



SPECIAL RELEASE

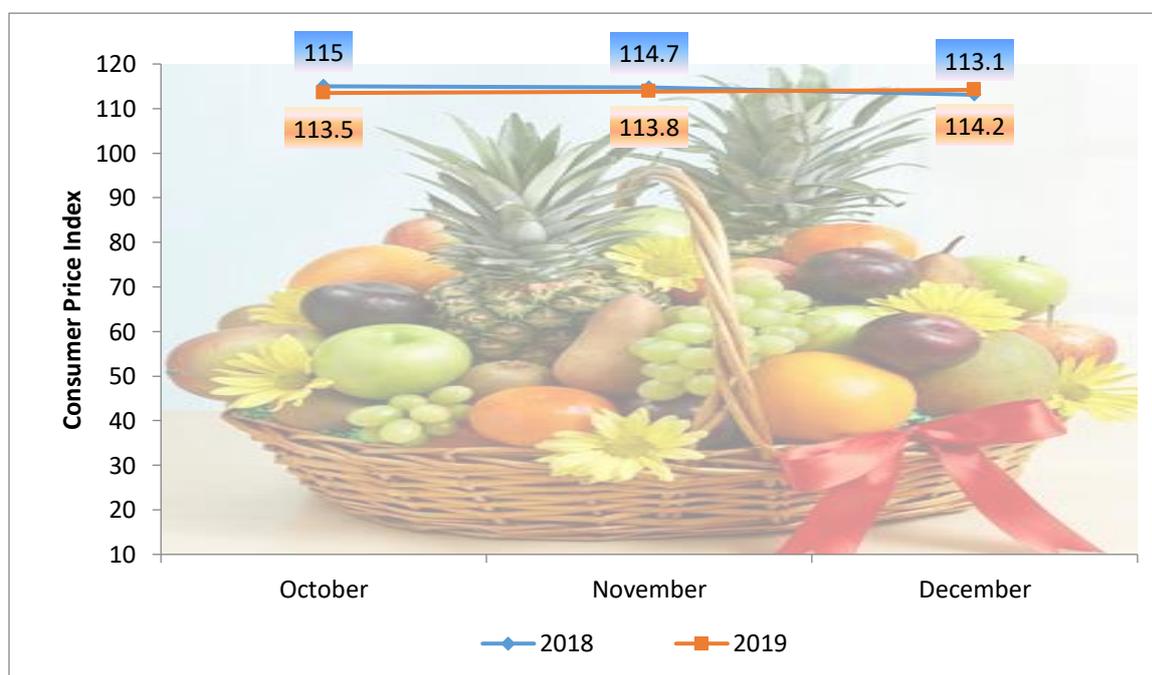
The Consumer Price Index in La Union (2012=100) 4th Quarter of 2019 Report

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La Union's CPI posted at 113.8 in Q4 2019

The average Consumer Price Index (CPI) in La Union during the fourth quarter of 2019 was recorded at 113.8. This was 0.5 percentage points lower than the average CPI during the same period of 2018 at 114.3 but 0.6 percentage point higher than the past quarter (113.2).

The province's average CPI during the fourth quarter of 2018 and 2019 were lower than Region I's CPI which was posted at 119.1 and 120.2, respectively.



**Figure 1. Consumer Price Index, All Items
La Union: October – December, 2018 and 2019
(2012=100)**



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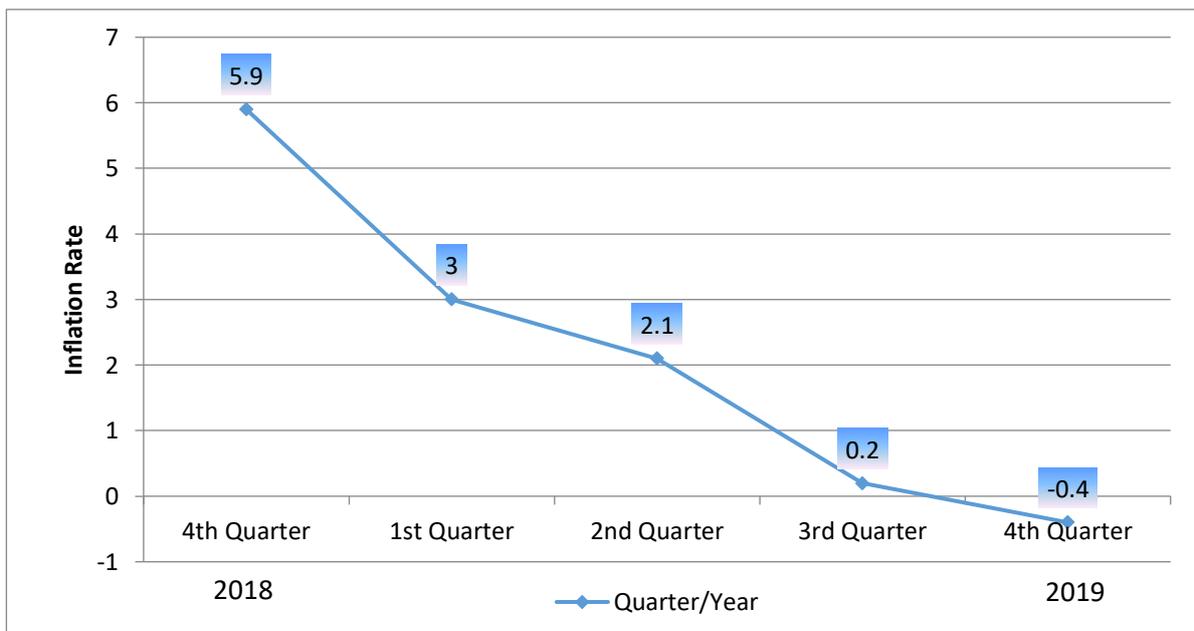
Figure 1 shows the trend of La Union's CPI by month during the fourth quarter of 2018 and 2019. During the fourth quarter of 2019, the CPI in the province has shown an increasing motion in October, November and December at 113.5, 113.8, and 114.2, respectively. The said pattern in the movement of CPI indicates that the prices of goods and services commonly purchased and consumed by a typical Filipino family has slowly increased.

In the same period a year ago, a downward trend was noticed in the CPI of the province in October, November and December at 115.0, 114.7, and 113.1, respectively.

La Union's average CPI of 113.8 during the fourth quarter of 2019 means that, on the average, prices of goods and services have increased by 13.8 percent from 2012. This further means that a basket of commodities which can be purchased at PhP100.00 by an average Filipino household in 2012 can be bought at Php113.80 in fourth quarter of 2019.

La Union's inflation decelerates by -0.4 percent in Q4 2019

La Union's average year-on-year headline inflation declined to -0.4 percent in fourth quarter of 2019 from a quarter-ago average of 0.2 percent using the 2012-based CPI series. In fourth quarter of 2018, the average inflation in the province was recorded at 5.9 percent.



**Figure 2. Headline Inflation Rates of the CPI in La Union
4thQuarter of 2018 – 4th Quarter of 2019
(2012=100)**



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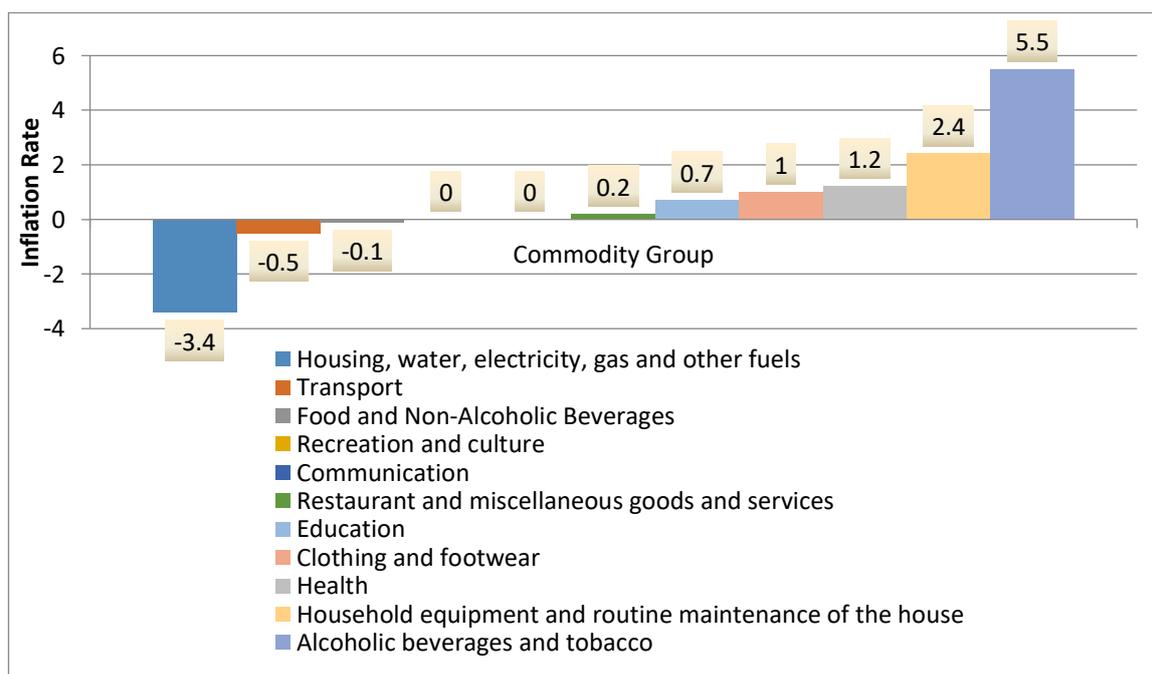
Meanwhile, Region I's average headline inflation further decelerated to 0.9 percent in fourth quarter of 2019 from 1.5 percent in the previous quarter. The average inflation of the region in fourth quarter of 2018 was posted at 7.9 percent.

Alcoholic beverages and tobacco index exhibits the highest inflation in Q4 2019

The subgroup alcoholic beverages and tobacco index recorded the highest average inflation rate at 5.5 percent in the fourth quarter of 2019. This was the highest inflation rate observed among major commodity groups during the quarter. It was followed by the average inflation registered in the indices of furnishings, household equipment and routine maintenance of the house (2.4%); health (1.2%); and clothing and footwear (1.0%). Education, restaurant and miscellaneous goods and services, communication and recreation and culture subgroups posted indices lower than 1.0% at 0.7%, 0.2%, 0% and 0%, respectively. On the other hand, the indices for food and non-alcoholic beverages, transport and housing, water, electricity, gas and other fuels posted a negative inflation rate at -0.1%, -0.5% and -3.4%, respectively.



The alcoholic beverages and tobacco index recorded the highest average annual inflation in fourth quarter of 2019.



**Figure 3. Inflation Rates by Commodity Groups
La Union: 4th Quarter 2019
(2012=100)**



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Table 1. Average Year-on-Year Inflation Rates for All Income Households by Commodity Group, La Union: 4thQuarter 2018 and 3rd-4thQuarter 2019 (2012=100)

Commodity Group	Inflation Rate		
	4 th Quarter 2019	3 rd Quarter 2019	4 th Quarter 2018
Food and Non-Alcoholic Beverages	-0.1	0.5	8.9
Alcoholic Beverages and Tobacco	5.5	3.3	27.3
Clothing and Footwear	1.0	1.1	3.3
Housing, Water, Electricity, Gas and Other Fuels	-3.4	-1.4	6.5
Furnishings, Household Equipment and Routine Maintenance of the House	2.4	2.9	1.5
Health	1.2	1.2	1.3
Transport	-0.5	-1.4	4.4
Communication	0	0	0.6
Recreation and Culture	0	0.5	1.9
Education	0.7	1.6	-12.4
Restaurant and Miscellaneous Goods and Services	0.2	0.2	0.9

Source: Philippine Statistics Authority, Price Statistics Division

The downtrend observed in La Union's inflation from third quarter of 2019 to fourth quarter of 2019 was effected by average annual growth in the indices of alcoholic beverages and tobacco from 3.3 percent to 5.5 percent. Lower average inflation was also noted in the indices of food and non-alcoholic beverages (0.5% to -0.1%); clothing and footwear (1.1% to 1.0%); housing, water, electricity, gas and other fuels (-1.4% to -3.4%); furnishings, household equipment and routine maintenance of the house (2.9% to 2.4%); recreation and culture (0.5% to 0%) and education (1.6% to 0.7%). While the average inflation for transport remains negative at -0.5 percent but the commodity group displayed an upward movement from -1.4% in the third quarter of 2019.

Moreover, the average annual growth in the food alone index moved at a slower pace of -0.2 percent in fourth quarter of 2019. It was posted at 0.5 percent in the previous quarter.

From third quarter to fourth quarter of 2019, faster annual rates were also recorded in the indices of corn (-3.4% to -1.5%); meat (1.9% to 2.8%); milk, cheese and eggs (0.6% to 2.1%); oils and fats (0.2% to 0.3%); vegetables (-4.5% to -1.4%); other cereals, flour, cereal preparation, bread, pasta and other bakery products (0.4% to 0.9%); and food products not elsewhere classified (1.1% to 2.3%).

On the other hand, slower average increment was noted in the indices of bread and cereals (-2.3% to -5%); rice (-3% to -6.5%); fruits (7.2% to 6%); sugar, jam, honey, chocolate and confectionery (2.9% to 0.2%) and non-alcoholic beverages (0.7% to 0.2%) in third quarter to fourth quarter of 2019. While a stable average was recorded in the index of fish at 7.1% in the previous quarter and the fourth quarter of 2019.

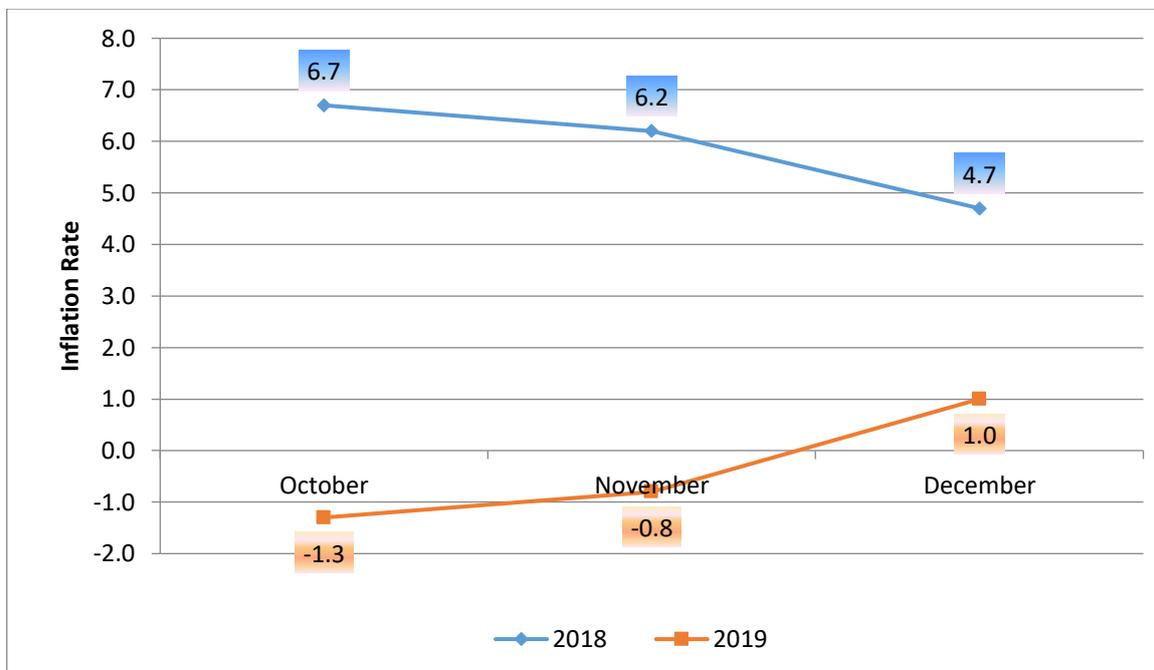


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**Figure 4. Headline Inflation Rates, All Items
La Union: October-December, 2018 and 2019
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Figure 4 shows the comparison of the inflation rates in La Union from October to December of 2018 and 2019. During the fourth quarter of 2019, the headline inflation rate in the province accelerated in November and December at -0.8 percent and 1.0 percent, respectively from -1.3 percent in October.

While a declining headline inflation rates of the province were observed in fourth quarter of 2018 with 6.7 percent in October, 6.2 percent in November and 4.7 percent in December.

PPP in La Union remained stable to Php0.88 in Q4 2019

The average Purchasing Power of the Peso (PPP) in La Union remained stable to Php0.88 in fourth quarter of 2019. This means that the purchasing capability of Php1.00 in 2012 decreased by 12 centavos in fourth quarter of 2019. La Union’s average PPP was recorded at Php0.88 in third quarter of 2019 and at Php0.87 in fourth quarter of 2018.



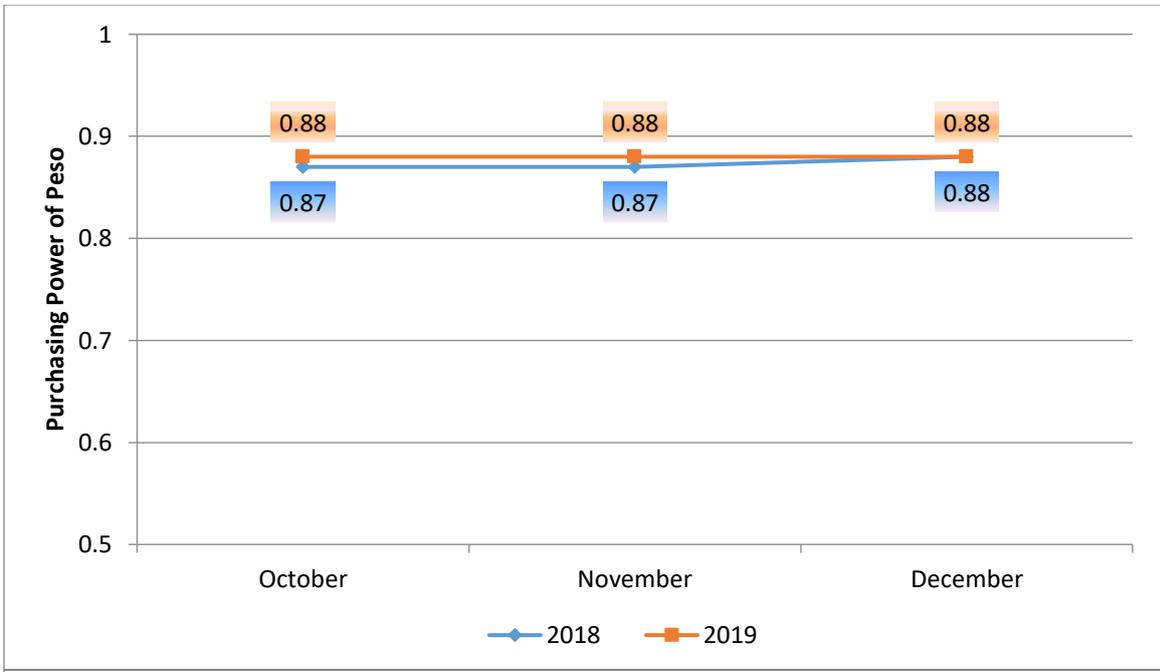
La Union’s average PPP in fourth quarter of 2019 was higher than Region I’s average PPP of Php0.83. The region’s average PPP in third quarter of 2019 was recorded at Php0.84 and in fourth quarter of 2018 at Php0.84.



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**Figure 5. Purchasing Power of the Peso
La Union: October – December, 2018 and 2019
(2012=100)**

During the fourth quarter of 2019, the value of Peso in the province was stable as manifested by the straight line of the PPP at PhP0.88 in October to December.

In the same period of 2018, the PPP in La Union was increasing from PhP0.87 in October and November to PhP0.88 in December.



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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:

$$\text{Inflation Rate} = \frac{CPI_2/CPI_1}{CPI_1} \times 100$$

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 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.



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


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