

Past-paper walk-through

Limitations of GDP ■ 2.2

eXercise

Questions in this set

- 2024 Set 1 Q2
- 2022 Set 2 Q2

Reading the mark scheme

- **B1** a mark that stands on its own – the point is either made or not.
- **M1** a *method* mark: the right approach, even if the number is wrong.
- **A1** an *answer* mark, and it usually needs its M mark first.
- **C1** a working mark on the way to the answer.
- **//** separates answers the examiner accepts equally.
- **ecf** = error carried forward: a later part is marked on your own earlier answer.
- **owtte** = “or words to that effect” – the wording need not match.

Question 2

2024 Set 1 ■ Q2

The table provided shows economic data for the country of Louland. The base year is year 1, and the GDP deflator in year 2 is 115.

	Year 1	Year 2
Nominal GDP	800,000	1,035,000
Population	1,000	1,200

Question 2

- (a) Calculate real GDP in Louland in year 2. Show your work.
- (b) How would the change in real GDP from year 1 to year 2 affect the demand for money and the nominal interest rate in Louland?
- (c) Did the standard of living of the average citizen in Louland increase, decrease, or remain the same from year 1 to year 2? Explain using numbers.
- (d) What was the numerical value of the inflation rate from year 1 to year 2?
- (e) If nominal wages increased by 10% from year 1 to year 2, what happened to the real wages of workers in Louland during this time? Explain.

Solution 2

(a)

Mark scheme

- Real GDP = $(\text{Nominal GDP} \div \text{GDP Deflator}) \times 100 = (1,035,000 \div 115) \times 100 = 900,000$.

Solution 2

(b)

Mark scheme

- Real GDP increased from year 1 to year 2, so the demand for money increases (more transactions require money at each price level). With the money supply unchanged, the money demand curve shifts right, so the nominal interest rate increases.

Solution 2

(c)

Mark scheme

- The standard of living of the average citizen in Louland decreased from year 1 to year 2. Real GDP per capita in year 1 was 800 and real GDP per capita in year 2 was 750 ($750 < 800$), so real output per person fell, indicating a lower standard of living.

Solution 2

(d)

Mark scheme

- The inflation rate from year 1 to year 2 was 15% (the percentage increase in the price level/GDP deflator between the two years).

Solution 2

(e)

Mark scheme

- Real wages decreased. Explanation: nominal wages increased by only 10%, which is less than the 15% inflation rate over the same period ($10\% < 15\%$), so real (inflation-adjusted) wages fell.

Question 2

2022 Set 2 ■ Q2

The table below shows macroeconomic data for Country A.

Year	Nominal GDP	GDP Deflator	Population
2020	40,000	100	100
2021	88,000	200	110

Question 2

(a)(i) Calculate each of the following for Country A in year 2021. Show your work.

Real GDP

(a)(ii) Calculate each of the following for Country A in year 2021. Show your work.

Real GDP per capita

(b) Based solely on the data provided, has the standard of living for the average person in Country A increased, decreased, or stayed the same between 2020 and 2021? Explain.

(c) How would an increase in government spending on education affect economic growth in Country A? Explain.

(d) Assume that Country A produces consumer goods and capital goods. Draw a correctly labeled production possibilities curve for Country A, and show the effect of the increase in government spending on education on your graph.

Solution 2

(a)(i)

Mark scheme

- Real GDP in 2021 = 44,000. Work: $\text{Real GDP} = (\text{Nominal GDP} \div \text{Price Index}) \times 100 = (88,000 \div 200) \times 100 = 44,000$. 1 point for the correct value (44,000) with work shown. (In the official scoring guidelines this single point is shared with part (a)(ii): both the real GDP and real GDP per capita values are required together for the point.)

Solution 2

(a)(ii)

Mark scheme

- Real GDP per capita in 2021 = 400. Work: Real GDP per Capita = Real GDP $\div$ Population = 44,000 $\div$ 110 = 400. 1 point for the correct value (400) with work shown. (Shares its official 1 point with part (a)(i); each value is graded here for its own point.)

Solution 2

(b)

Mark scheme

- The standard of living for the average person in Country A has STAYED THE SAME between 2020 and 2021. Explanation: real GDP per capita in Country A did not change from 2020 to 2021 (it remains 400, per the data provided and the value computed in part (a)(ii)) — and real GDP per capita, not nominal GDP or population alone, is the best measure available here of the average person's standard of living. 1 point for stating 'stayed the same' AND explaining via unchanged real GDP per capita.

Solution 2

(c)

Mark scheme

- An increase in government spending on education WILL PROMOTE (increase) economic growth in Country A. Explanation: spending on education increases human capital — the skills, knowledge, and training embodied in workers — which makes the labor force more productive; higher labor productivity increases the economy's potential (long-run) output, i.e., economic growth. 1 point for stating that growth increases AND explaining via human capital and labor productivity.

Solution 2

(d)

Mark scheme

- Draw a correctly labeled production possibilities curve (PPC) graph: axes Capital Goods (vertical) and Consumer Goods (horizontal), with a bowed-out (concave-to-the-origin) curve PPC_1 — 1 point. Second point: show an outward (rightward) shift of the entire curve, from PPC_1 to a new curve PPC_2 lying further from the origin at every point (an arrow from PPC_1 to PPC_2), reflecting the economic growth from the increase in human capital/labor productivity identified in part (c) — 1 point. Total 2 points.