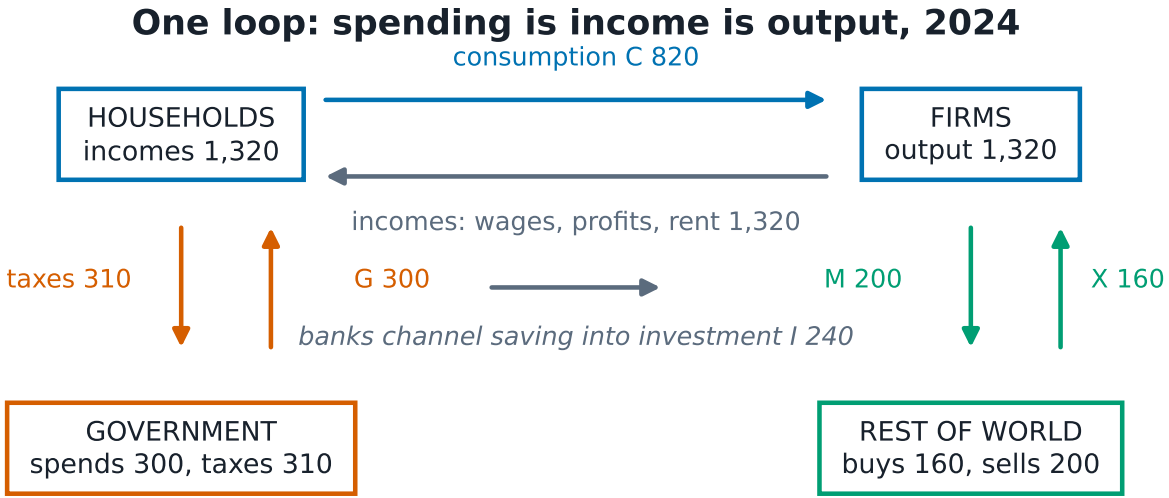
Exercise walk-through

4.3
Inflation and unemployment

University Business

National accounts: the loop closes at 1,320

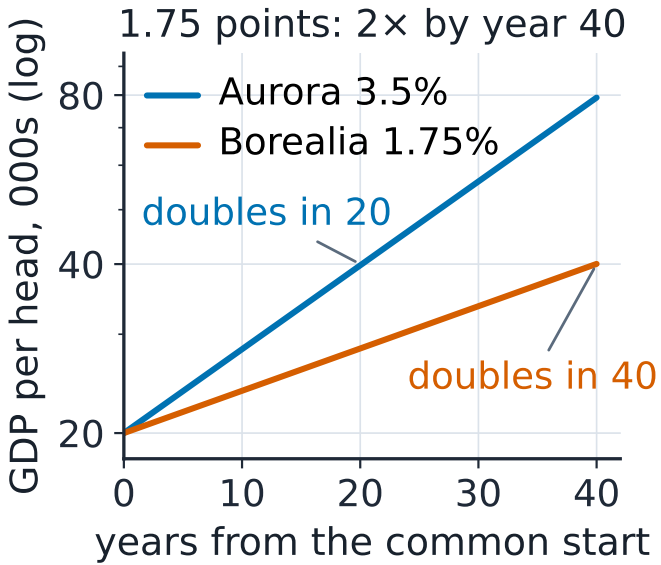


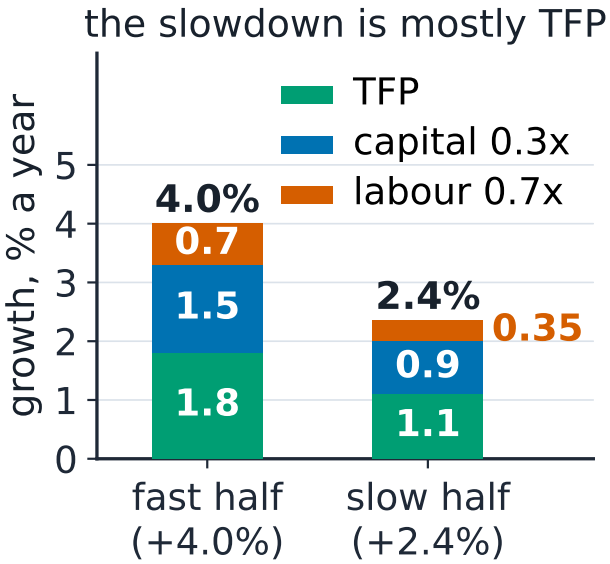
Y = 820 + 240 + 300 + 160 - 200 = 1,320 (both sides close)

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

Growth: small rates, compounded

Small growth gaps compound, and where they come from

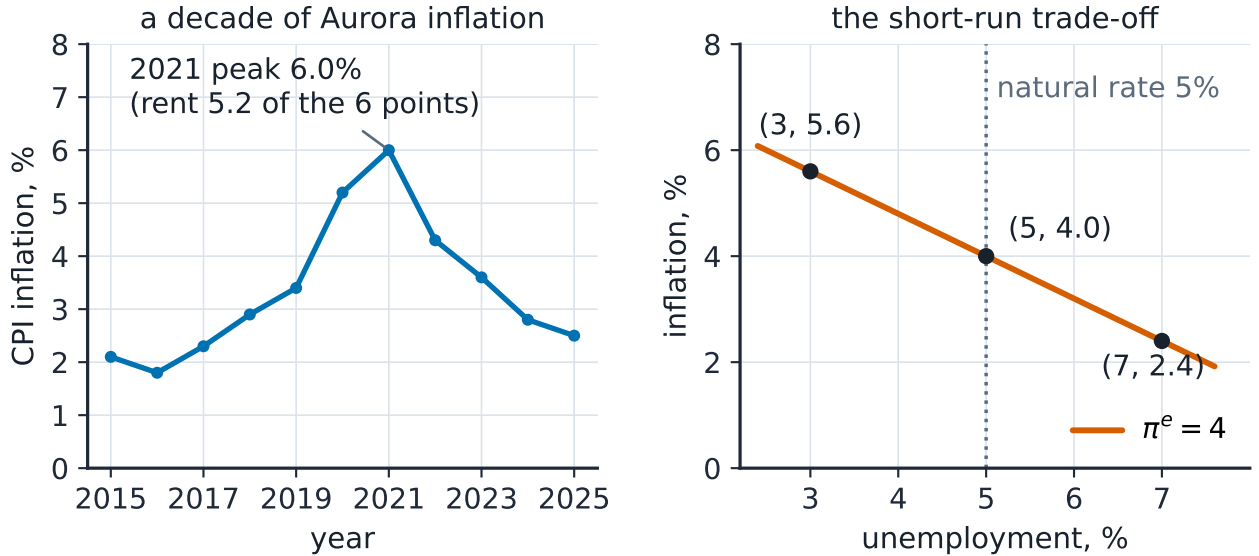




On a log scale, 3.5% growth doubles in 20 years, 1.75% in 40.

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.

Exercises 2.1·2.2

2.1 Compute the basket cost in both years, the CPI, and inflation. [3]

2.2 Compute each item's rate and weight, and attribute inflation to the three items in points. [4]

Exercises 2.1·2.2

2.1 Compute the basket cost in both years, the CPI, and inflation. [3]

2.1

- Base: $12(1.50) + 600 + 30(4) = 18 + 600 + 120 = £738$.
- Now: $12(1.65) + 672 + 30(4.20) = 19.8 + 672 + 126 = £817.8$.
- CPI $= 817.8/738 \times 100 = 110.8$; inflation $= \mathbf{10.8}\%$.

2.2 Compute each item's rate and weight, and attribute inflation to the three items in points. [4]

2.2

- Rates: loaves $+10\%$, rent $+12\%$, bus $+5\%$.
- Weights: $18/738 = 2.44\%$, $600/738 = 81.3\%$, $120/738 = 16.3\%$.
- Points: $0.24 + 9.76 + 0.81$.
- $= 10.8$ ✓ – rent is nine-tenths of the headline.

Exercises 2.3·2.4

2.3 A deposit pays 8% and inflation is 5%. The Fisher real rate (two decimals)? And the naive subtraction answer? [2]

2.4 With $\pi = 3 - 0.7(u - 4)$: compute inflation at u = 6 and at u = 4, and state what u = 4 is called. [3]

Exercises 2.3·2.4

2.3 A deposit pays 8% and inflation is 5%. The Fisher real rate (two decimals)? And the naive subtraction answer? [2]

2.3

- Fisher: $1.08/1.05 - 1 = \mathbf{2.86}\%$.
- Naive: $8 - 5 = 3.0\%$ – overstated by 0.14 points.

2.4 With $\pi = 3 - 0.7(u - 4)$: compute inflation at u = 6 and at u = 4, and state what u = 4 is called. [3]

2.4

- $u = 6$: $\pi = 3 - 0.7(2) = \mathbf{1.6}\%$.
- $u = 4$: $\pi = \mathbf{3.0}\%$ – inflation at expectations.
- $u = 4$ is the **natural rate**.

Exercise 2.5

2.5 Unemployment falls from 6.2% to 5.8% while participation falls from 63.0% to 61.5% of working-age adults. In two lines, say why the "improvement" may not be one. [2]

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2.5

- The labour force shrank faster than employment: discouraged workers left, and the rate falls mechanically when they do.
- Check employment or participation directly before calling it an improvement.