

1

3

CPI = 200

CPI = 210

2024



2025

$$\text{Inflation} = \frac{210 - 200}{200} \times 100 = 5\%$$

Suppose you lend \$10,000 (one full basket) at **zero interest** in 2024 to be repaid in 2025

Loan = 100,000

The borrower returns = 10,000



\$10,000

Full Basket



Full Basket

5% inflation means that the basket in 2025 costs 5% more:


$$\$10,000(1.05) = \$10,500$$

\$10,500

\$10,000 does not buy a full basket. It only buys:

$$(10,000/10,500) \times 100 \sim 95\%$$

of the basket ...



The borrower
returns less than
what s/he
borrowed



Lenders must protect from inflation by charging
interest

95% of the basket

CPI = 200

2024

CPI = 210

2025

$$\text{Inflation} = \frac{210 - 200}{200} \times 100 = 5\%$$

Lenders must protect from inflation by charging interest



Full Basket

\$10,000



The borrower
returns less than
what s/he
borrowed



95% of the basket



Full Basket \$10,000