

Exercise walk-through

9.1

The circular flow of income

A-Level Economics

Why an injection is worth more than itself

the multiplier

an injection raises income by **more** than the first amount

the mechanism

a firm builds a factory; the builders earn income and **spend part of it**; those receipts become someone else's income, and so on

MPC

the marginal propensity to consume – the fraction of extra income that is **spent** on domestic goods

the leakages

MPS
MPM

saving, **MPT**
imports

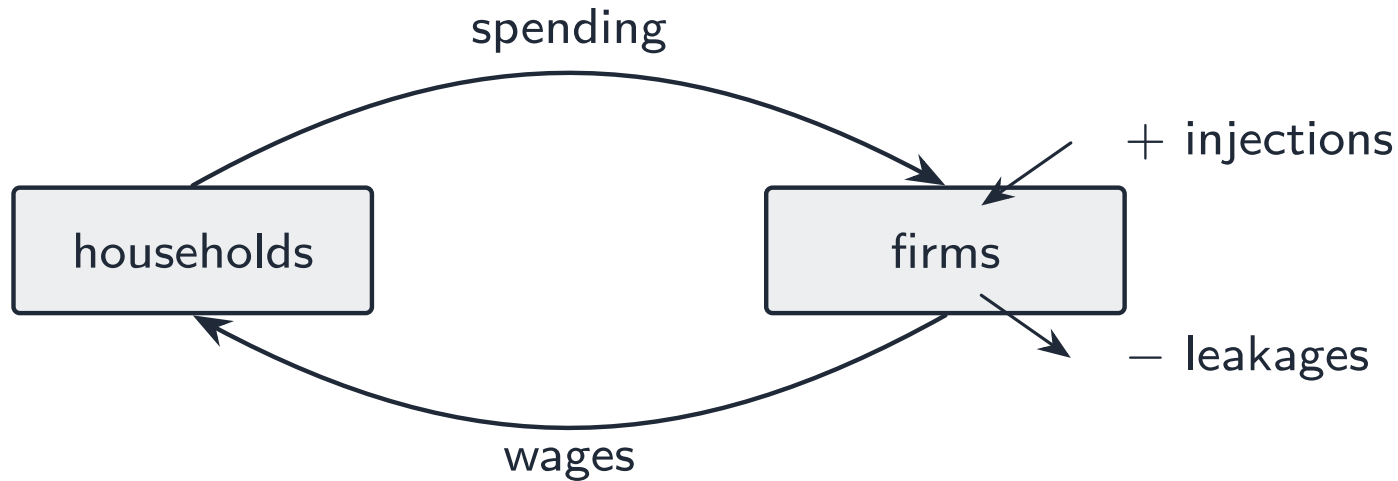
tax,

the size

$$k = \frac{1}{1 - \text{MPC}} = \frac{1}{\text{MPS} + \text{MPT} + \text{MPM}}$$
 – a bigger MPC, or smaller leakages, gives a bigger multiplier

An open economy with high taxes has a **small** multiplier, because most of each round leaks abroad or to the exchequer before it can be re-spent.

The circular flow and the multiplier



Income circulates between households and firms, with injections and leakages

The circular flow, and what leaks from it

The flow

The **circular flow of income** runs firms → households (wages) → firms (spending), round and round.

Injections

Investment, government spending and exports add to it.

Withdrawals

Saving, tax and imports leak out. The **marginal propensity to save** and the **marginal propensity to import** say how much of each extra pound leaks.

So the multiplier

The bigger those leakages, the smaller the multiplier – since less of each round is passed on.

Equilibrium is not where the flow stops; it is where injections equal withdrawals.

Exercises 2.1-2.3

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]

Exercises 2.1·2.3

2.1 Define the term *multiplier*. [2]

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

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

2.3

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

Exercise 3.1

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

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3.1 A

- A higher MPC means smaller leakages, so the multiplier rises

Exercise 3.2

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]

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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)

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Exercise 3.3

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

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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