Exercise walk-through

Price Indices and Inflation ▪ 2.4

eXercise

You must be able to

- define **inflation 通货膨胀**, **deflation 通货紧缩**, and **disinflation 通胀放缓**
- explain how the **Consumer Price Index (CPI) 消费者价格指数** is built from a fixed basket
- calculate the **inflation rate** as the percentage change in a price index
- compute a price index with $\text{index} = \dfrac{\text{cost now}}{\text{cost in base year}} \times 100$

Method — The CPI

Track the cost of a **fixed basket** of goods: $\text{CPI} = \dfrac{\text{cost of basket now}}{\text{cost in base year}} \times 100$. The base year has $\text{CPI} = 100$.

Method — The inflation rate

The **percentage change** in the index between two periods:

$$\text{inflation rate} = \frac{\text{new index} - \text{old index}}{\text{old index}} \times 100.$$

Method — The three terms

Inflation = rising prices; **deflation** = falling prices; **disinflation** = inflation that is still positive but **slowing**.

Practice 2.1 ▪ 1 mark

Define inflation.

Solution 2.1

Worked steps

a sustained rise in the general price level **B1**.

Practice 2.2 ▪ 2 marks

A basket costs $\$250$ now and $\$200$ in the base year. Find the CPI.

Solution 2.2

Method: The CPI

Worked steps

$$\text{CPI} = \frac{250}{200} \times 100 = 125 \quad \text{M1 A1}.$$

Practice 2.3 ▪ 2 marks

The CPI rises from 120 to 126. Find the inflation rate.

Solution 2.3

Method: The inflation rate

Worked steps

$$\frac{126-120}{120}\times 100 = 5\% \quad \boxed{\textbf{M1}}\boxed{\textbf{A1}}.$$

Exam-style 3.1 ▪ 1 mark

The CPI is based on

A every good in the economy

B a fixed basket of goods

C food only

D exports

Solution 3.1

A every good in the economy

B a fixed basket of goods ✓

C food only

D exports

Worked steps

B.

Exam-style 3.2 ▪ 1 mark

Disinflation means that

A prices are falling

B inflation is slowing but still positive

C prices are rising very fast

D there is no inflation at all

Solution 3.2

A prices are falling

B inflation is slowing but still positive ✓

C prices are rising very fast

D there is no inflation at all

Worked steps

B.

Exam-style 3.3 ▪ 2 marks

A basket cost $\$400$ in 2020 (the base year) and $\$460$ in 2024.
(a) Find the 2024 CPI.
(b) State the total percentage rise in prices.

Solution 3.3

Method: The CPI

Worked steps

(a) CPI $= \dfrac{460}{400} \times 100 = 115$ **M1** **A1**. (b) 15% **B1**.