



PRESS RELEASE

**PRODUCTION INDEX AND NET SALES INDEX
(Monthly Integrated Survey of Selected Industries)
August 2022
(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): August 2021, July 2022^r, and August 2022^p (in Percent)

TOTAL MANUFACTURING	AUGUST 2021	JULY 2022^r	AUGUST 2022^p
Production Index (2018=100)			
Value (VaPI)	531.3	10.6	11.0
Volume (VoPI)	533.7	2.4	3.5
Net Sales Index (2018=100)			
Value (VaNSI)	8.4	23.2	26.0
Volume (VoNSI)	8.8	14.1	17.5
Producer Price Index (2018=100)	-0.4	8.0	7.3

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



PRODUCTION

Value of Production Index exhibited an upward trend

The Value of Production Index (VaPI) continued to register a two-digit year-on-year increment of 11.0 percent in August 2022, faster than the July 2022 annual growth of 10.6 percent. In August 2021, the VaPI accelerated with an annual growth rate of 531.3 percent. (Tables A and 1)

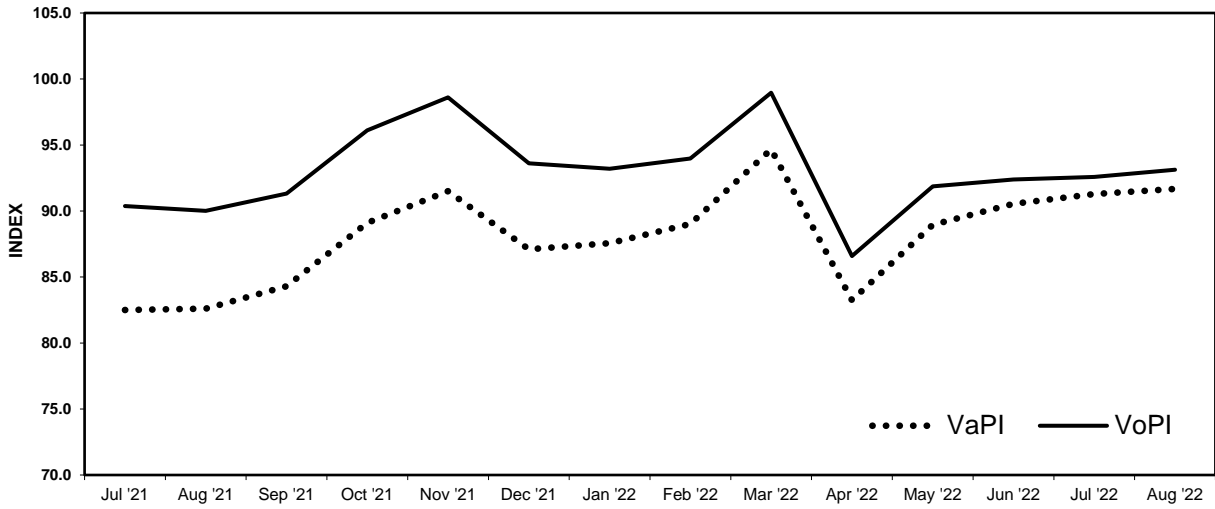
Contributory to the increase of VaPI were the annual growths exhibited by 18 out of the 22 industry divisions. Among these, **manufacture of machinery and equipment except electrical** posted the highest annual growth rate of 77.4 percent in August 2022. On the other hand, the remaining four industry divisions posted decrements in their production with **manufacture of electrical equipment** registering the fastest annual decline of -48.2 percent. (Tables B.1 and 1)

Volume of Production Index slightly grew

The Volume of Production Index (VoPI) sustained its positive annual growth of 3.5 percent in August 2022, compared with the previous month's annual rate of 2.4 percent. In August 2021, VoPI upsurged at an annual growth rate of 533.7 percent. (Tables A and 2)

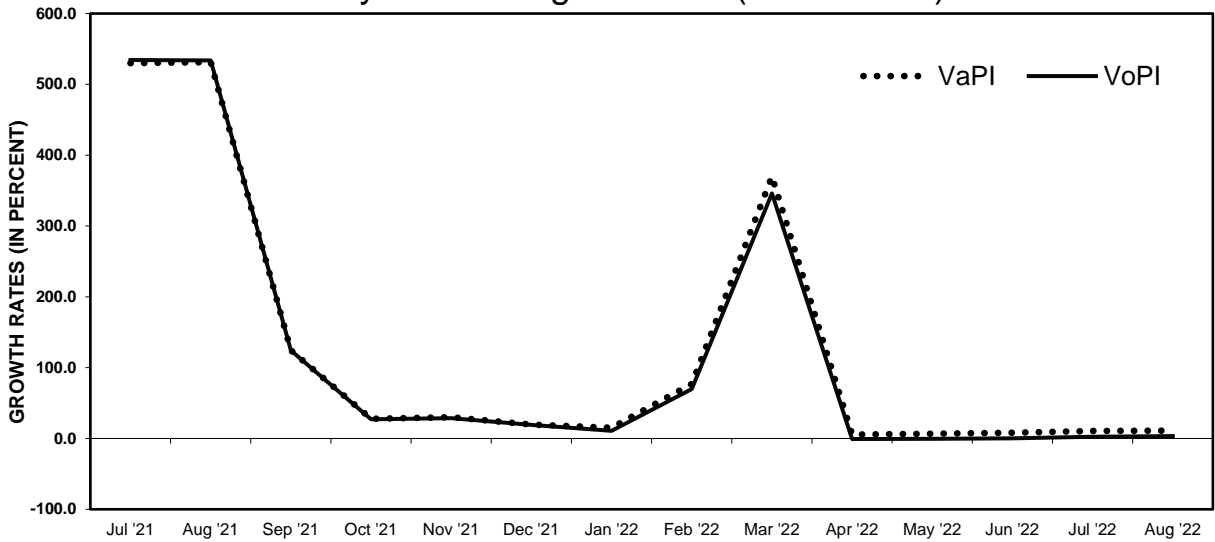
Out of the 22 industry divisions, 17 reported positive annual growths which was led by **manufacture of machinery and equipment except electrical** with 78.0 percent annual growth rate. On the contrary, five industry divisions posted annual decreases with **manufacture of electrical equipment** exhibiting the fastest annual drop of -49.3 percent. (Tables B.2 and 2)

Figure 1. Value and Volume of Production Index for Total Manufacturing July 2021 - August 2022^p (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 July 2021 - August 2022^p (2018 = 100)



p - preliminary
Source: Philippine Statistics Authority

Table B.1. Year-on-Year Growth Rate (%) of Value of Production Index
by Industry Division: July 2022^r and August 2022^p
(2018 =100)

INDUSTRY DIVISION	July 2022 ^r	August 2022 ^p
Gainers		
Manufacture of food products	18.0	18.9
Manufacture of transport equipment	22.2	31.0
Manufacture of computer, electronic, and optical products	10.7	15.5
Manufacture of fabricated metal products, except machinery and equipment	25.7	34.4
Manufacture of machinery and equipment except electrical	35.6	77.4
Manufacture of chemical and chemical products	14.3	20.8
Manufacture of coke and refined petroleum products	16.9	9.6
Manufacture of beverages	17.2	7.8
Manufacture of paper and paper products	23.1	22.7
Other manufacturing and repair and installation of machinery and equipment	11.0	23.6
Manufacture of rubber and plastic products	8.9	6.5
Manufacture of wood, bamboo, cane, rattan articles and related products	25.9	8.6
Manufacture of leather and related products, including footwear	19.4	23.3
Manufacture of textiles	19.9	9.3
Printing and reproduction of recorded media	12.0	4.0
Manufacture of wearing apparel	-0.7	3.4
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-6.9	5.7
Manufacture of furniture	-1.1	3.2
Losers		
Manufacture of basic metals	-14.5	-20.4
Manufacture of electrical equipment	-50.2	-48.2
Manufacture of tobacco products	-15.1	-11.5
Manufacture of other non-metallic mineral products	7.2	-1.5

p - preliminary, r - revised

Source: Philippine Statistics Authority

Table B.2. Year-on-Year Growth Rate (%) of Volume of Production Index by Industry Division: July 2022^r and August 2022^p
(2018 = 100)

INDUSTRY DIVISION	July 2022 ^r	August 2022 ^p
Gainers		
Manufacture of transport equipment	16.7	24.6
Manufacture of food products	7.3	9.4
Manufacture of fabricated metal products, except machinery and equipment	25.8	30.4
Manufacture of computer, electronic, and optical products	2.8	8.0
Manufacture of machinery and equipment except electrical	32.3	78.0
Manufacture of chemical and chemical products	4.6	12.5
Other manufacturing and repair and installation of machinery and equipment	8.2	22.7
Manufacture of paper and paper products	17.6	17.9
Manufacture of beverages	11.1	2.3
Printing and reproduction of recorded media	11.5	5.5
Manufacture of wood, bamboo, cane, rattan articles and related products	29.1	7.9
Manufacture of leather and related products, including footwear	18.4	22.2
Manufacture of rubber and plastic products	3.5	1.6
Manufacture of textiles	16.5	6.4
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-8.0	4.6
Manufacture of furniture	-2.3	1.3
Manufacture of wearing apparel	-3.7	0.2
Losers		
Manufacture of basic metals	-20.4	-24.7
Manufacture of electrical equipment	-51.7	-49.3
Manufacture of coke and refined petroleum products	-0.8	-6.1
Manufacture of other non-metallic mineral products	-1.6	-9.2
Manufacture of tobacco products	-18.9	-15.2

p - preliminary, r- revised

Source: Philippine Statistics Authority

NET SALES

Value of Net Sales Index continued to accelerate

The Value of Net Sales Index (VaNSI) grew further in August 2022 with an annual growth rate of 26.0 percent, from its previous month's annual increase of 23.2 percent. In August 2021, VaNSI grew at a slower annual rate of 8.4 percent. (Tables A and 3)

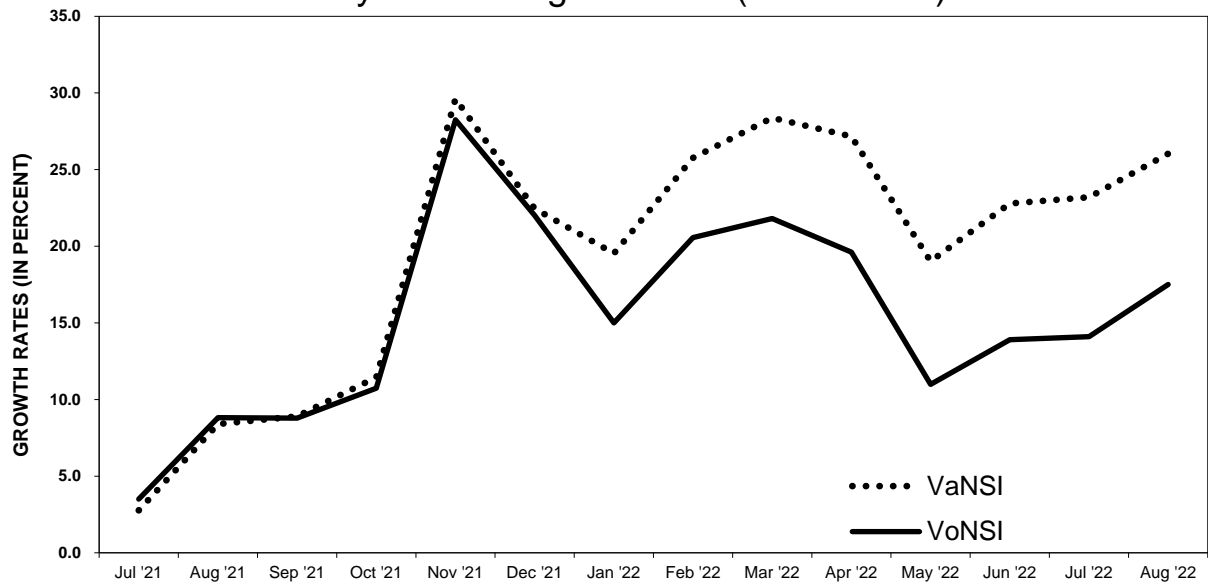
The increase in VaNSI for August 2022 was contributed by the expansions in sales of 15 of the 22 industry divisions. Among these, the fastest annual growth was noted in **manufacture of beverages** with a three-digit annual growth rate of 112.7 percent. In contrast, seven industry divisions exhibited downturns during the period with **manufacture of furniture** recording the highest annual drop of -22.8 percent. (Tables C.1 and 3)

Volume of Net Sales Index gained further

The Volume of Net Sales Index (VoNSI) continued to exhibit an upward trend, posting an annual growth of 17.5 percent in August 2022, faster than the July 2022 annual rate of 14.1 percent. In August 2021, VoNSI recorded an annual increase of 8.8 percent. (Tables A and 4)

The annual growth in VoNSI for August 2022 was attributed to the annual increments in sales of 14 of the 22 industry divisions. Among these, the fastest annual increase was observed in **manufacture of beverages** with 101.7 percent annual growth rate. Meanwhile, the remaining eight industry divisions registered annual decreases in their sales with **manufacture of furniture** registering the fastest annual drop of -24.2 percent. (Tables C.2 and 4)

Figure 3. Year-on-Year Changes (%) in Net Sales:
July 2021 - August 2022^p (2018 = 100)



p - preliminary

Source: Philippine Statistics Authority

Table C.1. Year-on-Year Growth Rate (%) of Value of Net Sales Index
by Industry Division: July 2022^r and August 2022^p
(2018 =100)

INDUSTRY DIVISION	July 2022 ^r	August 2022 ^p
Gainers		
Manufacture of beverages	117.7	112.7
Manufacture of coke and refined petroleum products	83.7	95.4
Manufacture of transport equipment	47.5	43.3
Manufacture of computer, electronic, and optical products	15.0	23.4
Manufacture of machinery and equipment except electrical	19.7	65.1
Manufacture of food products	5.4	5.4
Printing and reproduction of recorded media	57.4	56.5
Manufacture of chemical and chemical products	-0.5	16.4
Manufacture of paper and paper products	15.0	28.2
Manufacture of rubber and plastic products	15.4	16.7
Manufacture of textiles	14.4	26.4
Manufacture of wearing apparel	0.1	9.7
Manufacture of leather and related products, including footwear	31.5	33.7
Manufacture of tobacco products	-9.5	5.7
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-13.6	6.7
Losers		
Manufacture of fabricated metal products, except machinery and equipment	-22.8	-9.3
Manufacture of electrical equipment	5.6	-20.9
Manufacture of basic metals	4.4	-4.3
Manufacture of furniture	-30.1	-22.8
Manufacture of other non-metallic mineral products	6.3	-3.7
Manufacture of wood, bamboo, cane, rattan articles and related products	-17.9	-12.2
Other manufacturing and repair and installation of machinery and equipment	4.2	-0.3

p - preliminary, r - revised

Source: Philippine Statistics Authority Source: Philippine Statistics Authority

Table C.2. Year-on-Year Growth Rate (%) of Volume of Net Sales Index by Industry Division: July 2022^r and August 2022^p
(2018 = 100)

INDUSTRY DIVISION	July 2022 ^r	August 2022 ^p
Gainers		
Manufacture of beverages	106.4	101.7
Manufacture of coke and refined petroleum products	55.9	67.3
Manufacture of transport equipment	40.7	36.2
Manufacture of computer, electronic, and optical products	6.8	15.4
Manufacture of machinery and equipment except electrical	16.8	65.7
Printing and reproduction of recorded media	56.6	58.7
Manufacture of paper and paper products	9.9	23.2
Manufacture of rubber and plastic products	9.7	11.4
Manufacture of chemical and chemical products	-9.0	8.4
Manufacture of textiles	11.2	23.0
Manufacture of leather and related products, including footwear	30.4	32.6
Manufacture of wearing apparel	-3.0	6.3
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-14.7	5.6
Manufacture of tobacco products	-13.5	1.2
Losers		
Manufacture of basic metals	-2.7	-9.6
Manufacture of food products	-4.2	-3.0
Manufacture of fabricated metal products, except machinery and equipment	-22.7	-12.0
Manufacture of other non-metallic mineral products	-2.4	-11.2
Manufacture of electrical equipment	2.4	-22.7
Manufacture of furniture	-30.9	-24.2
Manufacture of wood, bamboo, cane, rattan articles and related products	-15.9	-12.8
Other manufacturing and repair and installation of machinery and equipment	1.5	-1.1

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 manufacturing sector in August 2022 was reported at 71.4 percent, from 71.3 percent in the previous month.

There were 20 out of 22 industry divisions with more than 60 percent average capacity utilization rate, led by **manufacture of furniture** (83.3%), **manufacture of computer, electronic, and optical products** (81.7%), and **manufacture of wearing apparel** (79.3%). (Table 6)

About one-fourth of responding establishments operated at full capacity

The proportion of establishments that operated at full capacity (90% to 100%) was 25.6 percent of the total number of responding establishments. Meanwhile, 36.6 percent operated at 70 to 89 percent capacity, while 37.8 percent operated below 70 percent capacity. (Table D)

Table D. Distribution of Responding Establishments
by Capacity Utilization for Total Manufacturing: August 2022^p

Capacity Utilization	Number of Responding Establishments	Percent Share to Responding Establishments
TOTAL	634	100.0
Below 50%	84	13.2
50% - 59%	80	12.6
60% - 69%	76	12.0
70% - 79%	104	16.4
80% - 89%	128	20.2
90% - 100%	162	25.6

p - preliminary

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 eleven (11) 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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National Statistician and Civil Registrar General

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 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 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 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_{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

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

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

Note: A linking factor is computed every time weights are changed. The linking factor is used to adjust new series for comparability with the old series.

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.

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*
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*