

Practicing GDP: Nominal, Real and the deflator

GDP Deflator in a single year shows how much of the rise in nominal GDP has to do with the rise in prices.

Formula: $\text{GDP Deflator} = (\text{Nominal GDP}/\text{Real GDP}) \times 100$

Example: $\text{GDP Deflator} = (110/100) \times 100$

Solve: $(1.1) \times 100 = 110$ GDP deflator

This means that **10%** of the rise in GDP occurred because of price rises and not real output.

Your turn:

Nominal GDP = 240

Real GDP = 180

What is the GDP deflator?

How much of the increase in GDP numbers had to do with price rises?

OK Let's use a little algebra, and I mean a little, to determine Real GDP in a year. We can do this if we have the other two numbers, the GDP deflator and the nominal GDP.

$\text{Real GDP} = (\text{Nominal GDP}/\text{GDP Deflator}) \times 100$

For example: if the Nominal GDP is 200 and the GDP deflator is 133

$\text{Real GDP} = (200/133) \times 100$

$150 = (200/133) \times 100$

Your turn:

Nominal GDP 300

GDP Deflator is 150

What is the Real GDP?

Now let's try a multiple choice questions I found in AP prep book that uses the GDP deflator:

If the nominal GDP is 10 trillion and the GDP deflator is .9, the real GDP is approximately:

A – 9 trillion

B -11.1 trillion

C – 1 trillion

D – 9.9 trillion

E – 10.9

If the Real GDP = 200 and the GDP deflator is 200, Nominal GDP is _____