



# PRESS RELEASE

**PRODUCTION INDEX AND NET SALES INDEX  
(Monthly Integrated Survey of Selected Industries)  
March 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): March 2021<sup>p</sup>, February 2021<sup>r</sup>, and March 2020 (in Percent)

<b>TOTAL MANUFACTURING</b>	<b>MARCH 2021<sup>p</sup></b>	<b>FEBRUARY 2021<sup>r</sup></b>	<b>MARCH 2020</b>
<b>Production Index (2018=100)</b>			
Value (VaPI)	<b>-74.2</b>	<b>-46.4</b>	<b>-25.1</b>
Volume (VoPI)	<b>-73.4</b>	<b>-43.3</b>	<b>-20.4</b>
<b>Net Sales Index (2018=100)</b>			
Value (VaNSI)	<b>13.9</b>	<b>-17.6</b>	<b>-26.5</b>
Volume (VoNSI)	<b>17.5</b>	<b>-12.8</b>	<b>-21.9</b>
<b>Producer Price Index (2018=100)</b>	<b>-3.1</b>	<b>-5.5</b>	<b>-5.9</b>

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

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## PRODUCTION

### Value of Production at downward trend

The Value of Production Index (VaPI) for manufacturing continued to drop at an annual rate of -74.2 percent in March 2021. This decline was faster than the reported downturn in the previous month of -46.4 percent and in March 2020 of -25.1 percent. The March 2021 annual growth rate was the fastest decline since September 2020. (*Tables A and 1*)

Of the 22 industry divisions, VaPI dropped in five (5) industry divisions. The highest annual rate of decline was reported in **manufacture of coke and refined petroleum products** at -97.3 percent. On the other hand, 17 industry divisions showed increases during the period with **manufacture of fabricated metal products, except machinery and equipment** recording the highest annual growth of 84.9 percent. (*Tables 1-A and 1*)

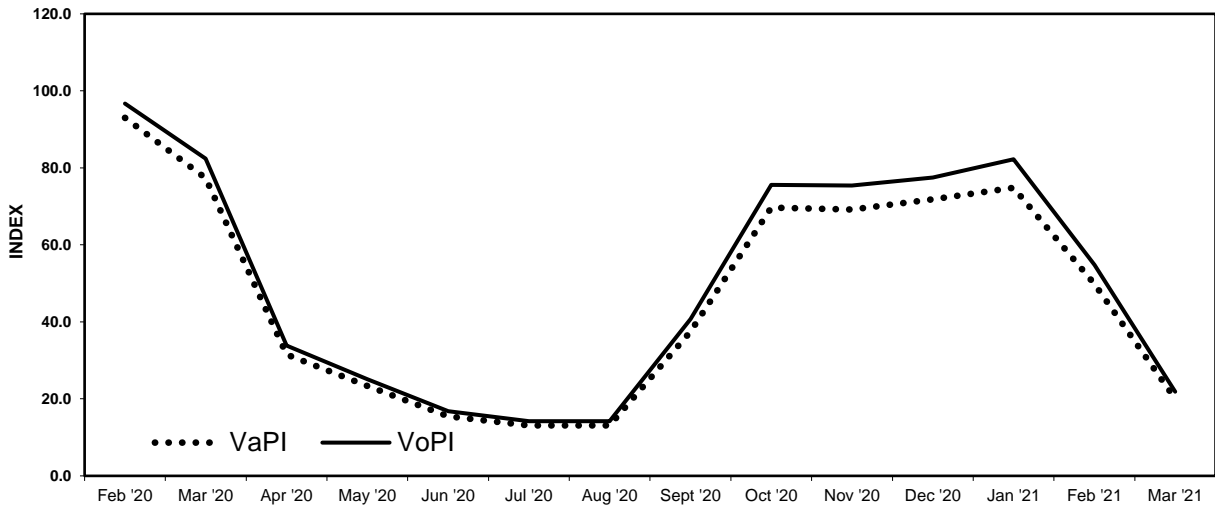
### Volume of Production Index also dropped further

The Volume of Production Index (VoPI) also remained at a downtrend with an annual rate of -73.4 percent in March 2021. This downturn was faster than the -43.3 percent decrease registered in the previous month. In March 2020, the annual rate of VoPI was recorded at -20.4 percent. (*Tables A and 2*)

The drop in VoPI was brought about by the contractions in the indices of five (5) industry divisions. Among these, the top contributor was **manufacture of coke and refined petroleum products** with an annual rate of -97.4%. Meanwhile, among industry divisions that rose during the period, the fastest growth was recorded in **manufacture of fabricated metal products, except machinery and equipment** at 85.5 percent. (*Tables 1-B and 2*)

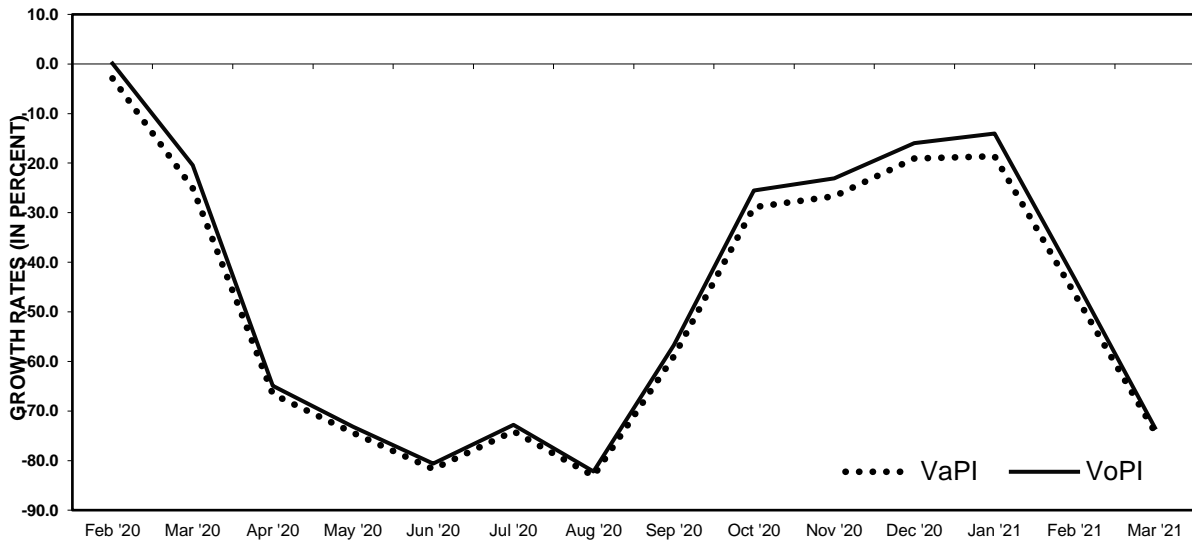
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Figure 1. Value and Volume of Production Index for Total Manufacturing February 2020<sup>r</sup> - March 2021<sup>p</sup> (2018 = 100)



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

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



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

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## NET SALES

### Value of Net Sales Index rebounded

The Value of Net Sales Index (VaNSI) made a turnaround as it grew by 13.9 percent in March 2021, from its previous month's annual drop of -17.6 percent. The year-on-year growth rate in March 2021 was the first annual increase since June 2019. *(Tables A and 3)*

Expansion in VaNSI for manufacturing sector in March 2021 were observed in 18 out of 22 industry divisions. The fastest growth was registered in **manufacture of wood, bamboo, cane, rattan articles and related products** at 79.9%. On the other hand, four (4) industry divisions contracted which was led by **manufacture of basic pharmaceutical products and pharmaceutical preparations** at -20.6%. *(Tables 2-A and 3)*

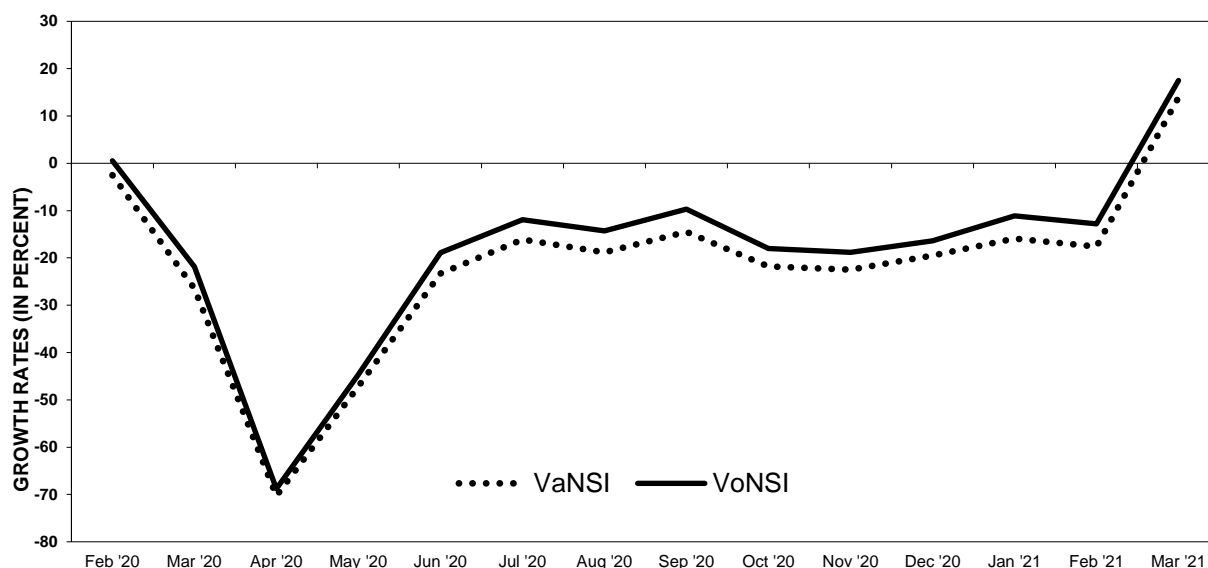
### Volume of Net Sales Index also picked up

The Volume of Net Sales Index (VoNSI), likewise, expanded as it posted a year-on-year increase of 17.5 percent in March 2021, from a negative annual growth rate of -12.8 percent in the previous month. In March 2020, the annual decrease of VoNSI was recorded at -21.9 percent. *(Table A and 4).*

The increase in VoNSI was brought about by the positive growth rates of 18 industry divisions, 17 of which posted double-digit annual growth rates led by **manufacture of wood, bamboo, cane, rattan articles and related products** at 86.2%. On the other hand, four (4) industry divisions recorded decrements with **manufacture of basic pharmaceutical products and pharmaceutical preparations** registering the fastest annual decline of -17.8 percent. *(Tables 2-B and 4)*



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



p – preliminary, r- revised

Source: Philippine Statistics Authority

## CAPACITY UTILIZATION

### Average capacity utilization rate for manufacturing slightly increased

Based on responding establishments, the average capacity utilization rate for the manufacturing sector in March 2021 slightly rose to 61.0 percent, from 60.4 percent in the previous month.

Seventeen (17) of the 22 industry divisions had at least 50 percent average capacity utilization rate, which was led by **manufacture of furniture** (80.0%), **other manufacturing and repair and installation of machinery and equipment** (73.5%), and **manufacture of electrical equipment** (72.5%). (Table 6)

### About one-fifth of responding establishments operated at full capacity

The proportion of establishments that operated at full capacity (90% to 100%) was about one-fifth (18.8%) of the total number of responding establishments. Meanwhile, 35.4 percent operated at 70 to 89 percent capacity, while 45.8 percent operated below 70 percent capacity. (Table B)

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

<b>Capacity Utilization</b>	<b>Number of Responding Establishments</b>	<b>Percent Share to Responding Establishments</b>
TOTAL	420	100.0
Below 50%	114	27.3
50% - 59%	38	9.0
60% - 69%	40	9.5
70% - 79%	66	15.7
80% - 89%	83	19.7
90% - 100%	79	18.8

p – preliminary

Details may not add-up to totals due to rounding

Notes:

- 1) Results are based on the responses of establishments which were in operation during the reference month.
- 2) There were 28 establishments which responded but were not included in the tabulation as they temporarily or permanently ceased their business operations.

Source: Philippine Statistics Authority

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

INDUSTRY DIVISION	March 2021 <sup>p</sup>	February 2021 <sup>r</sup>
<b>Gainers</b>		
Manufacture of transport equipment	23.0	-11.7
Manufacture of other non-metallic mineral products	44.0	-6.1
Manufacture of fabricated metal products, except machinery and equipment	84.9	25.9
Manufacture of rubber and plastic products	39.0	-15.4
Manufacture of electrical equipment	33.6	0.5
Manufacture of basic metals	15.6	-6.9
Manufacture of beverages	9.2	-15.4
Manufacture of paper and paper products	25.6	-8.4
Manufacture of food products	2.0	-12.0
Manufacture of chemical and chemical products	5.7	-11.0
Manufacture of leather and related products, including footwear	51.0	-20.5
Manufacture of computer, electronic, and optical products	1.8	-16.2
Printing and reproduction of recorded media	51.1	-16.0
Other manufacturing and repair and installation of machinery and equipment	15.0	-19.3
Manufacture of wood, bamboo, cane, rattan articles and related products	14.1	13.7
Manufacture of furniture	23.9	-24.7
Manufacture of wearing apparel	8.7	-28.2
<b>Losers</b>		
Manufacture of coke and refined petroleum products	-97.3	-88.6
Manufacture of machinery and equipment except electrical	-39.3	-54.1
Manufacture of tobacco products	-45.4	-64.4
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-28.0	-25.4
Manufacture of textiles	-1.3	-27.1

p - preliminary, r- revised

Source: Philippine Statistics Authority

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

INDUSTRY DIVISION	March 2021 <sup>P</sup>	February 2021 <sup>r</sup>
<b>Gainers</b>		
Manufacture of computer, electronic, and optical products	23.0	-1.5
Manufacture of transport equipment	22.2	-11.2
Manufacture of other non-metallic mineral products	47.1	-3.8
Manufacture of fabricated metal products, except machinery and equipment	85.8	27.0
Manufacture of rubber and plastic products	36.7	-15.8
Manufacture of electrical equipment	35.3	1.9
Manufacture of basic metals	12.9	-7.5
Manufacture of paper and paper products	32.3	-3.6
Manufacture of beverages	7.5	-17.7
Manufacture of chemical and chemical products	7.4	-11.3
Manufacture of leather and related products, including footwear	52.7	-18.4
Other manufacturing and repair and installation of machinery and equipment	20.8	-17.2
Printing and reproduction of recorded media	51.1	-15.6
Manufacture of wood, bamboo, cane, rattan articles and related products	18.1	17.5
Manufacture of wearing apparel	15.0	-23.8
Manufacture of furniture	28.8	-21.1
Manufacture of food products	0.4	-13.7
<b>Losers</b>		
Manufacture of coke and refined petroleum products	-97.4	-84.4
Manufacture of machinery and equipment except electrical	-37.7	-51.9
Manufacture of tobacco products	-44.5	-63.8
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-25.6	-25.2
Manufacture of textiles	-0.6	-26.4

p - preliminary, r- revised

Source: Philippine Statistics Authority

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

INDUSTRY DIVISION	March 2021 <sup>P</sup>	February 2021
<b>Gainers</b>		
Manufacture of food products	12.4	2.0 <sup>r</sup>
Manufacture of chemical and chemical products	34.1	9.0 <sup>r</sup>
Manufacture of transport equipment	19.3	-11.8 <sup>r</sup>
Manufacture of other non-metallic mineral products	47.3	-13.7 <sup>r</sup>
Manufacture of basic metals	29.9	3.8 <sup>r</sup>
Manufacture of beverages	21.8	-24.2 <sup>r</sup>
Manufacture of electrical equipment	43.9	-8.8 <sup>r</sup>
Manufacture of computer, electronic, and optical products	6.0	-31.5 <sup>r</sup>
Manufacture of rubber and plastic products	24.3	-4.9 <sup>r</sup>
Manufacture of paper and paper products	38.1	-2.3
Manufacture of wood, bamboo, cane, rattan articles and related products	79.9	21.3 <sup>r</sup>
Manufacture of fabricated metal products, except machinery and equipment	20.3	-7.5 <sup>r</sup>
Printing and reproduction of recorded media	42.1	-1.7 <sup>r</sup>
Manufacture of furniture	32.1	-11.3 <sup>r</sup>
Manufacture of leather and related products, including footwear	20.1	-15.8 <sup>r</sup>
Other manufacturing and repair and installation of machinery and equipment	5.5	-15.2 <sup>r</sup>
Manufacture of textiles	9.6	-22.7 <sup>r</sup>
Manufacture of machinery and equipment except electrical	0.1	-53.7
<b>Losers</b>		
Manufacture of coke and refined petroleum products	-13.3	-35.7 <sup>r</sup>
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-20.6	-16.6 <sup>r</sup>
Manufacture of tobacco products	-7.2	-27.6 <sup>r</sup>
Manufacture of wearing apparel	-6.6	-19.4 <sup>r</sup>

p - preliminary, r- revised

Source: Philippine Statistics Authority

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

INDUSTRY DIVISION	March 2021 <sup>P</sup>	February 2021 <sup>r</sup>
<b>Gainers</b>		
Manufacture of computer, electronic, and optical products	28.0	-19.6
Manufacture of chemical and chemical products	36.2	8.7
Manufacture of other non-metallic mineral products	50.5	-11.5
Manufacture of food products	10.6	<u>1/</u>
Manufacture of transport equipment	18.5	-11.2
Manufacture of basic metals	26.9	3.1
Manufacture of electrical equipment	45.8	-7.5
Manufacture of beverages	19.9	-26.2
Manufacture of paper and paper products	45.4	2.9
Manufacture of wood, bamboo, cane, rattan articles and related products	86.2	25.4
Manufacture of rubber and plastic products	22.3	-5.3
Manufacture of fabricated metal products, except machinery and equipment	20.8	-6.7
Printing and reproduction of recorded media	42.1	-1.2
Manufacture of furniture	37.2	-7.0
Other manufacturing and repair and installation of machinery and equipment	10.9	-13.0
Manufacture of leather and related products, including footwear	21.4	-13.6
Manufacture of machinery and equipment except electrical	2.9	-51.5
Manufacture of textiles	10.4	-22.0
<b>Losers</b>		
Manufacture of coke and refined petroleum products	-15.8	-11.5
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-17.8	-16.4
Manufacture of tobacco products	-5.6	-26.4
Manufacture of wearing apparel	-1.2	-14.4

p - preliminary, r- revised

1/- Less than 0.05 percent increase

Source: Philippine Statistics Authority



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*Attachments:*

1. *Table 1. Value of Production Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020<sup>r</sup> – March 2021<sup>P</sup>*
2. *Table 2. Volume of Production Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020<sup>r</sup> – March 2021<sup>P</sup>*
3. *Table 3. Value of Net Sales Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020<sup>r</sup> – March 2021<sup>P</sup>*
4. *Table 4. Volume of Net Sales Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020<sup>r</sup> – March 2021<sup>P</sup>*
5. *Table 5. Producer Price Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020<sup>r</sup> – March 2021<sup>P</sup>*
6. *Table 6. Average Capacity Utilization Rate by Industry Division: MISSI, January 2020 – March 2021<sup>P</sup>*
7. *Table 7. Distribution of Samples and Responding Establishments by Industry Division: MISSI, February 2021<sup>r</sup> and March 2021<sup>P</sup>*
8. *Table 8. Distribution of Samples and Responding Establishments by Industry Division: PPS, February 2021<sup>r</sup> and March 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 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 (ASPBI) will be used to update the weights annually until the next rebasing.

Another changes is 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 CPBI for the base year and the 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 one (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 one (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  $m$
- $n_{tijm}$  = 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 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 no response during the release date. Results are revised accordingly when the actual data are received and 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.

<b>2009 PSIC CODE</b>	<b>INDUSTRY DESCRIPTION</b>
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*

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

\* Industry divisions categorized further into industry groups