



PRESS RELEASE

PRODUCER PRICE INDEX (2018=100) November 2022

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Table A. Year-on-Year and Month-on-Month Growth Rates
of Producer Price Index for Total Manufacturing (2018=100):
November 2021, October 2022^r, and November 2022^p

Category	November 2021	October 2022 ^r	November 2022 ^p
Producer Price Index (2018=100)	92.8	99.5	98.8
Year-on-Year Growth (%)	1.1	7.3	6.4
Month-on-Month Growth (%)	0.1	0.1	-0.7

p - preliminary, r - revised
Source: Philippine Statistics Authority

Year-on-Year

The Producer Price Index (PPI) for manufacturing posted an increase of 6.4 percent in November 2022. This was lower than the 7.3 percent annual increment observed in October 2022. Last year, the PPI for November posted an increase of 1.1 percent. (Tables A and 1)

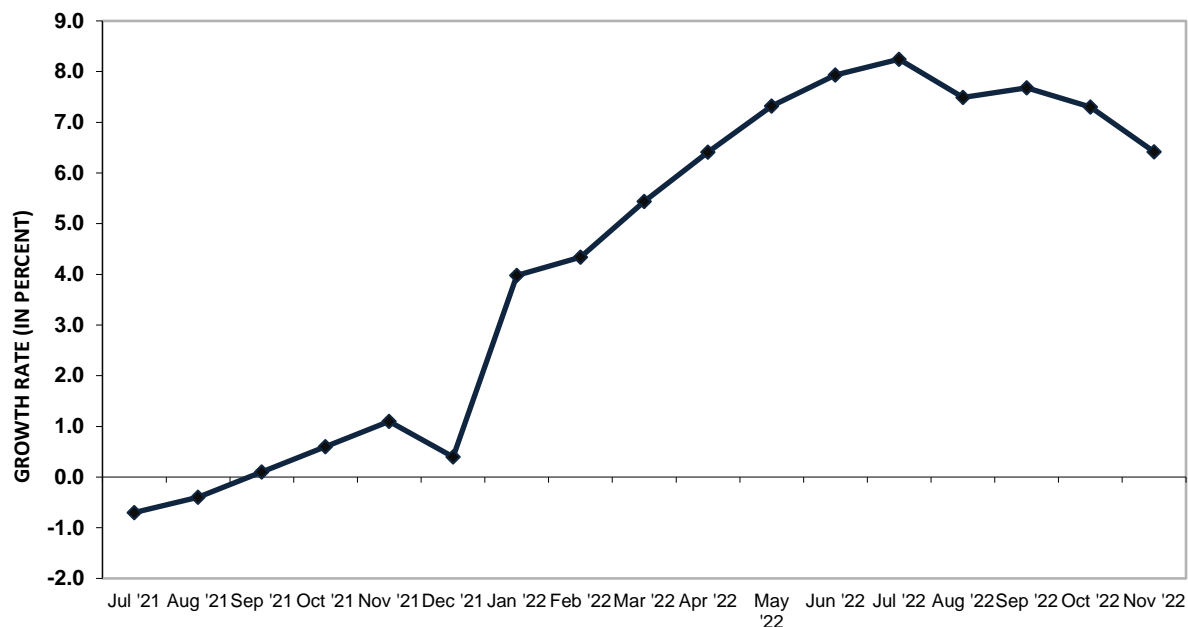
The increase in the PPI in November 2022 can be attributed to the annual upturns in the indices of 20 industry divisions led by **manufacture of coke and refined petroleum products**, which registered an annual growth of 13.8 percent.

On the contrary, the two industry divisions that exhibited decrements were the **manufacture of machinery and equipment except electrical** and **printing and reproduction of recorded media** with annual growth rates



of -0.3 percent and -0.2 percent, respectively.

Figure 1. Year-on-Year Change in PPI for Total Manufacturing
July 2021 - November 2022^p
(2018 = 100)



p - preliminary

Source: Philippine Statistics Authority

Month-on-Month

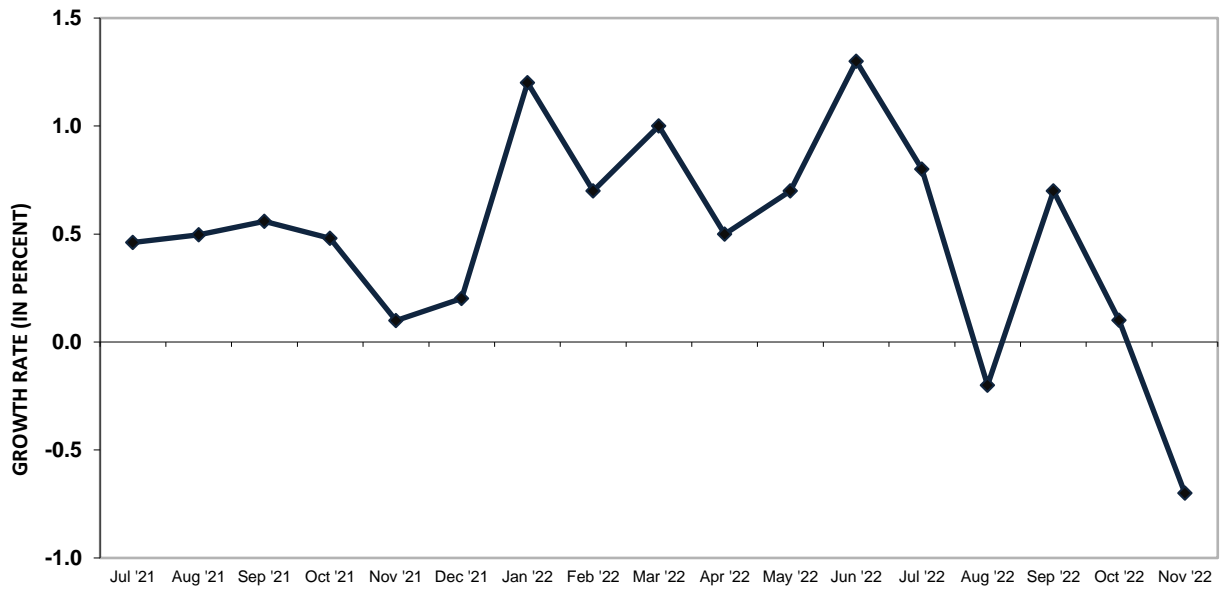
Month-on-month, the PPI for manufacturing dropped by -0.7 percent in November 2022, from a 0.1 percent increase in October 2022. In November 2021, the PPI recorded a monthly increment of 0.1 percent. (Tables A and 1)

Fourteen of the 22 industry divisions registered negative monthly growth rates in November 2022. These were led by the **manufacture of other non-metallic mineral products (-3.1%)**; **manufacture of computer, electronic and optical products (-2.0%)**; and **manufacture of furniture (-1.2%)**.

In contrast, the PPI of five industry divisions exhibited increments with **manufacture of paper and paper products** posting the largest monthly increase at 0.7 percent. Meanwhile, **manufacture of beverages, manufacture of leather and related products, including footwear, and**

manufacture of textiles exhibited zero percent monthly growth rates. (Tables A-2 and 1)

Figure 2. Month-on-Month Change in PPI for Total Manufacturing
July 2021 - November 2022^p
(2018 = 100)



p - preliminary

Source: Philippine Statistics Authority

Table A-1. Year-on-Year Growth Rates of PPI in Percent
by Industry Division: October 2022^r and November 2022^p
(2018=100)

INDUSTRY DIVISION	October 2022 ^r	November 2022 ^p
With Positive Growth Rates in November 2022		
1. Manufacture of food products	9.6 ^r	8.0
2. Manufacture of coke and refined petroleum products	14.6 ^r	13.8
3. Manufacture of computer, electronic and optical products	7.8 ^r	5.4
4. Manufacture of transport equipment	5.3 ^r	5.4
5. Manufacture of beverages	5.0 ^r	5.0
6. Manufacture of chemical and chemical products	8.6 ^r	8.2
7. Manufacture of fabricated metal products, except machinery and equipment	3.6	4.9
8. Manufacture of rubber and plastic products	5.6 ^r	5.3
9. Manufacture of basic metals	2.7 ^r	2.8
10. Manufacture of other non-metallic mineral products	6.7 ^r	3.3
11. Manufacture of paper and paper products	5.8 ^r	5.6
12. Other Manufacturing and Repair and installation of machinery and equipment	2.5 ^r	2.4
13. Manufacture of wearing apparel	3.3 ^r	3.4
14. Manufacture of wood, bamboo, cane, rattan articles and related products	3.3 ^r	4.2
15. Manufacture of electrical equipment	2.7	2.2
16. Manufacture of tobacco products	3.3	2.5
17. Manufacture of textiles	3.6	2.9
18. Manufacture of furniture	2.2 ^r	1.5
19. Manufacture of leather and related products, including footwear	3.4	3.6
20. Manufacture of basic pharmaceutical products and pharmaceutical preparations	0.7 ^r	0.4
With Negative Growth Rates in November 2022		
1. Manufacture of machinery and equipment except electrical	-2.3 ^r	-0.3
2. Printing and reproduction of recorded media	-0.1	-0.2

p - preliminary, r - revised
Source: Philippine Statistics Authority

Table A-2. Month-on-Month Growth Rates of PPI in Percent
by Industry Division: October 2022^r and November 2022^p
(2018=100)

INDUSTRY DIVISION	October 2022 ^r	November 2022 ^p
With Positive Growth Rates in November 2022		
1. Manufacture of paper and paper products	-0.5 ^r	0.7
2. Manufacture of rubber and plastic products	0.1 ^r	0.1
3. Manufacture of chemical and chemical products	0.3 ^r	0.1
4. Manufacture of fabricated metal products, except machinery and equipment	a/ ^r	a/
5. Manufacture of wood, bamboo, cane, rattan articles and related products	-0.1 ^r	0.1
With Zero Growth Rates in November 2022		
1. Manufacture of beverages	a/ ^r	0.0
2. Manufacture of leather and related products, including footwear	0.0	0.0
3. Manufacture of textiles	0.0 ^r	0.0
With Negative Growth Rates in November 2022		
1. Manufacture of computer, electronic and optical products	-0.4 ^r	-2.0
2. Manufacture of food products	1.0 ^r	-0.9
3. Manufacture of other non-metallic mineral products	-0.2 ^r	-3.1
4. Manufacture of transport equipment	0.1 ^r	-0.4
5. Other Manufacturing and Repair and installation of machinery and equipment	-0.1 ^r	-0.8
6. Manufacture of machinery and equipment except electrical	0.2 ^r	-0.7
7. Manufacture of furniture	0.4 ^r	-1.2
8. Manufacture of tobacco products	0.5 ^r	-0.8
9. Manufacture of wearing apparel	0.2 ^r	-0.8
10. Manufacture of electrical equipment	-0.2 ^r	-0.4
11. Manufacture of basic metals	b/ ^r	b/
12. Printing and reproduction of recorded media	0.5 ^r	-0.1
13. Manufacture of basic pharmaceutical products and pharmaceutical preparations	-0.1 ^r	-0.1
14. Manufacture of coke and refined petroleum products	-0.1 ^r	b/

p - preliminary, r - revised

a/ - less than 0.05 percent increase; b/ - less than 0.05 percent decrease

Source: Philippine Statistics Authority

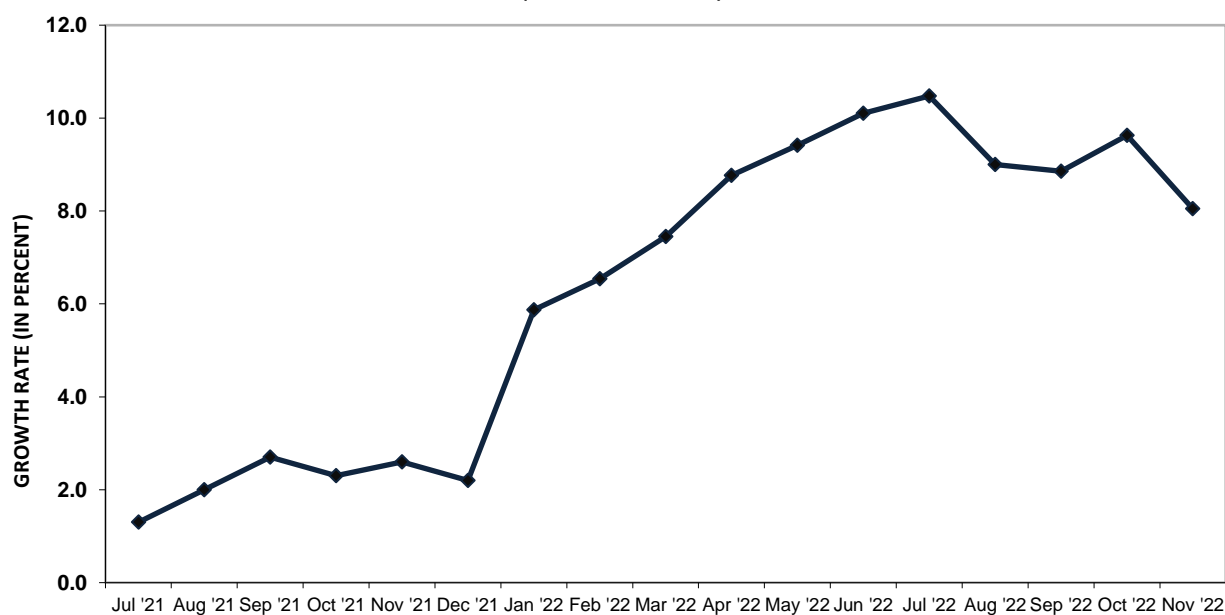
Manufacture of food products

The PPI for the manufacture of food products posted positive growth with an annual rate of 8.0 percent in November 2022. This rate is a slowdown as compared to the October 2022 annual growth rate of 9.6 percent.

The increment in November 2022 was attributed by the annual increases in the PPI of seven industry groups under the manufacture of food products. Moreover, double-digit upturns were registered in three industry groups, namely: **processing and preserving of fish, crustaceans and mollusks (16.4%)**, **manufacture of grain mill products, starches and starch products (15.4%)**, and **manufacture of prepared animal feeds (15.4%)**. (Tables 1 and 2)

On a month-on-month basis, the PPI for the manufacture of food products exhibited a downward trend with a monthly growth rate of -0.9 percent in November 2022. In October 2022, the PPI for the manufacture of food products is at 1.0 percent. Five of the eight industry groups of food manufacturing contributed to the decrease of its PPI. This was led by the **processing and preserving of fruits and vegetables** which registered a monthly drop rate of -4.5 percent. (Tables 1 and 2)

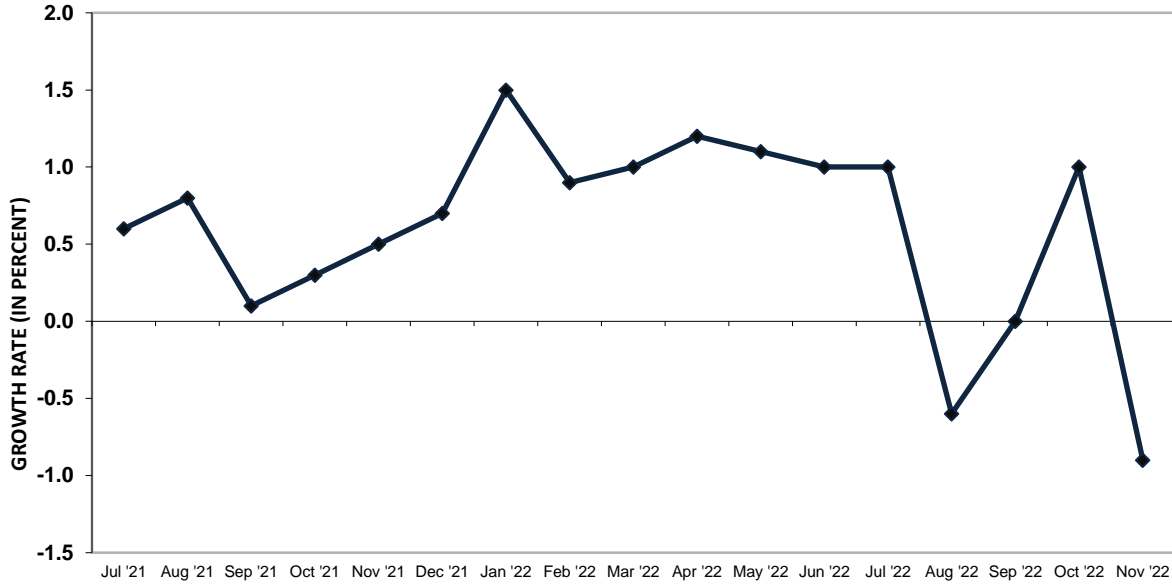
Figure 3. Year-on-Year Change in PPI for Food Manufacturing
July 2021 - November 2022^p
(2018 = 100)



p - preliminary

Source: Philippine Statistics Authority

Figure 4. Month-on-Month Change in PPI for Food Manufacturing
July 2021 - November 2022^p
(2018 = 100)



p - preliminary
Source: Philippine Statistics Authority

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TECHNICAL NOTES

Introduction

Starting with the January 2021 reference period, the Producer Price Index (PPI) for Manufacturing uses 2018 as base year, from the previously used 2000 base period. The PPI for Manufacturing measures the changes in the producer price of key commodities produced by the Manufacturing sector. One of its uses is as a deflator to derive the Volume of Production Index (VoPI) and Volume of Net Sales Index (VoNSI).

The PPI for Manufacturing is generated from the results of the Producer Price Survey (PPS) which is conducted nationwide. The survey gathers monthly producer prices of selected products included in the market basket of PPI from sample establishments.

Method of Index Computation

The PPI utilizes the chained Paasche-type method of index computation where the base year is normalized. The weights are computed from the value of production from the Census of Philippine Business and Industry (CPBI) or Annual Survey of Philippine Business and Industry (ASPBI), whichever is the more recent. The weights are updated as soon as new results of the CPBI or ASPBI are available, and these are applied at the beginning of each survey year.

For the 2022 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 2019 ASPBI for Manufacturing establishments with total employment of 20 and over.

The computation of PPI adopts the following formula:

1) Computation of Index for Industry Group Level

a. 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

b. 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

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 use the same computation of index as that for industry group level.

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.

- **Computation of Growth Rates**

Year-on-year growth rates are computed by dividing the current month's index by the index of the same month of the previous year less 1.

Month-on-month growth rates are computed by dividing the current month's index by the previous month's index less 1.

- **Imputation and Revision**

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

- **Industry Coverage**

Starting with the January 2013 reference month, PPI utilizes the 2009 Philippine Standard Industrial Classification (PSIC) to classify sectors and industries. Selected industry groups of the 2009 PSIC were grouped to form the 22 industry divisions of the 2022 PPS. These are presented in the table below.

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 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*

2009 PSIC CODE	INDUSTRY DESCRIPTION
C29, C30	Manufacture of transport equipment*
C31	Manufacture of furniture
C32, C33	Other manufacturing

**Industry divisions categorized further into industry groups*