A-LEVEL ECONOMICS • EXERCISE SHEET

9.1 The circular flow of income

Name: ____________ Class: ________ Date: __________ **Total: 19 marks**

KEY WORDS multiplier 乘数 • marginal propensity to save 边际储蓄倾向 • investment 投资 • accelerator 加速数 • leakages 漏出

Objective

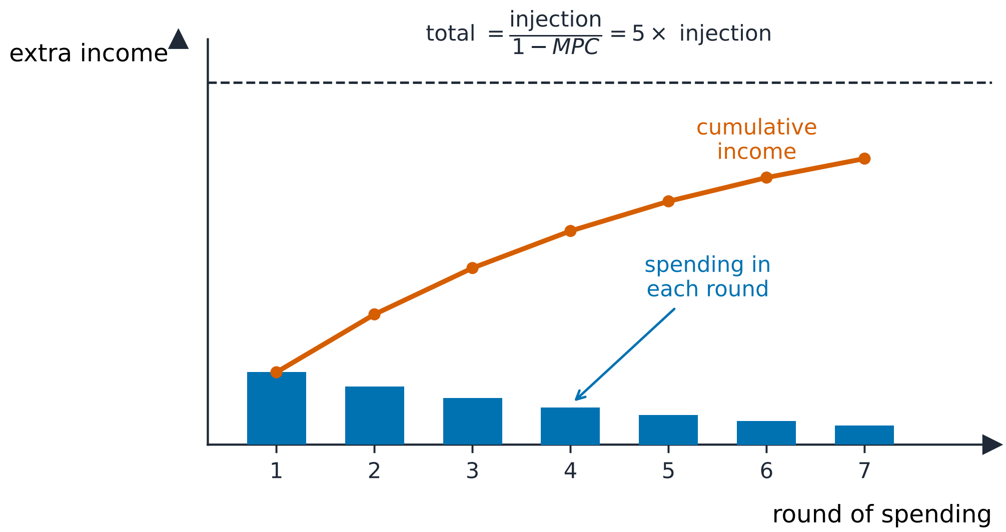
Build the skills to answer exam questions on **the circular flow of income** 收入循环流 at A Level — the **multiplier** 乘数, the **accelerator** 加速数, and what drives **consumption, saving and investment** 消费、储蓄与投资.

You must be able to:

- calculate the multiplier from the MPC
- explain the accelerator
- analyse the determinants of consumption, saving and investment

1 Worked examples

■ The multiplier

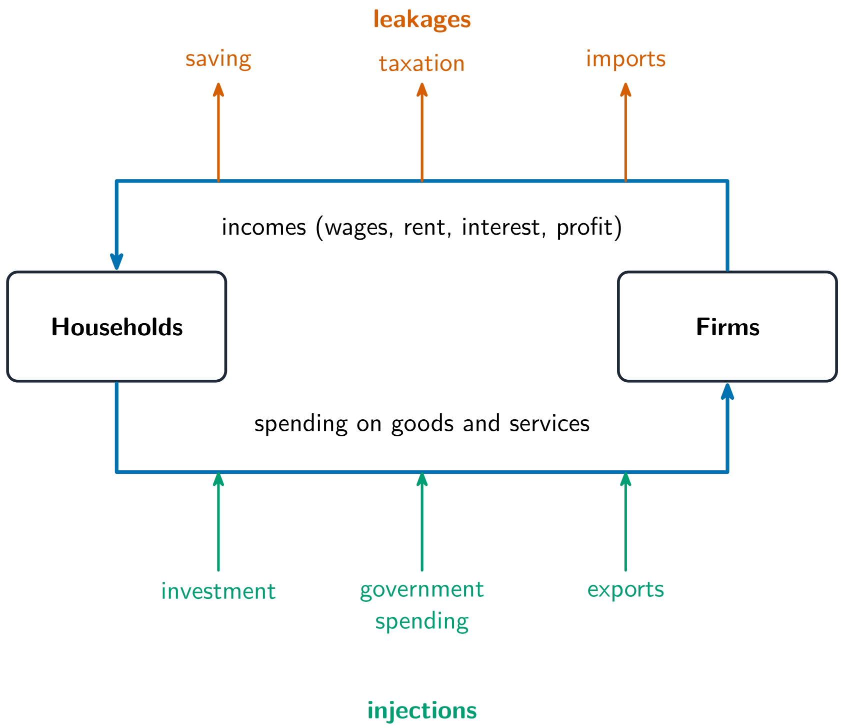


$k = 1/(1 - \text{MPC})$ · successive spending rounds

Each round of spending is smaller by the MPC

$$\text{multiplier} = \frac{1}{1 - MPC}$$

- **Worked:** if MPC $= 0.8$, multiplier $= \frac{1}{1-0.8} = 5 \rightarrow$ a \$10m injection raises income by \$50m.
- A **bigger MPC** (smaller leakages) gives a bigger multiplier.



The multiplier works inside the circular flow: an injection circulates as repeated spending

- **Accelerator 加速数**: investment depends on the **rate of change** of output.

Answer shapes: AO1 + AO2 + AO3 (analysis) + AO4 (a supported judgement *in context*).

2 Practice

2.1 Define the term *multiplier*. [2]

2.2 The marginal propensity to consume is 0.75. Calculate the multiplier. [2]

2.3 State two factors that influence the level of investment. [2]

3 Exam-style questions

3.1 The value of the multiplier rises when: [1]

- **A** the marginal propensity to consume rises
- **B** the marginal propensity to save rises
- **C** the marginal propensity to import rises
- **D** the tax rate rises

3.2 The MPC is 0.6 and the government raises spending by $20m.

(a) Calculate the multiplier. [2]

(b) Calculate the total rise in national income. [2]

3.3 Discuss the usefulness of the multiplier concept for a government planning to increase its spending. [8]

Solutions

Economics answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 the ratio of the final change in national income to the initial change in injections that caused it (2 for a clear definition; 1 for a partial idea).

2.2 $\frac{1}{1-0.75} = \frac{1}{0.25} = 4$ (2; award 1 for a correct method with the wrong figure).

2.3 any two of: interest rates; expected profit; technology; business confidence (1 + 1).

3.1 **A**. A higher MPC means smaller leakages, so the multiplier rises.

3.2 (a) multiplier $= \frac{1}{1-0.6} = 2.5$ (2). (b) total rise $= 2.5 \times \$20\text{m} = \$50\text{m}$ (2; allow follow-through from (a)).

3.3 *[8]* AO1/AO2/AO3 up to 5 + AO4 up to 3. **Useful:** the multiplier shows that an injection raises income by more than itself, helping the government estimate the full effect of its spending on output and jobs. **Limits:** the real MPC is hard to measure and varies, leakages (saving, tax, imports) shrink the effect, and crowding out or full capacity can offset it. Judgement: the multiplier is a useful planning guide but only an estimate — its reliability depends on the size of leakages and spare capacity.