SPECIAL RELEASE

Summary Inflation Report of the Consumer Price Index in Ilocos Region: October 2021
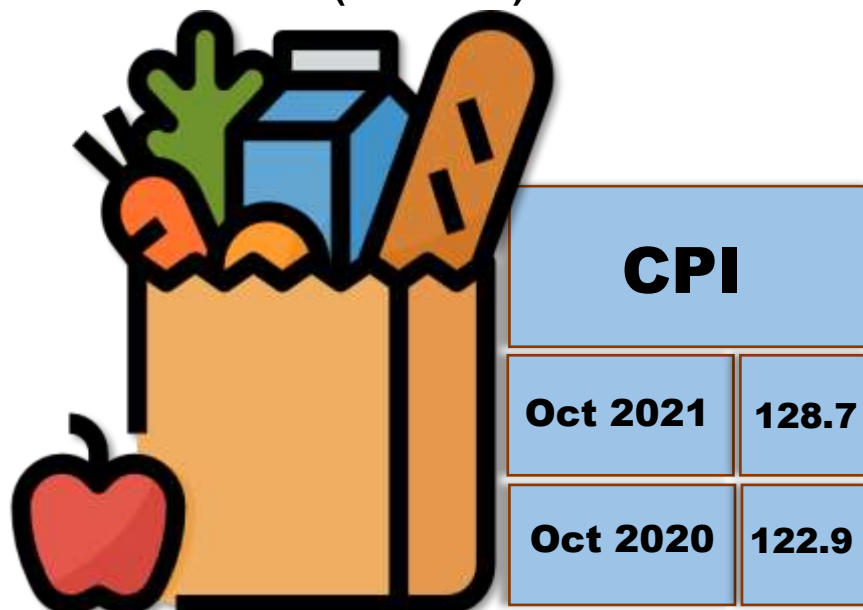## (2012=100)

Date of Release: 12 January 2022
Reference No. 2022-001

Consumer Price Index

The Consumer Price Index (CPI) of Ilocos Region in October 2021 was posted at 128.7. This means that on the average, prices of goods and services in the region increased by 28.7 percent from the base year 2012.

The region's CPI in October 2021 increased by 4.72 percent from October 2020.

Figure 1. Consumer Price Index, Ilocos Region
October 2021 and October 2020
(2012=100)

CPI	
Oct 2021	128.7
Oct 2020	122.9

Data Source: PSA, Price Statistics Division
Image Source: freepik.com

By Province

**Figure 2. Consumer Price Index by Province, Ilocos Region
October 2020 and October 2021
(2012=100)**
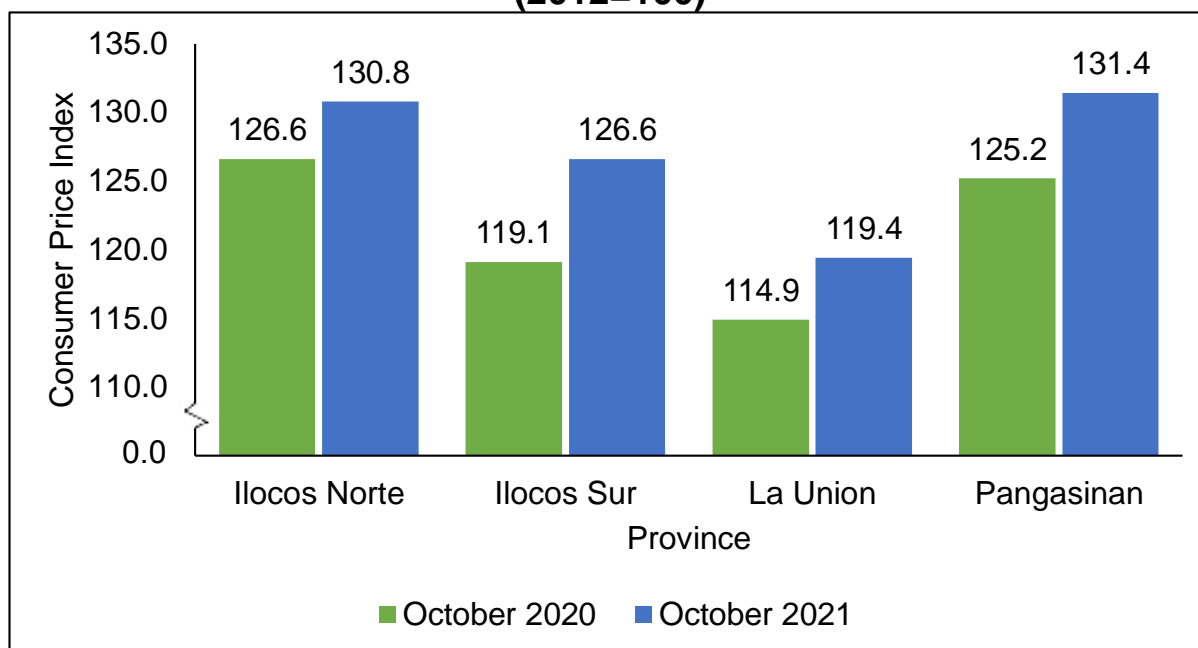
Source: PSA, Price Statistics Division

Among the provinces, Pangasinan posted the highest price index in October 2021 at 131.4. Ilocos Norte followed at 130.8 and Ilocos Sur at 126.6. Meanwhile, La Union recorded the lowest price index of 119.4 during period.

Compared from the October 2020 levels, all provinces marked increases in price index. Ilocos Sur recorded the highest increase of 6.30 percent followed by Pangasinan with 4.95 percent, La Union with 3.92 percent and Ilocos Norte with 3.32 percent.

By Commodity Group

The top three commodity groups that recorded high price indices in the region during the October 2021 CPI were: alcoholic beverages and tobacco (241.5); food and non-alcoholic beverages (138.6); and furnishings, household equipment and routine maintenance of the house (129.2). On the other hand, the bottom three commodity groups with low price indices were: communication (101.9); education (111.3); and recreation and culture (112.6).

Table 1. Consumer Price Index by Commodity Group and Province, Ilocos Region: October 2021 (2012 = 100)

Commodity Group	Ilocos Region	Ilocos Norte	Ilocos Sur	La Union	Pangasinan
Food and Non-Alcoholic Beverages	138.6	137.6	137.1	131.1	141.0
Alcoholic Beverages and Tobacco	241.5	222.5	195.6	243.0	257.6
Clothing and Footwear	121.9	134.8	126.0	121.4	117.8
Housing, Water, Electricity, Gas and Other Fuels	117.2	129.6	115.6	100.7	119.5
Furnishings, Household Equipment and Routine Maintenance of the House	129.2	116.6	122.2	116.3	137.3
Health	125.3	131.0	119.4	110.4	130.6
Transport	115.2	112.7	123.1	112.0	114.6
Communication	101.9	101.3	101.3	103.4	101.7
Recreation and Culture	112.6	107.5	108.4	107.7	117.3
Education	111.3	97.4	79.2	102.8	121.4
Restaurant and Miscellaneous Goods and Services	121.6	126.7	119.5	113.1	123.2

Source: PSA, Price Statistics Division

Inflation Rate

Figure 3. Headline Inflation Rates in Ilocos Region, All Items October 2020 – October 2021 (2012=100)
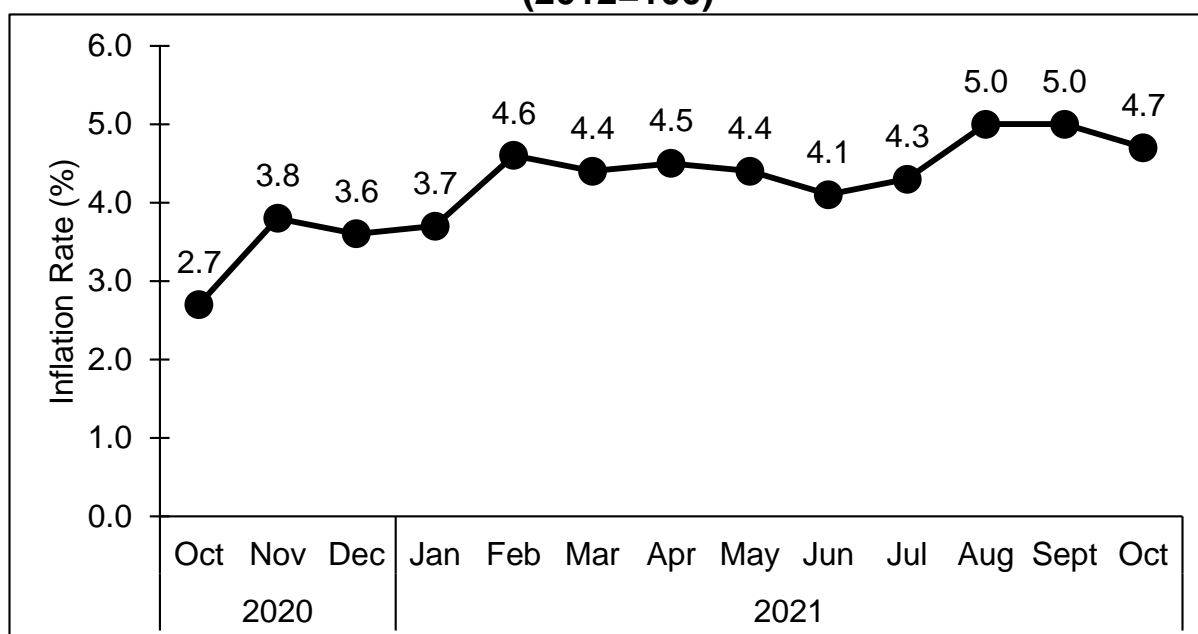
Source: PSA, Price Statistics Division

As shown in Figure 3, the inflation rate in the Ilocos Region settled at 4.7 percent in October 2021. The region's annual rate in the previous month was 5.0 percent, while 2.7 percent in October 2020.

The highest inflation rate in the region was recorded in the months of August and September 2021 at 5.0 percent. Meanwhile, the lowest inflation rate was noted in the month of October 2020 at 2.7 percent.
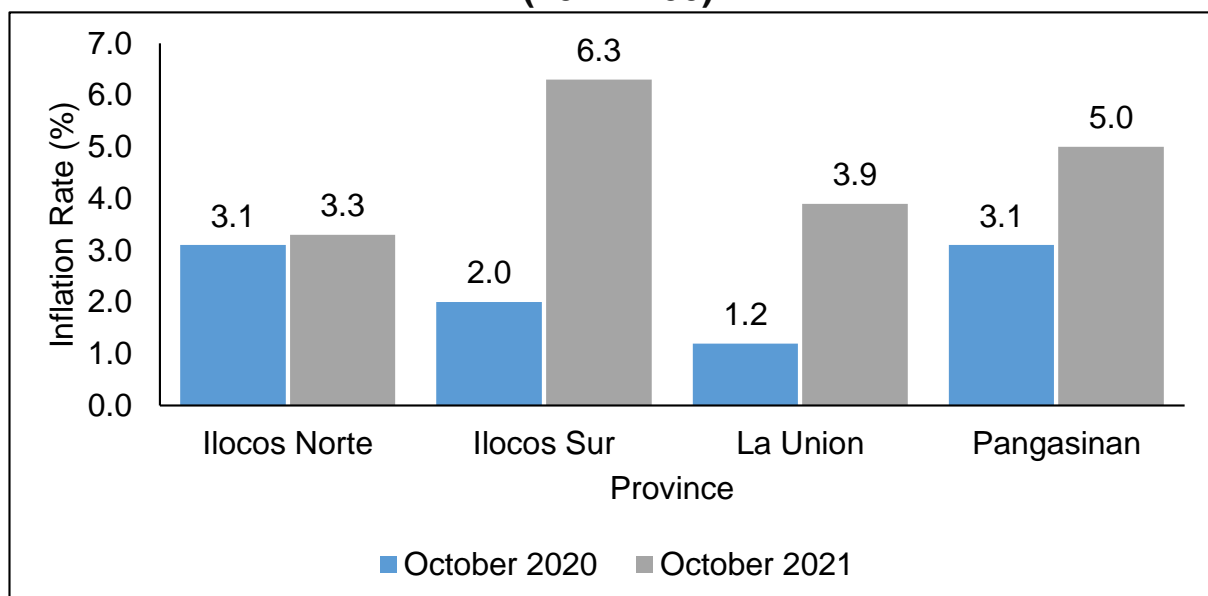
The inflation rate of the region in October 2021 is lower by 0.3 percentage point from September 2021, but 2.0 percentage points higher compared to October 2020.

By Province

Among the provinces in the region, Ilocos Sur posted the highest inflation rate at 6.3 percent in October 2021, followed by Pangasinan at 5.0 percent. Inflation rates in La Union and Ilocos Norte were pegged at 3.9 and 3.3 percent, respectively.

Compared to their respective levels in October 2020, all provinces recorded higher inflation rates. Ilocos Sur recorded the highest increase of 4.3 percentage points. La Union and Pangasinan have increased by 2.7 and 1.9 percentage points, respectively. Meanwhile, Ilocos Norte has increased by 0.2 percentage point.

Figure 4. Headline Inflation Rates by Province, Ilocos Region October 2020 and October 2021 (2012=100)

Source: PSA, Price Statistics Division

By Commodity Group

**Table 2. Year-on-Year Inflation Rates for All Income Households
by Commodity Group and by Province, Ilocos Region
October 2021 (2012 = 100)**

Commodity Group	Ilocos Region	Ilocos Norte	Ilocos Sur	La Union	Pangasinan
Food and Non-Alcoholic Beverages	5.8	3.5	6.2	4.3	6.5
Alcoholic Beverages and Tobacco	11.4	10.0	13.9	9.2	12.0
Clothing and Footwear	3.1	1.4	5.0	1.2	3.6
Housing, Water, Electricity, Gas and Other Fuels	3.8	1.8	7.8	5.4	3.0
Furnishings, Household Equipment and Routine Maintenance of the House	3.4	1.5	3.6	1.4	4.3
Health	1.8	0.7	5.3	1.5	1.2
Transport	9.5	11.3	8.1	7.6	10.3
Communication	0.2	0.0	0.0	0.0	0.3
Recreation and Culture	1.8	1.5	0.6	0.8	2.5
Education	0.0	0.0	0.4	0.0	0.0
Restaurant and Miscellaneous Goods and Services	2.4	1.8	5.4	0.2	2.5

Source: PSA, Price Statistics Division

The alcoholic beverages and tobacco recorded the highest inflation rate among the commodity groups in the region with 11.4. It was followed by the transport with 9.5, and food and non-alcoholic beverages with 5.8. Meanwhile, education, and communication have the lowest inflation rates of 0.0 and 0.2, respectively.

Purchasing Power of Peso

The Purchasing Power of the Peso (PPP) in the Ilocos Region in October 2021 was posted at Php0.78. This means that the purchasing capability of Php1.00 in 2012 decreased by 22 centavos.

Among the provinces, La Union posted the highest PPP in October 2021 with Php0.84. It was followed by Ilocos Sur with Php0.79 PPP. Meanwhile, the least were recorded in Ilocos Norte and Pangasinan, both at Php0.76.

It can be gleaned in Figure 5 that PPPs in all the provinces in October 2021 were lower than their respective levels in October 2020. The PPPs in Ilocos Norte and La Union both went down by Php0.03. Pangasinan and Ilocos Sur likewise decreased by Php0.04 and Php0.05, respectively.

Figure 5. Purchasing Power of the Peso by Province, Ilocos Region October 2020 and October 2021 (2012 = 100)
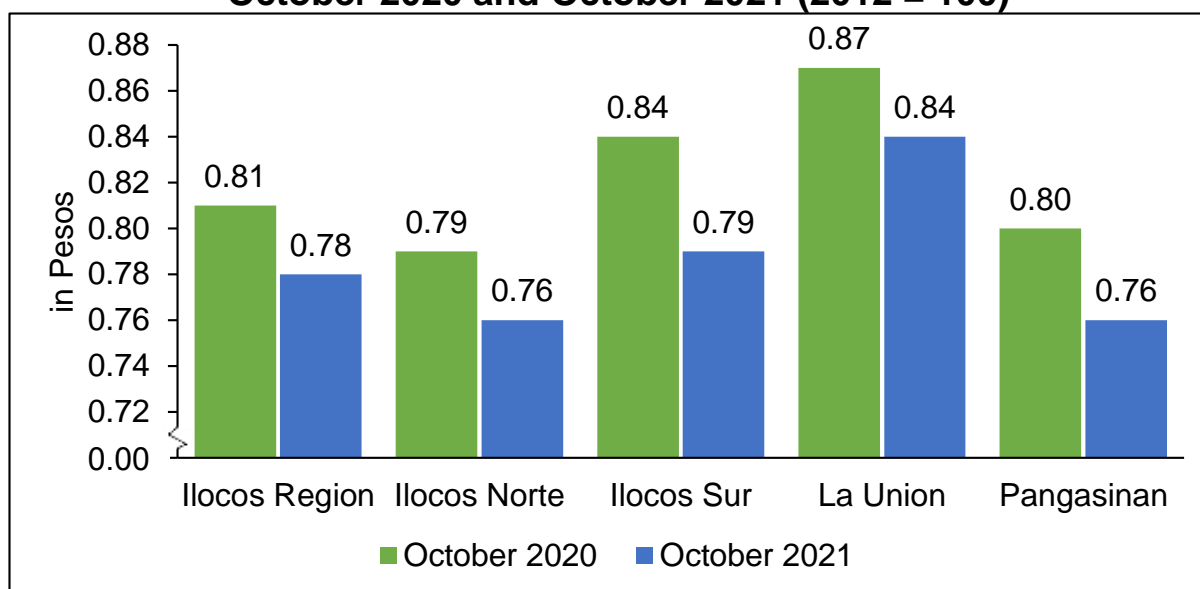
Source: PSA, Price Statistics Division

Table 3. Consumer Price Index and Inflation Rate for All Income Households by Commodity, Ilocos Region October 2020 and October 2021, (2012=100)

Commodity Group	Inflation Rate		CPI	
	Oct 20	Oct 21	Oct 20	Oct 21
ALL ITEMS	2.7	4.7	122.9	128.7
FOOD AND NON-ALCOHOLIC BEVERAGES	3.4	5.8	131.0	138.6
ALCOHOLIC BEVERAGES, TOBACCO AND OTHER VEGETABLE-BASED TOBACCO PRODUCTS	16.1	11.4	216.8	241.5
NON-FOOD	1.4	3.6	114.1	118.2
CLOTHING AND FOOTWEAR	3.0	3.1	118.2	121.9
HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS	-0.3	3.8	112.9	117.2
FURNISHINGS, HOUSEHOLD EQUIPMENT AND ROUTINE HOUSEHOLD MAINTENANCE	1.1	3.4	124.9	129.2
HEALTH	2.1	1.8	123.1	125.3
TRANSPORT	2.9	9.5	105.2	115.2
COMMUNICATION	0.1	0.2	101.7	101.9
RECREATION AND CULTURE	-0.5	1.8	110.6	112.6
EDUCATION	1.4	0.0	111.3	111.3
RESTAURANTS AND MISCELLANEOUS GOODS AND SERVICES	3.4	2.4	118.7	121.6

Source: PSA, Price Statistics Division

TECHNICAL NOTES

The Philippine Statistics Authority generates and announces the monthly Consumer Price Index (CPI) based on a nationwide survey of prices for a given basket of goods and services.

The **CPI** is an indicator of the change in the average retail prices of a fixed basket of goods and services commonly purchased by households relative to a base year. It shows how much on the average, prices of goods and services have increased or decreased from a particular reference period known as base year. It also serves as a basis for economic analysis, collective bargaining agreements, for wage adjustments, and for monitoring the effects of government economic policy on households.

Rebasing of CPI to Base Year 2012 and Adopting the Chain Method in the 2012-based CPI

The Philippine Statistics Authority (PSA) released the Consumer Price Index (CPI) for All Income Households with base year 2012 on 06 March 2018. The 2012-based CPI is the tenth in the rebasing series. This was announced in Press Release Number 2018-031 dated 22 February 2018. Data users can expect two sets of the CPI as the new series shall be issued simultaneously with the 2006-based series until June 2018. The CPI series for July 2018 onwards shall be 2012-based.

1. Identification of the Base Year

The base period is the period, usually a year, at which the index number is set to 100. It is the reference point of the index number series. The CPI is now rebased to 2012 base year from the current 2006 base year.

The year 2012 was chosen as the next base year because it was the latest year when the Family Income and Expenditure Survey (FIES) results were made available. It is also in accordance with PSA Board Resolution No. 1, Series of 2017-146, which approved the synchronized rebasing of the price indices to base year 2006 and every six (6) years thereafter.

2. Determination of the Market Basket

Market basket refers to a sample of goods and services, which is meant to represent the totality of all goods and services purchased by households relative to a base year.

Determining the right market basket is crucial because inadequate representation of the typical basket will give wrong signals as to the behavior of prices, a very important factor in economic planning.

To determine the commodities that will form the market basket for the 2012-based CPI, the updating of the 2006 basket through the Survey of Key Informants was conducted from 07 October to 15 November 2013. The survey was conducted nationwide to store managers, sellers or proprietors and were asked of the most commonly purchased items or commodities. The commodities are grouped according to the 2010 Philippine Classification of Individual Consumption According to Purpose (COICOP) which is based on the United Nations COICOP.

3. Determination of the Household Consumption Patterns (Weights)

This activity involves assigning weights to the commodity groups/sub-groups. This reflects the consumption priorities of households and the way they allocate resources to meet their needs. Weight is a value attached to a commodity or group of commodities to indicate the relative importance of that commodity or group of commodities in the market basket.

The weights for the 2012-based CPI were derived from the expenditure data of the 2012 FIES, a survey that covered around 50,000 sample households nationwide. The weight for each item of expenditure is a proportion of that expenditure item to the total national expenditure. The total (all items) national expenditure weights is equal to 100. The 2012 FIES expenditure data were used to directly estimate the 2012 CPI weights at the national and regional levels. However, the 2012 FIES estimates for the expenditure data at the provincial level were not directly utilized in estimating the CPI expenditure weights as the data at the provincial/city level may not be reliable with the use of the households' master sample (MS) that was utilized in selecting the 2012 FIES sample households.

The MS was drawn using regions as domains in generating estimates in all the household surveys of the PSA starting July 2003.The provincial/city expenditure data were derived using the model-based method in small area estimation procedures using the regional expenditure data as the control total for all the expenditure data within the specific region. Using these estimates, the weight for each item of expenditure is computed as a proportion of that item of expenditure to the total national expenditure. A raking procedure was done to adjust the weights of the provinces so that the provincial weights when added up will equal to the regional weights.

4. Monitoring of Prices of Items in the Market Basket

This involves establishing baseline information for prices of the items in the base year and monitoring the prices of the items on a regular basis. Collection of data for the CPI is done by the provincial staff of the PSA. Except for food, beverage and tobacco (FBT) in the National Capital Region (NCR) and petroleum products which are monitored on a weekly basis, price collection is generally done twice a month. First collection phase is done in the first five days of the month while the second phase is on the 15th to 17th day of the month. Data are collected from the sample outlets (outlets or establishments where prices of commodities/services are collected or quoted) which were chosen using the following criteria:

a. Popularity of an establishment along the line of goods to be priced – this means the sample outlet is publicly noted in the locality for selling goods included in the CPI market basket and the outlet is patronized by a large segment of the population.

b. Consistency and completeness of stock

Consistency of stock – the outlet has a constant, steady or regular stock of commodities listed in the CPI price collection forms as well as of those commodities of the same kind and belonging to the same commodity group.

Completeness of stock – the sample outlet carries in its stock many if not all of the items included in the CPI price collection forms relative to the other outlets in the area.

c. Permanency of outlet – the outlet is an established store or stall in the market area. It should not be an ambulant or transient vendor in order that the collection of data can be done for the succeeding survey rounds.

d. Geographical location – the outlet is conveniently located and is accessible to the majority of consumers in the area.

5. Computation of the CPI

Below are the steps in the computation of CPI using the 2012 as the base year:

Step 1: Compute the monthly average price for each commodity.

$$\text{Monthly Average Price of Commodity} = \frac{\begin{array}{l}\text{Outlet 1 (1st Phase) Price + Outlet 1 (2nd Phase) Price +} \\ \text{Outlet 2 (1st Phase) Price + Outlet 2 (2nd Phase) Price +} \\ \text{Outlet 3 Price + Outlet 4 Price + Outlet 5 Price + Outlet 6}\end{array}}{8}$$

Step 2: Compute the price relative (PR) for each commodity.

$$PR = \frac{\text{Current Month Average Price}}{\text{Previous Month Average Price}}$$

Step 3: Compute the index for the 5-digit group (Sub-Class).

Step 3.1: Compute the geometric mean of PRs for each 5-digit group.

$$GM_{PR} = \left(\prod_{i=1}^{n} PR_i \right)^{1/n}$$

Where:
GM_{PR} = Geometric mean of price relatives
PR_i = Price relative of each commodity
n = number of commodities under the 5-digit group

Step 3.2: Compute the index for 5-digit group.

$$I_{5\text{-digit,current month}} = (GM_{PR}) * (I_{5\text{-digit,previous month}})$$

Where:
$I_{5\text{-digit,current month}}$ = Index of the 5-digit group (sub-class) for the current month
GM_{PR} = Geometric mean of price relatives
$I_{5\text{-digit,previous month}}$ = Index of the 5-digit group (sub-class) for the previous month

Step 4: Compute the index for the 4-digit group (Class).

$$I_{4\text{-digit}} = \frac{\sum_{i=1}^{n} (W_{(5\text{-digit})i})(I_{(5\text{-digit})i})}{\sum_{i=1}^{n} (W_{(5\text{-digit})i})}$$

Where:

$I_{(4\text{-digit})}$ = index of the 4-digit group

$W_{(5\text{-digit})i}$ = weight of 5-digit group

$I_{(5\text{-digit})i}$ = index of the 5-digit group

Step 5: Compute the index for the 3-digit group (Group).

$$I_{3\text{-digit}} = \frac{\sum_{i=1}^{n} (W_{(4\text{-digit})i})(I_{(4\text{-digit})i})}{\sum_{i=1}^{n} (W_{(4\text{-digit})i})}$$

Where:

$I_{(3\text{-digit})}$ = index of the 3-digit group

$W_{(4\text{-digit})i}$ = weight of the 4-digit group

$I_{(4\text{-digit})i}$ = index of the 4-digit group

Step 6: Compute the index for the 2-digit group (Division).

$$I_{2\text{-digit}} = \frac{\sum_{i=1}^{n} (W_{(3\text{-digit})i})(I_{(3\text{-digit})i})}{\sum_{i=1}^{n} (W_{(3\text{-digit})i})}$$

Where:

$I_{(2\text{-digit})}$ = index of the 2-digit group

$W_{(3\text{-digit})i}$ = weight of the 3-digit group

$I_{(3\text{-digit})i}$ = index of the 3-digit group

Step 7: Compute the index for All Items.

$$I_{\text{all items}} = \frac{\sum_{i=1}^{n} (W_{(2\text{-digit})i})(I_{(2\text{-digit})i})}{\sum_{i=1}^{n} (W_{(2\text{-digit})i})}$$

Where:

$I_{\text{all items}}$ = index for All Items

$W_{(2\text{-digit})i}$ = weight of the 2-digit group (Division)

$I_{(2\text{-digit})i}$ = index of 2-digit group (Division)

Economic Indicators Derived from the CPI

Two important indicators, the inflation rate and purchasing power of the peso (PPP), are derived from the CPI which are important in monitoring price stability and the value of the country's currency.

Inflation Rate is the annual rate of change or the year-on-year change of the CPI expressed in percent. The formula is:

$$\text{Inflation Rate} = \frac{CPI_2 - CPI_1}{CPI_1} \times 100$$
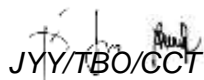
Where: CPI_2 – is the CPI in the second period
CPI_1 – is the CPI in the previous period

Headline Inflation is the rate of change in the weighted average prices of all goods and services in the CPI basket while **Core Inflation** refers to the rate of change in the CPI that excludes the following item/commodity groups: rice, corn, fruits and vegetables, and fuel items.

The **PPP** measures the real value of the peso in a given period relative to a chosen reference period. It is computed by getting the reciprocal of the CPI and multiplying the result by 100.

$$\frac{1}{CPI} \times 100$$

ATTY. SHEILA Q. DE GUZMAN
(Chief Administrative Officer)
Officer-in-Charge

JYY/TBO/CCT