UNIVERSITY OF THE PEOPLE

BUS 1104-01 Macroeconomics- AY2024-T1

Written Assignment Unit 3

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PRODUCT	*QUANTITY*	*BASE YEAR PRICE (2011)*	*PRICE (2021)*	*PRICE (2022)*
Burritos	10	$1	$1.5	$1.75
Flashlights	15	$5	$7	$6.75
Golf balls	8	$2	$3	$3.50

Government statisticians use a fixed basket of goods and services representing typical household spending to calculate the Consumer Price Index (CPI). But when a product's price rises, consumers often buy less of it and find alternatives. So, the importance of goods with increasing prices should decrease in the CPI basket, while goods with falling prices should become more important. For example, if peach prices double, food costs would rise significantly if consumers kept buying the same number of peaches. But people would switch to other fruits, so average food costs stay stable. This substitution bias means the CPI's fixed basket overstates increases in the true cost of living. As prices change, consumers substitute cheaper alternatives, muting the impact on their real living costs. The most cited measure of inflation in the United States is the Consumer Price Index (CPI) (Greenlaw & Shapiro, 2017).

The total expenditure for the year 2021 = (Price of Burritos in 2021 * Quantity of Burritos)

+ (Price of Flashlights in 2021 * Quantity of Flashlights)

+ (Price of Golf balls in 2021 * Quantity of Golf balls)

= (10 * 1.5) + (15 * 7) + (8 * 3)

The total expenditure for the year 2021 = $144

The total expenditure for the year 2022 = (Price of Burritos in 2022 * Quantity of Burritos)

+ (Price of Flashlights in 2022 * Quantity of Flashlights)

+ (Price of Golf balls in 2022 * Quantity of Golf balls)

= (10 * 1.75) + (15 * 6.75) + (8 * 3.50)

The total expenditure for the year 2022 = $146.75

We also need expenditure for 2011 to compute CPI:

= (Price of Burritos in 2011 * Quantity of Burritos)

+ (Price of Flashlights in 2011 * Quantity of Flashlights)

+ (Price of Golf balls in 2011 * Quantity of Golf balls)

= (10 * 1) + (15 *5) + (8 *2)

The total expenditure for the year 2011 = $101

The CPI for the year 2021 = = (price of the basket of goods in the year 2021

÷ price of the basket of goods in the year 2011)

*100

= (144/101) * 100

The CPI for the year 2021 = 142.57 (approx.)

The CPI for the year 2022 = (price of the basket of goods in the year 2022

÷ price of the basket of goods in the year 2011)

*100

= (146.75/101) * 100

The CPI for the year 2022 = 145.30 (approx.)

Inflation rate for 2022 ={(CPI in current year 2022

— CPI in previous year 2021)

÷ CPI in previous year 2021}

*100

=145.30 - 142.57 / 142.57 * 100

Inflation rate for 2022 =1.91 % (approx.)

Reference:

Greenlaw, S., & Shapiro, D. (2017). Principals of macroeconomics 2e. Openstax. Licensed under CC-BY 4.0. https://openstax.org/details/books/principles-macroeconomics-2e

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