

# SPECIAL RELEASE

**SEASONALLY ADJUSTED  
PRODUCTION INDEX AND NET SALES INDEX  
(Monthly Integrated Survey of Selected Industries)  
September 2023  
(2018 = 100)**

Date of Release: 09 November 2023

Reference No. 2023-351

Table A. Month-on-Month Growth Rates of Seasonally Adjusted Production Index and Net Sales Index for Total Manufacturing and Food Manufacturing (2018=100) August 2023<sup>r</sup> and September 2023<sup>p</sup> (in Percent)

INDICATOR	August 2023 <sup>r</sup>	September 2023 <sup>p</sup>
<b>TOTAL MANUFACTURING</b>		
<b>Production Index (2018=100)</b>		
Value of Production Index ( <i>VaPI</i> )	2.9	1.2
Volume of Production Index ( <i>VoPI</i> )	2.7	1.5
<b>Net Sales Index (2018=100)</b>		
Value of Net Sales Index ( <i>VaNSI</i> )	1.4	2.3
Volume of Net Sales Index ( <i>VoNSI</i> )	1.2	2.5
<b>FOOD MANUFACTURING</b>		
<b>Production Index (2018=100)</b>		
Value of Production Index ( <i>VaPI</i> )	1.4	-5.9
Volume of Production Index ( <i>VoPI</i> )	0.9	-5.8
<b>Net Sales Index (2018=100)</b>		
Value of Net Sales Index ( <i>VaNSI</i> )	-9.3	4.7
Volume of Net Sales Index ( <i>VoNSI</i> )	-9.7	4.6

*p* - preliminary

*r* - revised

Source: Philippine Statistics Authority

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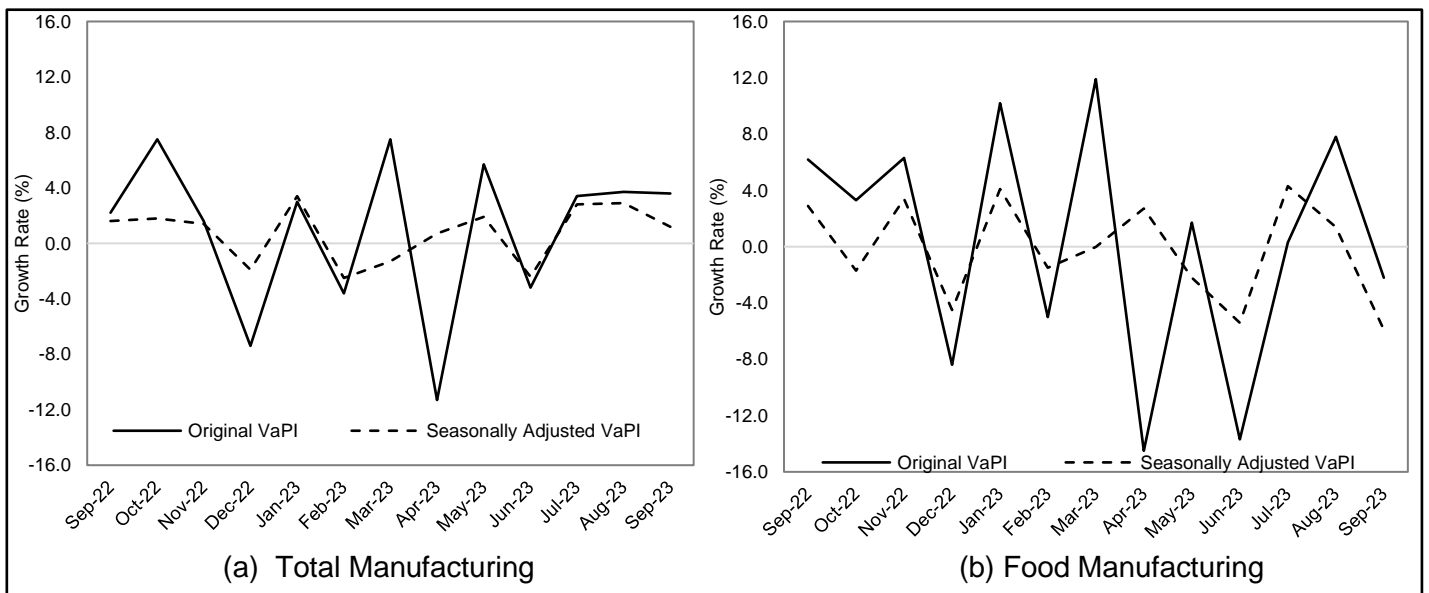


## 1. Value of Production Index (VaPI)

The seasonally adjusted VaPI for total manufacturing accelerated at a monthly rate of 1.2 percent in September 2023 from the 2.9 percent monthly growth in August 2023. (Figure 1a, and Tables A and 1)

Meanwhile, the seasonally adjusted VaPI for food manufacturing registered a monthly decline of 5.9 percent in September 2023 from the recorded month-on-month increment of 1.4 percent in the previous month. (Figure 1b, and Tables A and 1)

Figure 1. Month-on-Month Growth Rates of Original and Seasonally Adjusted Value of Production Index (VaPI) for Total Manufacturing and Food Manufacturing September 2022 to September 2023<sup>p</sup> (2018=100)



*p - preliminary*

Source: Philippine Statistics Authority

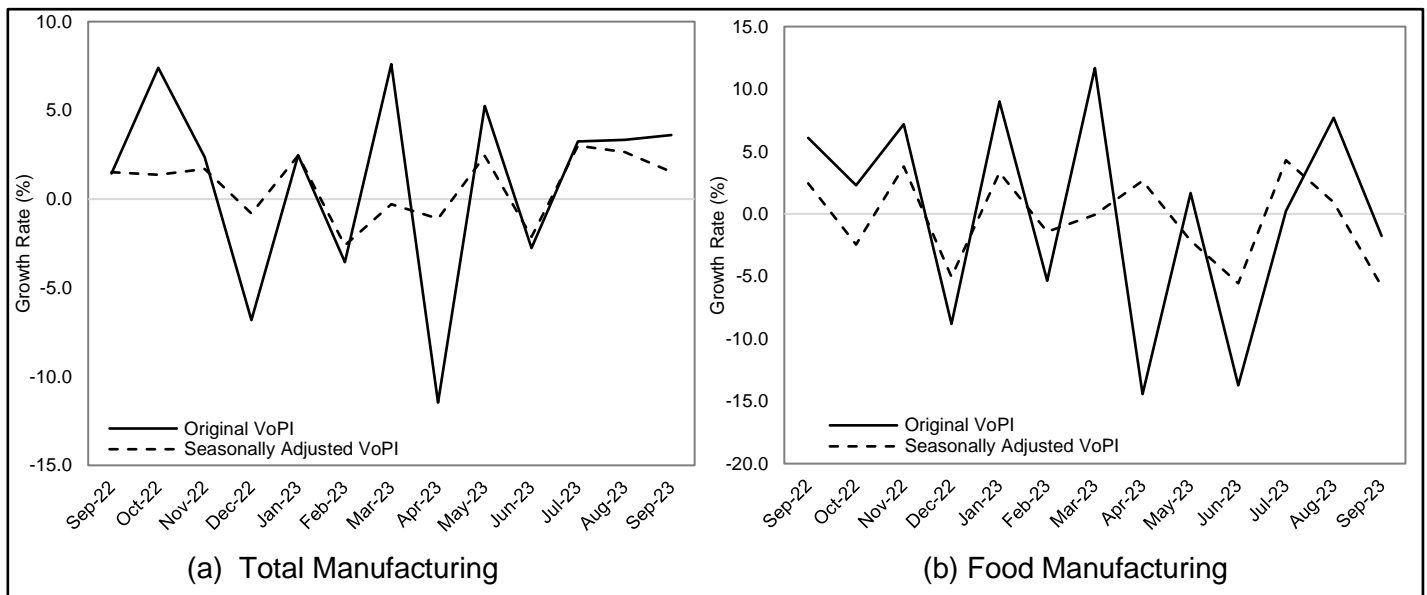
## 2. Volume of Production Index (VoPI)

The seasonally adjusted VoPI for total manufacturing registered a monthly increase of 1.5 percent in September 2023 from a month-on-month increment of 2.7 percent in August 2023. (Figure 2a, and Tables A and 2)

Moreover, the seasonally adjusted VoPI for food manufacturing decreased at a monthly rate of 5.8 percent in September 2023 from a 0.9 percent monthly increase in the previous month. (Figure 2b, and Tables A and 2)

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Figure 2. Month-on-Month Growth Rates of Original and Seasonally Adjusted Volume of Production Index (VoPI) for Total Manufacturing and Food Manufacturing September 2022 to September 2023<sup>p</sup> (2018=100)



p - preliminary

Source: Philippine Statistics Authority

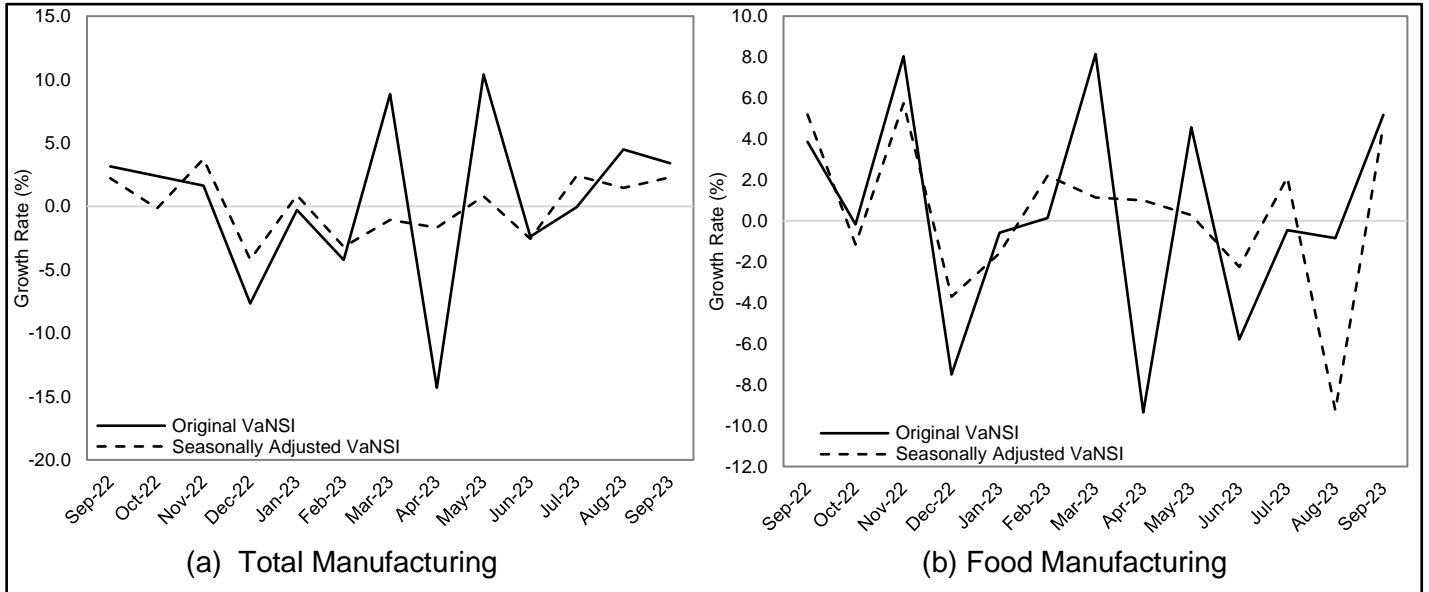
### 3. Value of Net Sales Index (VaNSI)

In September 2023, the monthly rate of the seasonally adjusted VaNSI for total manufacturing increased further by 2.3 percent after posting a 1.4 percent monthly growth in August 2023. (Figure 3a, and Tables A and 3)

Meanwhile, the month-on-month growth rate of the seasonally adjusted VaNSI for food manufacturing recorded an increase of 4.7 percent during the month from a monthly decline of 9.3 percent in the previous month. (Figure 3b, and Tables A and 3)

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Figure 3. Month-on-Month Growth Rates of Original and Seasonally Adjusted Value of Net Sales Index (VaNSI) for Total Manufacturing and Food Manufacturing September 2022 to September 2023<sup>p</sup> (2018=100)



p - preliminary  
 Source: Philippine Statistics Authority

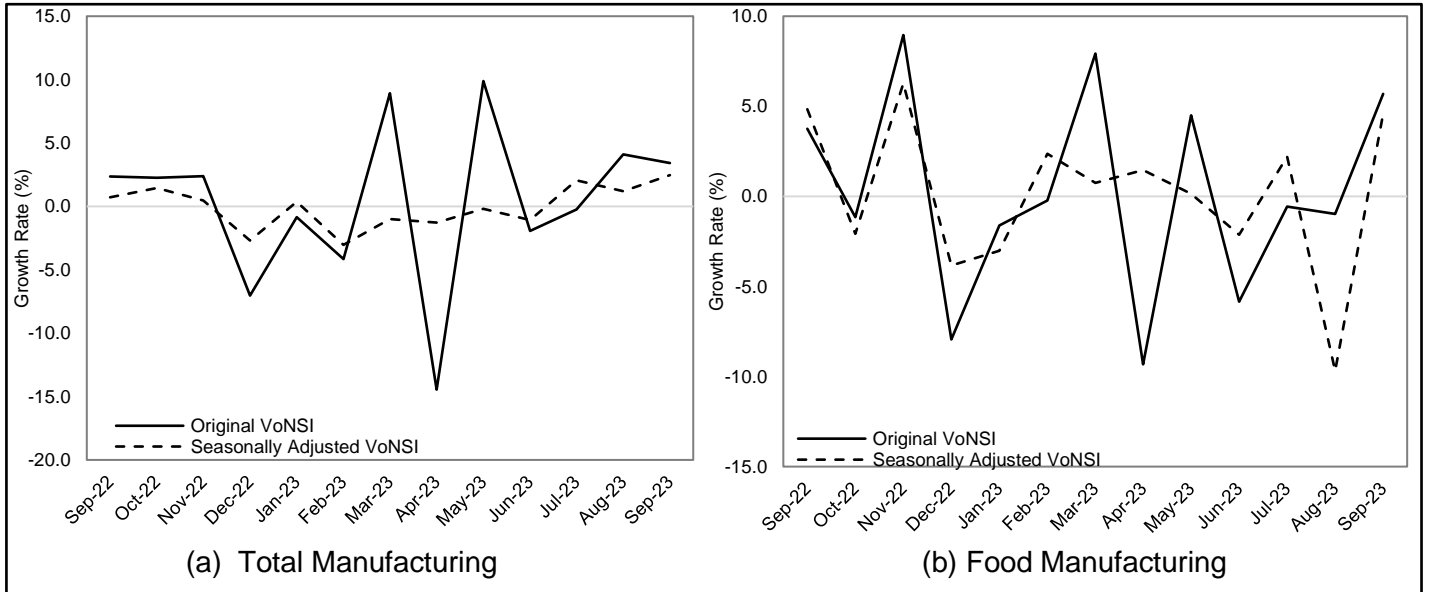
#### 4. Volume of Net Sales Index (VoNSI)

A higher month-on-month increase of 2.5 percent was observed in the seasonally adjusted VoNSI for total manufacturing in September 2023 from a monthly increment of 1.2 percent in August 2023. (Figure 4a, and Tables A and 4)

Likewise, the seasonally adjusted VoNSI for food manufacturing increased by 4.6 percent month-on-month in September 2023 from a monthly decline of 9.7 percent in the previous month. (Figure 4b, and Tables A and 4)

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Figure 4. Month-on-Month Growth Rates of Original and Seasonally Adjusted Volume of Net Sales Index (VoNSI) for Total Manufacturing and Food Manufacturing: September 2022 to September 2023<sup>p</sup> (2018=100)



*p* - preliminary  
 Source: Philippine Statistics Authority

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## Technical Notes

The Monthly Integrated Survey of Selected Industries (MISSI) generates the original series of the Value of Production Index (VaPI), Volume of Production Index (VoPI), Value of Net Sales Index (VaNSI), and Volume of Net Sales Index (VoNSI). These indices provide information on the performance of growth-oriented industries in the manufacturing sector.

This special release features the seasonally adjusted VaPI, VoPI, VaNSI, and VoNSI using X-13 Auto-Regressive Integrated Moving Average (ARIMA) of JDemetra+. The seasonally adjusted series show the trend of value and volume of production and net sales of the manufacturing sector without the effects of seasonal factors.

The decomposition model chosen for the seasonal adjustment for each index is shown below.

Table A. Summary of Statistical Models Used in the Generation of Seasonally Adjusted MISSI Indices  
(2018=100)

Index	Statistical Model
Value of Production Index (VaPI) Total Manufacturing	Additive Model: (0,1,1)(0,1,1) No data transformation.
Value of Production Index (VaPI) Food Manufacturing	Multiplicative Model: (1,1,1)(0,1,1) Data series have been log-transformed.
Volume of Production Index (VoPI) Total Manufacturing	Additive Model: (0,1,1)(0,1,1) No data transformation.
Volume of Production Index (VoPI) Food Manufacturing	Multiplicative Model: (1,0,0)(0,1,1) Data series have been log-transformed.
Value of Net Sales Index (VaNSI) Total Manufacturing	Additive Model: (1,1,0)(0,1,1) No data transformation.
Value of Net Sales Index (VaNSI) Food Manufacturing	Additive Model: (0,1,1)(0,1,1) No data transformation.
Volume of Net Sales Index (VoNSI) Total Manufacturing	Additive Model: (1,1,0)(0,1,1) No data transformation.
Volume of Net Sales Index (VoNSI) Food Manufacturing	Additive Model: (0,1,1)(0,1,1) No data transformation.

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