

3

5

You lend \$100,000 at 10% Nominal interest in 2024 to be repaid in 2025

The borrower pays back $= 100,000(1.1) = 110,000$

CPI = 210

2024



CPI = ?

2025

Real interest rate = 10% - 5% = 5%



You earn

$$\text{Interest Income} = 100,000 \times 0.1 = \$10,000$$

If the **tax** on interest income is **25%**



Tax you owe

$$\text{\$}10,000 \times 0.25 = 2,500$$

If the **tax** on interest income was charged on the **Real** interest instead



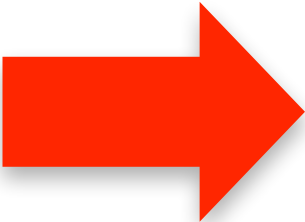
Tax you really owe $\$5,000 \times 0.25 = 1,250$



You earn

$$\text{Real Interest Income} = 100,000 \times 0.05 = \$5,000$$

Even though your **Real** Income was only **\$5,000** the
government still makes you pay **\$2,500**

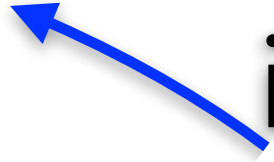


You pay 50%

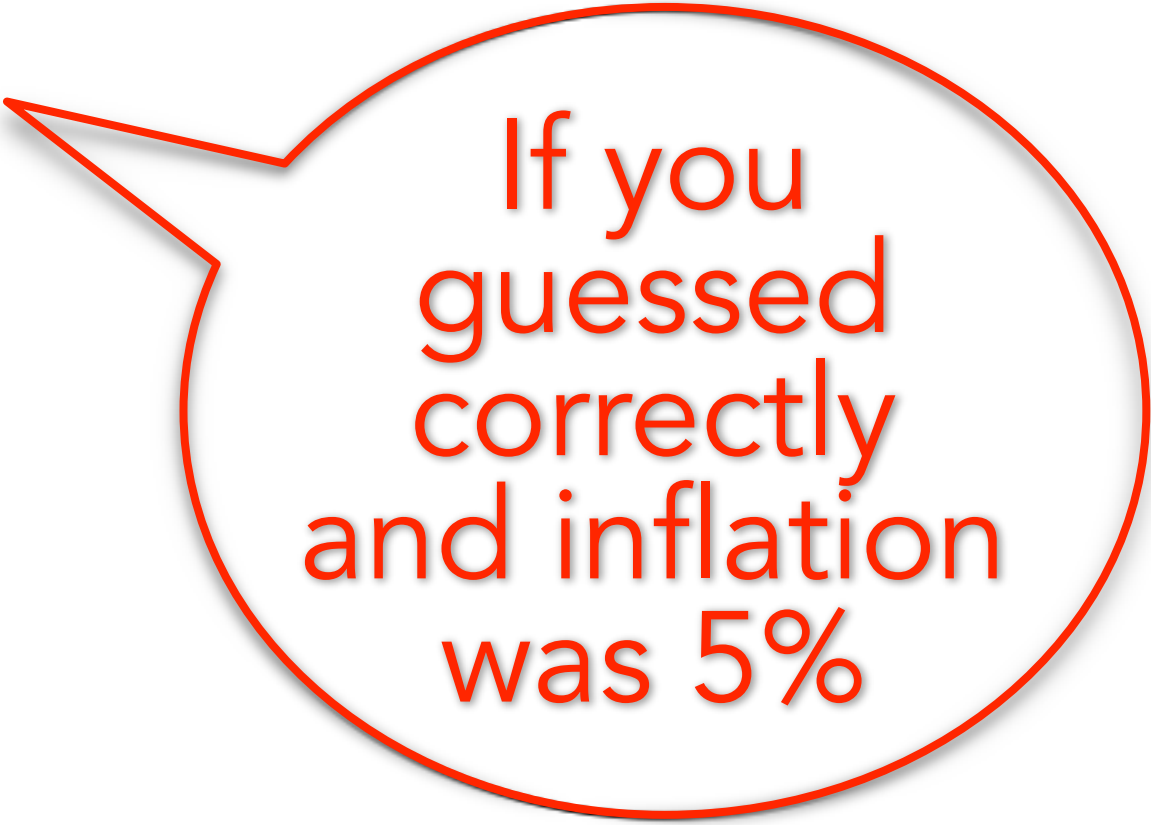
instead of the 25%

you are supposed

to pay by law



$$\frac{2,500}{5,000} \times 100 = 50\% \text{ effective tax!}$$



If you
guessed
correctly
and inflation
was 5%

CPI = 210
2024



CPI = ?
2025

If you
guessed
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was 5%

Even though your **Real** Income was only **\$5,000** the
government still makes you pay **\$2,500**

The borrower pays back = $100,000(1.1) = 110,000$

You earn

Interest Income = $100,000 \times 0.1 = \$10,000$

If the **tax** on interest income is **25%**

Tax you owe

$\$10,000 \times 0.25 = 2,500$

You pay **50%**
instead of the 25%
you are supposed
to pay by law

You earn

Real Interest Income = $100,000 \times 0.05 = \$5,000$

Tax you really owe

$\$5,000 \times 0.25 = 1,250$

$\frac{2,500}{5,000} \times 100 = 50\% \text{ effective tax!}$

