, child mortality ($\frac{1}{6}$ each)
Education ($\frac{1}{3}$)	years of schooling, school attendance ($\frac{1}{6}$ each)
Living standards ($\frac{1}{3}$)	cooking fuel, sanitation, drinking water, electricity, housing, assets ($\frac{1}{18}$ each)

A person is **multidimensionally poor** if their weighted deprivations add to **at least** $\frac{1}{3}$. For example, a household where a child has died ($\frac{1}{6}$) and which lacks electricity, sanitation and clean cooking fuel ($3 \times \frac{1}{18} = \frac{1}{6}$) scores $\frac{1}{3}$, so it counts as poor. Then

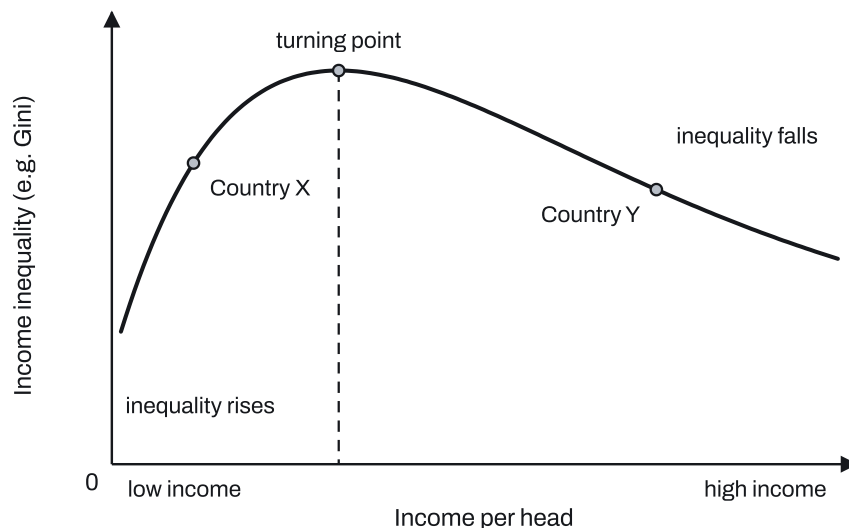
$$\text{MPI} = H \times A,$$

where H is the share of people who are poor (the headcount ratio) and A is the average share of weighted indicators the poor are deprived in (the intensity). If 40% of people are poor and on average they are deprived in 50% of the weighted indicators, $\text{MPI} = 0.4 \times 0.5 = 0.2$. A **higher** MPI means **more** poverty. Its strength is that it shows who is poor and in what ways, which guides policy; its weakness is that it says nothing about people above the poverty line, and the data come from surveys that are infrequent.

Years of schooling is the indicator the HDI and the MPI share. Child (infant) mortality is in the MPI but **not** the HDI; medication, income and GNI are not in the MPI.

The Kuznets curve

The economist Simon Kuznets suggested that, as a country develops, **income inequality first rises, then falls**: an inverted U.



- **Axes:** income inequality (for example the Gini coefficient) on the vertical axis; income per head (real GDP or GNI per head) on the horizontal axis.
- **Rising part:** early in development, workers move from low-paid farming to better-paid jobs in industry and towns, but only some do; owners of land and capital gain most. The gap between the two groups widens.
- **Falling part:** later, most workers are in the modern sector, education spreads, labour becomes scarcer so wages rise, and richer governments can afford progressive taxes and welfare spending. Inequality narrows.
- **Using it:** a country to the **left** of the turning point can expect more growth to **raise** inequality; to the **right**, more growth should **lower** it.
- **Limits:** it is a pattern, not a law. Some East Asian economies grew fast with fairly low inequality, and inequality has risen in many high-income countries since the 1980s. Policy (education, taxes, land reform) matters more than the stage of development.

Comparing growth rates and living standards

Over time in one country: use **real** income per head at constant prices from the **same** source and base year, and check non-monetary indicators (life expectancy, HDI) alongside it. A rising real GNI per head with a rising Gini means the average improved but the gains were unequal.

Between countries: use real income per head converted at **PPP**, and the HDI or MPI for the non-monetary side.

Growth rates and levels tell different stories. A low-income country growing faster is catching up in **percentage** terms, yet the **absolute** gap can still widen. Country A has income per head of \$1500 growing at 8%; country B has \$30 000 growing at 2%. After a year A has \$1620 (+\$120) and B has \$30 600 (+\$600): the gap in dollars grows from \$28 500 to \$28 980, even though B's income is now 18.9 times A's instead of 20 times.

Key facts and formulas

There is no formula list in the 9708 exam, so everything here is "Learn it".

Formula	Status
$\text{GNI} = \text{GDP} + \text{net primary income from abroad}$	Learn it
$\text{NNI} = \text{GNI} - \text{depreciation (capital consumption)}$	Learn it
$\text{GDP at factor cost} = \text{GDP at market prices} - \text{indirect taxes} + \text{subsidies}$	Learn it
$\text{Income per head} = \frac{\text{national income}}{\text{population}}$	Learn it
$\% \Delta \text{ real income per head} \approx \% \Delta \text{ money income} - \text{inflation rate} - \% \Delta \text{ population}$	Learn it
$\text{Exact real income per head growth} = \frac{1 + g}{(1 + \pi)(1 + n)} - 1$, with g money income growth, π inflation, n population growth (as decimals)	Learn it
$\text{PPP rate} = \frac{\text{cost of a basket in local currency}}{\text{cost of the same basket in US dollars}}$	Learn it
HDI: life expectancy at birth; mean and expected years of schooling; GNI per head at PPP; scale 0 to 1	Learn it
$\text{MEW} = \text{GNP} + \text{leisure} + \text{unpaid work} - \text{regrettable necessities} - \text{environmental damage}$	Learn it
$\text{MPI} = H \times A$ (share of people poor $\times$ average intensity of their deprivation); poor if weighted deprivations $\geq \frac{1}{3}$	Learn it
Kuznets curve: inequality (vertical) against income per head (horizontal), an inverted U	Learn it

How to do it

We tagged 95 questions for this topic, from March 2021 to March 2026 (82 different; 13 are repeats across paper variants): 65 Paper 3 multiple choice and 30 Paper 4 essays and data-response questions. 4 written questions have parts of more than one type, so the counts add up to 99.

Question type	Questions
Evaluate the impact of a factor (globalisation, aid, trade, FDI, productivity, exports) on living standards or development (essay)	13

Question type	Questions
Tell economic growth apart from economic development (MCQ)	13
Read and apply the Kuznets curve (MCQ)	12
Recall what HDI, MEW and MPI include or leave out (MCQ)	12
Spot the limits of GDP/GNI per head for comparing living standards (MCQ)	11
Evaluate measures of living standards: GDP/GNI against HDI, MEW, MPI (essay)	10
Calculate the change in real income per head (MCQ)	6
Apply national income accounting: GDP, GNI, NNI, factor cost, value added (MCQ)	6
Use case-study data to assess a change in living standards (data response)	6
Interpret indicator data to compare development (MCQ)	5
Explain a measurement term in a data response (constant prices, PPP, HDI parts)	3
Tell developed and developing economies apart (essay)	2

1. Evaluate the impact of a factor on living standards or development (13 questions)

Paper 4 essays: 20 marks since 2023 (Table A, knowledge, understanding and analysis, 14 marks, Level 3 is 11–14; Table B, evaluation, 6 marks, Level 2 is 4–6); 25 marks in 2021–2022, marked in levels. The factor changes: globalisation (for low-income countries, or for both high- and low-income), international aid, aid **and** trade together, FDI, higher productivity, export-led growth, reliance on primary exports, a currency depreciation. Each factor has its own topic; this topic supplies the **living standards and development** half of the answer.

- Define** both halves: the factor (globalisation: freer movement of goods, services, capital, labour and technology between countries; aid: help given on non-market terms, such as grants, soft loans, tied, bilateral or multilateral aid) and **standard of living** (material: real income per head; non-material: health, education, environment, leisure) or **economic development**.
- Analyse 2–3 developed chains** from the factor to living standards. The core chain: factor → more investment, jobs or exports → higher output and real income per head → more tax revenue → more spending on health, education, housing and water → higher HDI, lower MPI. Others: trade lets a country specialise by comparative advantage and buy cheaper imports, raising real incomes; FDI and aid bring capital and technology, raising productivity; a diagram (AD/AS with AD and LRAS shifting right, or a PPC shifting out) shows the rise in output.
- Cover every group the question names.** If it says "both high-income and low-income countries", or "aid and trade", give each similar weight; one group only caps Table A at Level 2.
- Evaluate** with at least three developed points: gains may reach only a small part of the population (inequality, link to the Kuznets curve); tied aid forces purchases from the donor at high prices; aid dependency weakens local enterprise; trade can cause structural unemployment and expose firms to world price swings and dumping; resource extraction and long-distance transport add pollution and

deplete resources; growth only helps if the gains are invested in infrastructure, health and education; the measure of living standards matters (real GNI per head may rise while the HDI or MPI hardly change); short run against long run.

5. **Conclude** on the question's words ("equally", "to what extent", "automatically"): say under what conditions the factor helps most, and for which countries.

2. Tell economic growth apart from economic development (13 questions)

1. **Growth** is a rise in real GDP; it is **central to growth** but not necessarily to development.
2. **Development** is a better quality of life: less poverty, basic needs met, better health and education, fairer distribution, more choices. "An improvement in the average citizen's quality of life" signals development.
3. **Growth enables development** but does not cause it automatically, and the two are not proportional. Development is not needed for growth to happen.

Variants:

- **Extra components of development** that growth measures leave out: poverty and the distribution of income. Real income per head is already part of measuring growth, so it is not extra.
- **Boosts growth but not development**: extracting finite natural resources, relaxing pollution or safety rules. More equal distribution, education and pollution controls promote development.
- **Least likely to be used** to measure development: the size of the population (a level, not a welfare indicator).
- **Blocks development**: rent-seeking (bribes, seeking a bigger share of existing wealth without creating any), and rules that make firms reluctant to hire or invest, such as strict employment-protection laws. Investment in R&D and producing goods with high income elasticity help.
- **Raises living standards**: more doctors (better health), not bigger gold reserves, more money or more crowded housing.

3. Read and apply the Kuznets curve (12 questions)

1. **Axes**: a measure of inequality (often the Gini coefficient) on the vertical axis; income per head on the horizontal.
2. **Shape**: an inverted U. Inequality **rises at first**, then falls, as income per head grows. Not "always positive" or "always negative".
3. **Placing countries**: further right means higher income per head; higher up means more inequality. A country to the left of the turning point gets more unequal as it grows; one to the right gets less unequal.
4. **Recognise it** among other curves: the Lorenz curve plots cumulative % of income against cumulative % of households; the Laffer curve, tax revenue against the tax rate; the Phillips curve, inflation against unemployment. A curve with HDI on the vertical axis is not a Kuznets curve.

For example, if the turning point is at about \$12 000 per head and a country has \$7000, a **rise** in income per head is likely to **increase** inequality.

4. Recall what HDI, MEW and MPI include or leave out (12 questions)

1. **HDI**: life expectancy at birth, mean and expected years of schooling, GNI per head (PPP). **Not** infant mortality, hours worked, pollution or inequality.
2. **MPI**: 10 household indicators (nutrition, child mortality, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing, assets). **Not** medication or income.
3. **Shared by HDI and MPI**: years of schooling.
4. **MEW**: adds leisure and unpaid work, subtracts environmental damage and regrettable necessities. Pollution lowers MEW but not GDP, GNP or the HDI; leisure and non-marketed activity can lift MEW above GNP.
5. **Why HDI beats income per head**: it allows for life expectancy and education, not for inequality or the environment.

5. Spot the limits of GDP/GNI per head for comparing living standards (11 questions)

Run through the checklist in "Problems of comparison":

1. **Understates** welfare: a large hidden economy, barter, subsistence farming, unpaid work, more leisure.
2. **Overstates** welfare: extreme inequality, pollution and resource depletion, long working hours, spending on defence or crime.
3. **A reliable indicator over time** needs an **equal** (or unchanged) income distribution and a **small** hidden economy, because then the average reflects most people and most activity is recorded. Improving quality of goods and services does **not** stop it being a good indicator: living standards are rising at least as fast as the figure shows. So pick "equal distribution, small hidden economy, improving quality" over options with unequal distribution or a large hidden economy.
4. **Not a valid doubt**: "the population grew" (the figure is already per head) and "it uses PPP" (PPP is the fix, not a problem).
5. **Definition of PPP**: the amount of a currency needed to buy the same basket of goods and services in both countries.

6. Evaluate measures of living standards (10 questions)

Paper 4 essays (and a 7-mark data-response part), such as GNI against the MPI, HDI and MEW against GNP, how useful GDP is, or how far national income statistics allow comparisons between countries.

1. **Define** standard of living (material and non-material) and each measure: GDP or GNI, real and per head, PPP, and what HDI, MEW or MPI contain.
2. **Analyse each measure's link to living standards**, with strengths and weaknesses from "Understand it". For national income: it must be real, per head and at PPP, then the distribution, hidden economy, leisure, quality, externalities and composition problems. For each composite: what it adds, and what it still leaves out.

3. **Evaluate:** no single measure is enough; income measures are easy to collect and update but narrow; HDI is broader but still averages; MPI targets poverty only; MEW is the broadest but hardest to estimate. Use several together.
4. **Conclude** which is better **for what purpose** (comparing countries, tracking poverty, judging welfare over time).

Data-table variant: you are given a list of statistics for one year, for example national income 240 billion (local currency), nominal wages +5.0%, inflation 6.2%, population growth 0.8%, unemployment 7.5%. Work through every figure:

- **Explain each one and its link** to material living standards: income and jobs raise spending power; unemployment cuts it for those affected.
- **Turn nominal into real:** wages grew less than prices, so real wages fell by about $5.0 - 6.2 = -1.2\%$; a nominal income figure needs inflation **and** population growth subtracted to give the change in real income per head.
- **Say what is missing:** a total in local currency, with no population size, base year or price index, cannot give real income per head; there is no earlier year to compare with, so no trend; nothing on health, education, hours worked, the environment or distribution. Suggest HDI, MPI or MEW for the non-material side.
- **Conclude:** the data hint that material living standards fell, but they are too incomplete to judge living standards overall.

7. Calculate the change in real income per head (6 questions)

1. Approximate change = money income change – inflation – population change. For example, money income +4%, prices +5%, population +2%: $4 - 5 - 2 = -3\%$, a **decrease** of about 3%.
2. **Biggest rise** in real GDP per head: GDP up, population **down**, prices **down**.
3. **With the HDI:** real GDP per head rises if population falls and prices fall; the HDI also rises if years of education rise.
4. **Lowest living standard from a table:** divide GDP by population for every country, then pick the smallest figure; never judge by total GDP. For example, GDP \$150bn with 120 million people gives \$1250 per head.

8. Apply national income accounting (6 questions)

1. **GDP to GNI:** add net primary (property) income from abroad. GDP and GNI differ by that, not by depreciation.
2. **Gross to net:** subtract depreciation (capital consumption).
3. **Factor cost to market prices:** add indirect taxes, subtract subsidies. (Market prices to factor cost: the reverse.)
4. **National income by the income method:** add factor incomes (wages, salaries, rent, interest, profit); leave out transfer payments (benefits, pensions) and gifts. For example, wages 5000, salaries 4000, rent 1500, interest 1000, profit 2500 and pensions 800 give $5000 + 4000 + 1500 + 1000 + 2500 = 14\,000$; the pensions are not counted.

5. **Value added** is used to avoid double counting.

9. Use case-study data to assess a change in living standards (6 questions)

Data-response parts worth 6–8 marks: "assess whether living standards have improved", "evaluate the impact of the development of an industry on the standard of living". Point-marked:

1. **Define** standard of living, with both a monetary (real income per head) and a non-monetary (health, education, environment) side (**1–2**).
2. **Evidence of improvement**, quoting and **calculating** from the data (**up to 3**): the rise in real GNI or GDP per head in dollars and as a percentage, a higher HDI, more jobs, wider choice of goods, better trade balance.
3. **Evidence against (up to 3)**: pollution, deforestation, poor working conditions, child labour, job losses in other sectors, rising inequality.
4. **Conclusion (1)**: say the evidence is mixed or incomplete and **name what is missing** (distribution, health, education, housing, hours worked, data from before the period).

One-sided answers or bare lists are capped at about half marks, so give both sides and develop each point. A percentage change is $\frac{\text{new} - \text{old}}{\text{old}} \times 100$: from \$1800 to \$4500 is +150%.

Variants: comparing two countries' PPP GDP, unemployment and Gini coefficients (a higher Gini means **more** inequality); why a new export industry reduces poverty (jobs and incomes in poor regions, tax revenue for services).

10. Interpret indicator data to compare development (5 questions)

1. **Growth** from real GDP per head; **development** from welfare indicators (health spending, life expectancy, schooling). Check each country for each separately: real GDP per head can fall while health spending rises, or the reverse.
2. **Most developed** country: the one that does best on most indicators: low rural share, more schooling, longer life expectancy, higher GDP per head (PPP).
3. **Highest HDI** from a table: weigh life expectancy, schooling and GNI per head together; a very high GNI with low schooling can rank below a country that is good on all three. Ignore indicators not in the HDI (such as the share of skilled workers).
4. **What a rising HDI implies**: at least one of its parts improved, such as more years of schooling.

11. Explain a measurement term in a data response (3 questions)

2–3 marks, one per point:

- **Constant prices**: GDP valued at a base year's prices, so price changes are removed (1), and the figure shows the real change in output (1), which allows fair comparison over time (1).
- **The HDI's parts**: health / life expectancy (1), education / years of schooling (1), income / GNI per head (1).

- **PPP**: the exchange rate at which a basket of goods costs the same in both countries (1), used to compare real incomes because prices differ (1).

12. Tell developed and developing economies apart (2 questions)

12-mark parts in 2021–2022. Explain **why** each difference exists, not just list it: low income per head **because** productivity is low (little capital, low skills, a large farming sector); fast population growth **because** of high birth rates and a young population, which raises the dependency ratio; dependence on primary exports **because** of a lack of capital and technology. Take three characteristics, each with its cause and its effect on living standards, then judge which matters most.

Worked examples

Example 1

In a year, a country's money national income rises by 6%, its general price level by 2.5% and its population by 2%.

What is the approximate change in real income per head?

A a rise of about 1.5% **B** a rise of about 3.5% **C** a rise of about 4% **D** a fall of about 1.5% **[1]**

$6 - 2.5 - 2 = +1.5\%$: **A** (1). (Exactly, $\frac{1.06}{1.025 \times 1.02} - 1 = +1.39\%$.)

B forgets population ($6 - 2.5$); C forgets inflation ($6 - 2$); D has the sign the wrong way round.

Example 2

Over a year, a country's output, population and pollution do not change. The average working week falls from 44 hours to 40 hours because productivity rises, and more people care for relatives at home without pay.

Which measure is most likely to show a rise in living standards?

A GNI per head **B** the Human Development Index **C** the Measure of Economic Welfare **D** the Multidimensional Poverty Index **[1]**

Output and population are unchanged, so GNI per head is unchanged; the HDI's parts (life expectancy, schooling, GNI per head) are unchanged. MEW adds the value of **leisure** and **unpaid work**, both of which rose: **C** (1). D measures poverty, and a rise would mean more poverty, not higher living standards.

Example 3

Extract: Between 2010 and 2022, Varnia's GNI per head (at constant prices, PPP US\$) rose from \$3200 to \$5600 and its HDI rose from 0.52 to 0.61. The share of households with electricity rose from 48% to 79%, helped by a new export industry processing timber. Over the same period the Gini coefficient rose from 0.35 to

0.43, forest cover fell from 41% to 33% of the land, and air pollution in the two largest cities doubled.

With reference to the extract, assess whether living standards in Varnia improved between 2010 and 2022. [8]

The standard of living has a material side, real income per head and what it buys, and a non-material side, such as health, education and the environment (1).

Real GNI per head rose by \$2400, a rise of $\frac{2400}{3200} \times 100 = 75\%$, so the average person can buy far more goods and services (1). The HDI rose by 0.09, which means some mix of longer lives, more schooling and higher income (1). Access to electricity rose by 31 percentage points, so more households can light homes, refrigerate food and study at night (1).

However, the Gini coefficient rose from 0.35 to 0.43, so income became more unequal: the average gain may have gone mainly to timber firms and city workers, leaving many people little better off (1). Forest cover fell by 8 percentage points of the land, running down a resource future incomes depend on (1). Doubled air pollution harms health, which cuts the non-material standard of living for city dwellers (1).

On balance, average material living standards clearly rose, but the evidence is not enough to say that living standards rose for most people: there are no figures on poverty, hours worked or who gained, and the environmental damage may cut future living standards (1).

Marks: definition 1 + improvement 3 + against 3 + conclusion 1 = **8/8**.

Example 4

Evaluate whether the Human Development Index is a better measure than real GNI per head for comparing living standards in a high-income and a low-income country. [20]

Model answer (paragraph plan):

1. **Definitions:** standard of living (material and non-material well-being); real GNI per head (the income of a country's residents, adjusted for inflation, divided by population); the HDI (a 0–1 index of life expectancy, years of schooling and GNI per head at PPP). (AO1)
2. **Case for real GNI per head:** it measures the goods and services the average person can buy, which is the core of the material standard of living; it is published often, in the same way, so it shows changes quickly; converted at PPP, it allows for the lower prices of non-traded goods in the low-income country. (AO2)
3. **Limits of real GNI per head when comparing these countries:** the low-income country has a large informal sector and much subsistence farming, so its income is understated; the average hides inequality, which may be greater in either country; it leaves out leisure, the environment, health and education, which differ most between the two. (AO2)
4. **Case for the HDI:** it includes income **and** health and education, the areas where low-income countries fall furthest behind, so it captures more of development. Two countries can rank differently: country P with GNI per head of \$12 000 (PPP) and an HDI of 0.70 against country Q with \$9000 and 0.76; Q has the lower income but people live longer and stay in school longer, so its living standards may be higher. (AO2)

5. **Limits of the HDI:** it is still an average and ignores distribution; it leaves out leisure, pollution and freedom; it measures years in school, not what is learned; its income part is GNI per head, so it shares some of the same data problems; and, for high-income countries, the HDI scores bunch close to 1, so it separates them less well. (AO2, AO3)
6. **Weighing them:** for a low-income country, where health and schooling are the main gaps, the HDI adds the most; for comparing two high-income countries, income per head and MEW-type adjustments (leisure, environment) may matter more. Neither measures poverty directly, for which the MPI is better. (AO3)
7. **Conclusion:** the HDI is the better **single** measure for comparing a high-income and a low-income country, because the differences between them lie largely in health and education; but it is only a partial improvement, so real GNI per head at PPP, the HDI and a poverty or inequality measure should be used together. (AO3)

Table A Level 3 (14): accurate definitions of both measures and of living standards, with developed analysis of each measure's strengths and limits, applied to both types of country. Table B Level 2 (6): both measures weighed on both sides, and a justified conclusion that answers "better" and says for what purpose. **20/20.**

Common mistakes

- **Missing the "not" in a growth-or-development question.** In March 2023 (Paper 32 Q26) only 37% were right; 26% chose an option counting real income per head as an extra part of measuring development. It already belongs to measuring growth, so it is not extra.
- **Doubting a per-head figure because the population grew.** In November 2021 (Paper 33 Q19) 46% were right and 30% chose the population option; a figure per head has already allowed for population.
- **Treating PPP as a flaw.** In November 2022 (Paper 33 Q20) only 52% saw that using PPP is how comparisons should be made, so it is not a reason to doubt them.
- **Confusing gross and net.** In November 2022 (Paper 33 Q19) only 43% knew that the difference between gross and net is depreciation.
- **Putting infant mortality in the HDI.** In March 2026 (Paper 32 Q26) a common wrong answer picked GNI per head as the item left out; the HDI does include GNI per head, and it is infant mortality that is missing (life expectancy at birth is used instead).
- **Not knowing what PPP means, or which way the Gini moves.** In June 2023 (Paper 42 Q1) few could explain PPP as a basket of goods turned into an exchange rate, and many were unsure whether a rise in the Gini coefficient meant more or less equality. It means **more inequality**.
- **Writing "GDP" without "real" and "per head".** In November 2022 (Paper 41 Q6) many discussed GDP loosely, did not define economic development, and did not address "the extent": the top level needed at least two positive and two negative effects of growth on development, and a conclusion.
- **Comparing measures without linking them to living standards.** In June 2022 (Paper 42 Q6(b)) the best answers first defined standard of living and GDP, adjusted GDP for prices and population, then brought in other measures and evaluated as they went.
- **Unbalanced essays on factors.** In March 2026 (Paper 42 Q5) weaker answers described aid types briefly, gave aid and trade unequal weight, and ended with a summary rather than a judgement. In March 2023 (Paper 42 Q5) answers lost analysis marks by not linking the features of low-income countries to

living standards; good answers traced growth through tax revenue to spending on health, housing and education, and weighed this against resource depletion, environmental damage and exploitation of labour.

How to get the marks

- **Multiple choice:** decide first whether the question is about growth (real GDP) or development (welfare), then check each option. For calculations, subtract inflation and population growth from money income growth. Read "not", "least likely" and "most likely" carefully.
- **Definitions** earn the first marks: economic development, standard of living (material and non-material), real GNI per head, PPP, HDI, MEW, MPI, Kuznets curve.
- **Use the data:** in data responses, quote figures **and** calculate changes (in dollars and as percentages). Marks go to evidence on both sides, then a conclusion that names what is missing.
- **Diagrams:** if you draw a Kuznets curve, label the axes (inequality, income per head), the turning point, and where the country sits. For essays on a factor's effect on growth, an AD/AS or PPC diagram showing output rising supports the chain to higher incomes.
- **"Explain" and "analyse"** need developed chains: factor → output and income → tax revenue and spending → health, education, poverty.
- **"Evaluate", "assess", "consider the extent"** need both sides with reasons, then a justified judgement. Evaluate with distribution, sustainability, how gains are used, which measure is used, and short against long run.
- **Essays (20 marks since 2023):** Table A (14) rewards accurate definitions, accurate diagrams where they help, and developed analysis covering every part of the question (both country types, both factors). Table B (6) rewards developed evaluation and a conclusion that answers the question's own words ("equally", "better", "automatically"). In 2021–2022 the 25-mark questions used levels; the top level needed developed points on both sides and a conclusion.

Quick check

1. In a year, money national income rises by 4%, prices by 6% and population by 1.5%. Find the approximate change in real income per head.
2. In a country, 30% of people are multidimensionally poor, and on average they are deprived in 45% of the weighted indicators. Find the MPI. Would a fall in the MPI mean more or less poverty?
3. A basket of goods costs 300 pesos in Country X and \$20 in the USA. The market exchange rate is 40 pesos per dollar. Income per head in X is 60 000 pesos. Find income per head in dollars at the market rate and at PPP, and explain why they differ. **[3]**
4. Country R lies to the left of the turning point on a Kuznets curve. State what is likely to happen to its Gini coefficient as its income per head rises, and give one reason. **[2]**
5. Country A has income per head of \$2000 growing at 6% a year; country B has \$40 000 growing at 2%. After one year, find the new gap in dollars and how many times A's income B's income is. Is A catching up?

Answers

1. $4 - 6 - 1.5 = -3.5\%$: a fall of about 3.5%. (Exactly, $\frac{1.04}{1.06 \times 1.015} - 1 = -3.34\%$.)
2. $MPI = H \times A = 0.30 \times 0.45 = 0.135$. A fall in the MPI means **less** poverty.
3. At the market rate: $60\,000 \div 40 = 1500$ dollars (1). PPP rate = $300 \div 20 = 15$ pesos per dollar, so at PPP: $60\,000 \div 15 = 4000$ dollars (1). Prices of goods are lower in X than the market rate suggests, so each peso buys more there; the PPP figure shows what incomes really buy (1).
4. The Gini coefficient is likely to **rise**: inequality increases (1), because only some workers move from low-paid farming into better-paid jobs in industry and owners of capital gain most at first (1).
5. A: $2000 \times 1.06 = 2120$ dollars; B: $40\,000 \times 1.02 = 40\,800$ dollars. The gap grows from \$38 000 to \$38 680, while B's income falls from 20 times A's to $40\,800 \div 2120 = 19.2$ times. A is catching up in percentage terms, but the absolute gap is still widening.

Past questions to try

- **9708/32/F/M/26 Q28**: the change in real income per head from money income, prices and population.
- **9708/31/O/N/23 Q30**: using the turning point of the Kuznets curve.
- **9708/42/O/N/23 Q5**: a 20-mark essay weighing GNI against the MPI as measures of living standards.
- **9708/41/O/N/24 Q1**: data response ending with the effect of oil extraction on Ghana's living standards (part (d)).