



SPECIAL RELEASE

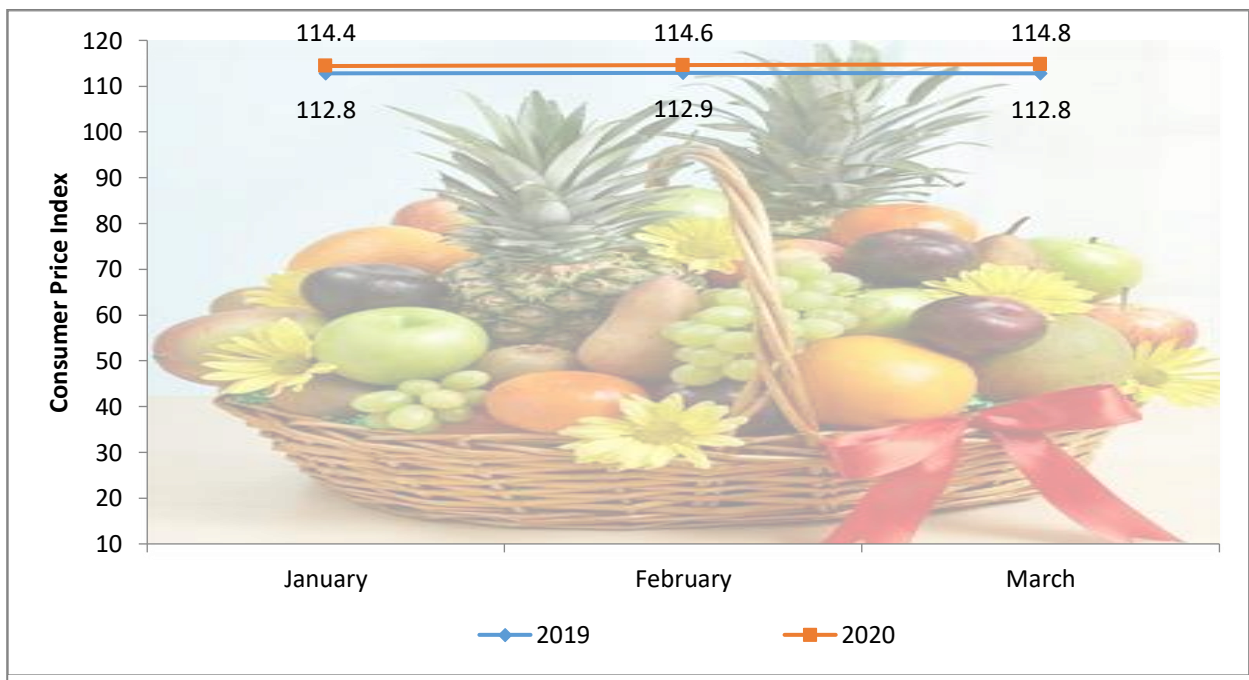
The Consumer Price Index in La Union (2012=100) 1stQuarter of 2020 Report

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La Union's CPI increased to 114.6 in Q1 2020

The average Consumer Price Index (CPI) in La Union during the first quarter of 2020 was recorded at 114.6. Said figure was 1.8 percentage points higher than the average CPI during the same period of 2019 at 112.8, and 0.8 percentage points higher than the past quarter CPI at 113.8.

The province's average CPI during the first quarter of 2019 and 2020 were lower than Region I's CPI which were posted at 118.2 and 121.3 respectively.



**Figure 1. Consumer Price Index, All Items
La Union: January - March 2019 and 2020
(2012=100)**



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Figure 1 shows the trend of La Union's CPI by month during the first quarter of 2019 and 2020. During the first quarter of 2020, the CPI in the province increases posting the figures 114.4, 114.6, and 114.8 for the months of January, February, and March respectively. The said pattern in the movement of CPI indicates that the prices of goods and services commonly purchased and consumed by a typical household in La Union slowly increases.

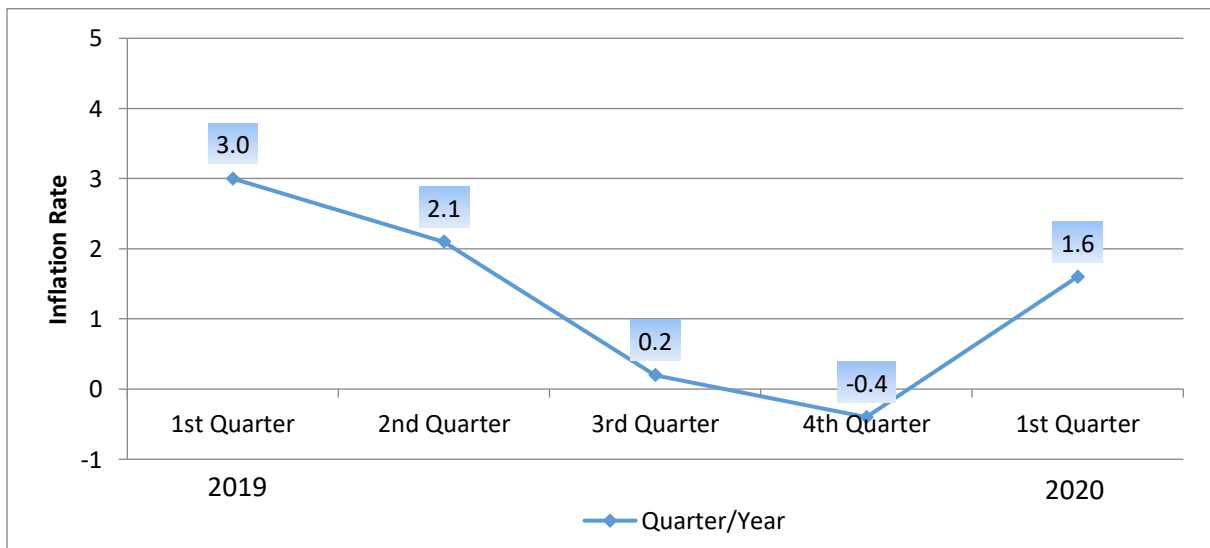
In the same period a year ago, an upward trend was noticed between the months of January and February with a recorded 0.1 percentage point increase, while prices

decreased in the months of February and March with a recorded 0.1 percentage point decrease.

La Union's average CPI of 114.6 during the first quarter of 2020 means that on the average, prices of goods and services have increased by 14.6 percent from 2012. Another interpretation of this figure means that a basket of commodities worth PhP 100.00 in 2012 is now worth PhP 114.60 in the first quarter of 2020. The increase of 0.8 percentage point from the previous quarter figure of 113.8, also indicates a gain in prices of commodities commonly consumed and purchased in the provinces.

La Union's inflation increased to 1.6 percent in Q1 2020

La Union's average year-on-year headline inflation increased to 1.6 percent in the first quarter of 2020 from a quarter-ago average of -0.4 percent using the 2012-based CPI series. However, said figure is 1.4 percentage point lower than the recorded figure in the first quarter of 2019 at 3.0 percent.



**Figure 2. Headline Inflation Rates of the CPI in La Union
1stQuarter 2019 – 1stQuarter 2020
(2012=100)**



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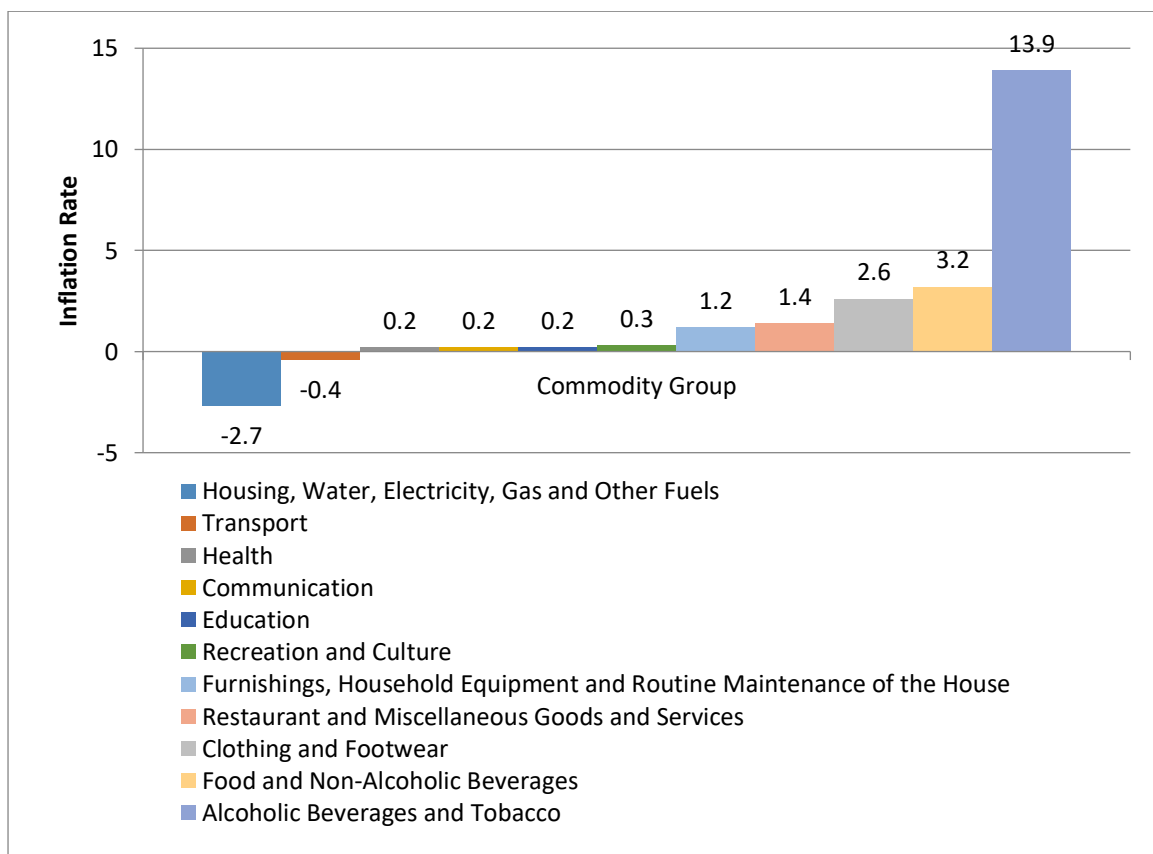
Meanwhile, Region I's average headline inflation accelerated to 2.6 percent in the first quarter of 2020 from 0.9 percent in the previous quarter. Said figure was lower by 1.9 percentage points than the average in the first quarter of 2019 posted at 4.5 percent.

Alcoholic beverages and tobacco index exhibits the highest inflation in Q1 2020

The subgroup alcoholic beverages and tobacco index recorded the highest average inflation rate at 13.9 percent in the first quarter of 2020. The next highest average inflation was registered in the index of food and non-alcoholic beverages at 3.2%, followed by clothing and footwear (2.6%); restaurant and miscellaneous goods and services (1.4%); and furnishings, household equipment and routine maintenance of the house (1.2%). Recreation and culture, health, communication and education subgroups posted indices lower than 1.0% at 0.3%, 0.2%, 0.2% and 0.2%, respectively. On the other hand, the indices for transport and housing, water, electricity, gas and other fuels posted a negative inflation rate at -0.4% and -2.7%, respectively.



The alcoholic beverages and tobacco index recorded the highest average annual inflation in first quarter of 2020.



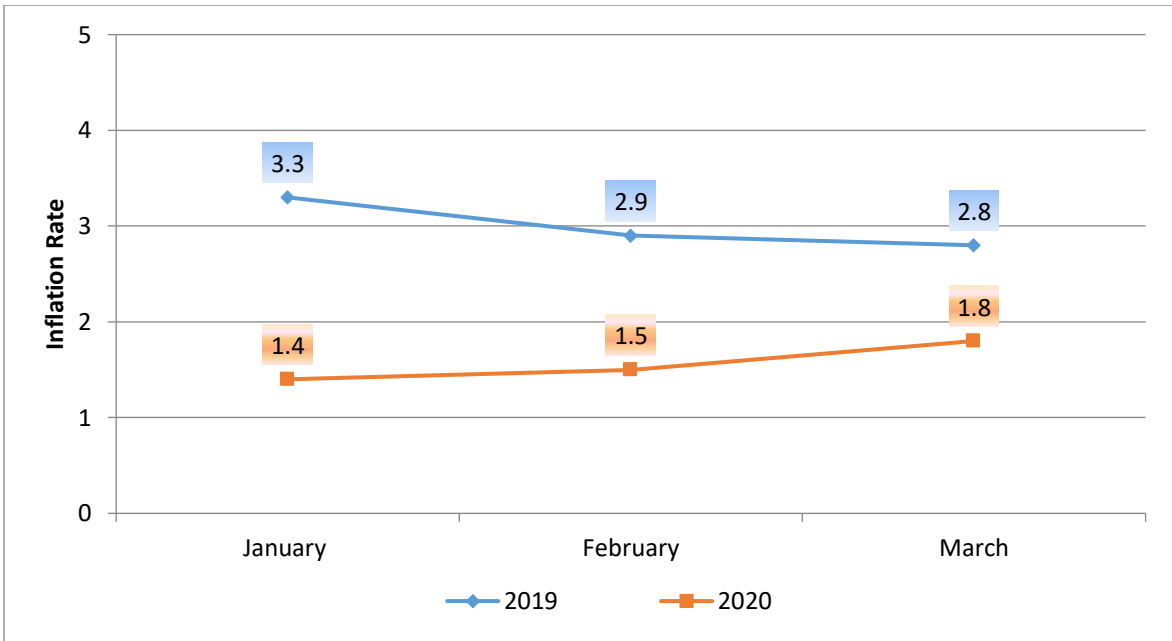
**Figure 3. Inflation Rates by Commodity Groups
La Union: 1stQuarter 2020
(2012=100)**



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**Figure 4. Headline Inflation Rates, All Items
La Union: January – March 2019 and 2020
(2012=100)**

Figure 4 shows the comparison of the inflation rates in La Union from January to March of 2019 and 2020. During the first quarter of 2020, the headline inflation rate in the province shows an increasing pattern in January (1.4%), February (1.5%) and March (1.8%).

While a declining headline inflation rates of the province were observed in the first quarter of 2019 with 3.3 percent in January, 2.9 percent in February and down to 2.8 percent in March.

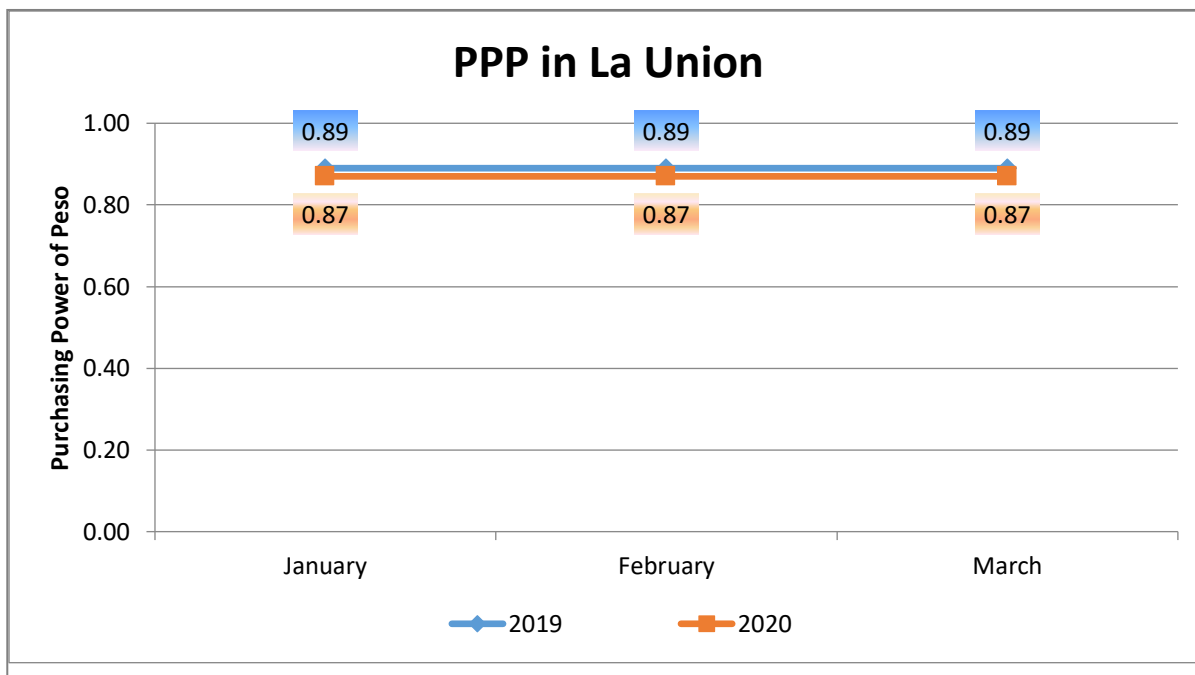
PPP in La Union decreased to PhP0.87 in Q1 2020

The average Purchasing Power of the Peso (PPP) in La Union decreased to PhP 0.87 in the first quarter of 2020, one centavo lower than the PPP in the previous quarter. This means that the purchasing capability of PhP 1.00 in 2012 was decreased by 13 centavos in the first quarter of 2020. La Union’s average PPP was recorded at PhP 0.88 in the fourth quarter of 2019 and at PhP 0.89 in the first quarter of 2019.



La Union’s average PPP in the first quarter of 2020 was higher than Region I’s average PPP of PhP 0.82. The region’s average PPP in the fourth quarter of 2019 was recorded at PhP 0.83 and in the first quarter of 2019 at PhP 0.85.





**Figure 5. Purchasing Power of the Peso
La Union: January – March 2019 and 2020
(2012=100)**

During the first quarter of 2020 and 2019, the value of Peso in the province was stable at PhP 0.87 and PhP 0.89, respectively, as manifested by a straight line in the graph.



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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

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.

2012

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



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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.



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- 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

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 2012 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.

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

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.

$$\text{GM}_{\text{PR}} = \left(\prod_{i=1}^n \text{PR}_i \right)^{1/n}$$

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.

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

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



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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



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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:

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

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 which 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.



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


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