



# PRESS RELEASE

**PRODUCTION INDEX AND NET SALES INDEX  
(Monthly Integrated Survey of Selected Industries)  
November 2021  
(2018=100)**

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Table A. Year-on-Year Growth Rates (%) of Production Index, Net Sales Index, and Producer Price Index for Total Manufacturing (2018=100): November 2020, October 2021<sup>r</sup>, and November 2021<sup>p</sup> (in Percent)

<b>TOTAL MANUFACTURING</b>	<b>NOVEMBER 2020</b>	<b>OCTOBER 2021<sup>r</sup></b>	<b>NOVEMBER 2021<sup>p</sup></b>
<b>Production Index (2018=100)</b>			
Value (VaPI)	<b>-25.4</b>	<b>25.9</b>	<b>26.5</b>
Volume (VoPI)	<b>-21.8</b>	<b>25.2</b>	<b>25.3</b>
<b>Net Sales Index (2018=100)</b>			
Value (VaNSI)	<b>-22.6</b>	<b>14.1</b>	<b>25.0</b>
Volume (VoNSI)	<b>-18.9</b>	<b>14.0</b>	<b>23.9</b>
<b>Producer Price Index (2018=100)</b>	<b>-4.6</b>	<b>0.6</b>	<b>0.9</b>

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



## PRODUCTION

### Value of Production showed an increasing trend

The Value of Production Index (VaPI) for manufacturing further grew in November 2021 with an annual growth rate of 26.5 percent, from its previous month's annual increase of 25.9 percent. In contrast, the recorded annual growth rate for VaPI in November 2020 was -25.4 percent. (Tables A and 1)

The growth in VaPI for November 2021 was because of the increases in 15 of the 22 industry divisions. Among these, the top contributor was **manufacture of coke and refined petroleum products** with **123.4** percent annual growth rate. On the other hand, the remaining seven industry divisions recorded decreases with **manufacture of tobacco products**, registering the fastest annual decline of -19.8 percent. (Tables 1-A and 1)

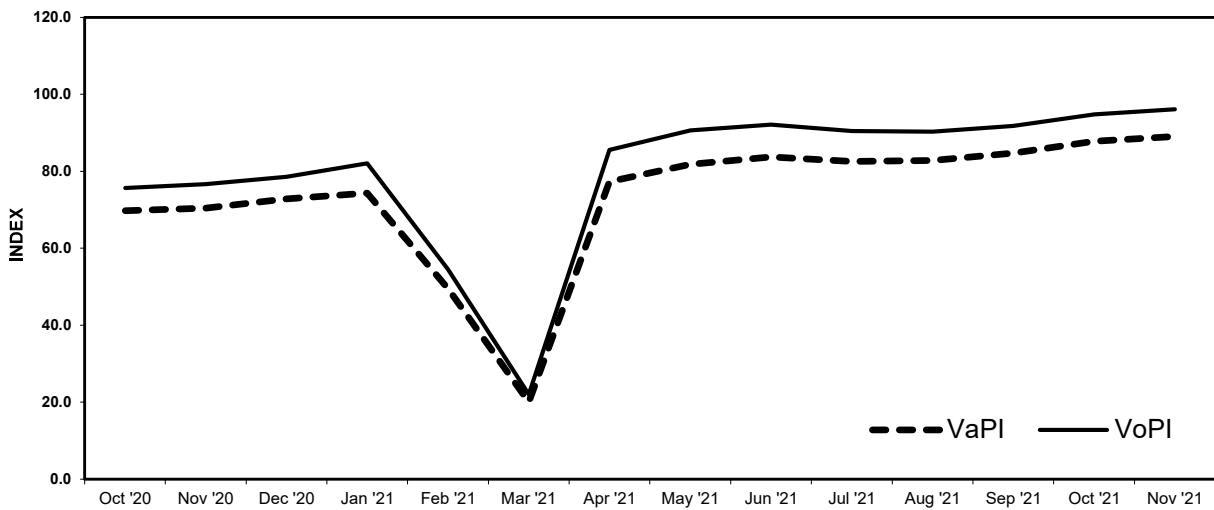
### Volume of Production Index accelerated further

The Volume of Production Index (VoPI) continued to accelerate at an annual rate of 25.3 percent in November 2021 compared with the 25.2 percent annual increase registered in the previous month. In November 2020, VoPI dropped at an annual rate of -21.8 percent. (Tables A and 2)

The increase in VoPI was brought about by the positive growth rates of 12 industry divisions. Of these, growth in **manufacture of coke and refined petroleum products**, and **manufacture of wood, bamboo, cane, rattan articles and related products** were the major contributing factors with 84.8 percent and 83.9 percent growth rates, respectively. On the contrary, the remaining 10 industry divisions recorded decreases which was led by the **manufacture of tobacco products** with -20.4 percent annual growth rate. (Tables 1-B and 2)

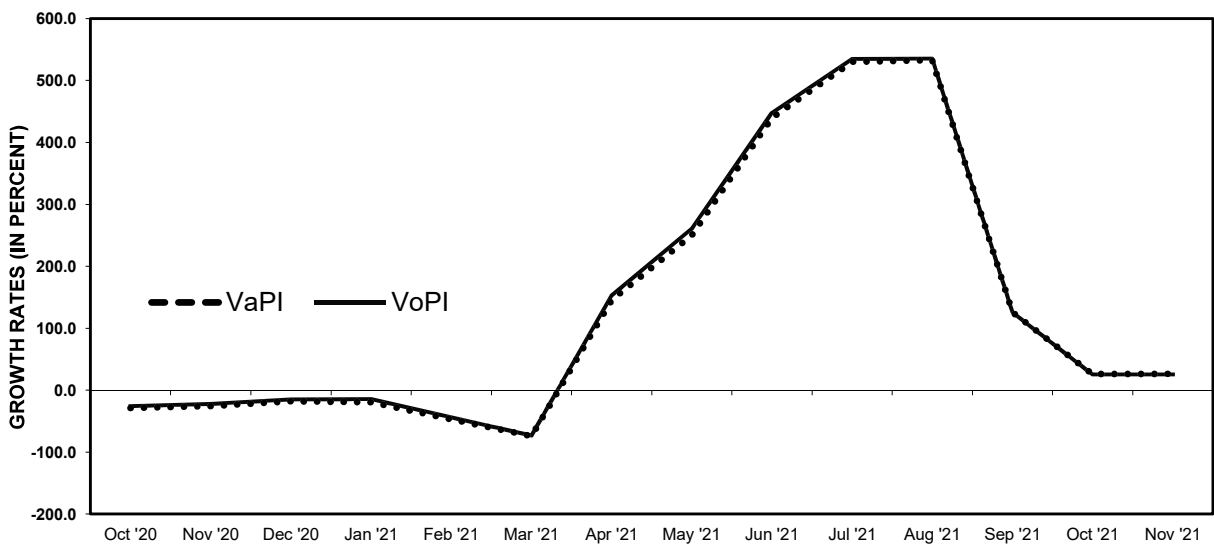
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Figure 1. Value and Volume of Production Index for Total Manufacturing  
October 2020 - November 2021<sup>p</sup> (2018 = 100)



p – preliminary  
Source: Philippine Statistics Authority

Figure 2. Year-on-Year Growth Rates of Value and Volume of Production Index for Total Manufacturing (in percent)  
October 2020 - November 2021<sup>p</sup> (2018 = 100)



p – preliminary  
Source: Philippine Statistics Authority

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## NET SALES

### Value of Net Sales Index continued to increase

The Value of Net Sales Index (VaNSI) also continued to gain at an annual rate of 25.0 percent in November 2021, from a growth rate of 14.1 percent in the previous month. In November 2020, VaNSI dropped at an annual rate of -22.6 percent. (Tables A and 3)

Of the 22 industry divisions, 13 reported positive growth rates which is led by **manufacture of coke and refined petroleum products** that registered an annual increase of 68.3 percent. Meanwhile, nine industry divisions showed downturns in November 2021 with **manufacture of wearing apparel** registering the lowest rate of -28.8 percent. (Tables 2-A and 3)

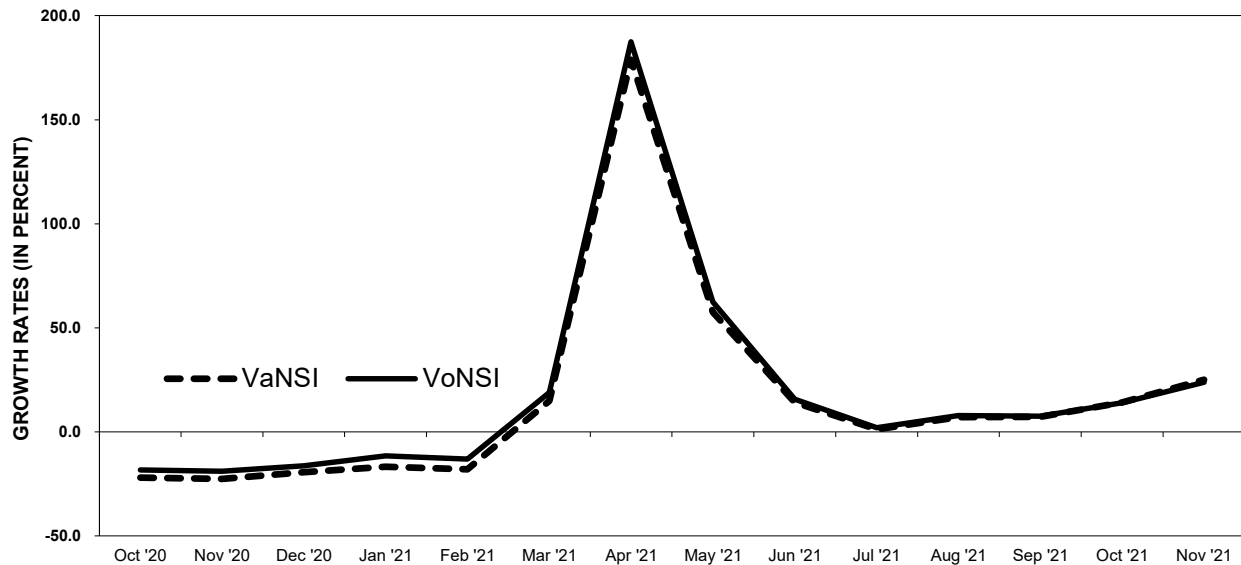
### Volume of Net Sales Index also exhibited growth

The Volume of Net Sales Index (VoNSI) recorded a year-on-year increase of 23.9 percent in November 2021, from a 14.0 percent increase in the previous month. In November 2020, VoNSI dropped by -18.9 percent. (Tables A and 4)

The increase in VoNSI was brought about by the positive growth rates of 12 industry divisions led by **computer, electronic and optical products** with 68.1 percent annual growth. In contrast, 10 industry divisions exhibited decreases during the period, led by the **manufacture of wearing apparel** at -28.2 percent. (Tables 2-B and 4)

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Figure 3. Year-on-Year Changes in Net Sales (in percent):  
October 2020 – November 2021<sup>p</sup> (2018 = 100)



p – preliminary

Source: Philippine Statistics Authority

## CAPACITY UTILIZATION

### Average capacity utilization rate for manufacturing slightly increased

Based on responding establishments, the average capacity utilization rate for manufacturing sector in November 2021 was reported at 67.4 percent, from 67.2 percent in the previous month.

There were 20 out of 22 industry divisions with more than 50 percent average capacity utilization rate, led by **manufacture of furniture** (88.3%), **manufacture of other non-metallic mineral products** (81.8%), and **manufacture of tobacco products** (77.0%). (Table 6)

### Responding establishments that operated at full capacity was 26.0 percent

The proportion of establishments that operated at full capacity (90% to 100%) was 26.0 percent of the total number of responding establishments. Meanwhile, 37.2 percent operated at 70 to 89 percent capacity, while 36.8 percent operated below 70 percent capacity. (Table B)

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Table B. Distribution of Responding Establishments  
by Capacity Utilization for Total Manufacturing: November 2021<sup>P</sup>

<b>Capacity Utilization</b>	<b>Number of Responding Establishments</b>	<b>Percent Share to Responding Establishments</b>
TOTAL	465	100.0
Below 50%	75	16.1
50% - 59%	47	10.1
60% - 69%	49	10.6
70% - 79%	79	17.0
80% - 89%	94	20.2
90% - 100%	121	26.0

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Notes:

- 1) Details may not sum to totals due to rounding.
- 2) Results are based on the responses of establishments which were in operation during the reference month.
- 3) There were 37 establishments which responded but were not included in the tabulation as they temporarily or permanently ceased their business operations.

Source: Philippine Statistics Authority

TABLE 1-A. Year-on-Year Growth Rate (%) of Value of Production Index  
by Industry Division: October 2021<sup>r</sup> and November 2021<sup>p</sup>  
(2018 =100)

INDUSTRY DIVISION	October 2021 <sup>r</sup>	November 2021 <sup>p</sup>
<b>Gainers</b>		
Manufacture of coke and refined petroleum products	167.2	123.4
Manufacture of computer, electronic, and optical products	17.7	25.6
Manufacture of food products	25.5	23.1
Manufacture of other non-metallic mineral products	42.9	48.1
Manufacture of electrical equipment	50.4	53.6
Manufacture of basic metals	22.9	18.3
Manufacture of machinery and equipment except electrical	24.8	41.3
Manufacture of fabricated metal products, except machinery and equipment	17.9	35.6
Manufacture of wood, bamboo, cane, rattan articles and related products	0.1	57.4
Manufacture of furniture	0.2	16.9
Manufacture of leather and related products, including footwear	2.4	7.4
Printing and reproduction of recorded media	-11.7	7.5
Manufacture of paper and paper products	9.9	1.2
Manufacture of rubber and plastic products	-2.1	0.5
Manufacture of textiles	21.4	0.4
<b>Losers</b>		
Manufacture of transport equipment	-18.7	-5.1
Manufacture of chemical and chemical products	-5.9	-7.0
Manufacture of tobacco products	-41.3	-19.8
Manufacture of wearing apparel	1.5	-11.0
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-23.5	-8.8
Other manufacturing and repair and installation of machinery and equipment	2.5	-5.3
Manufacture of beverages	-17.7	-0.9

p - preliminary, r- revised

Source: Philippine Statistics Authority

TABLE 1-B. Year-on-Year Growth Rate (%) of Volume of Production  
Index by Industry Division: October 2021<sup>r</sup> and November 2021<sup>p</sup>  
(2018 = 100)

INDUSTRY DIVISION	October 2021 <sup>r</sup>	November 2021 <sup>p</sup>
<b>Gainers</b>		
Manufacture of computer, electronic, and optical products	36.9	43.3
Manufacture of coke and refined petroleum products	124.9	84.8
Manufacture of food products	22.7	20.1
Manufacture of other non-metallic mineral products	44.2	49.7
Manufacture of electrical equipment	42.5	45.4
Manufacture of machinery and equipment except electrical	26.7	40.9
Manufacture of fabricated metal products, except machinery and equipment	17.9	37.7
Manufacture of wood, bamboo, cane, rattan articles and related products	16.2	83.9
Manufacture of basic metals	11.9	10.4
Manufacture of furniture	0.6	17.7
Printing and reproduction of recorded media	-10.5	8.9
Manufacture of leather and related products, including footwear	0.6	5.6
<b>Losers</b>		
Manufacture of chemical and chemical products	-11.7	-12.2
Manufacture of transport equipment	-19.1	-6.2
Manufacture of tobacco products	-41.8	-20.4
Manufacture of beverages	-20.0	-3.7
Manufacture of rubber and plastic products	-7.3	-4.9
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-25.1	-10.6
Manufacture of wearing apparel	2.1	-10.2
Other manufacturing and repair and installation of machinery and equipment	2.7	-4.0
Manufacture of textiles	15.5	-4.8
Manufacture of paper and paper products	8.4	-0.5

p - preliminary, r- revised

Source: Philippine Statistics Authority



TABLE 2-A. Year-on-Year Growth Rate (%) of Value of Net Sales Index  
by Industry Division: October 2021<sup>r</sup> and November 2021<sup>p</sup>  
(2018 =100)

INDUSTRY DIVISION	October 2021 <sup>r</sup>	November 2021 <sup>p</sup>
<b>Gainers</b>		
Manufacture of computer, electronic, and optical products	27.3	47.3
Manufacture of food products	21.4	26.6
Manufacture of coke and refined petroleum products	85.8	68.3
Manufacture of other non-metallic mineral products	44.8	57.3
Manufacture of basic metals	33.4	29.3
Manufacture of machinery and equipment except electrical	1.1	38.4
Manufacture of chemical and chemical products	1.4	13.6
Manufacture of electrical equipment	11.1	19.6
Manufacture of beverages	-16.9	5.3
Manufacture of rubber and plastic products	3.8	5.1
Manufacture of furniture	-3.6	22.3
Manufacture of wood, bamboo, cane, rattan articles and related products	-20.7	9.7
Manufacture of tobacco products	-2.2	4.9
<b>Losers</b>		
Manufacture of wearing apparel	-9.3	-28.8
Manufacture of paper and paper products	-14.4	-12.0
Other manufacturing and repair and installation of machinery and equipment	1.9	-4.7
Printing and reproduction of recorded media	-20.8	-11.1
Manufacture of fabricated metal products, except machinery and equipment	-18.4	-2.7
Manufacture of leather and related products, including footwear	-18.5	-6.4
Manufacture of transport equipment	-10.7	-0.3
Manufacture of textiles	21.1	-0.9
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-18.0	<u>1/</u>

p - preliminary, r- revised

Note: 1/- Less than 0.05 percent decrease

Source: Philippine Statistics Authority

TABLE 2-B. Year-on-Year Growth Rate (%) of Volume of Net Sales Index by Industry Division: October 2021<sup>r</sup> and November 2021<sup>p</sup> (2018 = 100)

INDUSTRY DIVISION	October 2021 <sup>r</sup>	November 2021 <sup>p</sup>
<b>Gainers</b>		
Manufacture of computer, electronic, and optical products	52.3	68.1
Manufacture of food products	18.4	23.7
Manufacture of coke and refined petroleum products	55.4	39.2
Manufacture of other non-metallic mineral products	46.2	59.0
Manufacture of basic metals	21.5	20.6
Manufacture of machinery and equipment except electrical	2.6	38.0
Manufacture of chemical and chemical products	-5.0	7.2
Manufacture of electrical equipment	5.3	13.2
Manufacture of wood, bamboo, cane, rattan articles and related products	-10.1	28.2
Manufacture of beverages	-19.0	2.2
Manufacture of furniture	-3.3	23.1
Manufacture of tobacco products	-2.9	4.1
<b>Losers</b>		
Manufacture of wearing apparel	-8.9	-28.2
Manufacture of paper and paper products	-15.5	-13.4
Manufacture of transport equipment	-11.3	-1.5
Printing and reproduction of recorded media	-19.6	-10.0
Manufacture of leather and related products, including footwear	-19.9	-7.9
Other manufacturing and repair and installation of machinery and equipment	2.2	-3.3
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-18.9	-2.0
Manufacture of textiles	16.0	-6.1
Manufacture of fabricated metal products, except machinery and equipment	-18.3	-1.1
Manufacture of rubber and plastic products	-1.6	-0.6

p - preliminary, r- revised

Source: Philippine Statistics Authority





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**DENNIS S. MAPA, Ph.D.**  
Undersecretary  
National Statistician and Civil Registrar General

*Attachments:*

1. *Table 1. Value of Production Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – November 2021<sup>P</sup>*
2. *Table 2. Volume of Production Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – November 2021<sup>P</sup>*
3. *Table 3. Value of Net Sales Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – November 2021<sup>P</sup>*
4. *Table 4. Volume of Net Sales Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – November 2021<sup>P</sup>*
5. *Table 5. Producer Price Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – November 2021<sup>P</sup>*
6. *Table 6. Average Capacity Utilization Rate by Major Industry Division: MISSI, November 2020 – November 2021<sup>P</sup>*
7. *Table 7. Distribution of Samples and Responding Establishments by Industry Division: MISSI, October 2021<sup>P</sup>, October 2021<sup>r</sup>, and November 2021<sup>P</sup>*
8. *Table 8. Distribution of Samples and Responding Establishments by Industry Division: PPS, October 2021<sup>P</sup>, October 2021<sup>r</sup>, and November 2021<sup>P</sup>*
9. *Technical Notes*

# TECHNICAL NOTES

## I. Introduction

The Monthly Integrated Survey of Selected Industries (MISSI) is one of the designated statistical activities undertaken by the Philippine Statistics Authority with the objective of providing flash indicators on the performance of growth-oriented industries in the manufacturing sector. The survey gathers monthly data on employment, compensation, production, net sales, inventories, and capacity utilization from manufacturing establishments.

The indicators generated from the MISSI are Value of Production Index (VaPI), Volume of Production Index (VoPI), Value of Net Sales Index (VaNSI), Volume of Net Sales Index (VoNSI) and Average Capacity Utilization Rate of the manufacturing sector.

### Rebasing

Starting with the January 2021 reference month, production and sales indices from the MISSI are rebased to 2018 from the 2000 base period.

The major changes in the rebasing are (1) the industry structure or classification and (2) the weights which measure the relevance of the industries. The industry classification for the 2018-based series follows the 2009 Philippine Standard Industry Classification (PSIC), while the 2000-based series adopted the 1994 PSIC. For the rebased series, the weights at the base year were computed based on the final results of the 2018 Census of Philippine Business and Industry (CPBI). The results of the Annual Survey of Philippine Business and Industry will be used to update the weights annually until the next rebasing.

Another changes are on the methodology of index computation and on the estimation of average capacity utilization rate which are discussed in the next section.

## II. Method of Index Computation

The VaPI and VaNSI utilize the Paasche-type method of index computation where the basic data of weight computation are the value of production and sales, respectively. The sources of these data are the

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CPBI for the base year and the Annual Survey of Philippine Business and Industry (ASPBI) for the succeeding years until the next rebasing.

## 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 1.

The weight of the industry division is the percent share of the industry to the total value of production for the manufacturing sector. The sum of the weights of all industry divisions is equal to 1.

The same methodology is used in the computation of the weights for sales, but instead of value of production, data on sales is used.

## 2. Index Computation

The formula in the computation of indices are as follows:

### 1. Value of Production Index (VaPI)

#### a. Computation of Index for Industry Group Level

##### i. Monthly Index at the base year

$$VaPI_{ijm} = \frac{V_{ijm}}{V_{ij0}} \times 100$$

where:

$VaPI_{ijm}$  = VaPI for industry group j in industry division i at current month m

$V_{ijm}$  = total value of production for all sample establishments of industry group j in industry division i at current month m of the base year

$V_{ij0}$  = average monthly value of production at the base year

##### ii. Monthly Index after the base year

$$VaPI_{ijm} = \frac{V_{ijm}}{V_{ij(m-1)}} \times VaPI_{ij(m-1)}$$

where:

- $VaPI_{ijm}$  = VaPI for industry group j in industry division i at current month m
- $VaPI_{ij(m-1)}$  = VaPI for industry group j in industry division i for the previous month m-1
- $V_{ijm}$  = total value of production for all sample establishments of industry group j in industry division i at current month m
- $V_{ij(m-1)}$  = total value of production for all sample establishments of industry group j in industry division i for the previous month m-1

## b. Computation of Index for Industry Division Level

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

where:

- $VaPI_{im}$  = VaPI for industry division i at current month m
- $VaPI_{ijm}$  = VaPI 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.

## c. Computation of Index for Total Manufacturing

$$VaPI_m = \frac{1}{\sum_{i=1}^{22} \left( W_i \times \frac{1}{VaPI_{im}} \right)}$$

where:

- $VaPI_m$  = VaPI for the current month m
- $VaPI_{im}$  = VaPI for industry division i at current month m
- $W_i$  = weight for industry division i

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

The same methodology as the VaPI is used to compute the Value of Net Sales Index (VaNSI).

## 3. Volume of Production Index (VoPI)

### a. Computation for Index for Industry Group Level

$$VoPI_{ijm} = \frac{VaPI_{ijm}}{PPI_{ijm}}$$

where:

- $VoPI_{ijm}$  = VoPI for industry group j in industry division i at current month m
- $VaPI_{ijm}$  = VaPI for industry group j in industry division i at current month m
- $PPI_{ijm}$  = PPI for industry group j in industry division i at current month m

### b. Computation of Index for Industry Division Level

$$VoPI_{im} = \frac{VaPI_{im}}{PPI_{im}}$$

where:

- $VoPI_{im}$  = VoPI for industry division i at current month m
- $VaPI_{im}$  = VaPI for industry division i at current month m
- $PPI_{im}$  = PPI for industry division i at current month m

### c. Computation of Index for Total Manufacturing

$$VoPI_m = \frac{VaPI_m}{PPI_m}$$

where:

$VoPI_m$  = VoPI for total manufacturing at current month m

$VaPI_m$  = VaPI for total manufacturing at current month m

$PPI_m$  = PPI for total manufacturing at current month m

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

The same methodology as VoPI is used to compute the Volume of Net Sales Index (VoNSI).

### 5. Average Capacity Utilization Rate

Capacity Utilization Rate is the ratio of total output to the maximum rated capacity of the establishment. The formulas in obtaining the Average Capacity Utilization Rate (AveCU) are the following:

#### a. Computation of AveCU for Industry Group Level

$$AveCU_{ijm} = \frac{\sum_{c=1}^k (X_c \times f_{cijm})}{n_{rijm} + n_{tijm}}$$

where:

$AveCU_{ijm}$  = average capacity utilization rate for industry group j in industry division i at current month m

$X_c$  = midpoint of capacity utilization rate at interval c

$f_{cijm}$  = frequency of responding samples at interval c for industry group j in industry division i at current month m

$n_{rijm}$  = total number of responding (good) establishments for industry group j in industry division i at current month m



- $n_{ijm}$  = total number of temporarily closed/closed establishments for industry group j in industry division i at current month m
- k = total number of capacity utilization intervals

### b. Computation of AveCU for Industry Division Level

$$AveCU_{im} = \sum_{i=1}^{p_i} (W_{ij} \times AveCU_{ijm})$$

where:

- $AveCU_{im}$  = average capacity utilization rate for industry division i at current month m
- $W_{ij}$  = weight for industry group j in industry division i
- $AveCU_{ijm}$  = average capacity utilization rate for industry group j in industry division i at current month m
- $p_i$  = number of industry groups in industry division i

### c. Computation of AveCU for Total Manufacturing

$$AveCU_m = \sum_{i=1}^{22} (W_i \times AveCU_{im})$$

where:

- $AveCU_m$  = average capacity utilization rate for total manufacturing at current month m
- $W_i$  = weight for industry division i
- $AveCU_{im}$  = average capacity utilization rate for industry division i at current month m

## III. Computation of Growth Rates

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

#### IV. Imputation and Revision

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

#### V. Industry Coverage

The MISSI utilizes the 2009 PSIC to classify industry divisions and industry groups. Twenty-two industry divisions of the 2009 PSIC were formed to comprise the industry coverage of the MISSI.

The table below presents the industry coverage of MISSI by 2009 PSIC code.

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
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*

2009 PSIC CODE	INDUSTRY DESCRIPTION
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 further into industry groups

