



# PRESS RELEASE

**PRODUCTION INDEX AND NET SALES INDEX  
(Monthly Integrated Survey of Selected Industries)  
March 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): March 2021, February 2022<sup>r</sup>, and March 2022<sup>p</sup> (in Percent)

<b>TOTAL MANUFACTURING</b>	<b>MARCH 2021</b>	<b>FEBRUARY 2022<sup>r</sup></b>	<b>MARCH 2022<sup>p</sup></b>
<b>Production Index (2018=100)</b>			
Value (VaPI)	<b>-74.1</b>	<b>82.9</b>	<b>358.2</b>
Volume (VoPI)	<b>-73.3</b>	<b>75.5</b>	<b>336.3</b>
<b>Net Sales Index (2018=100)</b>			
Value (VaNSI)	<b>16.1</b>	<b>16.4</b>	<b>11.3</b>
Volume (VoNSI)	<b>20.0</b>	<b>11.7</b>	<b>6.0</b>
<b>Producer Price Index (2018=100)</b>	<b>-3.3</b>	<b>4.2</b>	<b>5.0</b>

p – preliminary, r- revised

Source: Philippine Statistics Authority



## PRODUCTION

### Value of Production at upward trend

The Value of Production Index (VaPI) recorded a faster year-on-year increase of 358.2 percent in March 2022, from an annual growth rate of 82.9 percent in the previous month. In contrast, the annual growth rate for VaPI in March 2021 was recorded at -74.1 percent. (Tables A and 1)

The surge in VaPI was brought about by the expansion in production of 17 industry divisions. Of these, **manufacture of coke and refined petroleum products** was the major contributing factor with 2,583.3 percent annual growth rate.

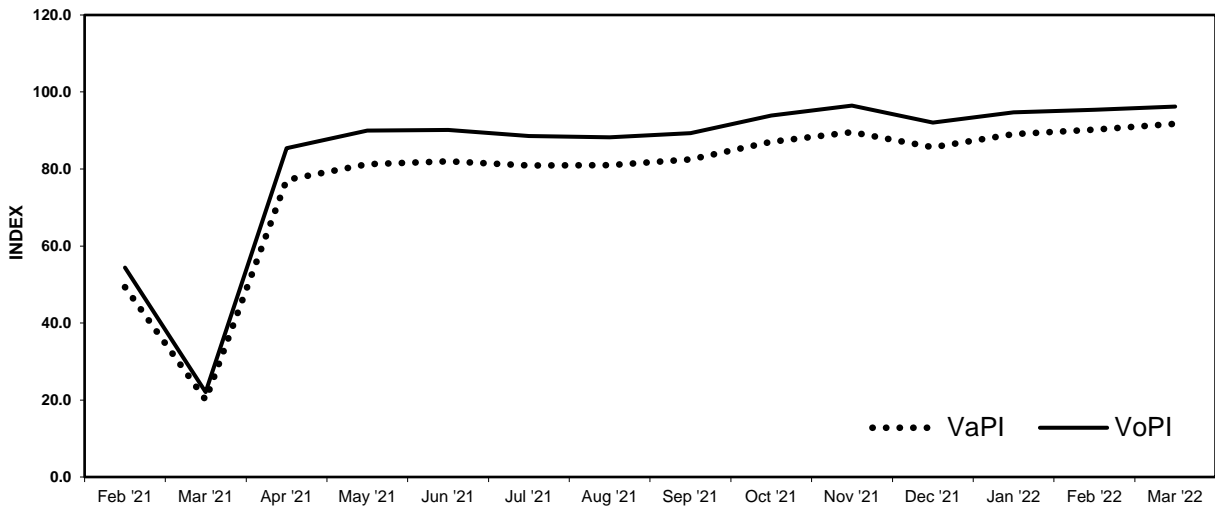
Meanwhile, five industry divisions showed downturns in March 2022 with **manufacture of electrical equipment** registering the highest annual decrease of -34.4 percent. (Tables B.1 and 1)

### Volume of Production Index also increased

The Volume of Production Index (VoPI) likewise expanded, as it posted an annual rate of 336.3 percent in March 2022, from its previous month's slower annual growth of 75.5 percent. In March 2021, VoPI dropped at an annual rate of -73.3 percent. (Tables A and 2)

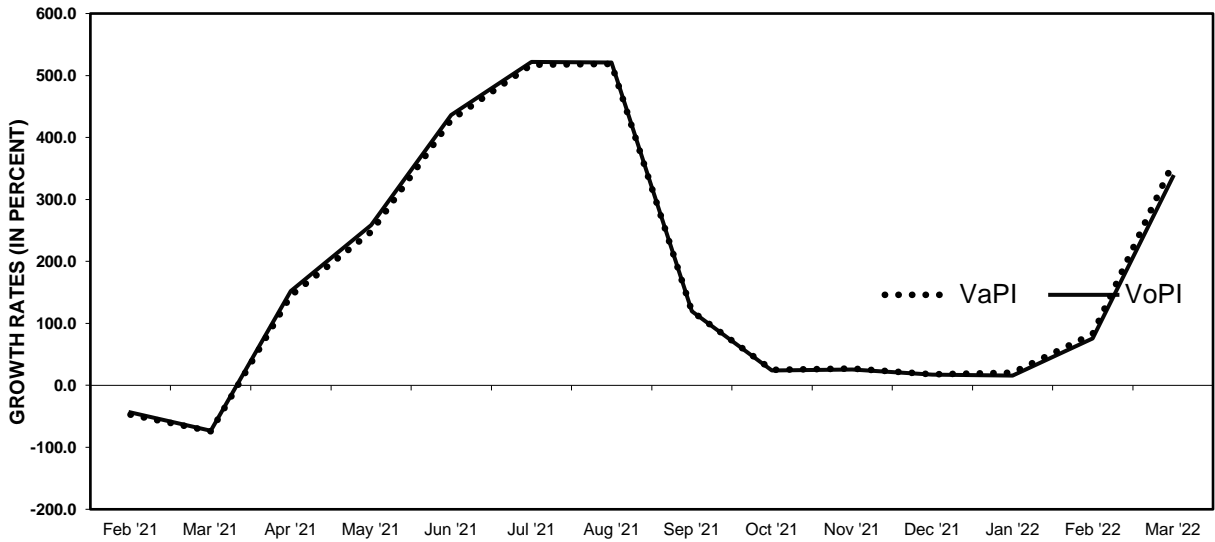
Of the 22 industry divisions, 15 reported positive growths which was led by **manufacture of coke and refined petroleum products** with 2,175.6 percent annual growth rate. On the contrary, the remaining seven industry divisions recorded annual decreases in their production. The **manufacture of electrical equipment** had the fastest annual decline of -36.5 percent. (Tables B.2 and 2)

Figure 1. Value and Volume of Production Index for Total Manufacturing  
February 2022 - March 2022<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)  
February 2022 - March 2022<sup>p</sup> (2018 = 100)



p – preliminary  
Source: Philippine Statistics Authority

TABLE B.1. Year-on-Year Growth Rate (%) of Value of Production Index by Industry Division: February 2022<sup>r</sup> and March 2022<sup>p</sup> (2018 =100)

INDUSTRY DIVISION	February 2022 <sup>r</sup>	March 2022 <sup>p</sup>
<b>Gainers</b>		
Manufacture of coke and refined petroleum products	570.8	2583.3
Manufacture of computer, electronic, and optical products	22.4	13.4
Manufacture of food products	28.0	7.0
Manufacture of chemical and chemical products	54.0	26.9
Manufacture of basic metals	32.1	12.3
Manufacture of machinery and equipment except electrical	36.4	42.4
Manufacture of beverages	6.9	7.8
Manufacture of rubber and plastic products	9.8	16.7
Other manufacturing and repair and installation of machinery and equipment	12.7	24.2
Manufacture of tobacco products	26.7	18.9
Manufacture of fabricated metal products, except machinery and equipment	25.1	5.7
Manufacture of textiles	31.6	29.6
Manufacture of wearing apparel	-1.9	14.0
Manufacture of paper and paper products	21.4	7.2
Manufacture of furniture	73.2	5.8
Manufacture of wood, bamboo, cane, rattan articles and related products	-0.7	4.7
Manufacture of basic pharmaceutical products and pharmaceutical preparations	8.1	1.8
<b>Losers</b>		
Manufacture of electrical equipment	-24.7	-34.4
Manufacture of transport equipment	7.8	-2.1
Printing and reproduction of recorded media	-12.8	-12.0
Manufacture of other non-metallic mineral products	27.0	-1.5
Manufacture of leather and related products, including footwear	33.7	-4.6

p - preliminary, r - revised

Source: Philippine Statistics Authority

TABLE B.2. Year-on-Year Growth Rate (%) of Volume of Production Index by Industry Division: February 2022<sup>r</sup> and March 2022<sup>p</sup> (2018 = 100)

INDUSTRY DIVISION	February 2022 <sup>r</sup>	March 2022 <sup>p</sup>
<b>Gainers</b>		
Manufacture of coke and refined petroleum products	482.1	2175.6
Manufacture of computer, electronic, and optical products	26.1	16.1
Manufacture of chemical and chemical products	43.1	15.8
Manufacture of machinery and equipment except electrical	37.2	43.2
Other manufacturing and repair and installation of machinery and equipment	15.3	24.0
Manufacture of beverages	3.6	4.5
Manufacture of rubber and plastic products	3.7	10.5
Manufacture of tobacco products	24.9	17.1
Manufacture of textiles	25.8	24.2
Manufacture of fabricated metal products, except machinery and equipment	21.6	3.0
Manufacture of wood, bamboo, cane, rattan articles and related products	5.9	12.2
Manufacture of paper and paper products	18.3	4.8
Manufacture of wearing apparel	-3.7	9.2
Manufacture of basic metals	19.0	0.8
Manufacture of furniture	70.4	3.1
<b>Losers</b>		
Manufacture of electrical equipment	-27.4	-36.5
Manufacture of transport equipment	6.2	-4.6
Manufacture of other non-metallic mineral products	22.6	-5.4
Printing and reproduction of recorded media	-10.7	-10.9
Manufacture of food products	20.3	-0.1
Manufacture of leather and related products, including footwear	31.4	-5.9
Manufacture of basic pharmaceutical products and pharmaceutical preparations	7.2	-0.6

p - preliminary, r - revised

Source: Philippine Statistics Authority

## NET SALES

### Value of Net Sales Index continued to increase

The Value of Net Sales Index (VaNSI) sustained a double-digit year-on-year increase of 11.3 percent in March 2022. This annual rate was slower than the 16.4 percent upturn in the previous month. In March 2021, VaNSI grew at an annual rate of 16.1 percent. (Tables A and 3)

The expansion in VaNSI was attributed to the positive growth rates of 12 industry divisions. The heavily weighted **manufacture of coke and refined petroleum products** exhibited the highest annual growth with 140.9 percent in March 2022. On the other hand, the remaining 10 industry divisions recorded decreases in their sales with **manufacture of tobacco products** registering the fastest annual decline of -54.2 percent. (Tables C.1 and 3)

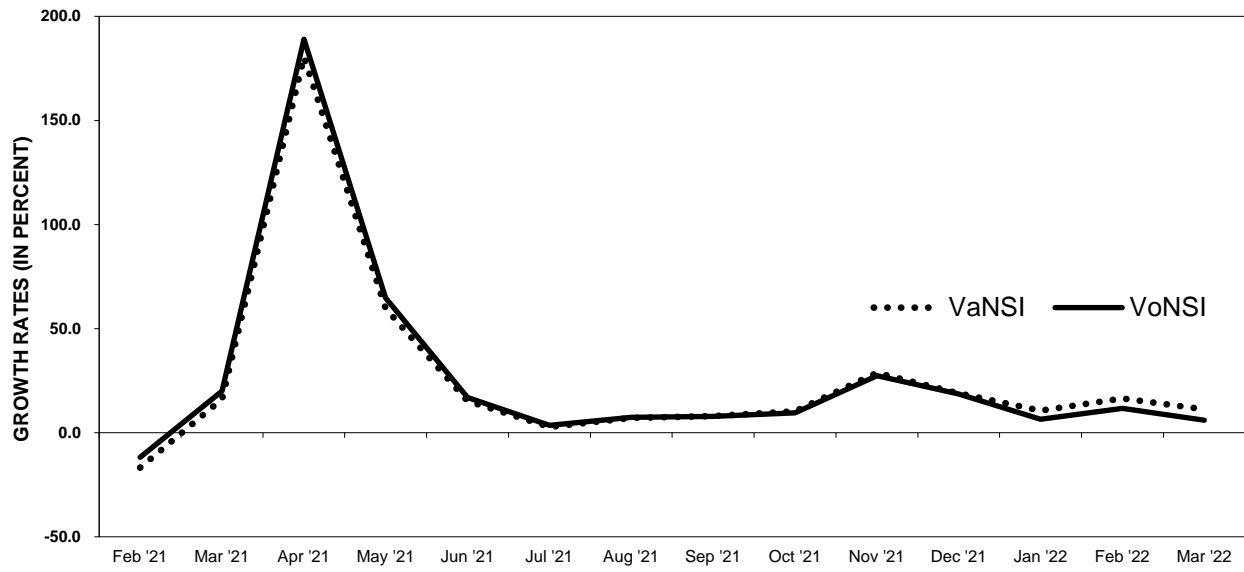
### Volume of Net Sales Index accelerated

The Volume of Net Sales Index (VoNSI) posted a slower year-on-year increment of 6.0 percent in March 2022, from an annual rate of 11.7 percent in February 2022. In March 2021, VoNSI accelerated with an annual rate of 20.0 percent. (Tables A and 4)

The growth in VoNSI for March 2022 was contributed by the increases in sales of 11 of the 22 industry divisions. Among these, the top contributor was **manufacture of coke and refined petroleum products** with 104.3 percent annual growth rate. On the contrary, 11 industry divisions exhibited declines during the period. The **manufacture of tobacco products** had the lowest annual rate of -54.9 percent. (Tables C.2 and 4)

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Figure 3. Year-on-Year Changes in Net Sales (in percent):  
February 2022 – March 2022<sup>p</sup> (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: February 2022<sup>r</sup> and March 2022<sup>p</sup>  
(2018 =100)

INDUSTRY DIVISION	February 2022 <sup>r</sup>	March 2022 <sup>p</sup>
<b>Gainers</b>		
Manufacture of coke and refined petroleum products	75.2	140.9
Manufacture of computer, electronic, and optical products	34.7	21.6
Manufacture of beverages	14.9	40.9
Manufacture of transport equipment	27.8	20.4
Printing and reproduction of recorded media	-0.7	24.8
Manufacture of wearing apparel	-3.0	22.9
Manufacture of rubber and plastic products	1.7	7.7
Manufacture of chemical and chemical products	16.9	5.7
Manufacture of wood, bamboo, cane, rattan articles and related products	30.1	22.2
Manufacture of furniture	14.9	13.6
Manufacture of basic pharmaceutical products and pharmaceutical preparations	21.8	14.6
Manufacture of leather and related products, including footwear	-6.8	3.1
<b>Losers</b>		
Manufacture of fabricated metal products, except machinery and equipment	-33.4	-50.2
Manufacture of basic metals	-5.6	-17.3
Manufacture of tobacco products	-43.9	-54.2
Manufacture of other non-metallic mineral products	7.1	-9.0
Manufacture of electrical equipment	-8.2	-21.5
Manufacture of food products	11.7	-1.6
Manufacture of textiles	-23.4	-21.9
Manufacture of paper and paper products	-0.7	-5.2
Manufacture of machinery and equipment except electrical	10.4	-3.7
Other manufacturing and repair and installation of machinery and equipment	<u>1/</u>	-1.5

p - preliminary, r - revised

Note: 1/ - Less than 0.05 percent decrease

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: February 2022<sup>r</sup> and March 2022<sup>p</sup>  
(2018 = 100)

INDUSTRY DIVISION	February 2022 <sup>r</sup>	March 2022 <sup>p</sup>
<b>Gainers</b>		
Manufacture of coke and refined petroleum products	52.0	104.3
Manufacture of computer, electronic, and optical products	38.7	24.6
Manufacture of beverages	11.4	36.5
Manufacture of transport equipment	25.9	17.4
Printing and reproduction of recorded media	1.7	26.4
Manufacture of wood, bamboo, cane, rattan articles and related products	38.7	30.8
Manufacture of wearing apparel	-4.8	17.7
Manufacture of furniture	12.8	10.7
Manufacture of basic pharmaceutical products and pharmaceutical preparations	20.9	11.8
Manufacture of rubber and plastic products	-4.0	2.0
Manufacture of leather and related products, including footwear	-8.4	1.7
<b>Losers</b>		
Manufacture of fabricated metal products, except machinery and equipment	-35.3	-51.5
Manufacture of basic metals	-15.0	-25.8
Manufacture of food products	4.9	-8.2
Manufacture of tobacco products	-44.7	-54.9
Manufacture of other non-metallic mineral products	3.4	-12.6
Manufacture of electrical equipment	-11.5	-24.0
Manufacture of textiles	-26.8	-25.2
Manufacture of paper and paper products	-3.2	-7.4
Manufacture of chemical and chemical products	8.6	-3.5
Manufacture of machinery and equipment except electrical	11.0	-3.2
Other manufacturing and repair and installation of machinery and equipment	2.2	-1.7

p - preliminary, r - revised

Source: Philippine Statistics Authority

## CAPACITY UTILIZATION

### **Average capacity utilization rate for manufacturing increased**

Based on responding establishments, the average capacity utilization rate for manufacturing sector in March 2022 was reported at 70.4 percent, from 69.7 percent in the previous month.

Almost all the industry divisions reported capacity utilization rates of more than 50 percent except for **manufacture of leather and related products, including footwear** (40.8%). The top three industry divisions in terms of reported capacity utilization rate were **manufacture of furniture** (85.0%), **manufacture of other non-metallic mineral products** (79.1%), and **manufacture of machinery and equipment except electrical** (76.4%). (Table 6)

### **More than one-fifth of responding establishments operated at full capacity**

The proportion of establishments that operated at full capacity (90% to 100%) was 22.7 percent of the total number of responding establishments. Meanwhile, 36.3 percent operated at 70 to 89 percent capacity, while 41.0 percent operated below 70 percent capacity. (Table D)

Table D. Distribution of Responding Establishments by Capacity Utilization for Total Manufacturing: March 2022<sup>P</sup>

<b>Capacity Utilization</b>	<b>Number of Responding Establishments</b>	<b>Percent Share to Responding Establishments</b>
TOTAL	554	100.0
Below 50%	96	17.3
50% - 59%	79	14.3
60% - 69%	52	9.4
70% - 79%	98	17.7
80% - 89%	103	18.6
90% - 100%	126	22.7

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 nine (9) 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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 Undersecretary  
 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 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 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

$n_{tijm}$  = 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<sub>m</sub> = average capacity utilization rate for total manufacturing at current month m

W<sub>i</sub> = weight for industry division i

AveCU<sub>im</sub> = average capacity utilization rate for industry division i at current month m

Note:

A link factor has been used to adjust weight effects to measure the correct price change.

### 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*