PHILIPPINE STATISTICS AUTHORITY BOARD

PSA Board Resolution No. 13
Series of 2019

REBASING OF THE GENERAL RETAIL PRICE INDEX (GRPI) AND CONSTRUCTION MATERIALS RETAIL PRICE INDEX (CMRPI) IN THE NATIONAL CAPITAL REGION FROM 2000 TO BASE YEAR 2012 AND WITH SOME REVISIONS IN THE METHODOLOGY

WHEREAS, the PSA Board Resolution No. 01, Series of 2017–146 (Approving the Synchronized Rebasing of Price Indices to Base Year 2006), mandates the rebasing of the price indices every six years;

WHEREAS, the rebasing of the Consumer Price Index (CPI) and Construction Materials Wholesale Price Index (CMWPI) to base year 2012 were approved by the PSA Board in 2018 through PSA Board Resolution Nos. 02 and 13, respectively;

WHEREAS, the General Retail Price Index (GRPI) and Construction Materials Retail Price Index (CMRPI) are economic indicators designed to: a) measure the changes in the price levels of commodities that flow into the retail trade intermediaries; b) monitor the economic situation of the retail trade sector; and c) serve as a deflator in the national accounts;

WHEREAS, the GRPI and CMRPI are still based on 2000 prices;

WHEREAS, the commodities that comprise the current market basket of the GRPI and CMRPI are the prevailing commodities in the market in 2000. However, changes have taken place over a period of 12 years affecting the relevance of the commodities in the market basket;

WHEREAS, rebasing the GRPI and CMRPI are necessary since some of the commodities in 2000 market basket may no longer exist or available in the market due to changes in technology and preferences. Moreover, the GRPI and CMRPI need to be rebased to ensure that these indicators are truly reflective of the current situation;

WHEREAS, the PSA in keeping with its mission to be relevant to its stakeholders, proposed the rebasing of the GRPI and CMRPI to 2012 using as data inputs, the results of the 2006 Input and Output Survey of Philippine Business and Industry (IOSPBI) in the National Capital Region (NCR) and 2013 Survey of Key Informants for the updating of market basket for CPI in NCR; and the value of production from the 2006 Input-Output (IO) Table for the updating of the weights;

WHEREAS, the year 2012 was also chosen as the base year for consistency with the CPI and CMWPI which used 2012 as base year;

WHEREAS, similar to the 2012-based CPI and CMWPI, a straightforward computation of monthly average prices of commodities, short-term relative update method for elementary

item price indexes, geometric mean method for the aggregation of price relatives for the lowest level (commodity subgroup) and weighted arithmetic mean of price indexes at the higher levels of aggregation are applied in the 2012-based GRPI and CMRPI series;

WHEREAS, the Interagency Committee on Price Statistics (IACPS) in its meeting on 17 June 2019 agreed to recommend to the PSA Board the methodology in rebasing the GRPI and CMRPI to base year 2012 and uses a straightforward computation of monthly average prices of commodities, short-term relative update method for elementary item price indexes, geometric mean method for the aggregation of price relatives for the lowest level (commodity subgroup) and weighted arithmetic mean of price indexes at the higher levels of aggregation in the 2012-based GRPI and CMRPI series (Annex BR 13-20190813-01);

NOW, THEREFORE, BE IT RESOLVED, that the PSA Board approves the rebasing of the GRPI and CMRPI to year 2012 which uses a straightforward computation of monthly average prices of commodities, short-term relative update method for elementary item price indexes, geometric mean method for the aggregation of price relatives for the lowest level (commodity subgroup) and weighted arithmetic mean of price indexes at the higher levels of aggregation as recommended by the IACPS for utilization of results by all concerned agencies;

RESOLVED FURTHER, that the PSA shall:

1. Start releasing the 2012-based GRPI and CMRPI series in September 2019 covering the period January 2012 to August 2019;
2. Continue releasing the 2000-based GRPI and CMRPI until December 2019 series; and
3. Complete the computation of backcasted values of the 2012-based GRPI and CMRPI series from January 2000 to December 2011 in January 2020.

Approved this 13th day of August 2019, in Pasig City.

ERNESTO M. PERNIA
Secretary of Socioeconomic Planning
National Economic Development Authority
Chairperson, PSA Board

OSEC-03683

Attested by:

CLAIRE DENNIS S. MAPA
Undersecretary
National Statistician and Civil Registrar General
Philippine Statistics Authority
Chairperson, PSA Board Secretariat

REBASING THE GENERAL RETAIL PRICE INDEX (GRPI) AND CONSTRUCTION MATERIALS RETAIL PRICE INDEX (CMRPI) TO BASE YEAR 2012 WITH SOME REVISIONS IN THE METHODOLOGY

1. Identification of Base Year

The base period is the year at which the index number is set to 100. It is the reference point of the index number series. The GRPI/CMRPI is now rebased to 2012 from the current 2000 base year.

The year 2012 was chosen as the next base year to be consistent with the current base year of the Consumer Price Index (CPI) and the Construction Materials Wholesale Price Index (CMWPI). The rebasing of the CPI and CMWPI to base year 2012 were approved by the PSA Board in 2018 through PSA Board Resolution Nos. 02 and 13, respectively.

2. Determination of Market Basket

Market basket refers to sample commodities that represent a large variety of commodities traded in the retail market relative to the base year 2012.

The GRPI market basket used in the construction of 2012 GRPI was drawn from 2006 market basket for CPI in NCR for its rebasing to year 2012. Updating of 2006 market basket for the 2012-based CPI was done through the 2013 Survey of Key Informants in various outlets as to the availability and saleability of the commodities they sell, which were further validated by the field staff. Another basis of the market basket were the materials listed in the 2006 Input and Output Survey of Philippine Business and Industry (IOSPBI) in the Retail Trade sector. For the 2006 IOSPBI results in NCR, the items reported in the revenue portion of the questionnaire of large sample retail establishments in NCR were compiled. Only those items that have high percentage share in the total revenue of the sample large establishments were then selected. Complete specifications of these new items selected from the 2006 IOSPBI results were then identified based in the available specifications in the market.

The selection of commodities in the market basket was determined using the following criteria: (1) popularity of the variety of the commodity (implies representativeness with respect to the commodity); (2) consistency of supply in the market (sustained availability of supply from the base period to the present); and (3) relatively high market revenue or sales.

3. Computation of Weights

The weights represent the importance of the commodity group relative to other commodity groups in the market basket.

The weights for the 2000-based GRPI utilized the results of the 1994 Input-Output Table, which are based on total value of production. Likewise, the new series adopts the same methodology using the 2006 I-O Table.

The available data on value of production in the 2006 I-O Table is for Wholesale and Retail Trade. Thus, the total value of production for Retail Trade sector was estimated based on the percentage share of the revenue of the Retail Trade sector to the total revenue of the

Wholesale and Retail Trade from the 2006 Census of Philippine Business and Industries (CPBI).

The weight of each commodity group is the value of production per commodity group in 2006 I-O Table divided by the total value in 2006 I-O Table multiplied by 100.

4. Monitoring of Prices of Commodities in the Market Basket

This involves establishing baseline information for prices of the commodities in the base year and monitoring the prices of these commodities on a regular basis. Collection of data for the GRPI is done by the price collectors of the National Capital Region of the Philippine Statistics Authority (PSA).

Prices of selected commodities are monitored on a weekly, bi-weekly and monthly basis. Data are collected from the sample outlets (outlets or establishments where prices of commodities are collected or quoted) which are 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 commodities.

b. Consistency and completeness of stock.

Consistency of stock - the outlet has a constant, steady or regular stock of commodities as well as of those commodities of the same kind and within the same commodity group.

Completeness of stock- the outlet carries in its stock many, if not all, of the commodities included in the list relative to the other outlets in the area.

c. Sample establishments/Outlets - these outlets provide the retail price data for the commodities in the market basket.

d. Geographical location- the outlet is conveniently located and is accessible.

5. Computation of the GRPI//CMRPI

Below are the steps in the computation of GRPI/CMRPI using 2012 as the base year:

Step 1. Compute the monthly average price of each commodity l.

$$P_{l,t} = \frac{\sum_{m=1}^{n} P_{m,t}}{n}$$

where:
$P_{l,t}$ = average price of commodity l at current month
l = subscript for commodity
m = subscript for outlet for commodity l

n = total number of outlets for commodity l

t = subscript for current month

Step 2. Compute the elementary price index or price relative (R) for each commodity l.

$$R_{l,t} = \frac{P_{l,t}}{P_{l,t-1}} \times 100$$

where:

$R_{l,t}$ = price relative of commodity l at current month t

$P_{l,t-1}$ = average price of commodity l for the previous month $t-1$

Step 3. Compute the index for each commodity subgroup k.

Step 3.1: Compute the geometric mean of price relatives of commodities under each commodity subgroup k:

$$G_{k,t} = \left(\prod_{l=1}^{g} R_{l,t} \right)^{\frac{1}{g}}$$

where:

$G_{k,t}$ = geometric mean of price relatives of commodities under commodity subgroup k for current month t

g = total number of commodities in commodity subgroup k

Step 3.2: Compute the index for each commodity subgroup k:

$$I_{k,t} = G_{k,t} \times I_{k,t-1}$$

where:

$I_{k,t}$ = index of commodity subgroup k at current month t

$I_{k,t-1}$ = index of commodity subgroup k at previous month $t-1$

Step 4. Compute the index for each commodity group j.

$$I_{j,t} = \frac{\sum_{k=1}^{p} w_k I_{k,t}}{\sum_{k=1}^{p} w_k}$$

where:

$I_{j,t}$ = index of each commodity group j at current month t

w_k = weight of commodity subgroup k

$$p \text{ = total number of commodity subgroups } k \text{ in commodity group j}$$

Step 5. Compute the index for each major commodity group i.

$$I_{i,t} = \frac{\sum_{j=1}^{q} w_j I_{j,t}}{\sum_{j=1}^{q} w_j}$$

where:

$I_{i,t}$ = index of major commodity group i at current month t

w_j = weight of commodity group j

q = total number of commodity group j in major commodity group i

Step 6. Compute the index for All Items.

$$I_t = \frac{\sum_{i=1}^{r} w_i I_{i,t}}{\sum_{i=1}^{r} w_i}$$

where:

I_t = index for all items at current month t

w_i = weight of major commodity group i

r = total number of major commodity groups i

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