

# SPECIAL RELEASE

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

Date of Release: 07 September 2023

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

INDICATOR	June 2023 <sup>r</sup>	July 2023 <sup>p</sup>
<b>TOTAL MANUFACTURING</b>		
<b>Production Index (2018=100)</b>		
Value of Production Index ( <i>VaPI</i> )	-2.4	2.8
Volume of Production Index ( <i>VoPI</i> )	-2.1	3.0
<b>Net Sales Index (2018=100)</b>		
Value of Net Sales Index ( <i>VaNSI</i> )	-2.6	2.4
Volume of Net Sales Index ( <i>VoNSI</i> )	-1.1	2.0
<b>FOOD MANUFACTURING</b>		
<b>Production Index (2018=100)</b>		
Value of Production Index ( <i>VaPI</i> )	-5.4	4.3
Volume of Production Index ( <i>VoPI</i> )	-5.6	4.3
<b>Net Sales Index (2018=100)</b>		
Value of Net Sales Index ( <i>VaNSI</i> )	-2.3	2.1
Volume of Net Sales Index ( <i>VoNSI</i> )	-2.1	2.2

*p* - preliminary

*r* - revised

Source: Philippine Statistics Authority

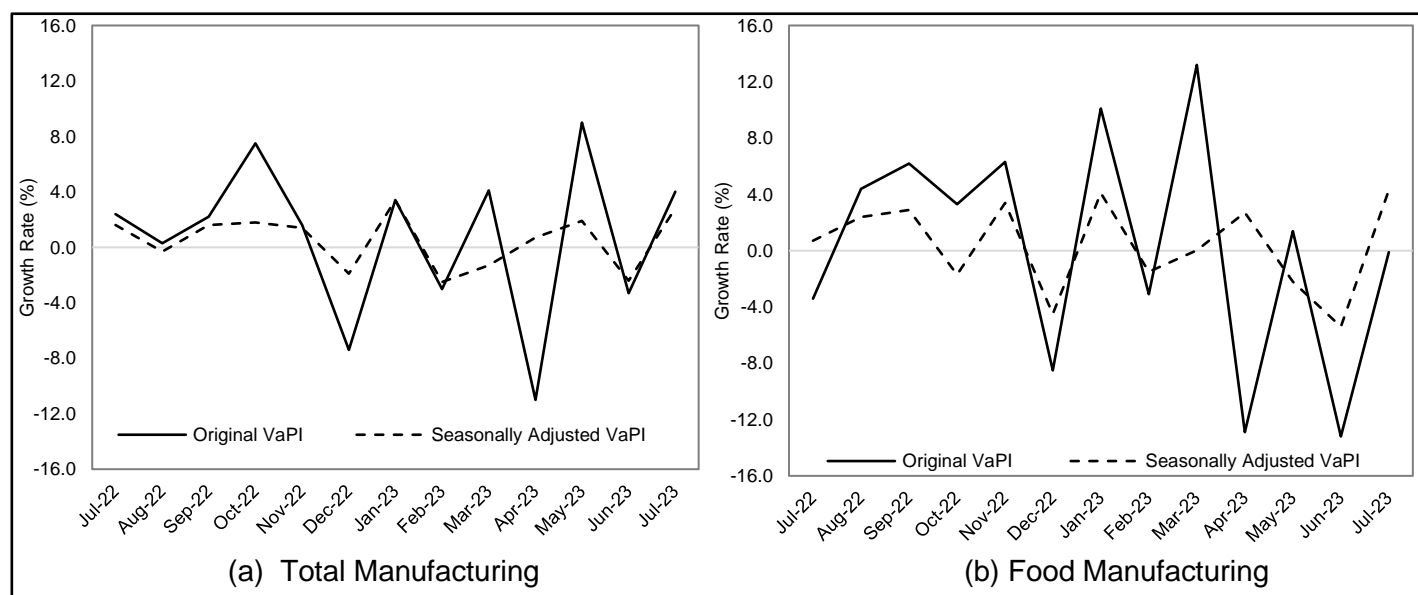


## 1. Value of Production Index (VaPI)

The seasonally adjusted VaPI for total manufacturing in July 2023 further accelerated at a monthly rate of 2.8 percent from the -2.4 percent monthly rate observed in June 2023. (Figure 1a, and Tables A and 1)

On the contrary, the seasonally adjusted VaPI for food manufacturing grew at a monthly rate of 4.3 percent in July 2023. This is an upturn from the previous month's rate of -5.4 percent. (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 July 2022 to July 2023<sup>p</sup> (2018=100)



*p* - preliminary

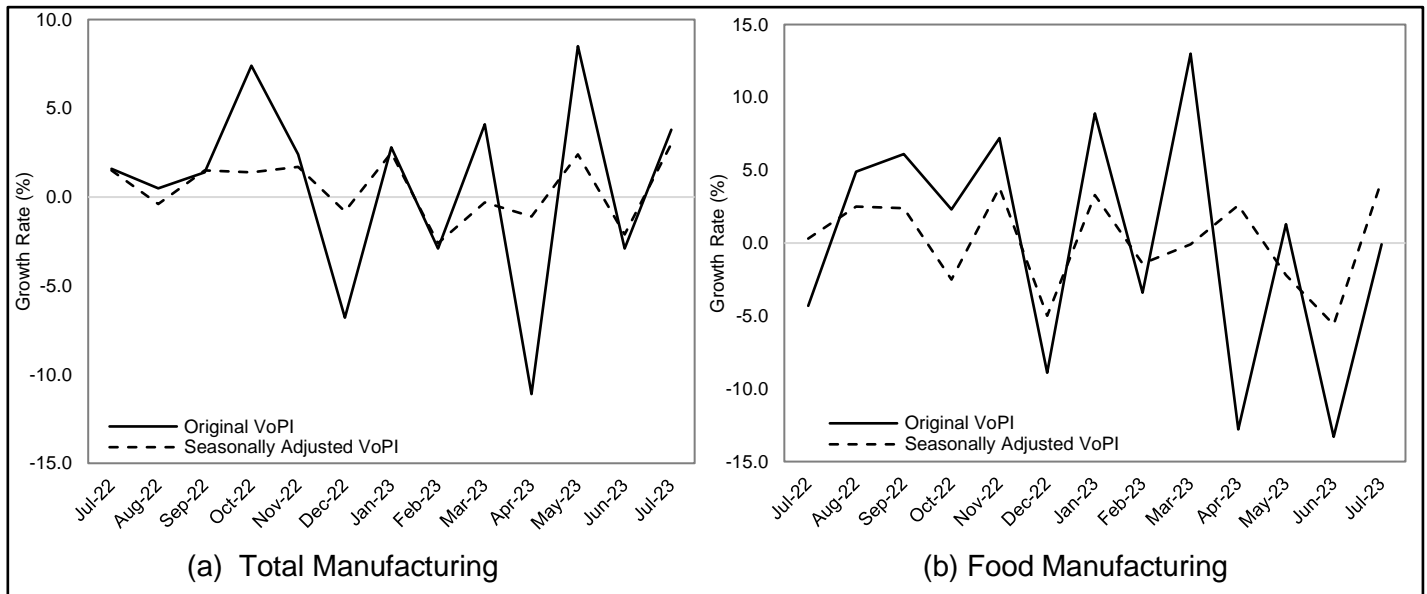
Source: Philippine Statistics Authority

## 2. Volume of Production Index (VoPI)

The monthly rate of the seasonally adjusted VoPI for total manufacturing expanded to 3.0 percent in July 2023 from a month-on-month decrement of -2.1 percent in June 2023. (Figure 2a, and Tables A and 2)

Moreover, the seasonally adjusted VoPI for food manufacturing increased at a monthly rate of 4.3 percent in July 2023 from a monthly decline of -5.6 percent in the previous month. (Figure 2b, and Tables A and 2)

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



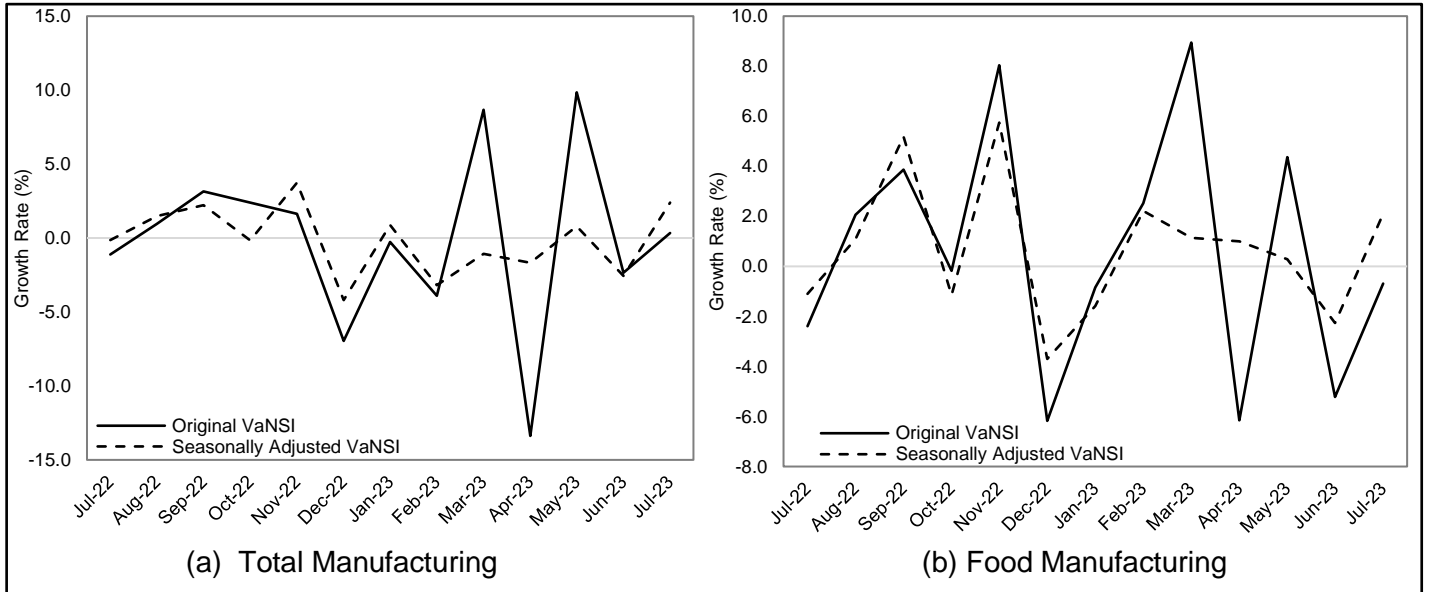
*p* - preliminary  
 Source: Philippine Statistics Authority

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

In July 2023, the monthly rate of the seasonally adjusted VaNSI for total manufacturing grew by 2.4 percent after posting a -2.6 percent monthly decrement in June 2023. (Figure 3a, and Tables A and 3)

Likewise, the month-on-month growth rate of the seasonally adjusted VaNSI for food manufacturing increased by 2.1 percent during the month. This is an uptick from the monthly decline of -2.3 percent observed in the previous month. (Figure 3b, and Tables A and 3)

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



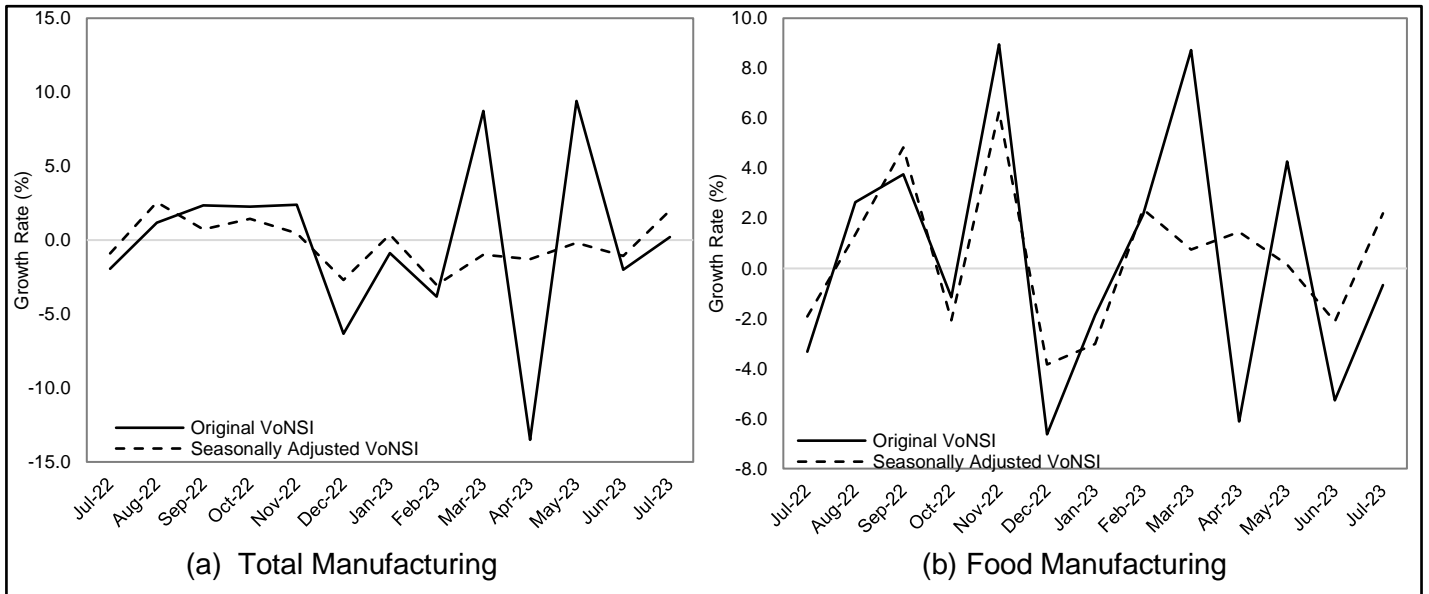
*p* - preliminary  
 Source: Philippine Statistics Authority

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

A month-on-month increase of 2.0 percent was observed in the seasonally adjusted VoNSI for total manufacturing in July 2023, after five consecutive months of monthly decline of the index. (Figure 4a, and Tables A and 4)

Likewise, the seasonally adjusted VoNSI for food manufacturing registered a 2.2 percent month-on-month growth during the month, which reflects an acceleration from the recorded monthly decrease of -2.1 percent in June 2023. (Figure 4b, and Tables A and 4)

Figure 4. Month-on-Month Growth Rates of Original and Seasonally Adjusted Volume of Net Sales Index (VoNSI) for Total Manufacturing and Food Manufacturing: July 2022 to July 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.

