

PRESS RELEASE

PRODUCER PRICE INDEX (2018=100) April 2023

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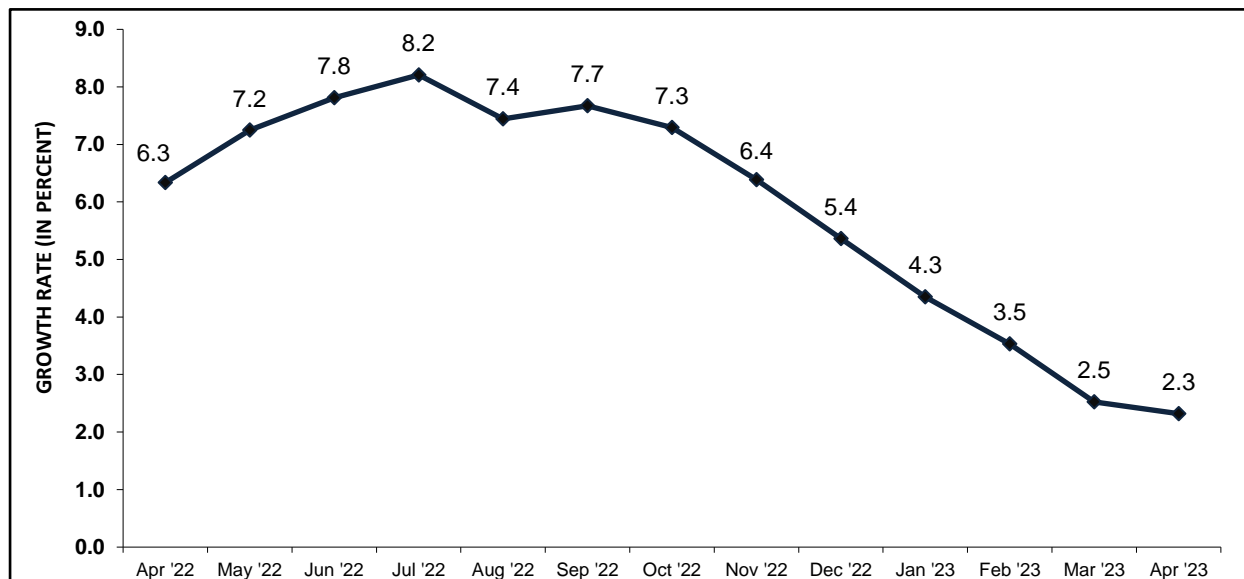
Table A. PPI and Year-on-Year Growth Rates for Manufacturing (2018=100)
April 2022, March 2023^r, and April 2023^p

Category	April 2022	March 2023 ^r	April 2023 ^p
Producer Price Index (2018=100)	96.2	98.1	98.4
Year-on-Year Growth (%)	6.3	2.5	2.3
Month-on-Month Growth (%)	0.5	-0.04	0.3

p - preliminary, r - revised

Source: Philippine Statistics Authority

Figure 1. Year-on-Year Change in Producer Price Index for Total Manufacturing
April 2022 - April 2023^p
(2018 = 100)



p - preliminary

Source: Philippine Statistics Authority

A. Year-on-Year Growth for April 2023

1. Manufacture of food products industry division was the main contributor to the slower annual increase of producer price for manufacturing

The Producer Price Index (PPI) for manufacturing registered a slower annual increase of 2.3 percent in April 2023 compared with the 2.5 percent annual increment posted in March 2023. The PPI also posted an annual upturn of 6.3 percent in April 2022. (Figure 1, and Tables A and 1)

The deceleration of PPI in April 2023 was primarily brought about by the slowdown in the annual increase in manufacture of food products industry division at 4.4 percent in April 2023 from 5.5 percent annual increase in March 2023. The manufacture of food products contributed 44.6 percent to the slower annual growth rate of the PPI for manufacturing in April 2023. Out of the 22 industry divisions for manufacturing, manufacture of food products industry division has the highest weight¹ in the computation of PPI.

Other main contributors to the slower annual growth of PPI in April 2023 were the faster annual drops exhibited in manufacture of chemical and chemical products at -1.7 percent during the period from -0.05 percent in March 2023, and manufacture of basic metals at -4.9 percent in April 2023 from -3.4 percent in the previous month.

Of the remaining 19 industry divisions, three exhibited annual decrements during the period. Meanwhile, 16 industry divisions registered annual increases during the month. The highest annual increment was observed in manufacture of furniture at 5.9 percent. (Tables B and 1)

2. The main contributor to the overall producer price for manufacturing was also manufacture of food products industry division

The top three industry divisions contributing to the April 2023 overall PPI for manufacturing were the following:

- a. Manufacture of food products with 47.8 percent share;
- b. Manufacture of computer, electronic and optical products with 35.9 percent share; and
- c. Manufacture of beverages with 18.2 percent share.

¹ Refer to Method of Computation in the Technical Notes

3. Manufacture of vegetable and animal oils and fats was the main driver to the slowdown in the annual increase of producer price for food manufacturing

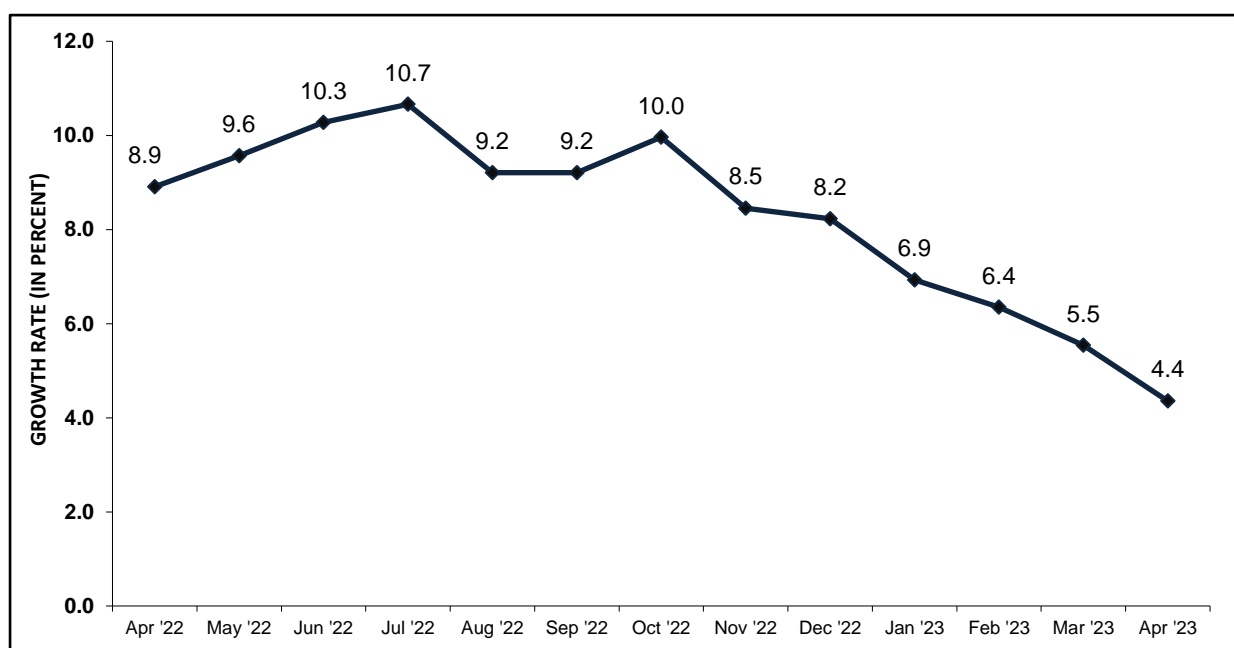
The PPI for the manufacture of food products posted an annual growth rate of 4.4 percent in April 2023. This was slower compared with the March 2023 and April 2022 annual growth rates of 5.5 percent and 8.9 percent, respectively. (Figure 2, and Tables 1 and 2)

The slower annual growth of the PPI for manufacture of food products in April 2023 from March 2023 was primarily attributed to the faster annual decrease in the manufacture of vegetable and animal oils and fats industry group posting an annual decline of -9.3 percent during the period from -5.8 percent in the past month.

Moreover, contributing to the slower annual growth of PPI for manufacture of food products were the slowdowns noted in six industry groups of manufacture of food products.

On the other hand, processing and preserving of fruits and vegetables was the only industry group that registered slower negative annual growth rate in April 2023 at -2.0 percent from -2.4 percent annual decrease in March 2023. (Table 2)

Figure 2. Year-on-Year Change in PPI for Food Manufacturing
April 2022 - April 2023^p
(2018 = 100)



p - preliminary

Source: Philippine Statistics Authority

B. Month-on-Month Growth for April 2023

1. Manufacture of coke and refined petroleum products was the main driver to the acceleration of the month-on-month growth rate of producer price index for manufacturing

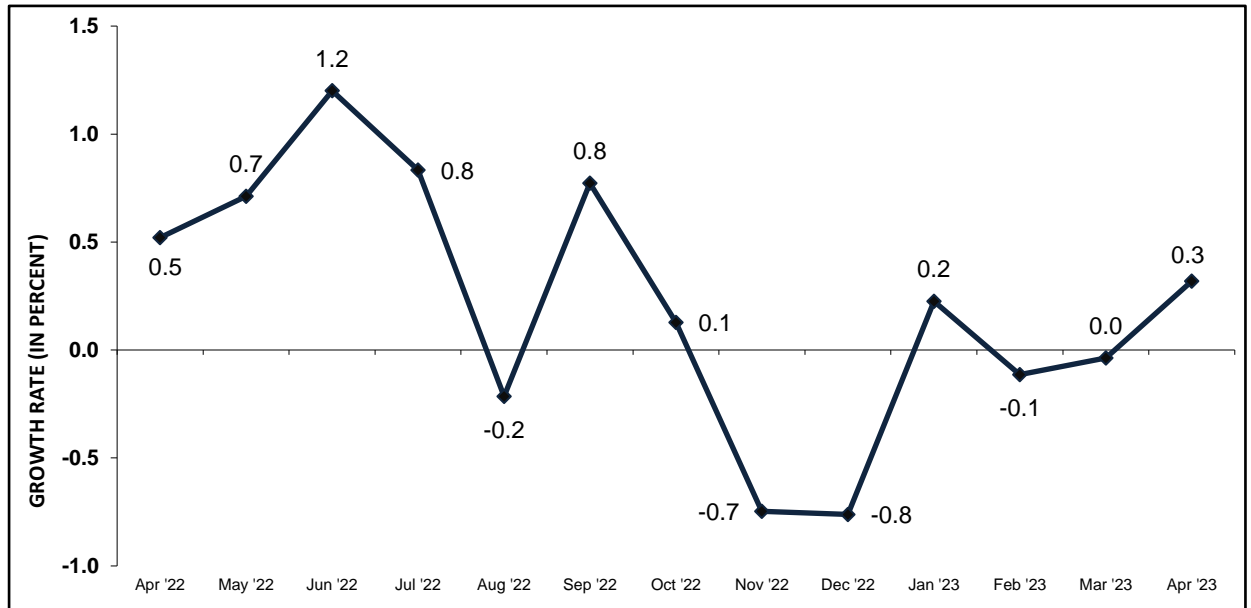
Month-on-month, the PPI for manufacturing exhibited an increment of 0.3 percent in April 2023, after posting a -0.04 percent monthly growth rate in March 2023. In April 2022, a monthly increase of 0.5 percent was observed. (Figure 3, and Tables A and 1)

The monthly acceleration of PPI in April 2023 was mainly contributed by the monthly increment in manufacture of coke and refined petroleum products at 1.3 percent during the period from a -1.9 percent monthly drop in March 2023. Completing the top three contributors to the monthly increment for manufacturing during the period were manufacture of computer, electronic and optical products with monthly growth of 0.5 percent from -0.1 percent monthly decline in March 2023; and manufacture of chemical and chemical products with a slower monthly decline of -0.2 percent from -1.2 percent in the previous month. These three industry divisions contributed almost 90.0 percent to the uptrend in the monthly growth rate of PPI for manufacturing in April 2023.

In addition, 12 industry divisions registered monthly increments during the month. In contrast, five industry divisions exhibited month-on-month declines in April 2023. The highest monthly decline was noted in the manufacture of tobacco products and manufacture of other non-metallic mineral products, both at -0.3 percent.

Manufacture of textiles and printing and reproduction of recorded media both recorded zero month-on-month growth rate. (Tables C and 1)

Figure 3. Month-on-Month Change in PPI for Total Manufacturing
 April 2022 - April 2023^p
 (2018 = 100)



p - preliminary
 Source: Philippine Statistics Authority

2. Manufacture of dairy products was the primary contributor to the slowdown in the monthly rate of producer price for food manufacturing

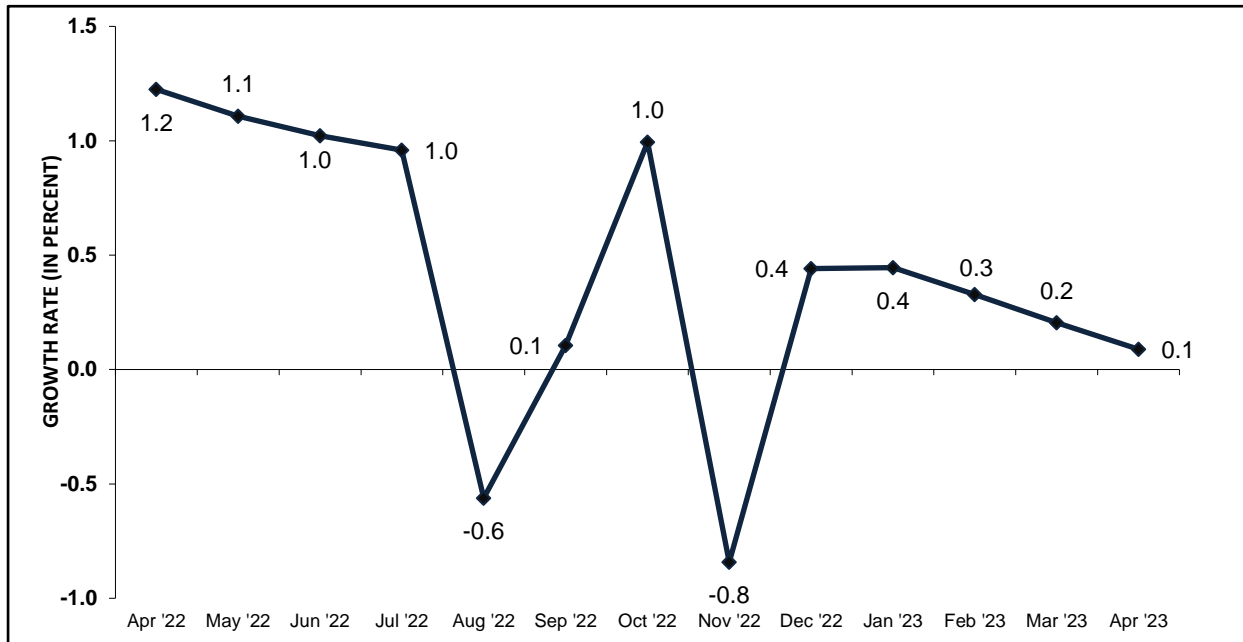
Month-on-month, the PPI for the manufacture of food products posted a slower monthly increase of 0.1 percent in April 2023 compared with 0.2 percent in March 2023. In April 2022, the PPI for the manufacture of food products grew at a monthly increment of 1.2 percent. (Figure 4, and Tables 1 and 2)

The slower monthly increase in the PPI for food manufacturing during the period was brought about by the zero monthly growth rate posted by the manufacture of dairy products from 0.8 percent monthly increment in March 2023. Furthermore, manufacture of grain mill products, starches and starch products recorded a faster negative monthly growth rate during the period with -0.8 percent from -0.04 percent in March 2023. In addition, two industry groups recorded monthly drops in April 2023 after registering upturns in the past month.

On the other hand, two industry groups posted monthly increments after registering monthly decreases in March 2023. Manufacture of prepared animal feeds posted slower negative monthly rate of -0.2 percent in April 2023 from -0.6 percent monthly decline in the previous month.

Lastly, there was no change in the PPI of processing and preserving of meat from March 2023 to April 2023. (Table 2)

Figure 4. Month-on-Month Change in PPI for Food Manufacturing
April 2022 - April 2023^p
(2018 = 100)



p - preliminary

Source: Philippine Statistics Authority

Table B. Year-on-Year Growth Rates of PPI in Percent by Industry Division:
 March 2023^r and April 2023^p
 (2018=100)

INDUSTRY DIVISION	March 2023 ^r	April 2023 ^p
With Positive Annual Growth Rates		
1. Manufacture of food products	5.5 ^r	4.4
2. Manufacture of computer, electronic and optical products	3.4 ^r	5.2
3. Manufacture of beverages	5.9	5.5
4. Manufacture of fabricated metal products, except machinery and equipment	5.7 ^r	4.2
5. Manufacture of other non-metallic mineral products	4.6 ^r	2.9
6. Manufacture of rubber and plastic products	3.3 ^r	2.9
7. Manufacture of paper and paper products	5.4 ^r	4.3
8. Manufacture of tobacco products	4.3 ^r	4.0
9. Manufacture of furniture	5.6 ^r	5.9
10. Other manufacturing and repair and installation of machinery and equipment	1.4 ^r	2.3
11. Manufacture of wearing apparel	4.2 ^r	3.7
12. Manufacture of machinery and equipment except electrical	1.7 ^r	1.7
13. Manufacture of leather and related products, including footwear	4.6 ^r	5.5
14. Manufacture of electrical equipment	1.1 ^r	1.0
15. Manufacture of wood, bamboo, cane, rattan articles and related products	0.9 ^r	1.1
16. Printing and reproduction of recorded media	1.8 ^r	1.3
17. Manufacture of textiles	0.8 ^r	0.2
With Negative Annual Growth Rates		
18. Manufacture of basic pharmaceutical products and pharmaceutical preparations	-0.7 ^r	-0.6
19. Manufacture of chemical and chemical products	b/ ^r	-1.7
20. Manufacture of transport equipment	-2.5 ^r	-1.5
21. Manufacture of coke and refined petroleum products	-1.6 ^r	-2.2
22. Manufacture of basic metals	-3.4 ^r	-4.9

p - preliminary, r - revised

a/ - less than 0.05 percent increase

b/ - less than 0.05 percent decrease

Source: Philippine Statistics Authority

Table C. Month-on-Month Growth Rates of PPI in Percent by Industry Division:
 March 2023^r and April 2023^p
 (2018=100)

INDUSTRY DIVISION	March 2023 ^r	April 2023 ^p
With Positive Monthly Growth Rates		
1. Manufacture of coke and refined petroleum products	-1.9 ^r	1.3
2. Manufacture of computer, electronic and optical products	-0.1 ^r	0.5
3. Manufacture of beverages	1.0	0.5
4. Manufacture of transport equipment	0.2 ^r	0.4
5. Manufacture of food products	0.2 ^r	0.1
6. Other manufacturing and repair and installation of machinery and equipment	0.1 ^r	0.9
7. Manufacture of electrical equipment	-0.1 ^r	0.3
8. Manufacture of machinery and equipment except electrical	-0.1 ^r	0.4
9. Manufacture of basic metals	0.5 ^r	0.1
10. Manufacture of wearing apparel	0.4 ^r	0.5
11. Manufacture of leather and related products, including footwear	-0.2 ^r	0.3
12. Manufacture of wood, bamboo, cane, rattan articles and related products	-0.1 ^r	0.1
13. Manufacture of furniture	0.5 ^r	0.2
14. Manufacture of basic pharmaceutical products and pharmaceutical preparations	a/ ^r	a/
With Negative Monthly Growth Rates		
15. Manufacture of paper and paper products	b/ ^r	-0.1
16. Manufacture of rubber and plastic products	-0.2 ^r	-0.1
17. Manufacture of tobacco products	0.4 ^r	-0.3
18. Manufacture of fabricated metal products, except machinery and equipment	0.5 ^r	-0.2
19. Manufacture of chemical and chemical products	-1.2 ^r	-0.2
20. Manufacture of other non-metallic mineral products	a/ ^r	-0.3
With Zero Monthly Growth Rate		
21. Manufacture of textiles	0.1 ^r	0.0
22. Printing and reproduction of recorded media	0.0 ^r	0.0

p - preliminary, r - revised
 a/ - less than 0.05 percent increase
 b/ - less than 0.05 percent decrease
 Source: Philippine Statistics Authority

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DGLDP/RCL/JBE



TECHNICAL NOTES
Producer Price Survey (PPS)

I. Introduction

I.1. Background of the Survey

The Producer Price Survey (PPS) is conducted by PSA to collect monthly producer prices of industry products produced by sample establishments in the manufacturing section. It measures the average change over time in the prices of products or commodities produced by domestic manufactures and sold at factory gate prices to wholesalers and/or other consumers in the domestic market relative to a base period.

I.2. Objectives

The PPS serves various purposes. It is used to (1) measure monthly or yearly changes in the producer price of key products/commodities in the manufacturing section; (2) to serve as deflator to Value of Production Index (VaPI) and Value of Net Sales Index (VaNSI) in the estimation of the Volume of Production Index (VoPI) and Volume of Net Sales Index (VoNSI) for the Monthly Integrated Survey of Selected Industries (MISSI), respectively; and (3) to serve as a deflator in the estimation of manufacturing production in real terms (at constant prices) in the system of national accounts.

I.3. Historical Information on the Survey

The PPI milestones are shown below:

1980 Studies on the generation of the PPI started when the Index of Physical Volume of Production series being generated by the then Central Bank of the Philippines (now the Bangko Sentral ng Pilipinas) was discontinued. This came about because of the transfer of responsibility of operations and processing of the Monthly Survey of Establishments (MSE) for manufacturing from the Central Bank to the National Census and Statistics Office (National Statistics Office-NSO).

Work on the original PPI started with 1978 as the base year and was later revised to 1985. The source of data for the PPI was the then Monthly Survey of Establishments (MSE) for manufacturing. The MSE has a rider questionnaire, which asked for data on production of major products of the sample establishments. However, the PPI series were never released as official statistics. It was later observed that the components of the PPI were no longer reflective of the prevailing production structure of the manufacturing sector that the PPI operations were halted.



1992 to 1993 The compilation of the PPI with 1992 as the base year was revived in a project “Improvement of the Producer Price Index of Selected Manufactured Products” through the Grants-in-Aid Program of the National Statistical Coordination Board (NSCB).

The NSO with guidance from the Technical Committee on Price Statistics of NSCB worked for further improvements to the PPI to make it more reflective of the actual situation of the manufacturing sector. The conduct of the Producer Price Survey started as the source of data for the PPI.

Starting with this new base year, the PPI was officially released simultaneous with the SKEM indicators. The SKEM was later renamed to MISSI.

2001 The NSO released the rebased series of PPI with 1994 as the new base year. The 1992-based series continued until December 2001 and was discontinued the year after. The 1994-based series had January 1998 as the earliest series.

2005 The work on the rebasing of the PPI to base year 2000 started.

2007 The PPI data series with 2000 as the new base period was released in August, in parallel with the 1994-based series. The 2000-based series had January 2001 as its earliest series.

2008 The 1994-based PPI data series was discontinued beginning January.

2011 The rebasing of the PPI series to base year 2006 started. This is in accordance with NSCB Resolution No. 2, series of 2009 which approves the synchronized rebasing of the price indices to base year 2006.

2014 The rebasing of the PPI series to base year 2006 was halted. Instead, rebasing of the PPI series to base year 2012 started since the results of the 2012 Census of Philippine Business and Industry (CPBI) was available as source of the weights.

2015 The use of geometric average of short-term price relatives of responding sample establishments was used as the imputation technique for the missing data of non-responding samples.

2017 The rebasing of the PPI series to base year 2012 began. The industry classification followed the Amended 1994 Philippine Standard Industrial Classification (PSIC) which was the same as the 2000-based series.

- 2019 The computation for the 2012-based series continued but the industry classification used was according to the 2009 PSIC (22 industry division).
- 2020 The rebasing of the 2012-based PPI series was stopped. Instead, it was decided that the PPI series should be rebased to 2018. The rebased PPI series which followed the 2009 PSIC was approved by the PSA Board in December 2020. The index computation methodology was still the same, Chained-Paasche Type.

I.4. Scope and Coverage

PPS is a nationwide undertaking that covers all manufacturing establishments confined to the formal section of the economy. The formal sector of the economy consists of the following:

1. Corporations and partnership, regardless of employment size;
2. Cooperatives and foundations, regardless of employment size;
3. Single proprietorships with branches, regardless of employment size; and
4. Single proprietorship with no branches but with total employment (TE) of 10 and over.

Hence, the PPS covered all establishments regardless of employment size, except those establishments with:

1. Legal Organization of single proprietorship (LO=1), and
2. Economic Organization of single establishment (EO=1), and
3. TE of less than 10.

The scope and coverage for PPS are all establishments with EO=1 (Single establishment), 2 (Branch only) and 3 (Establishment and main office) engaged in manufacturing activities as classified in the 2009 PSIC.

I.5. Industry Coverage

The industry structure or classification for PPS follows the Philippine Systems of National Accounts (PSNA) grouping. Further, the PSNA grouping follows the 2009 PSIC for the 2018 base period.

2009 PSIC CODE	INDUSTRY DESCRIPTION
C10	Manufacture of food products*
C11	Manufacture of beverages
C12	Manufacture of tobacco products
C13	Manufacture of textiles
C14	Manufacture of wearing apparel

2009 PSIC CODE	INDUSTRY DESCRIPTION
C15	Manufacture of leather and related products, including footwear
C16	Manufacture of wood, bamboo, cane, rattan articles and related products*
C17	Manufacture of paper and paper products
C18	Printing and reproduction of recorded media
C19	Manufacture of coke and refined petroleum products
C20	Manufacture of chemical and chemical products*
C21	Manufacture of basic pharmaceutical products and pharmaceutical preparations
C22	Manufacture of rubber and plastic products*
C23	Manufacture of other non-metallic mineral products*
C24	Manufacture of basic metals*
C25	Manufacture of fabricated metal products, except machinery and equipment*
C26	Manufacture of computer, electronic and optical products*
C27	Manufacture of electrical equipment*
C28	Manufacture of machinery and equipment except electrical*
C29,C30	Manufacture of transport equipment*
C31	Manufacture of furniture
C32,C33	Other manufacturing

* *Industry divisions categorized into industry groups*

II. Data Collection

II.1. Data Collection

Distribution and collection of PPS questionnaires will be done according to a timetable set. Distribution is done at the beginning of each year through personal visit by PSA field staff to the sample establishments located in the provinces and cities nationwide. Collection of accomplished questionnaires as well as submission of data files is done on or before the 23rd day after each reference month.

II.2. Survey Instrument

The PPS uses a shuttle-type of questionnaire. This is the type of survey instrument that is administered to respondents in order to collect data at frequent intervals of time to provide a running account of past responses. The questionnaire also includes definition of terms and specific instructions in filling-out the questionnaire to assist the respondent in understanding the questions and for ease in accomplishment. Furthermore, the questionnaire design ensures and enhances consistency and accuracy in reporting past data.

II.3. Data Items

The survey collects prices and the percentage share of each of the top five products to the total value of products manufactured by the sample establishments. The top five products manufactured by the establishment must have the following characteristics:

- Product Name
- Brand Name
- Specification
- Unit of measure
- Percent share of the product to total value of products manufactured
- Reason for the increase/decrease in producer price for the month

III. Methodology

III.1. Sampling Frame

The sources of the sampling frame were all manufacturing establishments of the 2019 and 2020 ASPBI with Total Employment (TE) of 20 and over whose characteristics were updated using the List of Establishments (LE).

III.2. Sample Selection Procedure

MISSI utilizes a cut-off sampling design. “Cut-off sampling is a sampling procedure in which a predetermined threshold is established with all units in the universe at or above the threshold being included in the sample and all units below the threshold being excluded. The threshold is usually specified in terms of the size of some known relevant variable. In the case of establishments, size is usually defined in terms of employment or output.” (United Nations, Producer Price Index Manual, 2004, p.650) For PPS, the threshold is based on value of production. Value of production is equal to the value of products sold adjusted for the changes in inventories of finished products and work-in-progress (ending less beginning). The establishments’ value of production was computed from the 2019 and 2020 ASPBI and was used as basis in the selection of samples.

The responding sample establishments of the 2019 and 2020 ASPBI with TE 20 and over were grouped according to the 22 industry divisions and 48 industry groups. Value of production by establishment were computed and arrayed from largest to smallest value of production within each industry group or division. Concentration ratios by industry group or division were computed to determine the industry leaders or establishments that were within the top 50 percent to 100 percent contributors to value of production by industry group or division. These industry leaders were taken as samples for the current year.

All selected samples for MISSI will also be taken as samples for PPS.

III.3. Estimation Procedure

The PPI utilizes the Chained Paasche-type method of index computation where the basic data for weight computation is the value of production. The sources of these data are the Census of Philippine Business and Industry (CPBI) for the base year and the Annual Survey of Philippine Business and Industry (ASPBI) for the succeeding years until the next rebasing.

III.3.1. Weights Computation

The weight of the industry group is the percent share of the industry to the total value of production for the industry division. The sum of the weights of all industry groups within an industry division is equal to one. The weight of the industry division is the percent share of the industry to the total value of production for the manufacturing section. The sum of the weights of all industry divisions is equal to one.

For the 2023 PPI, the base year used is 2018 and the weights of the industry divisions and industry groups were computed based on the results of the 2020 ASPBI for Manufacturing establishments with total employment of 20 and over.

III.3.2. Index Computation

The computation of PPI adopts the following formula:

III.3.2.1. Computation of Index for Industry Group Level

Normalized Monthly Index at the base year

$$PPI_{ijm} = \frac{H_{ijm}}{H_{ij0}} \times 100$$

where:

PPI_{ijm} = PPI for industry group j in industry division i at current month m

H_{ijm} = harmonic mean of price relatives of products for industry group j in industry division i at month m of the base year computed as:

$$H_{ijm} = \frac{n_{ij}}{\sum_{h=1}^{n_{ij}} \frac{1}{p_{hijm}/p_{hij0}}} \times 100$$

H_{ij0} = average of the harmonic mean of price relatives of products for industry group j in industry division i at base year

p_{hijm} = producer price of commodity h for industry group j in industry division i at current month m

- p_{hij0} = average monthly producer price of commodity h for industry group j in industry division i at base year
- n_{ij} = total number of representative commodities for industry group j in industry division i

Monthly Index after the base year

$$PPI_{ijm} = PPI_{ij(m-1)} \times \frac{n_{ij}}{\sum_{h=1}^{n_{ij}} \frac{1}{p_{hijm}/p_{hij(m-1)}}}$$

where:

- PPI_{ijm} = PPI for industry group j in industry division i at current month m
- $PPI_{ij(m-1)}$ = PPI for industry group j in industry division i at previous month m-1
- p_{hijm} = producer price of commodity h for industry group j in industry division i at current month m
- $p_{hij(m-1)}$ = producer price of commodity h for industry group j in industry division i for the previous month m-1
- n_{ij} = total number of representative commodities for industry group j in industry division i

III.3.2.2. Computation of Index for Industry Division Level

$$PPI_{im} = \frac{1}{\sum_{j=1}^{p_i} \left(W_{ij} \times \frac{1}{PPI_{ijm}} \right)}$$

where:

- PPI_{im} = PPI for industry division i at current month m
- PPI_{ijm} = PPI for industry group j in industry division i at current month m
- W_{ij} = weight for industry group j in industry division i
- p_i = number of industry groups in industry division i

Note:

Industry divisions with no industry groups uses the same computation of index as that for industry group level

III.3.2.3. Computation of Index for Total Manufacturing

$$PPI_m = \frac{1}{\sum_{i=1}^{22} \left(W_i \times \frac{1}{PPI_{im}} \right)}$$

where:

- PPI_m = PPI for total manufacturing at current month m

PPI_{im} = PPI for industry division i at current month m
 W_i = weight for industry division i

Note: A linking factor is computed every time weights are changed. The linking factor is used to adjust new series for comparability with the old series.

III.4. Imputation Technique

Imputation is done for sample establishments that are in operation during the reference period but no response during the release date. Results are revised accordingly when the actual data are received, and these revisions are reflected in the next release.

IV. Concepts and Definitions of Terms

Producer Price is the unit price (ex-plant) of a product or commodity as it leaves the establishment of the producer. It includes any indirect tax paid by the producer less any subsidies on the products received by the producer.

Market basket for the PPI refers to a sample of industry products which are produced and sold by manufacturers at factory gate prices.

Sample industry products are the major products of manufacturers during the base year.

Price relative is the ratio of current price to the base price.

Products/Commodities are the goods normally intended for sale in the market at a price that is designed to cover their cost of production.

Brand Name is the name identifying a product including its manufacturer.

Specifications are written statement of an item's required characteristics documented in a manner that facilitates its procurement or production.

Unit of measure is the standard unit or system of units by which a quantity is accounted for and expressed. Examples are meter, kilogram, grams, metric ton, troy ounce, and others.

Producer Price Index (PPI) measures the average change over time in the prices of products or commodities produced by domestic manufactures and sold at factory gate prices to wholesalers and/or other consumers in the domestic market relative to a base period.

V. Dissemination of Results and Revision

Web-posting of the Press Release of PPS shall be done every 30th day after each reference month. Statistical tables are also posted in OpenStat.

Imputed values are revised upon receipt of actual data for inclusion in the revised indices.

VI. Citation

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