



# SPECIAL RELEASE

## The Consumer Price Index in La Union (2018=100) 4<sup>th</sup> Quarter of 2022 Report

**Date of Release: 27 March 2023**  
Reference No: 2023-26

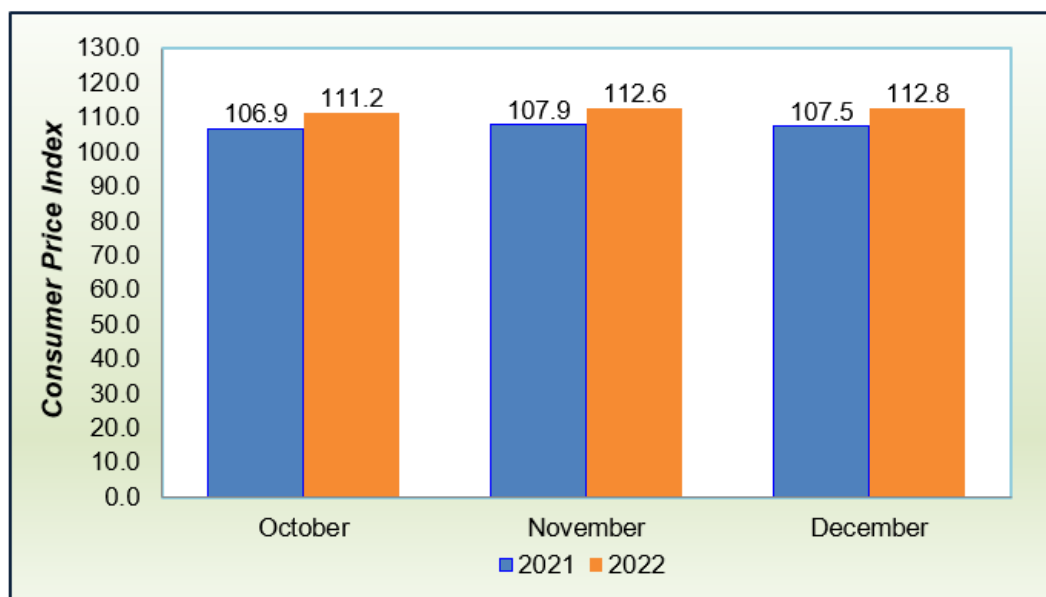
### ***La Union's CPI posted at 112.2 in 4<sup>th</sup> Quarter 2022***

The average Consumer Price Index (CPI) in La Union in 4<sup>th</sup> quarter 2022 was recorded at 112.2. The said figure was 4.8 percentage points higher than the average CPI in the same period of 2021 at 107.4 and 1.6 percentage points higher than the previous quarter's CPI at 110.6.

La Union's average CPI of 112.2 in 4<sup>th</sup> quarter 2022 means that, on the average, prices of goods and services have increased by 12.2 percent from 2018. This further means that a basket of commodities which can be purchased at PhP100.00 by an average Filipino household in 2018 can be bought at PhP112.20 in 4<sup>th</sup> quarter of 2022.

The province's average CPI in 4<sup>th</sup> quarter 2021 and 4<sup>th</sup> quarter 2022 were lower than Ilocos Region's CPI which were posted at 110.3 and 118.9, respectively.

**FIGURE 1. Consumer Price Index, All Items  
La Union: October - December, 2021 and 2022  
(2018=100)**



Source: *Philippine Statistics Authority*  
*Retail Price Survey of Commodities for the Generation of Consumer Price Index*



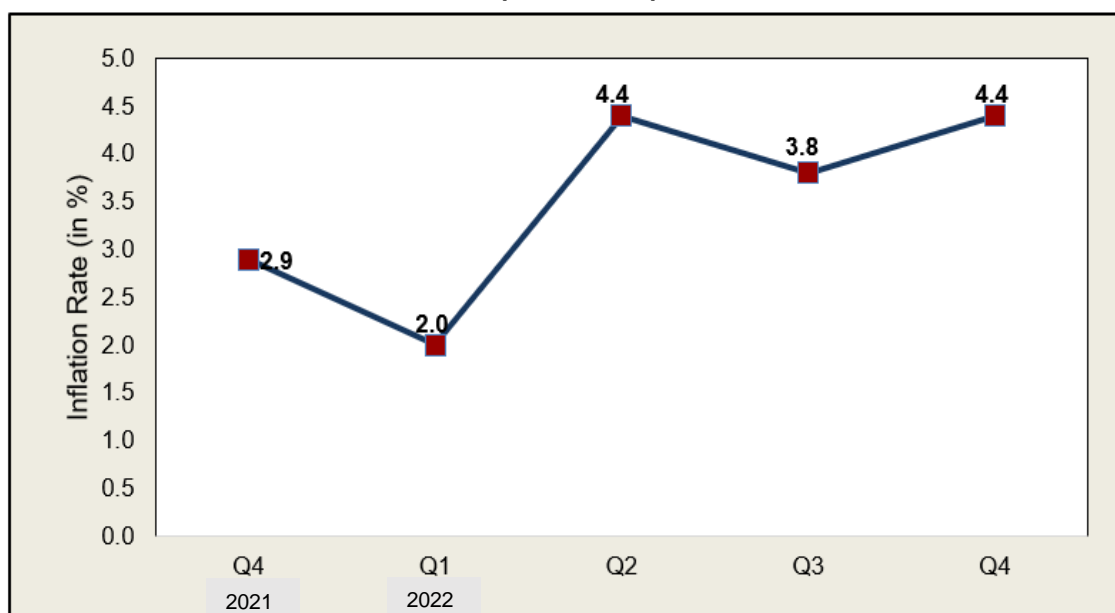
The CPI in the province were higher in October, November and December 2022 at 111.2, 112.6, and 112.8, respectively compared with their respective figures in October, November and December last year at 106.9, 107.9, and 107.5. (Figure 1)

In 4<sup>th</sup> quarter 2022, the highest CPI was posted in December at 112.8 while in the same period a year ago, the highest CPI was recorded in the month of November at 107.9.

**La Union’s inflation accelerates to 4.4 percent in 4<sup>th</sup> Quarter 2022**

La Union’s year-on-year headline inflation moved at a faster pace to an average of 4.4 percent in 4<sup>th</sup> quarter 2022 from a quarter-ago average of 3.8 percent. (Figure 2)

**FIGURE 2. Headline Inflation Rates in La Union  
4<sup>th</sup> Quarter 2021 – 4<sup>th</sup> Quarter 2022  
(2018=100)**

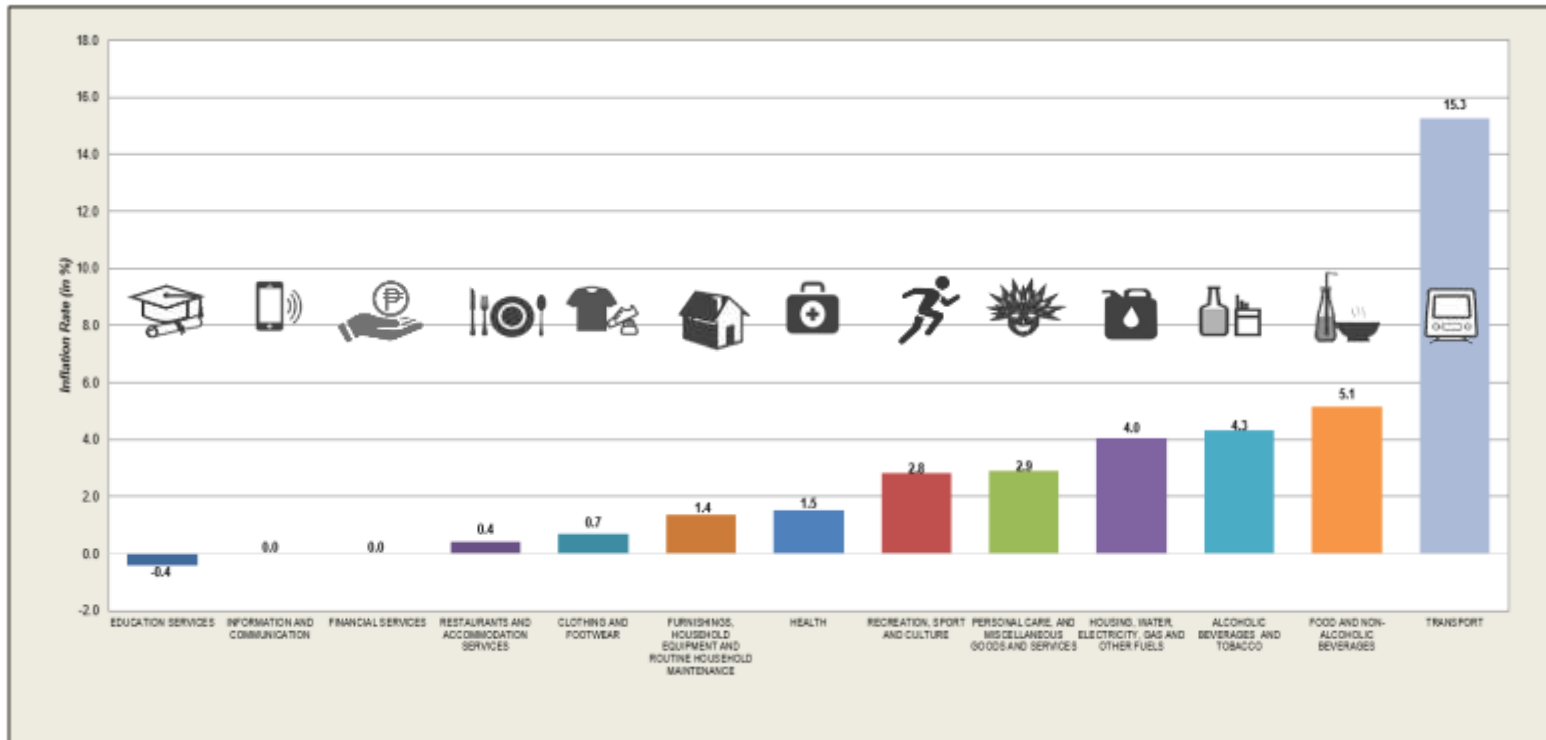


Source: *Philippine Statistics Authority  
Retail Price Survey of Commodities for the Generation of Consumer Price Index*

Among major commodity groups in 4<sup>th</sup> quarter 2022, the transport index posted the highest average inflation rate at 15.3 percent. It was followed by the average inflation in the indices of food and non-alcoholic beverages at 5.1 percent and alcoholic beverages and tobacco at 4.3 percent.

On the other hand, the lowest average inflation during the quarter was seen in the education services index at -0.4 percent. (Figure 3)

**FIGURE 3. Inflation Rates by Commodity Groups  
La Union: 4<sup>th</sup> Quarter 2022  
(2018=100)**



Source: Philippine Statistics Authority  
Retail Price Survey of Commodities for the Generation of Consumer Price Index

The upward trend in the average inflation of the province from 3<sup>rd</sup> quarter 2022 to 4<sup>th</sup> quarter 2022 was mainly contributed by higher average inflation of the heavily-weighted food and non-alcoholic beverages index from 3.3 percent to 5.1 percent. Higher annual inflation were also recorded in the indices of housing, water, electricity, gas, and other fuels (4.0% from 3.4%); personal care, and miscellaneous goods and services (2.9% from 2.5%); furnishings, household equipment, and routine household maintenance (1.4% from 1.0%); and health (1.5% from 1.2%).

On the contrary, slower annual inflation were recorded in the indices of alcoholic beverages and tobacco (4.3% from 4.8%); transport (15.3% from 18.1%); recreation, sport and culture (2.8% from 3.9%); education services (-0.4% from -0.3%); and restaurants and accommodation services (0.4% from 0.5%).

The average inflation in the clothing and footwear index remained at 0.7 percent while the average inflation in the indices of information and communication and financial services remained at zero growth in 4<sup>th</sup> quarter 2022. (Table 1)

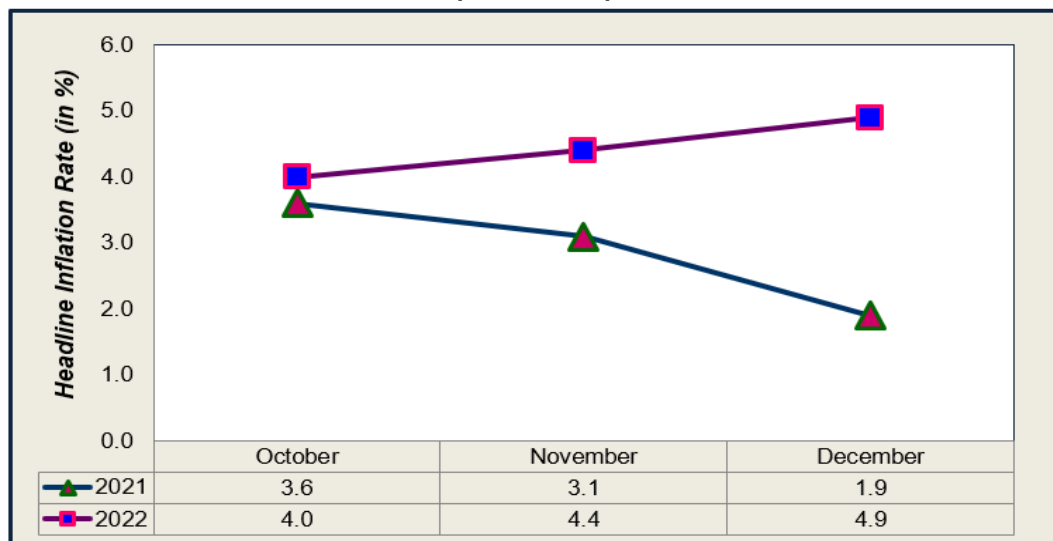
**Table 1. Average Year-on-Year Inflation Rates for All Income Households by Commodity Group, La Union: 4<sup>th</sup> Quarter 2021, and 3<sup>rd</sup> and 4<sup>th</sup> Quarter 2022 (2018=100)**

Commodity Group	Inflation Rate		
	4 <sup>th</sup> Quarter 2021	3 <sup>rd</sup> Quarter 2022	4 <sup>th</sup> Quarter 2022
Food and Non-Alcoholic Beverages	3.6	3.3	5.1
Alcoholic Beverages and Tobacco	5.1	4.8	4.3
Clothing and Footwear	8.9	0.7	0.7
Housing, Water, Electricity, Gas and Other Fuels	1.6	3.4	4.0
Furnishing, Household Equipment and Routine Household Maintenance	4.1	1.0	1.4
Health	1.9	1.2	1.5
Transport	2.3	18.1	15.3
Information and Communication	6.4	0.0	0.0
Recreation, Sports and Culture	0.0	3.9	2.8
Education Services	0.7	-0.3	(0.4)
Restaurant and Accommodation Services	0.0	0.5	0.4
Financial Services	-0.4	0.0	0.0
Personal Care, and Miscellaneous Goods and Services	45.5	2.5	2.9

Source: *Philippine Statistics Authority*  
*Retail Price Survey of Commodities for the Generation of Consumer Price Index*

In 4<sup>th</sup> quarter 2022, an upward trend was observed in the headline inflation rates of the province at 4.0 percent, 4.4 percent, and 4.9 percent in October, November, and December, respectively. On the contrary, in 4<sup>th</sup> quarter 2021, a downward trend was seen in the inflation of the province in October, November and December at 3.6 percent, 3.1 percent and 1.9 percent, respectively. (Figure 4)

**FIGURE 4. Headline Inflation Rates, All Items La Union: October – December, 2021 and 2022 (2018=100)**

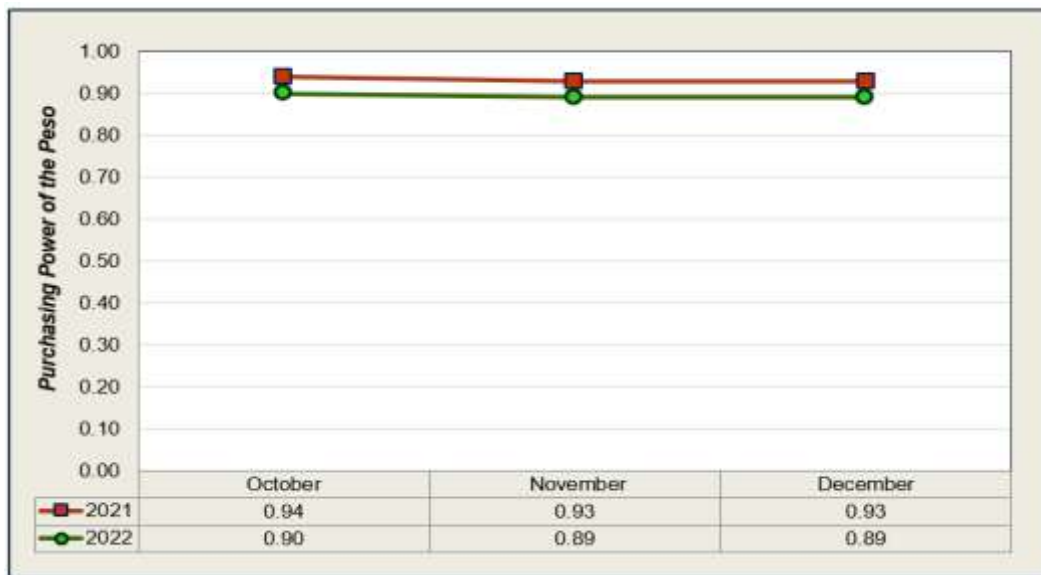


Source: *Philippine Statistics Authority*  
*Retail Price Survey of Commodities for the Generation of Consumer Price Index*

**PPP in La Union decreases to PhP0.89 in 4<sup>th</sup> Quarter 2022**

The average Purchasing Power of the Peso (PPP) in La Union was recorded at PhP0.89 in 4<sup>th</sup> quarter 2022, lower than the recorded PPP in the province in 3<sup>rd</sup> quarter 2022 at PhP0.90. This means that the purchasing capability of PhP1.00 in 2018 decreased by 11 centavos in 4<sup>th</sup> quarter 2022. In 4<sup>th</sup> quarter 2021, La Union's average PPP was recorded at PhP0.93. (Figure 5)

**FIGURE 5. Purchasing Power of the Peso  
La Union: October - November, 2021 and 2022  
(2018=100)**



Source: *Philippine Statistics Authority  
Retail Price Survey of Commodities for the Generation of Consumer Price Index*

La Union's average PPP in 4<sup>th</sup> quarter 2022 was higher than Ilocos Region's average PPP of PhP0.84. The region's average PPP a quarter ago was posted at PhP0.86 and in 4<sup>th</sup> quarter 2021, at PhP0.91.

In 4<sup>th</sup> quarter 2022, the PPP in the province was recorded at PhP0.90. in October but went down to PhP0.89 in November and remained until December. In the same period a year ago, the recorded PPP in the province was higher at PhP0.94 in October but decreased to PhP0.93 in November and remained in December.

# TECHNICAL NOTES

The Philippine Statistics Authority (PSA) 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 prices of goods and services commonly purchased by consumers relative to a base year. It is most widely used in the calculation of inflation rate purchasing power of the peso (PPP). The CPI series also serve as basis for economic analysis, collective bargaining agreements, wage adjustments, and for monitoring the effects of government economic policy on households.



Inflation rate is defined as the annual rate of change or the year-on-year change in the CPI. On the other hand, the PPP is a measure of the real value of the peso in a given period relative to a chosen reference period.

## **Rebasing of CPI to Base Year 2018 and Adopting the Chained Laspeyres Formula in Index Computation**

The PSA has rebased the CPI for all income households to base year 2018, from base year 2012. The methodology of rebasing the CPI to base year 2018 was approved by the PSA Board through the PSA Board Resolution No. 15 Series of 2021.

The PSA has started releasing the 2018-based CPI for All Income Households on 04 February 2022. The rebasing to 2018 is the 12<sup>th</sup> base period and the 11<sup>th</sup> rebasing for CPI. This was announced in Press Release Number 2022-01 dated 04 January 2022. The CPI series for all income households for January 2022 onwards shall be 2018-based.

### **1. Identification of the Base Year**

Base period is a reference 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 rebased from base year 2012 to base year 2018.

# 2018

The rebasing of the CPI is done periodically by the PSA due to the following: 1) to ensure that the CPI market basket continues to capture goods and services commonly purchased by households over time; 2) to update expenditure patterns of households; and 3) to synchronize its base year with 2018 base year of the Gross Domestic Product and other indices produced by PSA such as the Producer Price Index (PPI) for Agriculture; PPI for Manufacturing; and Value of Production Index (VaPI), Volume of Production Index (VoPI), and Value of Net Sales Index (VaNSI) for Manufacturing.

The year 2018 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 commonly purchased by the households.

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.

The market basket for the CPI for All Income Households is updated using the results of the 2021 Survey of Key Informants (SKI). The survey, which was undertaken in March 2021, was conducted nationwide to store managers, sellers, or proprietors in order to obtain information on the most commonly purchased goods and availed of services by the households.

The commodities in the 2018-based CPI market basket are grouped according to the 2020 Philippine Classification of Individual Consumption According to Purpose (PCOICOP) 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 2018-based CPI were derived from the expenditure data of the 2018 FIES. The weight for each item of expenditure is the proportion of the expenditure of commodity/group of commodities to the total national expenditure. The sum of the weights of the commodity groups at the national level is equal to 100.

The table below shows the comparison of the expenditure weights between the 2012 and 2018-based CPI for the Philippines.

**CPI Weights for All Income Households by PCOICOP Division**

2020 PCOICOP Division	Philippines			
	2012=100	Rank	2018=100	Rank
All items	100.00		100.00	
01 – Food and non-alcoholic beverages	38.34	1	37.75	1
02 – Alcoholic beverages and tobacco	1.58	11	2.6	10
03 – Clothing and Footwear	2.93	9	3.14	8
04 – Housing, water, electricity, gas and other fuels	22.04	2	21.38	2
05 – Furnishing, household equipment and routine maintenance of the house	2.95	8	3.22	7
06 – Health	3.89	6	2.89	9
07 – Transport	8.06	3	9.03	4
08 – Information and communication	2.93	9	3.41	6
09 – Recreation, sport and culture	1.41	12	0.96	12
10 – Education services	3.28	7	1.96	11
11 – Restaurants and accommodation services	8.05	4	9.62	3
12 – Financial services			0.03	13
13 – Personal care and miscellaneous goods and services	4.54	5	4.46	5

#### 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 15<sup>th</sup> to 17<sup>th</sup> 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. Index Computation

The 2018-based CPI series uses the same method of computation as the 2012-based CPI series, which is the chained Laspeyres formula.

The PSA employed the weighted arithmetic mean of price relatives and the “Chain” method to provide timely indicators since this method allows the inclusion or exclusion of commodities in the market basket to address the changing consumer taste and preferences and technological changes. Below are the steps in the computation of CPI using the 2018 as the base year:

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

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



**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:

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

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

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

**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:

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

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

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

**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:

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

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

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

## 6. Dissemination of Reports

Data are available five days after the reference month which are posted at the PSA website ([www.psa.gov.ph](http://www.psa.gov.ph)). Data series are also uploaded at the OpenSTAT database portal of the PSA website.

### **Economic Indicators Derived from the CPI**

Two important indicators, the inflation rate and 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:

$$\text{Inflation Rate} = \frac{\text{CPI}_2 - \text{CPI}_1}{\text{CPI}_1} \times 100$$

Where:  $\text{CPI}_2$  – is the CPI in the second period  
 $\text{CPI}_1$  – 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.

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



  
**DANITES E. TENIDO, Ph.D.**  
 Chief Statistical Specialist

