



PRESS RELEASE

PRODUCTION INDEX AND NET SALES INDEX (Monthly Integrated Survey of Selected Industries) August 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): August 2020^p, July 2020^r, and August 2019 (in Percent)

TOTAL MANUFACTURING	AUGUST 2020 ^p	JULY 2020 ^r	AUGUST 2019
Production Index (2000=100)			
Value (VaPI)	-13.8	-17.2	-11.2
Volume (VoPI)	-9.9	-14.6	-12.5
Net Sales Index (2000=100)			
Value (VaNSI)	-12.5	-14.9	-5.3
Volume (VoNSI)	-8.5	-12.2	-6.7
Producer Price Index (2000=100)	-4.4	-3.0	1.5

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



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PRODUCTION

Value of Production Index continued to decline

The Value of Production Index (VaPI) for Manufacturing continued to drop at an annual rate of -13.8 percent in August 2020. This decline, however, was slower than the reported annual decrease of -17.2 percent in the previous month. The August 2020 figure was the sixth consecutive month that VaPI had a negative growth and the fourth straight month that it was declining at a slower rate. In August 2019, VaPI dropped at a slower rate of -11.2 percent. (*Table A*)

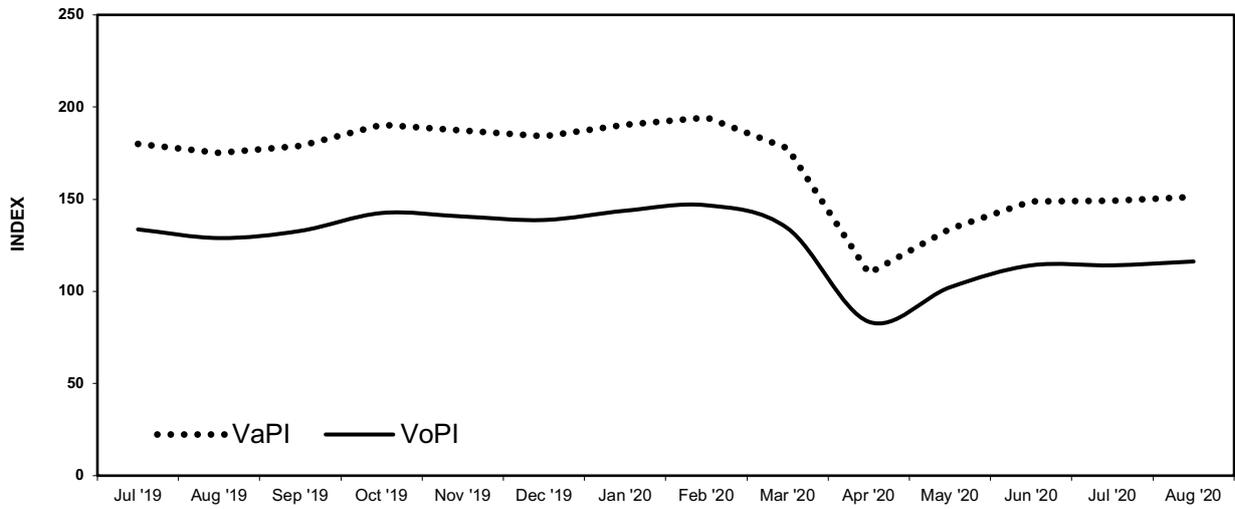
Contributory to the slower decline of VaPI in August 2020 were seen in **chemical products** and **basic metals** with annual increases of 11.4 percent and 0.1 percent, respectively. Also, the slower drop in the indices of nine industry groups triggered the narrower rate of decrease of VaPI for the manufacturing sector. (*Tables 1-A, and 1*)

Volume of Production Index posted a slower negative rate

The Volume of Production Index (VoPI) for manufacturing sector in August 2020 likewise contracted at a slower rate of -9.9 percent compared with the -14.6 percent decrease in July 2020. In August of the previous year, year-on-year decline was -12.5 percent. (*Table A*)

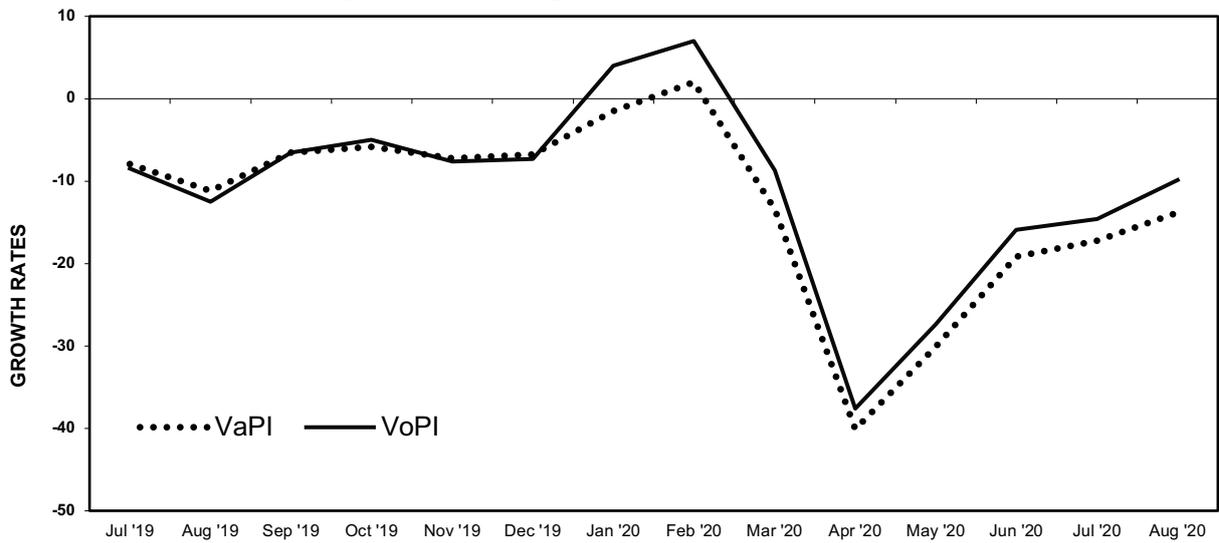
The slower downtrend in the VoPI for the sector was influenced by the increases in the indices of two heavily weighted industry groups, namely, **chemical products** (17.1%), and **basic metals** (3.9%). Contributing further to the slower drop in August 2020 for the sector was the slower decreases in the indices of nine industry groups. (*Tables 1-B, and 2*)

Figure 1. Value and Volume of Production Index for Total Manufacturing July 2019 - August 2020^p (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 July 2019 - August 2020^p (2000 = 100)



p - preliminary
Source: Philippine Statistics Authority

NET SALES

Value of Net Sales Index posted two-digit negative growth rates

The Value of Net Sales Index (VaNSI) also continued to exhibit a downtrend at an annual rate of -12.5 percent in August 2020, from a faster decline of -14.9 percent in the previous month. The decline of VaNSI in August 2020 was the seventh consecutive month of contraction. In August 2019, VaNSI dropped by -5.3 percent. (*Table A*)

Of the 20 industry groups, positive growths were observed in three industry groups, namely, **tobacco products** (35.0%), **chemical products** (17.5%) and **food manufacturing** (13.6%) in August 2020.

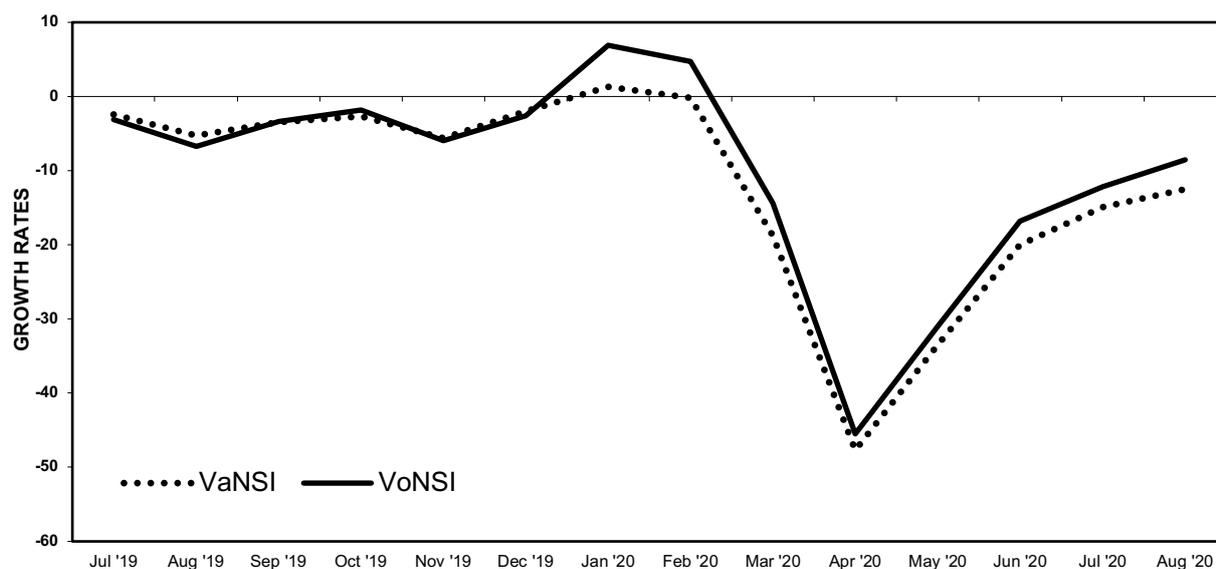
Contributing further to the narrower decline in VaNSI for manufacturing sector in August 2020 were the slower annual decreases in the indices of five industry groups. Of the five, three were heavily weighted industry groups. (*Tables 2-A, and 3*)

Volume of Net Sales Index dropped at slower pace

The Volume of Net Sales Index (VoNSI) posted an annual decrement of -8.5 percent in August 2020 compared with the faster drop of -12.2 percent in the previous month. In August 2019, the annual decrease was observed at -6.7 percent. (*Table A*)

The major contributory to the slower decline in VoNSI for manufacturing sector in August 2020 were the two-digit expansions observed in **tobacco products**, **chemical products** and **food manufacturing** with annual increases of 30.3 percent, 23.4 percent and 12.5 percent, respectively. The slower drop in the indices of five industry groups also tapered off the rate of decline in the index for the sector. (*Tables 2-B and 4*)

Figure 3. Year-on-Year Changes in Net Sales:
July 2019 - August 2020^p (2000 = 100)



p - preliminary

Source: Philippine Statistics Authority

CAPACITY UTILIZATION

Average capacity utilization rate for manufacturing slightly decreased

Based on responding establishments with responses on capacity utilization, average capacity utilization rate for manufacturing sector in August 2020 slightly decreased to 65.3 percent from 66.9 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** (87.9%), followed by **rubber and plastic products** (84.7%), and **printing** (84.4%). (*Table 6*)

Almost one-fifth of responding establishments operated at full capacity

The proportion of establishments that operated at full capacity (90% to 100%) was 17.4 percent of the total number of responding establishments with responses on capacity utilization. More than two-fifths (44.3%) operated at 70 to 89 percent capacity, and more than one-third (38.4%) operated below 70 percent capacity. (*Table B*)

Table B. Distribution of Responding Establishments by Capacity Utilization for Total Manufacturing: August 2020^P

Capacity Utilization	Number of Responding Establishments	Percent Share to Responding Establishments
TOTAL	334	100.0
Below 50%	58	17.4
50% - 59%	31	9.2
60% - 69%	39	11.7
70% - 79%	78	23.3
80% - 89%	70	21.0
90% - 100%	58	17.4

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

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

INDUSTRY GROUP	August 2020 ^p	July 2020
Gainers		
Chemical products	11.4	-3.1 ^r
Basic metals	0.1	-5.8 ^r
Losers		
Petroleum products	-96.6	-89.3 ^r
Machinery except electrical	-38.5	-49.6 ^r
Electrical machinery	-20.2	-23.7 ^r
Transport equipment	-43.5	-61.1 ^r
Footwear and wearing apparel	-35.7	-39.1 ^r
Food manufacturing	-4.6	-5.5 ^r
Tobacco products	-36.6	-39.6 ^r
Non-metallic mineral products	-23.7	-20.7 ^r
Printing	-43.1	-36.4 ^r
Textiles	-25.1	-24.6 ^r
Beverages	-8.5	-17.4
Paper and paper products	-18.9	-16.0 ^r
Rubber and plastic products	-12.4	-13.2 ^r
Fabricated metal products	-15.4	-10.2 ^r
Furniture and fixtures	-27.5	-11.0 ^r
Wood and wood products	-35.8	-25.1 ^r
Leather products	-62.1	-54.1 ^r
Miscellaneous manufactures	-4.4	-4.7 ^r

p - preliminary, r - revised

Source: Philippine Statistics Authority

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

INDUSTRY GROUP	August 2020 ^p	July 2020 ^r
Gainers		
Chemical products	17.1	1.7
Basic metals	3.9	-1.5
Losers		
Petroleum products	-96.2	-88.2
Electrical machinery	-18.0	-22.7
Machinery except electrical	-34.0	-48.3
Transport equipment	-36.8	-58.1
Food manufacturing	-5.6	-5.8
Footwear and wearing apparel	-30.2	-35.6
Tobacco products	-38.7	-41.6
Non-metallic mineral products	-22.6	-19.1
Beverages	-13.0	-21.5
Printing	-42.3	-35.5
Textiles	-24.2	-24.1
Furniture and fixtures	-37.8	-25.5
Rubber and plastic products	-10.2	-11.4
Fabricated metal products	-15.4	-11.0
Paper and paper products	-9.8	-5.5
Wood and wood products	-31.3	-21.0
Leather products	-60.3	-49.6
Miscellaneous manufactures	-0.5	-3.4

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: July and August 2020
(2000 =100)

INDUSTRY GROUP	August 2020 ^p	July 2020
Gainers		
Food manufacturing	13.6	7.8 ^r
Chemical products	17.5	9.8 ^r
Tobacco products	35.0	23.7
Losers		
Petroleum products	-53.8	-47.7 ^r
Electrical machinery	-14.5	-15.0 ^r
Machinery except electrical	-25.4	-30.0 ^r
Footwear and wearing apparel	-39.8	-27.0 ^r
Transport equipment	-24.5	-40.6 ^r
Non-metallic mineral products	-33.8	-29.3 ^r
Beverages	-19.9	-18.9 ^r
Basic metals	-10.9	-12.2 ^r
Paper and paper products	-22.4	-18.7 ^r
Textiles	-20.1	-24.4 ^r
Rubber and plastic products	-27.6	-20.3 ^r
Furniture and fixtures	-39.1	-28.3 ^r
Miscellaneous manufactures	-10.6	-8.2 ^r
Fabricated metal products	-14.0	-3.8 ^r
Printing	-16.7	-14.3 ^r
Leather products	-37.0	-19.4 ^r
Wood and wood products	-15.2	13.8 ^r

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: July and August 2020
(2000 = 100)

INDUSTRY GROUP	August 2020 ^p	July 2020 ^r
Gainers		
Food manufacturing	12.5	7.5
Chemical products	23.4	15.2
Tobacco products	30.3	19.6
Losers		
Petroleum products	-49.0	-42.8
Electrical machinery	-12.1	-13.9
Machinery except electrical	-19.9	-28.2
Beverages	-23.8	-22.9
Footwear and wearing apparel	-34.7	-22.8
Non-metallic mineral products	-33.0	-27.9
Transport equipment	-15.5	-36.0
Furniture and fixtures	-47.7	-39.9
Textiles	-19.2	-23.9
Basic metals	-7.5	-8.2
Rubber and plastic products	-25.8	-18.6
Paper and paper products	-13.7	-8.6
Fabricated metal products	-14.0	-4.6
Printing	-15.5	-13.1
Miscellaneous manufactures	-7.0	-7.0
Leather products	-34.0	-11.7
Wood and wood products	-9.3	20.0

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 from 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 for Index for Industry Class Level

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

where:

VoPI_{ijm} = VoPI for the i^{th} industry class of the j^{th} industry group at the current month m

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

PPI_{ijm} = PPI for the i^{th} industry class of the j^{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:

VoPI_{jm} = VoPI for the j^{th} industry group at the current month m

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

PPI_{jm} = PPI for the j^{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:

VoPI_m = VoPI for total manufacturing at the current month m

VaPI_m = VaPI for total manufacturing at the current month m

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:

AveCU_{ijm} = Average capacity utilization rate for the i th industry class in the j^{th} industry group at the current month m

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

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

Prod_{ijm} = Total value of production for the i th industry class of the j^{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:

- AveCU_{jm} = Average capacity utilization rate of the j^{th} industry group at the current month m
- AveCU_{ijm} = Average capacity utilization rate of the i^{th} industry class of the j^{th} industry group at the current month m
- W_{ij} = Weight of the i^{th} industry class of the j^{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:

- AveCU_{jm} = Average capacity utilization rate of the j^{th} industry group at the current month m
- CU_{kjm} = Midpoint of the capacity utilization range reported by the k^{th} sample establishment in the j^{th} industry group at the current month m
- Prod_{kjm} = Value of production for the k^{th} sample establishment in the j^{th} industry group at the current month m
- Prod_{jm} = Value of production for the j^{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:

AveCU_m = Average capacity utilization rate for total manufacturing at the current month m

CU_{jm} = Average capacity utilization rate of the j^{th} industry group at the current month m

W_j = Weight of the j^{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