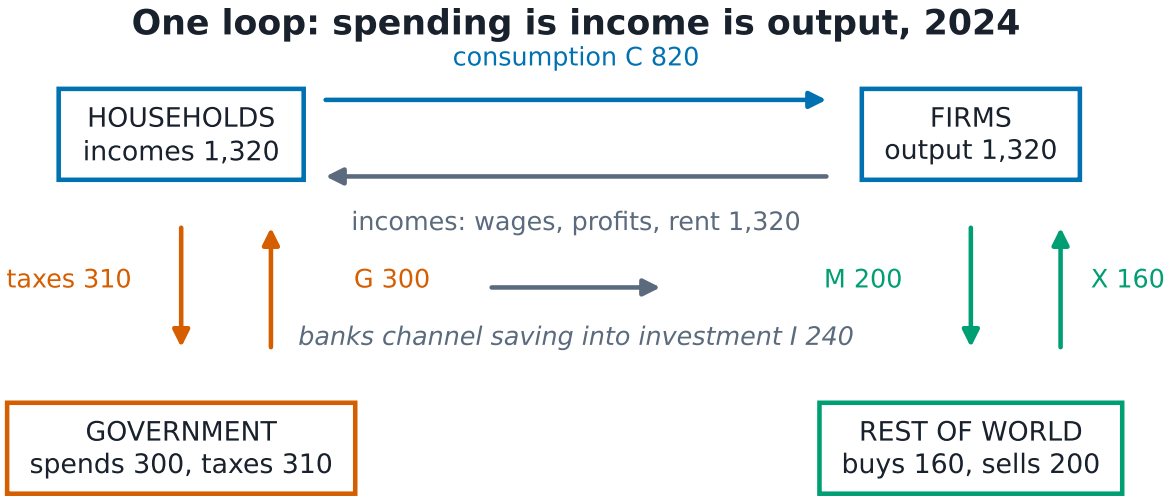
Exercise walk-through

4.5 Macroeconomic policy

University Business

National accounts: the loop closes at 1,320

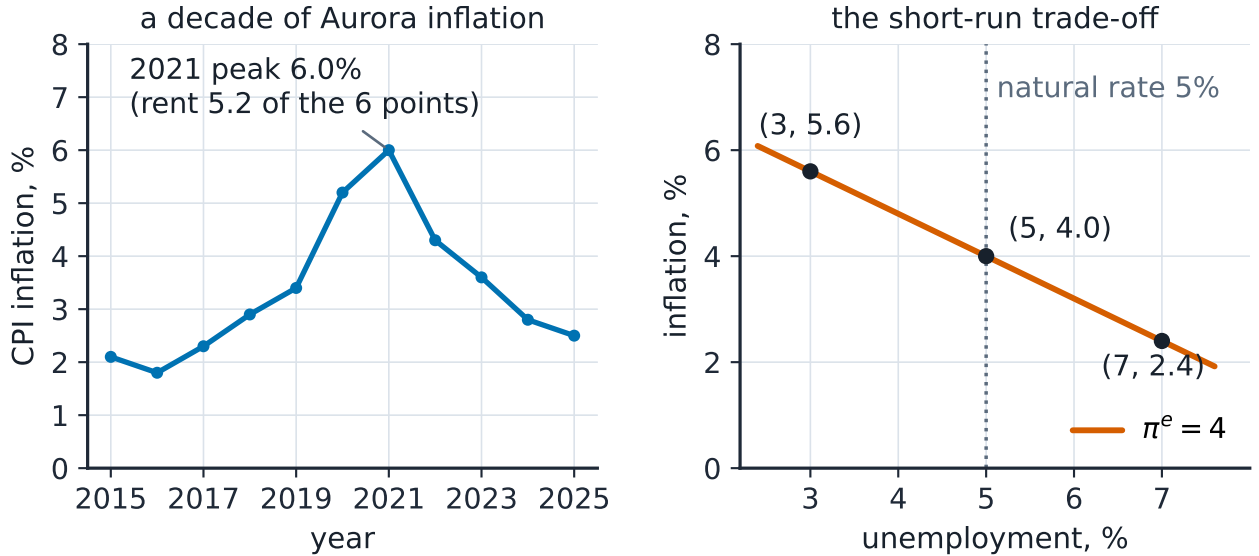


Y = 820 + 240 + 300 + 160 - 200 = 1,320 (both sides close)

C + I + G + X - M = 1,320, and income closes at the same 1,320.

Inflation: audit the index

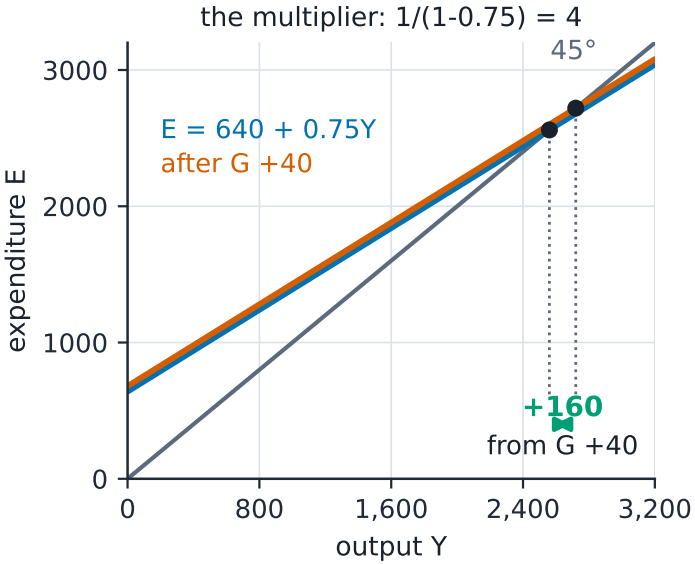
Prices and jobs: an index you can audit, a trade-off that expires

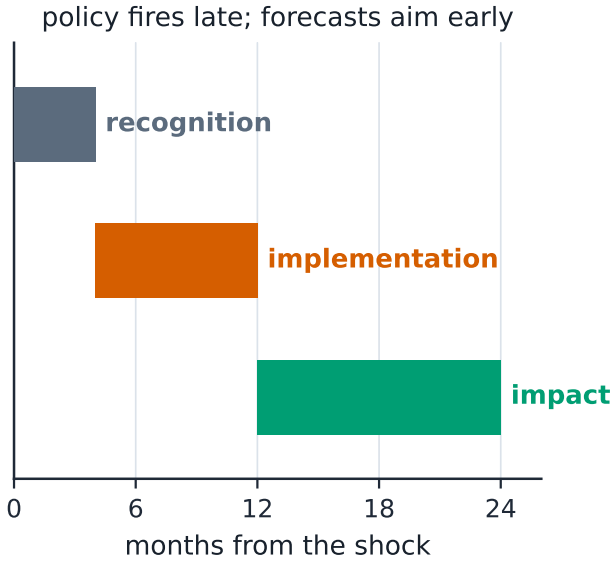


CPI 106.0 means 6% **inflation**; the trade-off holds until expectations move.

Policy: the cross and the clock

The multiplier moves output; the lags decide whether in time





G +40 becomes +160 at MPC 0.75, if the lags let it arrive in time.

Exercises 2.1·2.2

2.1 MPC is 0.8. Compute the spending multiplier and the tax multiplier. [2]

2.2 With those multipliers: G rises 30; T falls 50. Compute each effect on output and the combined change. [3]

Exercises 2.1·2.2

2.1 MPC is 0.8. Compute the spending multiplier and the tax multiplier. [2]

2.1

- Spending multiplier $= 1/(1-0.8) = \mathbf{5}$.
- Tax multiplier $= -0.8/0.2 = \mathbf{-4}$.

2.2 With those multipliers: G rises 30; T falls 50. Compute each effect on output and the combined change. [3]

2.2

- $G + 30$: $\Delta Y = 30 \times 5 = \mathbf{+150}$.
- $T - 50$: $\Delta Y = -50 \times (-4) = \mathbf{+200}$.
- Combined: $+350$.

Exercises 2.3·2.4

2.3 G and T both rise by 30 (MPC 0.8). What happens to output, and what is this result called? [2]

2.4 The output gap is −100. Two parties propose G +25 and T −40. Show what each delivers, and name one reason each might overshoot in reality. [4]

Exercises 2.3·2.4

2.3 G and T both rise by 30 (MPC 0.8). What happens to output, and what is this result called? [2]

2.3

- $\Delta Y = 30 \times 5 - 30 \times 4 = +\mathbf{30}$.
- The **balanced-budget multiplier** – exactly 1.

2.4 The output gap is -100. Two parties propose G $+25$ and T -40. Show what each delivers, and name one reason each might overshoot in reality. [4]

2.4

- $G + 25$: $25 \times 5 = +125$ – overshoots by 25.
- $T - 40$: $40 \times 4 = +160$ – overshoots by 60.
- Overshoot reasons: imports and taxes leak rounds; borrowing raises rates and crowds out investment – the simple 5 is a ceiling.
- Also supply constraints: near capacity, extra demand becomes prices, not output.

Exercise 2.5

2.5 For the 2021–23 episode (UK CPI peak 11.1% in Oct 2022; policy rates near zero to 4–5% by 2023): in three lines, apply (a) the supply shock's effect on the Phillips trade-off, (b) the lags, (c) one limit of the whole reading. [4]

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2.5

- (a) A negative supply shock raises inflation while output falls – both move the wrong way for the trade-off, so 2022's combination (11.1% inflation, low unemployment) broke the simple curve.
- (b) The 2021–23 tightening was decided in 2021–22 and landed through 2023 – recognition, implementation and impact lags, exactly as the timeline shows.
- (c) One limit: the multipliers and the curve are models – CPI is one index (housing-weighted), and supply shocks vs demand cannot be separated cleanly in real time.
- State the model with its limits – the episode supports a reading, not a verdict.