PRESS RELEASE

PRODUCER PRICE INDEX
(2018=100)
November 2023

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

Category	November 2022	October 2023ʳ	November 2023ᵖ
Producer Price Index (2018=100)	98.8	99.1	99.1
Year-on-Year Growth (in percent)	6.4	-0.4	0.3
Month-on-Month Growth (in percent)	-0.7	-0.03	-0.1

p - preliminary
r - revised
Source: Philippine Statistics Authority

Figure 1. Year-on-Year Change in Producer Price Index for Total Manufacturing
November 2022 - November 2023ᵖ
(2018=100)
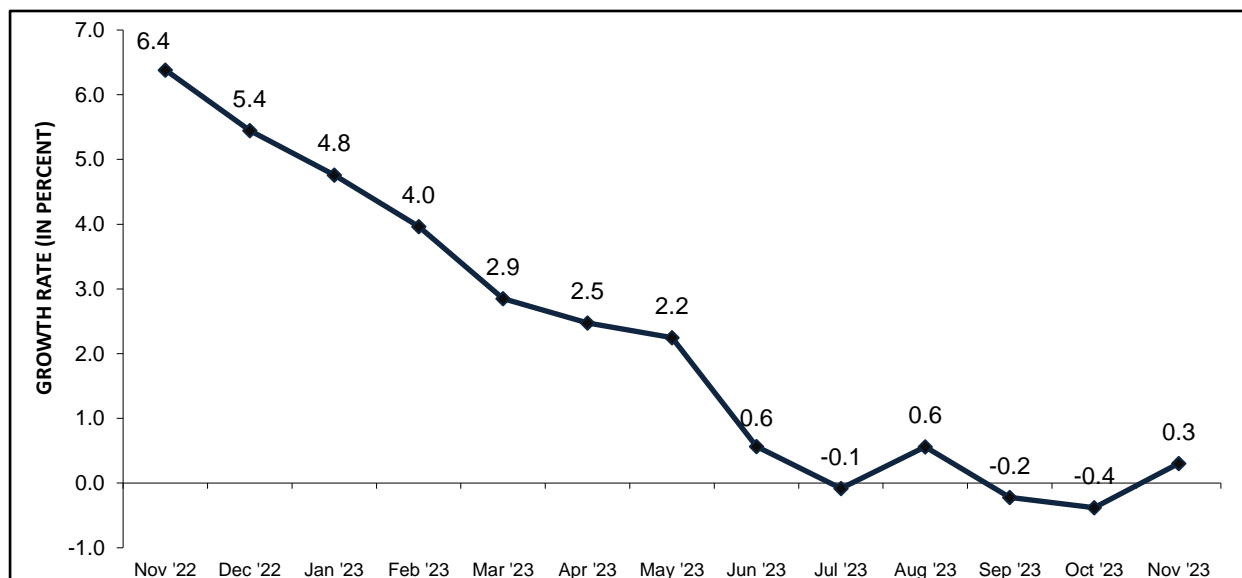
p - preliminary
Source: Philippine Statistics Authority

A. Year-on-Year Growth for November 2023

1. **Manufacture of computer, electronic and optical products industry division was the main driver to the uptrend in the annual rate of producer price for manufactured goods**

   The Producer Price Index (PPI) for manufacturing section registered an annual increase of 0.3 percent in November 2023 from an annual drop of 0.4 percent in October 2023. In November 2022, the PPI posted an annual increment of 6.4 percent. (Figure 1, and Tables A and 1)

   The upturn in the annual growth rate of PPI in November 2023 was primarily attributed by the annual acceleration of manufacture of computer, electronic and optical products industry division at 2.7 percent in November 2023 from 0.6 percent in October 2023. The manufacture of computer, electronic and optical products contributed 47.1 percent to the uptrend in the annual increment of the PPI for manufacturing in November 2023. Among the 22 industry divisions for manufacturing, manufacture of computer, electronic and optical products has the second highest weight[1] in the computation of PPI.

   Other main contributors to the uptrend in the annual growth of PPI in November 2023 were the higher annual increase recorded in manufacture of food products at 1.2 percent in November 2023 from a 0.5 percent annual increment in October 2023, and the slower annual decline in the manufacture of coke and refined petroleum products at 5.9 percent during the period from 7.3 percent annual decline in the previous month.

   Of the remaining 19 industry divisions, seven exhibited annual increases during the period, while 12 industry divisions registered annual decreases during the month. The highest annual decline was observed in the manufacture of chemical and chemical products at 6.5 percent. (Tables B and 1)

2. **Manufacture of beverages was the main contributor to the overall annual growth rate of producer price for manufactured goods**

   The top three industry divisions contributing to the November 2023 overall annual growth rate of PPI for manufacturing were the following:

   a. Manufacture of beverages;
   b. Manufacture of computer, electronic and optical products; and
   c. Manufacture of food products.

[1] Refer to Method of Computation in the Technical Notes

3. **Processing and preserving of fruits and vegetables was the main contributor to the acceleration in the annual rate of producer price for food manufacturing**

The PPI for the manufacture of **food products** posted an annual growth rate of 1.2 percent in November 2023. This was faster compared with the October 2023 annual growth rate of 0.5 percent. In November 2022, the PPI for the manufacture of food products registered an annual increase of 8.5 percent. (Figure 2, and Tables 1 and 2)

The increase in the annual growth rate of the PPI for manufacture of food products in November 2023 from October 2023 was primarily attributed to the increment in the annual growth rate of processing and preserving of fruits and vegetables industry group at 3.9 percent during the period from a 1.0 percent annual drop in the previous month.

Also contributed to the faster annual increase of PPI for the manufacture of food products during the month were the acceleration in the annual growth rates of three industry groups and slower decline in the annual growth rate of one industry group. (Table 2)

Figure 2. Year-on-Year Change in PPI for Food Manufacturing
November 2022 - November 2023ᵖ
(2018=100)
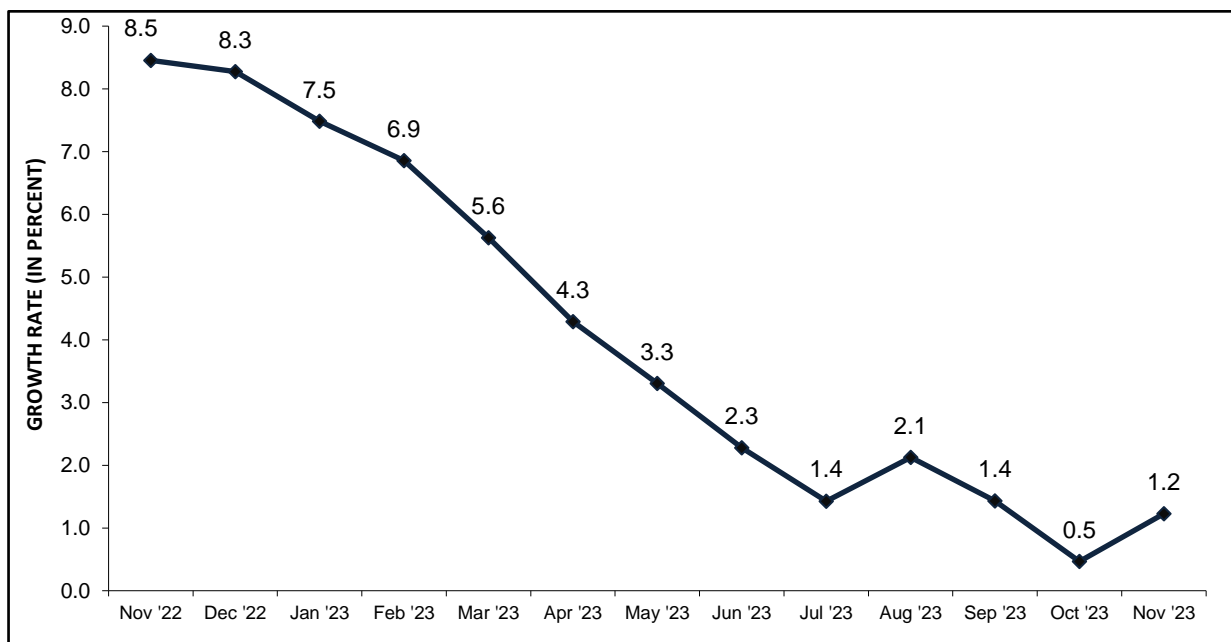
p - preliminary
Source: Philippine Statistics Authority

**B. Month-on-Month Growth for November 2023**

1. Manufacture of beverages was the main contributor to the faster decline in the monthly rate of producer price index for manufacturing section

Month-on-month, the PPI for manufacturing registered a faster drop of 0.1 percent in November 2023 from a 0.03 percent monthly decline in October 2023. In November 2022, PPI also posted a monthly decrease of 0.7 percent. (Figure 3, and Tables A and 1)

The top contributor to the faster monthly decrement of PPI in November 2023 was manufacture of beverages with zero percent monthly rate during the period from a 2.3 percent month-on-month increase in the previous month. Completing the top three contributors to the monthly decline of PPI for manufacturing during the period were manufacture of food products with a monthly drop of 0.1 percent from a 0.03 percent monthly increase in October 2023, and manufacture of basic metals with a faster monthly downturn of 0.4 percent from a 0.1 percent monthly decline in the previous month. These three industry divisions contributed 84.3 percent to the faster month-on-month decrease of PPI for manufacturing in November 2023.

Of the remaining 19 industry divisions, seven registered monthly increments, 10 exhibited month-on-month declines, and two recorded zero percent month-on-month rates during the period. (Tables C and 1)

Figure 3. Month-on-Month Change in PPI for Total Manufacturing
November 2022 - November 2023p
(2018=100)
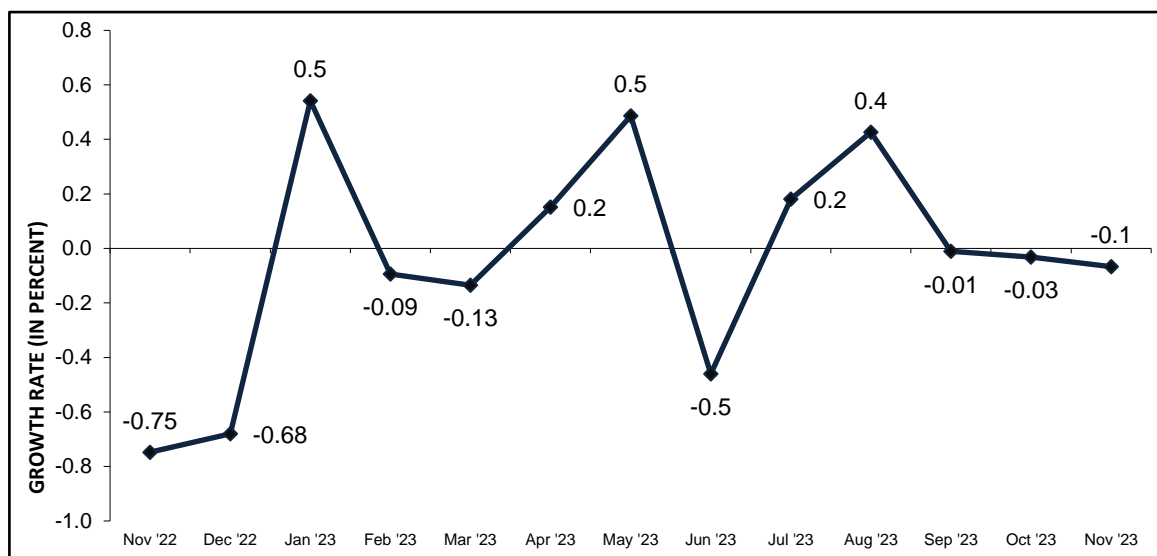
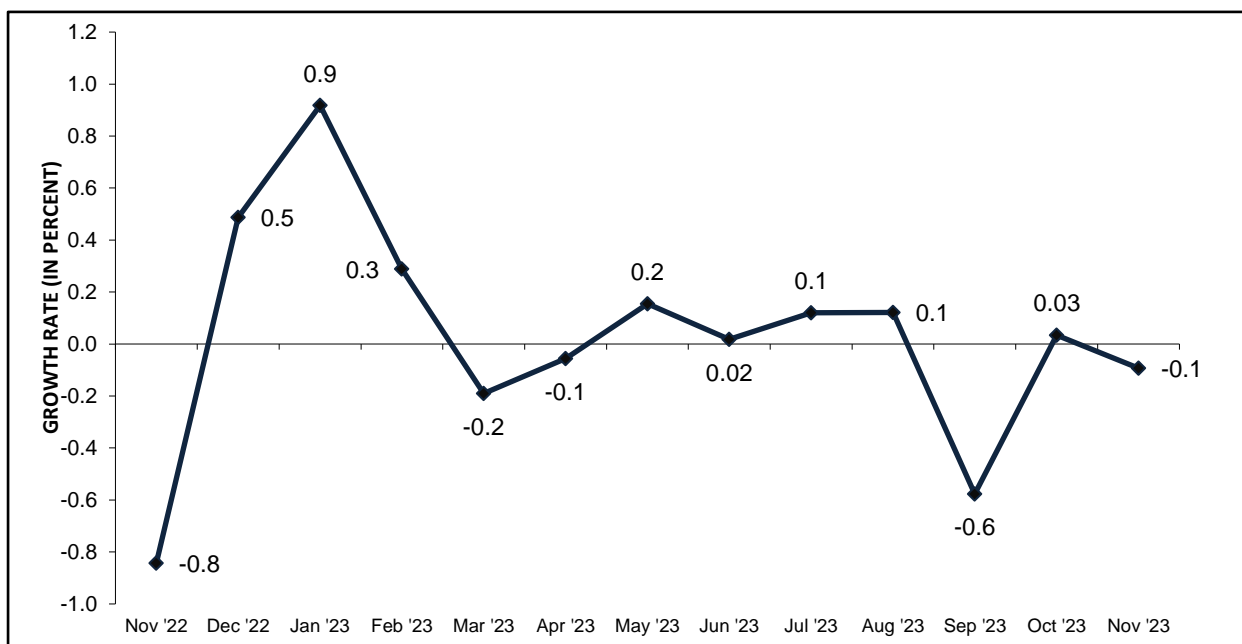*p - preliminary*
Source: Philippine Statistics Authority

2. **Processing and preserving of meat was the major contributor to the downtrend of the month-on-month growth rate of producer price for food manufacturing**

Month-on-month, the growth rate of PPI for the manufacture of **food products** posted a decline of 0.1 percent in November 2023 from a 0.03 percent monthly increment in October 2023. In November 2022, the PPI for the manufacture of food products posted a monthly decrement of 0.8 percent. (Figure 4, and Tables 1 and 2)

The downtrend in the monthly rate of PPI for food manufacturing during the period was brought about by five of the eight industry groups. This was led by the faster monthly decline of processing and preserving of meat at 0.7 percent in November 2023 from a monthly decrement of 0.1 percent in October 2023. This industry group contributed 44.1 percent to the downtrend of the month-on-month rate of the PPI for the manufacture of food products.

Meanwhile, processing and preserving of fish, crustaceans and mollusks, and manufacture of dairy products posted slower monthly decreases of 0.4 percent and 0.1 percent, respectively. Manufacture of vegetable and animal oils and fats registered 0.03 percent monthly rate in November 2023 from 0.1 percent monthly decline in the previous month. (Table 2)

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

p - preliminary
Source: Philippine Statistics Authority

Table B. Year-on-Year Growth Rates of PPI in Percent by Industry Division
October 2023 and November 2023ᵖ
(2018=100)

INDUSTRY DIVISION	October 2023	November 2023ᵖ
With Positive Annual Growth Rates		
1. Manufacture of beverages	11.4	11.4
2. Manufacture of computer, electronic and optical products	0.6	2.7
3. Manufacture of food products	0.5ʳ	1.2
4. Manufacture of tobacco products	6.4ʳ	9.7
5. Manufacture of fabricated metal products, except machinery and equipment	1.7	1.9
6. Manufacture of furniture	2.1ʳ	3.1
7. Manufacture of leather and related products, including footwear	3.0	4.4
8. Printing and reproduction of recorded media	0.9	0.6
9. Manufacture of machinery and equipment except electrical	-0.5	0.1
With Negative Annual Growth Rates		
10. Manufacture of textiles	b/ʳ	b/
11. Manufacture of basic pharmaceutical products and pharmaceutical preparations	0.1	b/
12. Manufacture of electrical equipment	-0.6ʳ	-0.1
13. Manufacture of rubber and plastic products	a/ʳ	-0.3
14. Other manufacturing and repair and installation of machinery and equipment	-1.6ʳ	-0.6
15. Manufacture of paper and paper products	0.3ʳ	-0.6
16. Manufacture of wearing apparel	-3.1ʳ	-2.6
17. Manufacture of wood, bamboo, cane, rattan articles and related products	-1.8	-1.7
18. Manufacture of other non-metallic mineral products	-0.5	-1.0
19. Manufacture of basic metals	-4.0ʳ	-4.3
20. Manufacture of chemical and chemical products	-6.5ʳ	-6.5
21. Manufacture of coke and refined petroleum products	-7.3ʳ	-5.9
22. Manufacture of transport equipment	-4.7ʳ	-4.7

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

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

INDUSTRY DIVISION	October 2023	November 2023^p
With Positive Annual Growth Rates		
1. Manufacture of computer, electronic and optical products	-0.1	0.2
2. Manufacture of tobacco products	1.7^r	2.3
3. Manufacture of fabricated metal products, except machinery and equipment	-1.1	0.2
4. Manufacture of leather and related products, including footwear	b/	1.4
5. Manufacture of wood, bamboo, cane, rattan articles and related products	-0.5	0.2
6. Other manufacturing and repair and installation of machinery and equipment	-1.6^r	0.2
7. Manufacture of electrical equipment	0.2^r	a/
With Negative Annual Growth Rates		
8. Manufacture of coke and refined petroleum products	-0.8^r	-0.5
9. Manufacture of transport equipment	-0.4^r	-0.3
10. Manufacture of food products	a/^{r}	-0.1
11. Manufacture of other non-metallic mineral products	-0.2	-0.5
12. Manufacture of basic metals	-0.1^r	-0.4
13. Manufacture of paper and paper products	-0.5^r	-0.3
14. Manufacture of chemical and chemical products	0.1^r	-0.1
15. Manufacture of rubber and plastic products	0.2^r	-0.1
16. Manufacture of basic pharmaceutical products and pharmaceutical preparations	0.2	-0.2
17. Manufacture of wearing apparel	-1.4^r	-0.2
18. Manufacture of furniture	a/^{r}	-0.2
19. Manufacture of machinery and equipment except electrical	0.1	b/
With Zero Monthly Growth Rates		
20. Manufacture of beverages	2.3	0.0
21. Manufacture of textiles	0.0	0.0
22. Printing and reproduction of recorded media	0.0	0.0

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

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DGLDP/RCL/JPCS

TECHNICAL NOTES
Producer Price Survey (PPS)
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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 Amended1994 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
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

2009 PSIC CODE	INDUSTRY DESCRIPTION
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 visits 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

<u>Normalized Monthly Index at the base year</u>

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

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:

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

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

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

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

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

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

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

where:

PPI_m = PPI for total manufacturing at current month m

$$
\begin{aligned}
PPI_{im} &= \text{PPI for industry division i at current month m} \\
W_i &= \text{weight for industry division i}
\end{aligned}
$$

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 statements 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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