

Section 4: Nominal & Real GDP, Unemployment Rate, Policy

Introduction to Economics

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Practice Problem: Calculating Nominal and Real GDP

PRODUCT	2007 Quantity	2007 Price	2008 Quantity	2008 Price	2009 Quantit y	2009 Price
Books	90	\$50	100	\$60	100	\$65
Haircuts	75	\$2	100	\$2	120	\$2.25
Light bulbs	50	\$30	50	\$25	65	\$25

1) Calculate **Nominal GDP** for each year:

Value of final goods and services evaluated at current-year prices.

1) Calculate **Real GDP**:

Value of final goods and services evaluated at base year prices.

Note: Uses current quantities and fixed prices (base year)

Q. Why do we use real GDP?

Q. What are the two ways GDP can increase?

1) Increase in prices of goods and services

2) Increasing quantity of goods and services

Calculating percent change:

$$\text{Percent Change} = \frac{\text{New} - \text{Old}}{\text{Old}} \times 100$$

Side Note: Use Nominal and Real GDP to calculate Price Level:
A measure of average prices of goods and services in the economy

Unemployment Rate

- Who is in the labor force? Students?
- U-6 vs U-3 unemployment
- **U-3 Unemployment:** Official Unemployment rate
 - Only includes those looking and available
- **U-6 Unemployment:** Most broad definition
 - “the real unemployment”
 - Includes underemployed, discouraged...

$$\text{Unemployment Rate} = \frac{\text{Unemployed}}{\text{Total Labor Force}}$$

Types of Unemployment

- 1) Frictional Unemployment:
- 2) Cyclical Unemployment
- 3) Structural Unemployment

Goal of many government policies is to eliminate _____ unemployment.

Policies and the economy

Fiscal Policy:

Monetary Policy:

The GDP Deflator

Def. The measure of price deflation/inflation with respect to a given baseline year.

$$GDP\ Deflator_t = \frac{Nominal\ GDP_t}{Real\ GDP_t} \times 100$$

$$Real\ GDP = \frac{Nominal\ GDP}{GDP\ Deflator} \times 100$$

Note: The GDP deflator always equals 100 in the baseline year.