5.4 Economic growth and government debt

Name: _____ Class: _____ Date: _____ **Total: 30 marks**

KEY WORDS economic growth • potential growth • budget deficit • government debt • debt-to-GDP ratio GDP • credit rating

Objective

Build the skills to answer exam questions on **economic growth** , the conflicts between macroeconomic objectives, and a sustainable level of **government debt** .

You must be able to:

- explain the causes of economic growth using AD/AS and PPC diagrams
- explain the consequences of growth for living standards, inequality and the environment
- distinguish a budget deficit from government debt, and explain the costs of high debt
- explain possible conflicts between macroeconomic objectives
- calculate growth rates and debt-to-GDP ratios, and interpret them

1 Key knowledge and worked examples

■ Growth, debt and conflicting objectives

Economic growth is an increase in real GDP. **Actual growth** (short run) comes from higher AD using spare capacity: a movement from inside the PPC towards it. **Potential growth** (long run) comes from more or better factors of production: **LRAS shifts right** and the **PPC shifts out**.

sources of long-run growth	examples
more physical capital	factories, machines, infrastructure
more human capital	education, training, health
better technology	new methods, digital tools
better institutions	rule of law, property rights, stable government
more natural resources or labour	discoveries, migration

exercises.lol exercises.com.cn

Consequences: higher incomes and living standards, more jobs and tax revenue; but possible environmental damage, resource depletion, inflation if AD grows too fast, and more inequality if gains are not shared.

Government finances: a **budget deficit** is when spending > revenue **in one year**; a **surplus** is the opposite. **Government (national) debt** is the **total** owed from past deficits. It is usually shown as a **percentage of GDP**.

Costs of high debt: interest payments use money that could fund schools or health (opportunity cost); higher future taxes; lower **credit ratings** and higher borrowing costs; less room to respond to the next recession. A debt level is **sustainable** if the government can keep paying the interest without ever-rising borrowing: growth faster than the interest rate helps.

Conflicts between objectives:

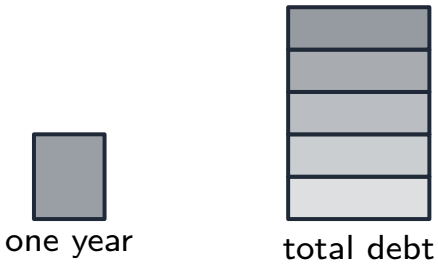
conflict	why
low unemployment vs low inflation	higher AD cuts unemployment but raises prices (short-run Phillips curve)
growth vs the environment	more output can mean more pollution and resource use
growth vs equity	gains may go to owners of capital and skilled workers
growth vs the current account	rising incomes increase imports

AHL – ratios: debt-to-GDP $= \dfrac{\text{government debt}}{\text{GDP}} \times 100$. If debt grows more slowly than nominal GDP, the ratio falls even with a deficit.

Answer shapes: diagram (AD/AS or PPC) → mechanism → consequences for different groups → judgement.

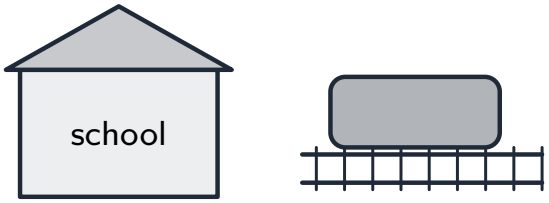
2 Practice

2.1 Distinguish between a budget deficit and government debt. [2]



exercises.lol exercises.com.cn

2.2 State **two** sources of long-term economic growth. [2]

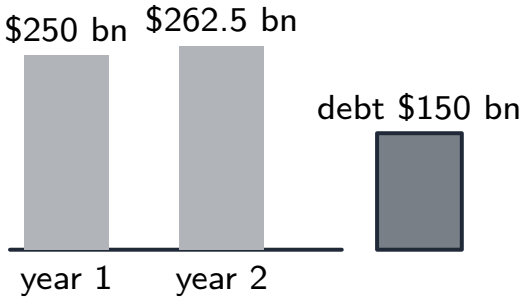


2.3 Using a PPC diagram, distinguish between actual growth and potential growth. [4]



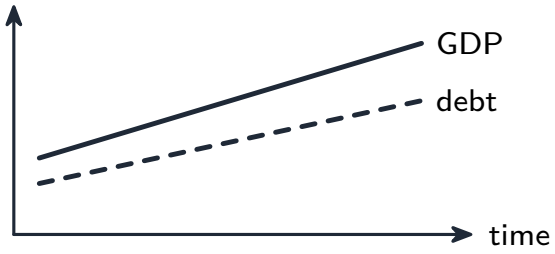
[[drawlines:4]]

2.4 A country's real GDP rises from \$250 billion to \$262.5 billion. Its government debt is \$150 billion at the start. Calculate the growth rate and the debt-to-GDP ratio at the start. [3]



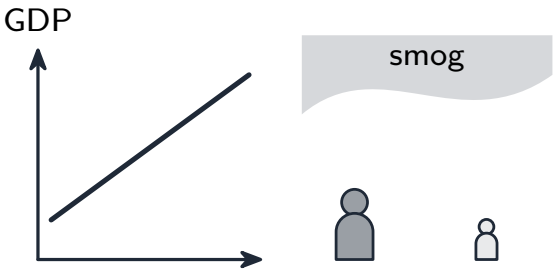
exercises.lol exercises.com.cn

2.5 The next year the government runs a deficit of \$6 billion and nominal GDP is \$262.5 billion. Calculate the new debt-to-GDP ratio, and explain why the ratio fell even though the government borrowed more. [3]



3 Exam-style questions

3.1 A fast-growing economy has rising incomes but worsening air pollution and a widening gap between rich and poor.

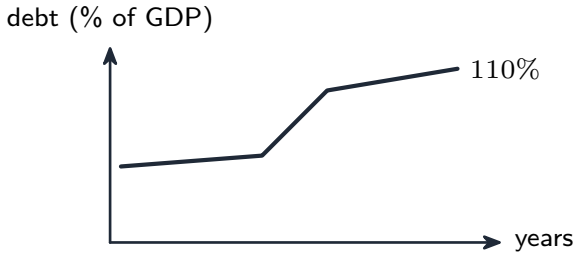


(a) Define **economic growth**. [2]

(b) Discuss the view that economic growth always raises living standards. [6]

exercises.lol exercises.com.cn

3.2 After a recession, a government's debt has risen to 110% of GDP.



Evaluate whether the government should cut its spending quickly to reduce the debt. [8]

exercises.lol exercises.com.cn

Solutions

Marking: **M1** a correct method, **A1** the correct answer, **B1** an independent mark.

Each answer shows the steps, then the **result**.

2.1

budget deficit: government spending is greater than revenue in one year; government debt: the total amount owed, built up from past deficits

2.2

any two: investment in physical capital / infrastructure; education and training (human capital); new technology; better institutions

2.3

actual growth: a movement from a point inside the PPC towards the curve, using unemployed resources; potential growth: an outward shift of the PPC, from more or better resources or technology; correctly labelled diagram showing both

2.4

growth $= 12.5 \div 250 \times 100 =$ **5**%; debt ratio $= 150 \div 250 \times 100 =$ **60**%

2.5

new debt = 156 bn; ratio $= 156 \div 262.5 \times 100 \approx$ **59.4**%; GDP grew by 5% while debt grew by only 4%, so debt fell as a share of GDP

3.1

(a) an increase in real GDP; over a period of time, usually a year

(b) growth raises incomes, jobs and tax revenue for schools and health care; but pollution harms health and quality of life; widening inequality means many people gain little; resources may be used up, harming future generations: not sustainable; judgement: growth is necessary but not enough; its quality and distribution matter

3.2

award up to [8]: high debt means large interest payments: opportunity cost for public services; risk of lower credit ratings and higher borrowing costs; cutting the debt keeps room to act in the next crisis; but quick cuts reduce AD; with the multiplier, GDP falls further; lower GDP can raise the debt ratio and unemployment; better to cut slowly as the economy recovers and grows; growth faster than interest rates lowers the ratio without big cuts; judgement depends on the interest rate, who holds the debt, and the state of the recovery