

Exercise walk-through

4.2

Introduction to the circular flow of income

A-Level Economics

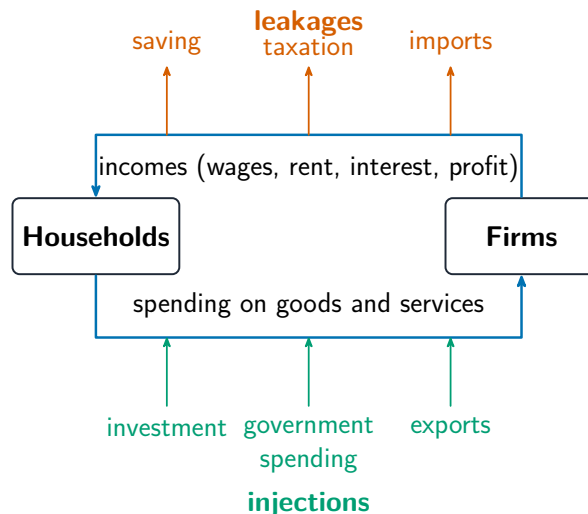
What we will cover

- 1 National income
- 2 The circular flow
- 3 Aggregate demand & supply
- 4 Growth & the business cycle
- 5 Unemployment
- 6 Inflation



output of the whole economy

Trace where money leaves and enters the domestic flow



The **circular flow of income** links income and spending. **Leakages** : saving (S), taxation (T), imports (M). **Injections** : investment (I), government spending on output (G), exports (X).

A **closed economy** has no foreign trade: $X = M = 0$. An **open economy** includes international transactions. Government can exist in either.

Build a balanced flow from the given amounts

Planned annual flows; £ billion, fixed prices

Income $Y = 300$, saving $S = 35$, taxes $T = 25$, imports $M = 30$; investment $I = 30$, government purchases $G = 40$, exports $X = 20$. No transfer payments. Find consumption and check equilibrium.

$$C = Y - S - T = 300 - 35 - 25 = 240 \text{ (£ billion/year)}$$

$$J = I + G + X = 30 + 40 + 20 = 90 \text{ (£ billion/year)}$$

$$L = S + T + M = 35 + 25 + 30 = 90 \text{ (£ billion/year)}$$

$$AE = C + I + G + X - M = 240 + 30 + 40 + 20 - 30$$

$$AE = 300 \text{ (£ billion/year)} = Y$$

Planned injections J equal leakages L : **equilibrium** .

Exercises 2.1-2.3

2.1 Define the term *leakage* (withdrawal) from the circular flow. [2]

2.2 State the three injections into the circular flow. [3]

2.3 State the condition for the circular flow to be in equilibrium. [1]

Exercises 2.1·2.3

2.1 Define the term *leakage* (withdrawal) from the circular flow. [2]

2.1

- money that is taken out of the circular flow rather than passed on as spending (saving, taxation or imports) (2 for a clear definition; 1 for a partial idea)
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2.2 State the three injections into the circular flow. [3]

2.2

- investment; government spending; exports (1 + 1 + 1)
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2.3 State the condition for the circular flow to be in equilibrium. [1]

2.3

- when total injections equal total leakages (1)

Exercises 3.1·3.2

3.1 Which is a **leakage** from the circular flow of income?

[1]

☐

A investment

B government spending

C saving

D exports

3.2 Explain what happens to national income when injections are greater than leakages.[6]

Exercises 3.1-3.2

3.1 Which is a **leakage** from the circular flow of income?

[1]

☐

A investment

B government spending

C saving

D exports

3.1 C

- Saving is a leakage (withdrawal) from the flow

3.2 Explain what happens to national income when injections are greater than leakages.[6]

3.2

- [6] AO1 1 + AO3 up to 5 – when injections exceed leakages, more money enters the flow than leaves
- firms receive more spending
- they produce more and pay more income
- national income rises until leakages rise to match injections

Exercise 3.3

3.3 Explain how a rise in exports affects the circular flow of income in an open economy. [6]

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3.3

- [6] AO1 1 + AO2/AO3 up to 5 – exports are an injection, so more money enters the flow
- foreign buyers' spending raises firms' revenue
- firms produce more and pay more income to households
- national income rises (a multiplier effect may amplify this)

Exercise 3.4

3.4 Annual leakages are $S = 20$, $T = 15$, $M = 10$, and injections are $I = 18$, $G = 20$, $X = 12$, all in the same currency units. (a) Find total leakages, total injections and their difference. [2]

(b) Predict the initial direction of income adjustment and explain why the eventual change is not necessarily equal to that difference. [2]

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3.4

(a) Leakages = 45; injections = 50; injections exceed leakages by 5.

(b) Initial upward pressure on income; income changes can alter induced leakages, so the final income change need not be 5.