Chapter 24

Measuring the of Living Index

Introduction

- Cost of living can be measured by ways
- Inflation refers to a situation in which the economy's overall price level is rising
- The inflation rate is the percentage change in the price level from the previous period

CPI

- The consumer price index (CPI) is a measure of the overall cost of the goods and services bought by a typical consumer
- The Bureau of Labor Statistics reports the CPI each month
- It is used to monitor changes in the cost of living over time
- When the CPI rises, the typical family has to spend more dollars to maintain the same standard of living.

Calculate inflation

$$\text{Inflation Rate in Year 2} = \frac{\text{CPI in Year 2} - \text{CPI in Year 1}}{\text{CPI in Year 1}} \times 100$$

Numerical

- **STEP 1: SURVEY CONSUMERS TO DETERMINE A FIXED BASKET OF GOODS**
- 4 hot dogs, 2 hamburgers

- **STEP 2: FIND THE PRICE OF EACH GOOD IN EACH YEAR**

YEAR	PRICE OF HOT DOGS	PRICE OF HAMBURGERS
2001	$1	$2
2002	2	3
2003	3	4

Cont…

- **STEP 3: COMPUTE THE COST OF THE BASKET OF GOODS IN EACH YEAR**

2001 **($1 per hot dog X 4 hot dogs)+($2 per hamburger x 2 hamburgers)=$8**

2002 **($2 per hot dog x 4 hot dogs)+($3 per hamburger x 2 hamburgers)=$14**

2003 **($3 per hot dog x 4 hot dogs)+($4 per hamburger x 2 hamburgers)=$20**

Cont…

- **STEP 4: CHOOSE ONE YEAR AS A BASE YEAR (2001) AND COMPUTE THE CONSUMER PRICE INDEX IN EACH YEAR**

2001	**($8/$8)x100=100**
2002	**($14/$8)x100=175**
2003	**($20/$8)x100=250**

Cont…

- **STEP 5: USE THE CONSUMER PRICE INDEX TO COMPUTE THE INFLATION RATE FROM PREVIOUS YEAR**

2002	**(175 - 100)/100 X 100 = 75%**
2003	**(250 - 175)/175 X 100 = 43%**

Issue

- The CPI is an accurate measure of the selected goods that make up the typical bundle, but it is not a perfect measure of the cost of living
- Introduction of new goods
- Unmeasured quality changes

GDP deflator versus CPI

- The GDP deflator reflects the prices of all goods and services produced domestically, whereas...
- …the consumer price index reflects the prices of all goods and services bought by consumers.

Cont…

- The consumer price index compares the price of a fixed basket of goods and services to the price of the basket in the base year (only occasionally does the BLS change the basket)...
- …whereas the GDP deflator compares the price of currently produced goods and services to the price of the same goods and services in the base year.

Nominal versus real interest rate

- The nominal interest rate is the interest rate usually reported and not corrected for inflation.
  - It is the interest rate that a bank pays.
- The real interest rate is the nominal interest rate that is corrected for the effects of inflation.