

3.3 National income and the multiplier

Name: _____ Class: _____ Date: _____ Total: 24 marks

KEY WORDS multiplier • circular flow of income

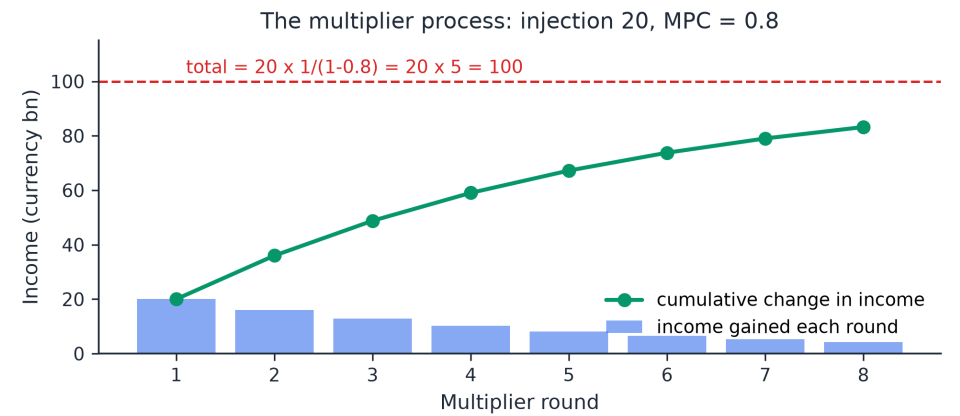
National income and the multiplier

Objective

Use the circular flow with injections and withdrawals, the equilibrium condition, and the multiplier formulae with marginal propensities (spec 2.3.4, rows 1–4).

1 Key knowledge and worked examples

The multiplier. Injections (I, G, X) add spending; withdrawals (S, T, M) drain it; equilibrium returns when $I + G + X = S + T + M$. The multiplier $k = 1/(1 - MPC) = 1/MPW$ where $MPW = MPS + MPT + MPM$; the total change in income is k times the injection. SAM anchor: MPC 0.5 gives $k = 2$, so £30bn becomes £60bn.



Original data: injection 20 with MPC 0.8 converges to $20 \times 5 = 100$.

2 Practice

2.1 Name the three injections and the three withdrawals. [2]

2.2 Write the circular-flow equilibrium condition. [2]

2.3 With $MPC = 0.8$, calculate the multiplier. [3]

2.4 With $MPS = 0.1$, $MPT = 0.15$ and $MPM = 0.25$, calculate MPW and the multiplier. [3]

2.5 Distinguish income from wealth. [2]

3 Exam-style questions

3.1 (SAM WEC12/01 Q9, adapted.) A government invests £30 billion in infrastructure and households have an MPC of 0.5. Calculate the multiplier and the total change in national income, showing the formula. [4]

3.2 (*Original.*) An injection of 20 is made into an economy with $MPC = 0.8$. Explain the multiplier process and the total change in income. [4]

3.3 (*Original.*) Explain why an economy with a high marginal propensity to import has a small multiplier. [4]
