

3.1 Output measures, spending and the multiplier

Name: _____ Class: _____ Date: _____

Total: 6 marks

KEY WORDS nominal GDP

• real GDP

• per capita

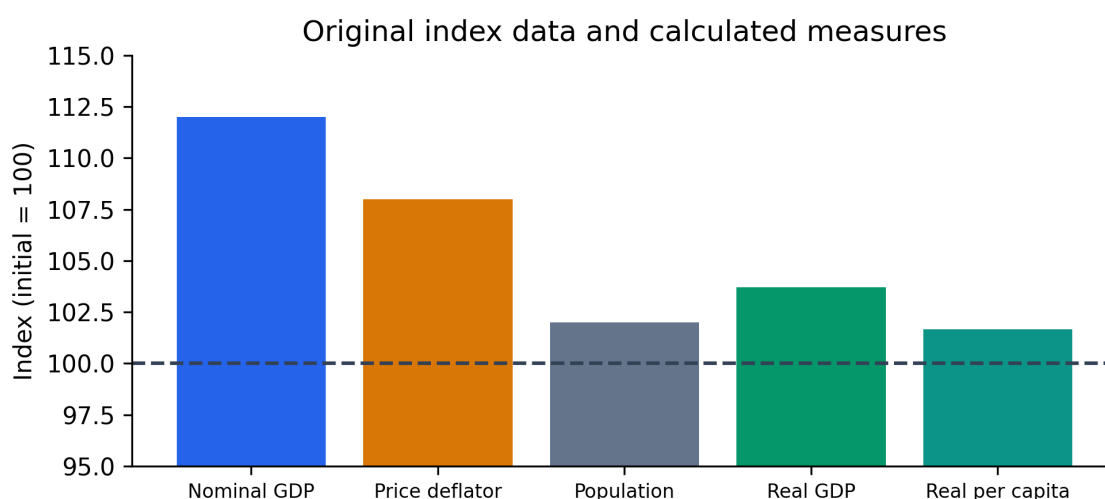
• aggregate demand

Objective

Apply the supported native methods to original data and justify a qualified transfer conclusion.

1 Key knowledge and worked examples

Nominal GDP includes price changes; real GDP adjusts them; per-capita GDP also accounts for population. GDP and GNI differ in their income boundary. Comparisons need consistent dates, definitions and purchasing-power treatment where applicable. AD includes $C+I+G+(X-M)$; real output response depends on aggregate supply and spare capacity.



An original economy's nominal GDP index rises from 100 to 112, its deflator from 100 to 108 and its population index from 100 to 102. Calculate real and real-per-capita changes.

Real GDP growth factor = nominal factor / price factor = $1.12 / 1.08 = 1.037037$.
 Real growth = $(1.037037 - 1) \times 100\% = 3.70\%$. Real-per-capita factor = real

factor/population factor= $1.037037/1.02=1.016703$. Per-capita real
growth= $(1.016703-1)\times 100\%=1.67\%$. Dividing indices avoids treating an ap-
proximation as exact. Neither figure gives income distribution, unpaid output or
environmental quality. For IAL's simple closed multiplier model, $k=1/(1-MPC)$;
with $MPC=.75$, $k=4$ and a 10-million-unit injection gives modelled $\Delta Y=4\times 10=40$
million units. This requires the stated model, not a guarantee.

2 Practice

2.1 For the worked case, state the method, show its application and give a limitation.[3]

3 Exam-style questions

3.1 An economy has spare capacity, but extra spending leaks into imports and saving. Explain the likely adjustment and why the simple multiplier can overpredict domestic output. [3]

Solutions

2.1 Real GDP growth factor=nominal factor/price factor= $1.12/1.08=1.037037$. Real growth= $(1.037037-1)\times 100\%=3.70\%$. Real-per-capita factor=real factor/population factor= $1.037037/1.02=1.016703$. Per-capita real growth= $(1.016703-1)\times 100\%=1.67\%$. Dividing indices avoids treating an approximation as exact. Neither figure gives income distribution, unpaid output or environmental quality. For IAL's simple closed multiplier model, $k=1/(1-MPC)$; with $MPC=.75$, $k=4$ and a 10-million-unit injection gives modelled $\Delta Y=4\times 10=40$ million units. This requires the stated model, not a guarantee. Authored points for method, application and relevant qualification.

3.1 An AD increase can raise domestic real output when supply can respond. Saving and imports reduce successive domestic spending rounds; tax leakages may also matter. Draw an appropriate AD/AS shift and label output and price level, qualifying the size of each response by spare capacity and bottlenecks. The simple closed model omits imports and taxes, so its k is not an unconditional domestic forecast. IGCSE work does not add the IAL multiplier as a mandatory extension. Authored points for judgement, case-linked reasoning and justified qualification. Accept supported alternatives.