



SPECIAL RELEASE

**SEASONALLY ADJUSTED
PRODUCTION INDEX AND NET SALES INDEX
(Monthly Integrated Survey of Selected Industries)
April 2024
(2018 = 100)**

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Reference No. 2024-180

Table A. Month-on-Month Growth Rates of Seasonally Adjusted Production Index and Net Sales Index for Total Manufacturing and Food Manufacturing (2018=100) March 2024^r and April 2024^p (in Percent)

INDICATOR	March 2024 ^r	April 2024 ^p
TOTAL MANUFACTURING		
Production Index (2018=100)		
Value of Production Index (<i>VaPI</i>)	-3.7	0.7
Volume of Production Index (<i>VoPI</i>)	-4.7	1.8
Net Sales Index (2018=100)		
Value of Net Sales Index (<i>VaNSI</i>)	-1.0	1.6
Volume of Net Sales Index (<i>VoNSI</i>)	-0.5	2.1
FOOD MANUFACTURING		
Production Index (2018=100)		
Value of Production Index (<i>VaPI</i>)	-9.9	7.3
Volume of Production Index (<i>VoPI</i>)	-10.1	7.8
Net Sales Index (2018=100)		
Value of Net Sales Index (<i>VaNSI</i>)	-2.5	2.5
Volume of Net Sales Index (<i>VoNSI</i>)	-2.3	2.7

p - preliminary

r - revised

Source: Philippine Statistics Authority



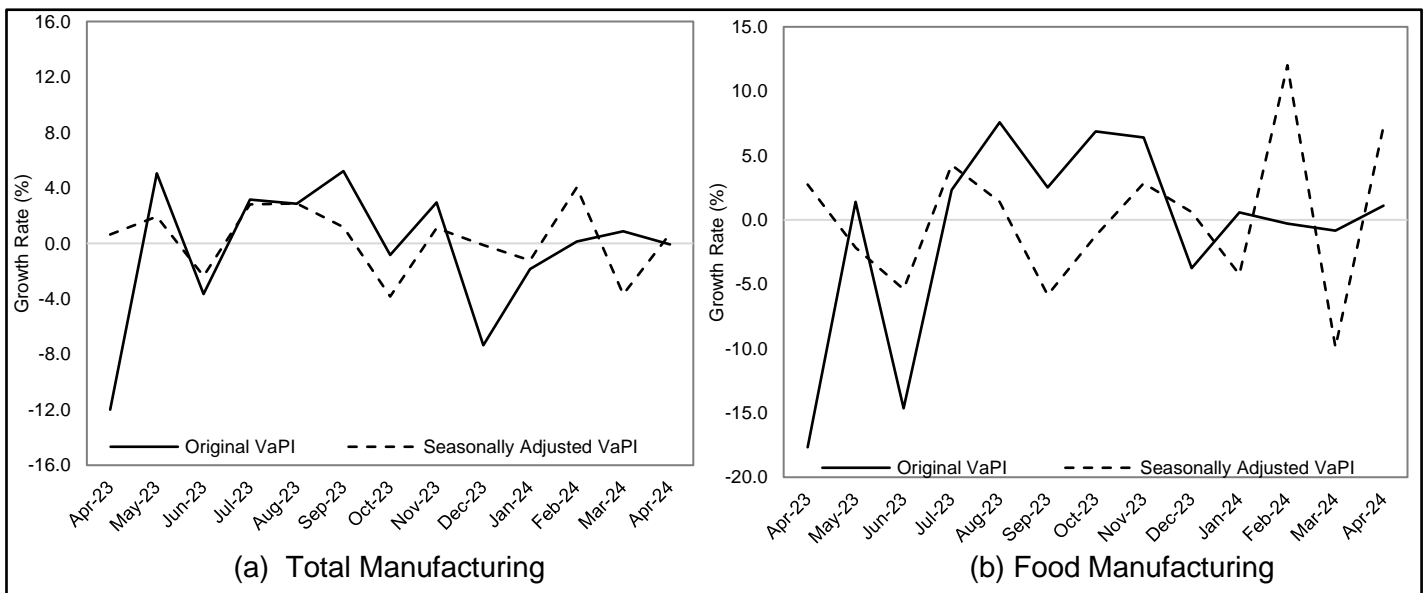
1. Value of Production Index (VaPI)

The seasonally adjusted VaPI for total manufacturing grew in April 2024 at a monthly rate of 0.7 percent from the 3.7 percent monthly decline observed in March 2024. (Figure 1a, and Tables A and 1)

Likewise, the seasonally adjusted VaPI for food manufacturing expanded by 7.3 percent month-on-month in April 2024. In the previous month, there was a contraction of 9.9 percent. (Figure 1b, and Tables A and 1)

Furthermore, the seasonally adjusted VaPI of industry divisions other than the manufacture of food are shown in Table 1a.

Figure 1. Month-on-Month Growth Rates of Original and Seasonally Adjusted Value of Production Index (VaPI) for Total Manufacturing and Food Manufacturing April 2023 to April 2024^p (2018=100)



p - preliminary
 Source: Philippine Statistics Authority

2. Volume of Production Index (VoPI)

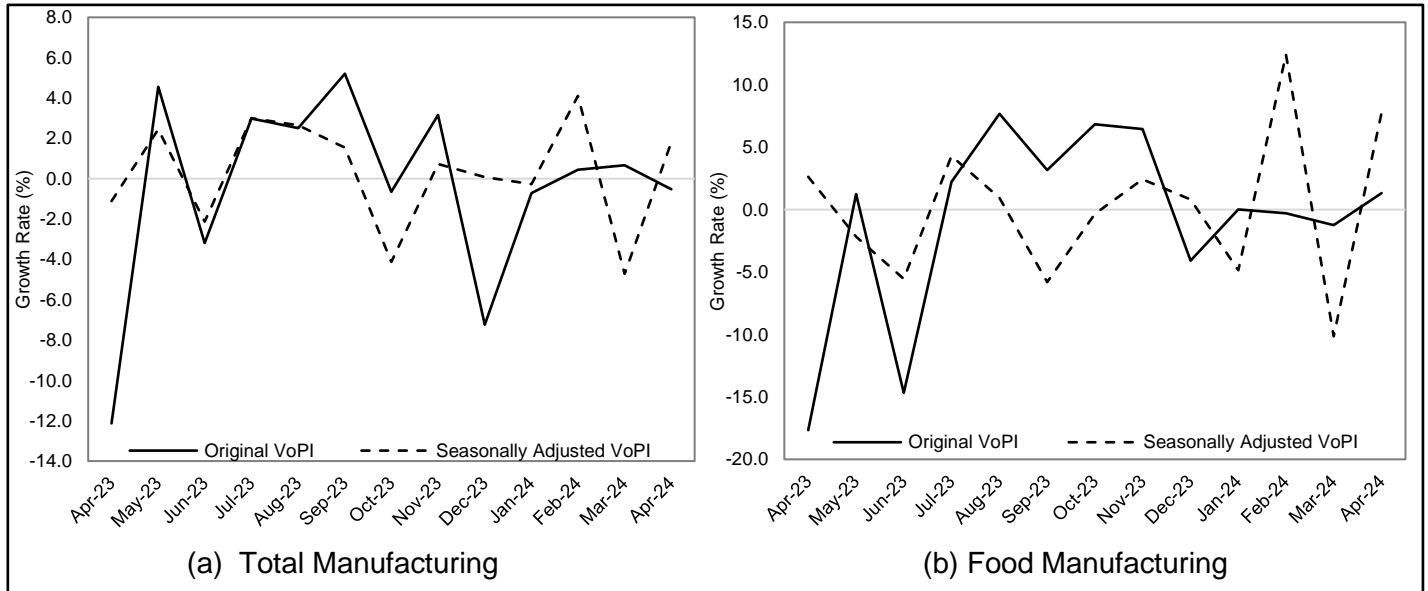
The monthly rate of the seasonally adjusted VoPI for total manufacturing increased by 1.8 percent in April 2024. In March 2024, a 4.7 percent month-on-month drop was observed. (Figure 2a, and Tables A and 2)

Similarly, the monthly rate of the seasonally adjusted VoPI for food manufacturing increased by 7.8 percent this month from its monthly decline of 10.1 percent in March 2024. (Figure 2b, and Tables A and 2)

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In addition, the seasonally adjusted VoPI of industry divisions other than the manufacture of food are shown in Table 2a.

Figure 2. Month-on-Month Growth Rates of Original and Seasonally Adjusted Volume of Production Index (VoPI) for Total Manufacturing and Food Manufacturing April 2023 to April 2024^p (2018=100)



p - preliminary
 Source: Philippine Statistics Authority

3. Value of Net Sales Index (VaNSI)

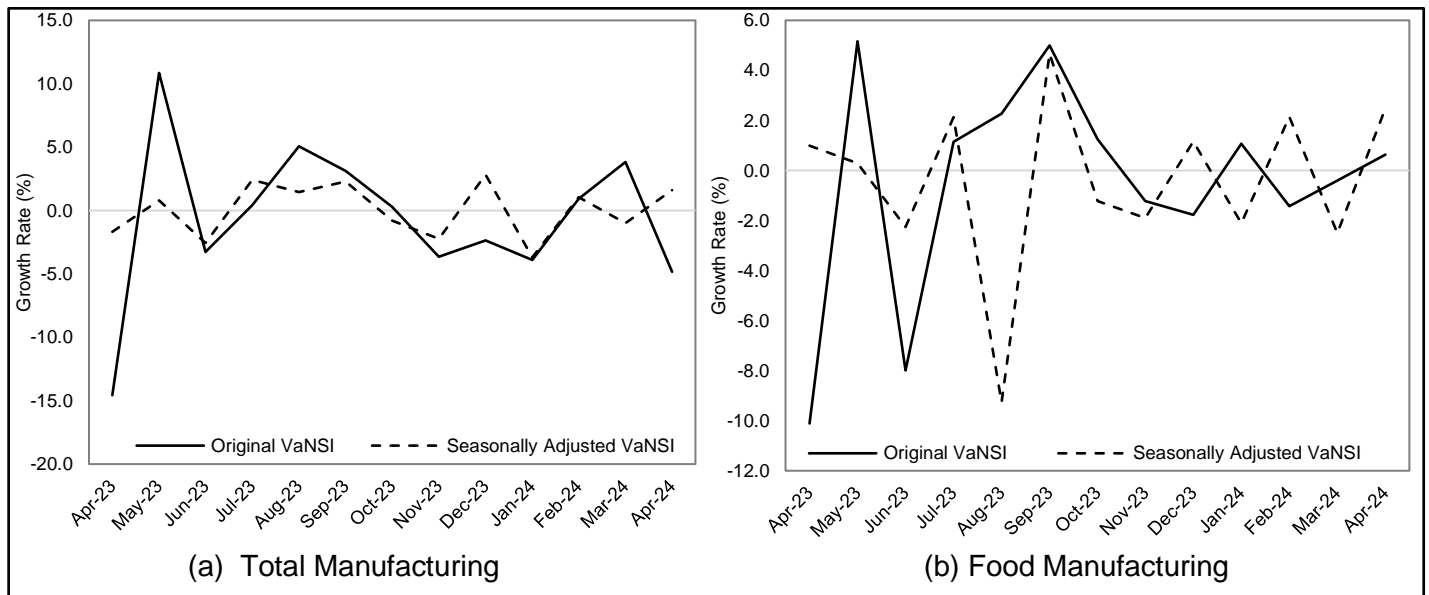
In April 2024, the monthly rate of the seasonally adjusted VaNSI for total manufacturing grew by 1.6 percent from the 1.0 percent drop in March 2024. (Figure 3a, and Tables A and 3)

Likewise, the monthly growth rate of the seasonally adjusted VaNSI for food manufacturing grew by 2.5 percent during the month. In March 2024, a downturn of 2.5 percent month-on-month was recorded. (Figure 3b, and Tables A and 3)

Furthermore, the seasonally adjusted VaNSI of industry divisions other than the manufacture of food are shown in Table 3a.

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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 April 2023 to April 2024^p (2018=100)



p - preliminary
 Source: Philippine Statistics Authority

4. Volume of Net Sales Index (VoNSI)

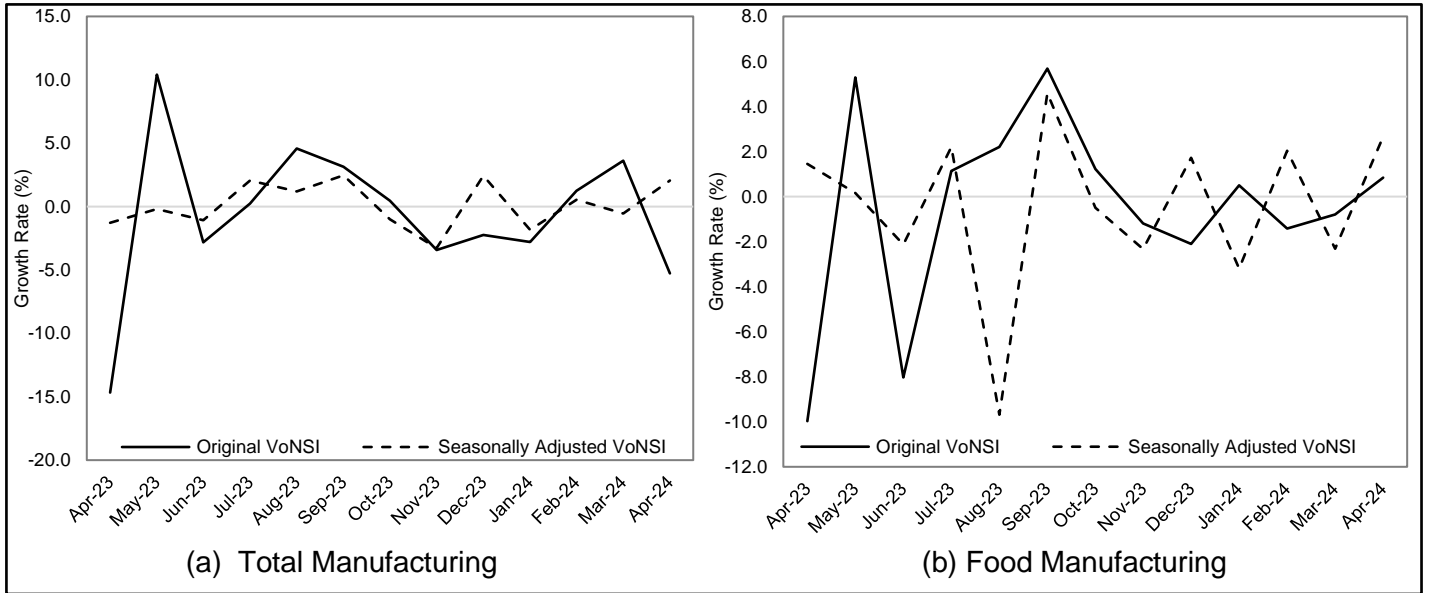
Month-on-month, the seasonally adjusted VoNSI for total manufacturing had an uptrend of 2.1 percent in April 2024 from a 0.5 percent monthly decline observed in March 2024. (Figure 4a, and Tables A and 4)

Similarly, the monthly rate of the seasonally adjusted VoNSI for food manufacturing grew by 2.7 percent in April 2024. In March 2024, a contraction of 2.3 percent month-on-month was observed. (Figure 4b, and Tables A and 4)

Moreover, the seasonally adjusted VoNSI of industry divisions other than the manufacture of food are shown in Table 4a.

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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: April 2023 to April 2024^p (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 section.

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 section 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	Industry Division	Model	ARIMA
VaPI	Total Manufacturing	Additive	(0,1,1)(0,1,1)
VaPI	Manufacture of Food Products	Multiplicative	(1,1,1)(0,1,1)
VaPI	Manufacture of beverages	Multiplicative	(0,1,1)(0,1,1)
VaPI	Manufacture of tobacco products	Multiplicative	(0,1,1)(0,1,1)
VaPI	Manufacture of textiles	Additive	(1,1,0)(0,1,1)
VaPI	Manufacture of wearing apparel	Additive	(0,1,1)(0,1,1)
VaPI	Manufacture of paper and paper products	Additive	(0,1,1)(0,1,1)
VaPI	Printing and reproduction of recorded media	Multiplicative	(0,1,1)(0,1,1)
VaPI	Manufacture of coke and refined petroleum products	Additive	(1,1,1)(1,0,0)
VaPI	Manufacture of chemical and chemical products	Additive	(2,0,0)(0,0,0)
VaPI	Pharmaceuticals & medicinal products	Multiplicative	(0,1,1)(1,0,0)
VaPI	Manufacture of rubber and plastic products	Additive	(1,1,0)(0,1,1)
VaPI	Manufacture of other non-metallic mineral products	Additive	(0,1,1)(0,1,1)
VaPI	Manufacture of basic metals	Additive	(1,0,0)(1,0,0)
VaPI	Manufacture of fabricated metal products, except machinery and equipment	Additive	(1,0,1)(0,1,1)
VaPI	Manufacture of electrical equipment	Additive	(0,1,1)(0,1,1)

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Index	Industry Division	Model	ARIMA
VaPI	Manufacture of furniture	Multiplicative	(1,1,2)(0,0,0)
VaPI	Other manufacturing	Additive	(0,1,1)(0,1,1)
VoPI	Total Manufacturing	Additive	(0,1,1)(0,1,1)
VoPI	Manufacture of Food Products	Multiplicative	(1,0,0)(0,1,1)
VoPI	Manufacture of beverages	Multiplicative	(0,1,1)(0,1,1)
VoPI	Manufacture of tobacco products	Multiplicative	(0,1,1)(0,1,1)
VoPI	Manufacture of textiles	Additive	(1,1,0)(0,1,1)
VoPI	Manufacture of wearing apparel	Additive	(0,1,1)(0,1,1)
VoPI	Manufacture of paper and paper products	Additive	(0,1,1)(0,1,1)
VoPI	Printing and reproduction of recorded media	Multiplicative	(0,1,1)(0,1,1)
VoPI	Manufacture of chemical and chemical products	Additive	(1,0,0)(0,0,0)
VoPI	Pharmaceuticals & medicinal products	Multiplicative	(0,1,1)(1,0,0)
VoPI	Manufacture of rubber and plastic products	Additive	(0,1,1)(0,1,1)
VoPI	Manufacture of other non-metallic mineral products	Additive	(0,1,1)(0,1,1)
VoPI	Manufacture of basic metals	Additive	(1,1,1)(1,0,0)
VoPI	Manufacture of fabricated metal products, except machinery and equipment	Additive	(0,1,1)(0,1,1)
VoPI	Other manufacturing	Additive	(0,1,1)(0,1,1)
VaNSI	Total Manufacturing		(1,1,0)(0,1,1)
VaNSI	Manufacture of Food Products		
VaNSI	Manufacture of beverages	Multiplicative	(1,1,1)(0,1,1)
VaNSI	Manufacture of textiles	Additive	(0,1,1)(1,0,0)
VaNSI	Manufacture of wearing apparel	Additive	(0,1,1)(0,1,1)
VaNSI	Manufacture of wood, bamboo, cane, rattan articles and related products	Multiplicative	(0,1,1)(0,1,1)
VaNSI	Printing and reproduction of recorded media	Multiplicative	(1,1,1)(1,0,1)
VaNSI	Manufacture of coke and refined petroleum products	Multiplicative	(0,1,0)(0,1,1)
VaNSI	Manufacture of chemical and chemical products	Additive	(2,0,1)(0,0,1)
VaNSI	Manufacture of rubber and plastic products	Additive	(0,1,1)(0,1,1)
VaNSI	Manufacture of other non-metallic mineral products	Additive	(0,1,1)(0,1,1)
VaNSI	Manufacture of fabricated metal products, except machinery and equipment	Additive	(0,1,1)(0,1,1)
VaNSI	Manufacture of electrical equipment	Additive	(0,1,0)(0,1,1)
VaNSI	Manufacture of transport equipment	Additive	(0,1,1)(0,1,1)
VoNSI	Total Manufacturing	Additive	(1,1,0)(0,1,1)

Index	Industry Division	Model	ARIMA
VoNSI	Manufacture of Food Products	Additive	(0,1,1)(0,1,1)
VoNSI	Manufacture of beverages	Multiplicative	(0,1,1)(0,1,1)
VoNSI	Manufacture of textiles	Additive	(0,0,0)(0,1,1)
VoNSI	Manufacture of wearing apparel	Additive	(0,1,1)(0,1,1)
VoNSI	Printing and reproduction of recorded media	Multiplicative	(0,1,1)(0,1,1)
VoNSI	Manufacture of coke and refined petroleum products	Multiplicative	(0,1,1)(0,1,1)
VoNSI	Manufacture of chemical and chemical products	Additive	(1,0,0)(1,0,0)
VoNSI	Manufacture of rubber and plastic products	Additive	(0,1,1)(1,0,1)
VoNSI	Manufacture of other non-metallic mineral products	Additive	(0,1,1)(0,1,1)
VoNSI	Manufacture of basic metals	Multiplicative	(0,1,1)(0,0,0)
VoNSI	Manufacture of fabricated metal products, except machinery and equipment	Additive	(0,1,0)(0,1,1)
VoNSI	Manufacture of electrical equipment	Additive	(1,0,0)(0,1,1)
VoNSI	Manufacture of transport equipment	Additive	(0,1,1)(0,1,1)