

MACROECONOMICS

measuring economic activities (02)



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Nominal and Real GDP

The nominal GDP is the market value of GDP as calculated above (is measured in terms of current market values), or as is:

$$\sum P_i \times Q_i$$

Example:

	YEAR 1		YEAR 2	
	Q	P	Q	P
COMPUTERS	5	1000	10	500
BICYCLES	200	100	250	150
GDP	$=(5 \cdot 1000) + (200 \cdot 100) = 25000$		$=(10 \cdot 500) + (250 \cdot 150) = 42500$	

The Growth Rate

$$= \frac{\textit{Current year's GDP} - \textit{Last year's GDP}}{\textit{Last year's GDP}} \times 100$$

E.G: current Year: Year 2: base Year

last Year: Year 1: comparative Year



	YEAR 1		YEAR 2	
	Q	P	Q	P
COMPUTERS	5	1000	10	500
BICYCLES	200	100	250	150
GDP	$= (5 \cdot 1000) + (200 \cdot 100) = 25000$		$= (10 \cdot 500) + (250 \cdot 150) = 42500$	
Growth rate	/		$70\% = \left[\frac{42500 - 25000}{25000} \right] \times 100$	

the GDP increase with 70%

Do we can confirm if this increase reflects the change in the quantity or the price?

NO

we need to calculate the **Real GDP to accurately answer that question.**

The Real GDP

Measures:

The GDP of the two years at the same prices of certain base year.

that means we use the prices of year 1 but we change the quantities.



	YEAR 1		YEAR 2	
	Q	P	Q	P
COMPUTERS	5	1000	10	500
BICYCLES	200	100	250	150
GDP	$= (5 \cdot 1000) + (200 \cdot 100) = 25000$		$= (10 \cdot 500) + (250 \cdot 150) = 42500$	
REAL GDP	$= (5 \cdot 1000) + (200 \cdot 100) = 25000$		$= (10 \cdot 1000) + (250 \cdot 100) = 35000$	

The Real GDP

=

The nominal GDP

in thwe year 1 because we used the same prices

	YEAR 1		YEAR 2	
	Q	P	Q	P
COMPUTERS	5	1000	10	500
BICYCLES	200	100	250	150
GDP	$=(5 \cdot 1000) + (200 \cdot 100) = 25000$		$=(10 \cdot 500) + (250 \cdot 150) = 42500$	
REAL GDP	$=(5 \cdot 1000) + (200 \cdot 100) = 25000$		$=(10 \cdot 1000) + (250 \cdot 100) = 35000$	
REAL Growth RATE	/		$40\% = \left[\frac{(35000 - 25000)}{25000} \right] \times 100$	

NOW we can compare the values without any confusion

**because we removed the effect of price
changes.**