



# PRESS RELEASE

## PRODUCTION INDEX AND NET SALES INDEX (Monthly Integrated Survey of Selected Industries) October 2020

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Table A. Year-on-Year Growth Rates of Production Index, Net Sales Index, and Producer Price Index for Total Manufacturing (2000=100): October 2020<sup>p</sup>, September 2020<sup>r</sup>, and October 2019 (in Percent)

TOTAL MANUFACTURING	OCTOBER 2020 <sup>p</sup>	SEPTEMBER 2020 <sup>r</sup>	OCTOBER 2019
<b>Production Index (2000=100)</b>			
Value (VaPI)	-14.2	-12.4	-5.8
Volume (VoPI)	-11.3	-8.6	-5.0
<b>Net Sales Index (2000=100)</b>			
Value (VaNSI)	-12.9	-7.6	-2.7
Volume (VoNSI)	-9.9	-3.5	-1.8
<b>Producer Price Index (2000=100)</b>	-3.3	-4.2	-0.9

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



## PRODUCTION

### Value of Production Index continued to decline

The Value of Production Index (VaPI) for manufacturing continued to decline at an annual rate of -14.2 percent in October 2020. This was faster than the annual growth rate of VaPI at -12.4 percent in the previous month. The October 2020 figure was the eighth consecutive month that VaPI posted a negative growth rate. Furthermore, in October 2019, VaPI contracted by -5.8 percent annually. (*Table A*)

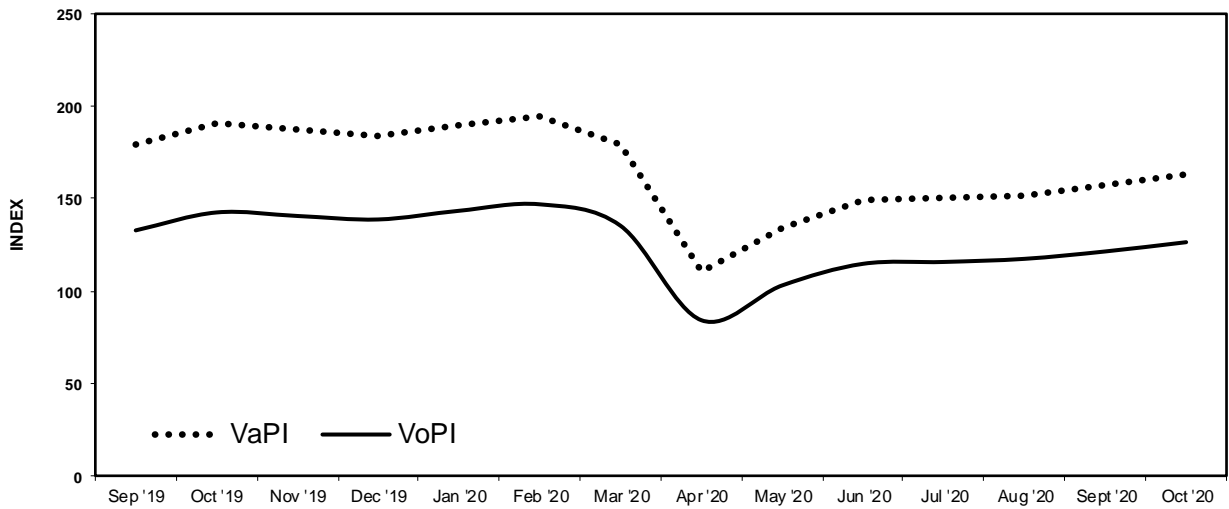
Pushing down the VaPI in October 2020 were the decreases in the indices of 15 industry groups. Among these, the top three industry groups with negative growth rates were **petroleum products** (-99.2%), **printing** (-52.8%), and **footwear and wearing apparel** (-49.2%). (*Tables 1-A and 1*)

### Volume of Production Index likewise dropped

The Volume of Production Index (VoPI) likewise posted a downturn with an annual rate of -11.3 percent in October 2020. This contraction was also faster than the reported decrease in the previous month of -8.6 percent and the annual decline in October 2019 of -5.0 percent. (*Table A*)

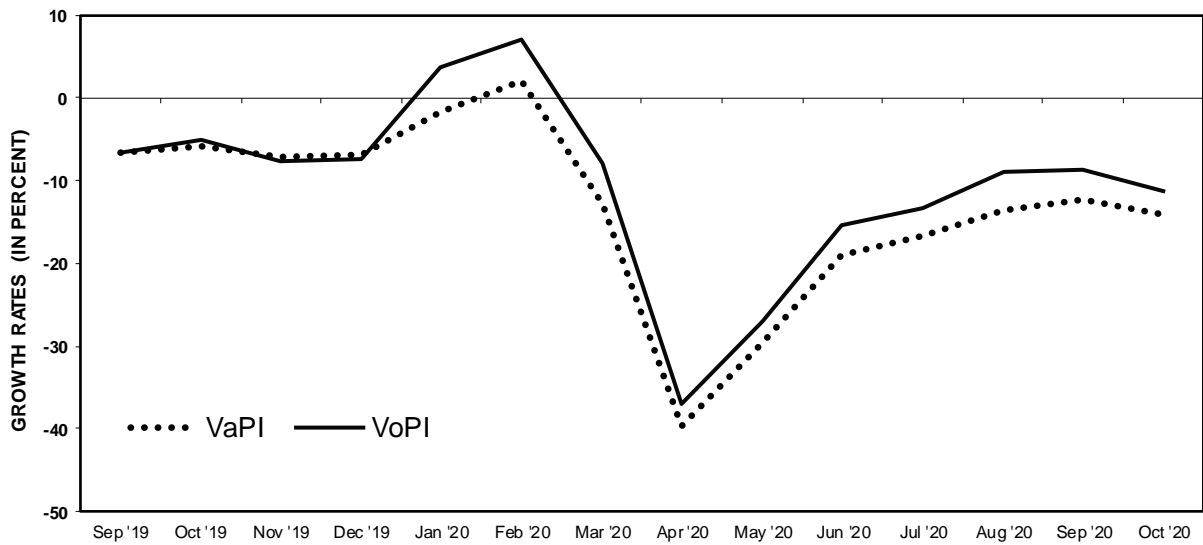
Contributory to the faster decline of VoPI for manufacturing sector in October 2020 were the reductions in the indices of 15 industry groups. The industry groups that led the contraction of VoPI were **petroleum products** (-99.1%), **printing** (-53.4%), and **tobacco products** (-48.7%). (*Tables 1-B and 2*)

Figure 1. Value and Volume of Production Index for Total Manufacturing September 2019 - October 2020<sup>p</sup> (2000 = 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) September 2019 - October 2020<sup>p</sup> (2000 = 100)



p - preliminary  
Source: Philippine Statistics Authority

## NET SALES

### Value of Net Sales Index remained at downtrend

The Value of Net Sales Index (VaNSI) for manufacturing sector still posted a declining trend with an annual rate of -12.9 percent in October 2020, from a negative growth rate of -7.6 percent in the previous month. In October of the previous year, year-on-year decline was -2.7 percent. *(Table A)*

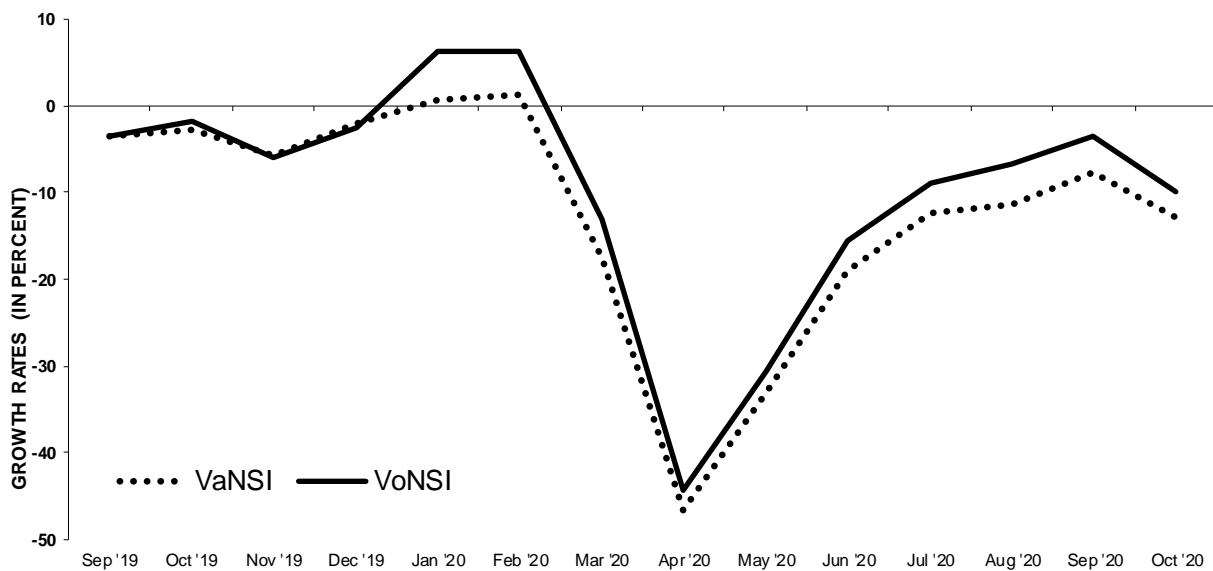
The decline of VaNSI in October 2020 was due to the decreases in the indices of 16 industry groups, led by **petroleum products** (-46.0%), **non-metallic mineral products** (-39.2%), **footwear and wearing apparel** (-38.7%), **rubber and plastic products** (-36.6%), and **machinery except electrical** (-31.2%). *(Tables 2-A and 3)*

### Volume of Net Sales Index also decreased

The Volume of Net Sales Index (VoNSI) also continued to exhibit a downtrend at an annual rate of -9.9 percent in October 2020. In the previous month, the annual decrease was lower at -3.5 percent. In October 2019, VoNSI dropped by -1.8 percent. *(Table A)*

The downturn was brought about by the contractions in the indices of 15 industry groups. Among these, the top three industry groups with two-digit negative growth rates were **petroleum products** (-40.8%), **non-metallic mineral products** (-37.9%), and **footwear and wearing apparel** (-37.4%). *(Tables 2-B and 4)*

Figure 3. Year-on-Year Changes in Net Sales (in percent):  
September 2019 - October 2020<sup>p</sup> (2000 = 100)



p - preliminary

Source: Philippine Statistics Authority

## CAPACITY UTILIZATION

### Average capacity utilization rate for manufacturing decreased

Based on responding establishments, the average capacity utilization rate for the manufacturing sector in October 2020 was posted at 67.2 percent from 69.2 percent in the previous month.

Seven of the 20 industry groups had at least 80 percent average capacity utilization rate which was led by **machinery except electrical** (91.3%), followed by **electrical machinery** (87.4%), and **non-metallic mineral products** (86.0%). (*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 21.6 percent of the total number of responding establishments. More than forty percent (41.1%) operated at 70 to 89 percent capacity, while less than forty percent (37.3%) operated below 70 percent capacity. (*Table B*)

**Table B. Distribution of Responding Establishments  
by Capacity Utilization for Total Manufacturing: October 2020<sup>P</sup>**

<b>Capacity Utilization</b>	<b>Number of Responding Establishments</b>	<b>Percent Share to Responding Establishments</b>
TOTAL	348	100.0
Below 50%	64	18.4
50% - 59%	29	8.3
60% - 69%	37	10.6
70% - 79%	70	20.1
80% - 89%	73	21.0
90% - 100%	75	21.6

p – preliminary

Details may not sum 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 21 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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*Attachments:*

1. *Table 1. Value of Production Index (2000=100) Year-on-Year Growth Rates for Manufacturing Sector, January 2019 – October 2020<sup>P</sup>*
2. *Table 2. Volume of Production Index (2000=100) Year-on-Year Growth Rates for Manufacturing Sector, January 2019 – October 2020<sup>P</sup>*
3. *Table 3. Value of Net Sales Index (2000=100) Year-on-Year Growth Rates for Manufacturing Sector, January 2019 – October 2020<sup>P</sup>*
4. *Table 4. Volume of Net Sales Index (2000=100) Year-on-Year Growth Rates for Manufacturing Sector, January 2019 – October 2020<sup>P</sup>*
5. *Table 5. Producer Price Index (2000=100) Year-on-Year and Month-on-Month Growth Rates for Manufacturing Sector, January 2019 – October 2020<sup>P</sup>*
6. *Table 6. Average Capacity Utilization Rate by Major Industry Group: MISSI, October 2019 - October 2020<sup>P</sup>*
7. *Table 7. Distribution of Samples and Responding Establishments by Major Industry Group: MISSI, September 2020 and October 2020<sup>P</sup>*
8. *Table 8. Distribution of Samples and Responding Establishments by Major Industry Group: PPS, September 2020 and October 2020<sup>P</sup>*
9. *Technical Notes*

TABLE 1-A. Year-on-Year Growth Rate (%) of Value of Production Index  
by Industry Group: September and October 2020  
(2000 = 100)

INDUSTRY GROUP	October 2020 <sup>p</sup>	September 2020 <sup>r</sup>
<b>Gainers</b>		
Basic metals	20.3	17.1
Food manufacturing	4.3	5.5
Chemical products	6.0	6.4
Miscellaneous manufactures	3.3	4.9
Electrical machinery	0.2	-10.2
<b>Losers</b>		
Petroleum products	-99.2	-98.8
Machinery except electrical	-46.2	-37.2
Footwear and wearing apparel	-49.2	-40.9
Transport equipment	-31.1	-35.2
Tobacco products	-46.8	-46.0
Non-metallic mineral products	-25.6	-21.9
Printing	-52.8	-33.2
Textiles	-26.6	-24.3
Rubber and plastic products	-15.7	-12.4
Beverages	-7.7	-3.7
Fabricated metal products	-23.1	-20.4
Paper and paper products	-15.3	-10.5
Leather products	-43.4	-45.2
Furniture and fixtures	-9.0	-29.8
Wood and wood products	-9.8	-6.0

p - preliminary, r - revised

Source: Philippine Statistics Authority

TABLE 1-B. Year-on-Year Growth Rate (%) of Volume of Production  
Index by Industry Group  
September and October 2020  
(2000 = 100)

INDUSTRY GROUP	October 2020 <sup>p</sup>	September 2020
<b>Gainers</b>		
Basic metals	22.2	19.4 <sup>r</sup>
Chemical products	11.0	9.1 <sup>r</sup>
Electrical machinery	3.5	-6.8
Food manufacturing	2.9	4.7 <sup>r</sup>
Miscellaneous manufactures	6.3	8.2 <sup>r</sup>
<b>Losers</b>		
Petroleum products	-99.1	-98.7 <sup>r</sup>
Machinery except electrical	-42.9	-32.3 <sup>r</sup>
Footwear and wearing apparel	-48.2	-38.8 <sup>r</sup>
Transport equipment	-27.0	-29.8 <sup>r</sup>
Tobacco products	-48.7	-47.9 <sup>r</sup>
Non-metallic mineral products	-24.1	-19.8 <sup>r</sup>
Printing	-53.4	-34.1 <sup>r</sup>
Beverages	-12.2	-8.3 <sup>r</sup>
Textiles	-26.1	-23.6 <sup>r</sup>
Fabricated metal products	-24.6	-21.5 <sup>r</sup>
Rubber and plastic products	-7.9	-4.3 <sup>r</sup>
Furniture and fixtures	-23.0	-40.1 <sup>r</sup>
Paper and paper products	-6.0	2.3 <sup>r</sup>
Leather products	-43.5	-40.8 <sup>r</sup>
Wood and wood products	-3.3	1.9 <sup>r</sup>

p - preliminary, r - revised

Source: Philippine Statistics Authority



TABLE 2-A. Year-on-Year Growth Rate (%) of Value of Net Sales Index  
by Industry Group: September and October 2020  
(2000 = 100)

INDUSTRY GROUP	October 2020 <sup>p</sup>	September 2020 <sup>r</sup>
<b>Gainers</b>		
Food manufacturing	7.2	20.3
Basic metals	9.7	15.7
Tobacco products	15.2	40.0
Chemical products	3.2	0.6
<b>Losers</b>		
Petroleum products	-46.0	-37.3
Machinery except electrical	-31.2	-22.2
Electrical machinery	-10.6	-15.1
Non-metallic mineral products	-39.2	-35.5
Footwear and wearing apparel	-38.7	-31.0
Transport equipment	-23.0	-24.5
Beverages	-9.1	4.1
Rubber and plastic products	-36.6	-28.2
Printing	-24.4	-6.4
Textiles	-14.3	-13.8
Paper and paper products	-11.5	-16.9
Fabricated metal products	-14.0	-15.5
Furniture and fixtures	-8.2	-11.8
Leather products	-21.5	-14.4
Wood and wood products	-8.2	-4.7
Miscellaneous manufactures	-2.1	3.8

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

TABLE 2-B. Year-on-Year Growth Rate (%) of Volume of Net Sales  
Index by Industry Group: September and October 2020  
(2000 = 100)

INDUSTRY GROUP	October 2020 <sup>p</sup>	September 2020
<b>Gainers</b>		
Food manufacturing	5.8	19.4 <sup>r</sup>
Chemical products	8.0	3.1 <sup>r</sup>
Basic metals	11.5	18.0 <sup>r</sup>
Tobacco products	10.9	35.0
Miscellaneous manufactures	0.7	7.1 <sup>r</sup>
<b>Losers</b>		
Petroleum products	-40.8	-28.7 <sup>r</sup>
Machinery except electrical	-27.0	-16.2 <sup>r</sup>
Electrical machinery	-7.7	-11.9 <sup>r</sup>
Non-metallic mineral products	-37.9	-33.8 <sup>r</sup>
Footwear and wearing apparel	-37.4	-28.6 <sup>r</sup>
Transport equipment	-18.4	-18.2 <sup>r</sup>
Beverages	-13.6	-0.9 <sup>r</sup>
Rubber and plastic products	-30.8	-21.5 <sup>r</sup>
Printing	-25.4	-7.6 <sup>r</sup>
Textiles	-13.8	-13.0 <sup>r</sup>
Fabricated metal products	-15.6	-16.7 <sup>r</sup>
Furniture and fixtures	-22.4	-24.8 <sup>r</sup>
Leather products	-22.0	-7.6 <sup>r</sup>
Paper and paper products	-1.8	-5.1 <sup>r</sup>
Wood and wood products	-1.6	3.3 <sup>r</sup>

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

## **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 2020 MISSI at the 3/4-digit 2009 Philippine Standard Industrial Classification (PSIC) level are Value of Production Index (VaPI), Volume of Production Index (VoPI), Value of Net Sales Index (VaNSI), Volume of Net Sales Index (VoNSI) and capacity utilization of industries. The VoPI and VoNSI, however, are derived indicators using the 2020 Producer Price Index (PPI) as deflator.

### **II. Method of Index Computation**

The MISSI utilizes the Laspeyres-type method of index computation where the weights are based on the value of production from the Census of Philippine Business and Industry (CPBI).

For the 2020 MISSI index series with base year of 2000, the weights of the major industries and sub-industries are based on the results of the 2000 CPBI for manufacturing establishments with average total employment of 20 and over. The weights are computed from the value of products sold plus change in inventories.

The formula in the computation of indices and growth rates are as follows:

## 1. Value of Production Index (VaPI)

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

#### i. Initial Index

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

where:

- $VaPI_{ijm}$  = VaPI for the  $i^{th}$  industry class of the  $j^{th}$  industry group at the current month  $m$
- $V_{ijm}$  = total value of production for all sample establishments in the  $i^{th}$  industry class of the  $j^{th}$  industry group at the current month  $m$
- $V_{ij0}$  = average monthly value of production at base year 0

#### ii. Monthly Index

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

where:

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

## b. Computation of Index for Industry Group Level

$$VaPI_{jm} = \sum_{i=1}^n W_{ij} \times VaPI_{ijm}$$

where:

$VaPI_{jm}$  = VaPI for  $j^{th}$  industry group at current month  $m$

$VaPI_{ijm}$  = VaPI for the  $i^{th}$  industry class of the  $j^{th}$  industry group at the current month  $m$

$W_{ij}$  = Weight for the  $i^{th}$  industry class of the  $j^{th}$  industry group

$n$  = Number of industry class in the  $j^{th}$  industry group

Same formula for industry groups without industry class

## c. Computation of Index for Total Manufacturing

$$VaPI_m = \sum_{j=1}^p W_j \times VaPI_{jm}$$

where:

$VaPI_m$  = VaPI for the current month  $m$

$VaPI_{jm}$  = VaPI for  $j^{th}$  industry group (2/3-digit) at current month  $m$

$W_j$  = Weight for the  $j^{th}$  industry group

$p$  = Number of industry groups = 20

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

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

### 3. Volume of Production Index (VoPI)

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

$$\text{VoPI}_{ijm} = \frac{\text{VaPI}_{ijm}}{\text{PPI}_{ijm}}$$

where:

$\text{VoPI}_{ijm}$  = VoPI for the  $i^{\text{th}}$  industry class of the  $j^{\text{th}}$  industry group at the current month  $m$

$\text{VaPI}_{ijm}$  = VaPI for the  $i^{\text{th}}$  industry class of the  $j^{\text{th}}$  industry group at the current month  $m$

$\text{PPI}_{ijm}$  = PPI for the  $i^{\text{th}}$  industry class of the  $j^{\text{th}}$  industry group at the current month  $m$

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

$$\text{VoPI}_{jm} = \frac{\text{VaPI}_{jm}}{\text{PPI}_{jm}}$$

where:

$\text{VoPI}_{jm}$  = VoPI for the  $j^{\text{th}}$  industry group at the current month  $m$

$\text{VaPI}_{jm}$  = VaPI for the  $j^{\text{th}}$  industry group at the current month  $m$

$\text{PPI}_{jm}$  = PPI for the  $j^{\text{th}}$  industry group at the current month  $m$

#### c. Computation of Index for Total Manufacturing (1-digit PSIC)

$$\text{VoPI}_m = \frac{\text{VaPI}_m}{\text{PPI}_m}$$

where:

$\text{VoPI}_m$  = VoPI for total manufacturing at the current month  $m$

$\text{VaPI}_m$  = VaPI for total manufacturing at the current month  $m$

$\text{PPI}_m$  = PPI for total manufacturing at the current month  $m$

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

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

#### 5. Capacity Utilization Rate

Capacity Utilization Rate is the ratio of total output to the maximum rated capacity of the establishment. Rated Capacity refers to the largest volume of output possible at which the factory can operate with an acceptable degree of efficiency taking into consideration unavoidable losses of productive time (i.e., vacation, holiday, and repair of equipment) and availability of raw materials.

The formulas in obtaining the Average Capacity Utilization Rate are the following:

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

$$\text{AveCU}_m = \sum_{k=1}^n \left( \text{CU}_{ikjm} \times \frac{\text{Prod}_{kijm}}{\text{Prod}_{ijm}} \right)$$

where:

$\text{AveCU}_{ijm}$  = Average capacity utilization rate for the  $i$ th industry class in the  $j^{\text{th}}$  industry group at the current month  $m$

$\text{CU}_{kijm}$  = Midpoint of the capacity utilization range reported by the  $k^{\text{th}}$  sample establishment in the  $i$ th industry class of the  $j^{\text{th}}$  industry group at the current month  $m$

$\text{Prod}_{kijm}$  = Value of production for the  $k^{\text{th}}$  sample establishment in the  $i$ th industry class for the  $j^{\text{th}}$  industry group at the current month  $m$

$\text{Prod}_{ijm}$  = Total value of production for the  $i$ th industry class of the  $j^{\text{th}}$  industry group at the current month  $m$

## b. Computation of Index for Industry Group Level

- **With Industry Classes**

$$\text{AveCU}_{jm} = \sum_{j=1}^{20} (\text{Ave CU}_{ijm} \times W_{ij})$$

where:

- $\text{AveCU}_{jm}$  = Average capacity utilization rate of the  $j^{\text{th}}$  industry group at the current month  $m$
- $\text{AveCU}_{ijm}$  = Average capacity utilization rate of the  $i^{\text{th}}$  industry class of the  $j^{\text{th}}$  industry group at the current month  $m$
- $W_{ij}$  = Weight of the  $i^{\text{th}}$  industry class of the  $j^{\text{th}}$  industry group

- **Without Industry Classes**

$$\text{AveCU}_m = \sum_{k=1}^n \left( \text{CU}_{kjm} \times \frac{\text{Prod}_{kjm}}{\text{Prod}_{jm}} \right)$$

where:

- $\text{AveCU}_{jm}$  = Average capacity utilization rate of the  $j^{\text{th}}$  industry group at the current month  $m$
- $\text{CU}_{kjm}$  = Midpoint of the capacity utilization range reported by the  $k^{\text{th}}$  sample establishment in the  $j^{\text{th}}$  industry group at the current month  $m$
- $\text{Prod}_{kjm}$  = Value of production for the  $k^{\text{th}}$  sample establishment in the  $j^{\text{th}}$  industry group at the current month  $m$
- $\text{Prod}_{jm}$  = Value of production for the  $j^{\text{th}}$  industry group at the current month  $m$



### c. Computation of Index for Total Manufacturing

$$\text{AveCU}_m = \sum_{j=1}^{20} (\text{Ave CU}_{jm} \times W_j)$$

where:

$\text{AveCU}_m$  = Average capacity utilization rate for total manufacturing at the current month  $m$

$\text{CU}_{jm}$  = Average capacity utilization rate of the  $j^{\text{th}}$  industry group at the current month  $m$

$W_j$  = Weight of the  $j^{\text{th}}$  industry group at the current  $m$

### 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 2020 MISSI utilizes the 2009 PSIC to classify major industries and sub-industries. Twenty major industries of the 2009 PSIC were formed to comprise the industry coverage of the 2020 MISSI.

The table below presents the industry coverage of 2020 MISSI by 2009 PSIC code.

2009 PSIC CODE	INDUSTRY DESCRIPTION
C10	Food manufacturing *
C11	Beverages
C12	Tobacco products
C13	Textiles*
C14, C152	Footwear and wearing apparel
C151	Leather products
C16	Wood and wood products*
C17	Paper and paper products
C18	Printing
C19	Petroleum products*
C20,C21	Chemical products*
C22	Rubber and plastic products*
C23	Non-metallic mineral products*
C24	Basic metals*
C25,C3311	Fabricated metal products
C262,C275,C28, C263,C268,C3312,C332	Machinery except electrical*
C261,C264,C27, C29301,C3314,C332	Electrical machinery*
C29 except C29301, C30,C3315	Transport equipment
C31	Furniture and fixtures
C265,C266,C267,C32, C3313,C3319	Miscellaneous manufactures

\* Industry groups categorized into industry classes