



PRESS RELEASE

**PRODUCTION INDEX AND NET SALES INDEX
(Monthly Integrated Survey of Selected Industries)
May 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): May 2020, April 2021^r, and May 2021^p (in Percent)

TOTAL MANUFACTURING	MAY 2020	APRIL 2021^r	MAY 2021^p
Production Index (2018=100)			
Value (VaPI)	-74.4	145.5	249.5
Volume (VoPI)	-73.2	155.6	265.0
Net Sales Index (2018=100)			
Value (VaNSI)	-47.2	184.2	55.6
Volume (VoNSI)	-44.7	195.8	62.5
Producer Price Index (2018=100)	-4.5	-3.9	-4.3

p – preliminary, r- revised

Source: Philippine Statistics Authority



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PRODUCTION

Value of Production continued to accelerate

The Value of Production Index (VaPI) for manufacturing continued to accelerate at an annual rate of 249.5 percent in May 2021, from its previous month's three-digit increase of 145.5 percent. The year-on-year growth rate in May 2021 was the second positive growth since April 2019 and the highest annual growth in the 2018-based data series. In May 2020, VaPI dropped at an annual rate of -74.4 percent. (*Tables A and 1*)

The upward trend in VaPI for manufacturing sector in May 2021 was brought about by the sharp increases in most of the 18 industry divisions that registered positive annual growth rates. Among these, the top contributor was **manufacture of coke and refined petroleum products** with 1,472.7 percent annual growth. On the other hand, only four industry divisions contracted which was led by **manufacture of tobacco products** at -69.3 percent. (*Tables 1-A and 1*)

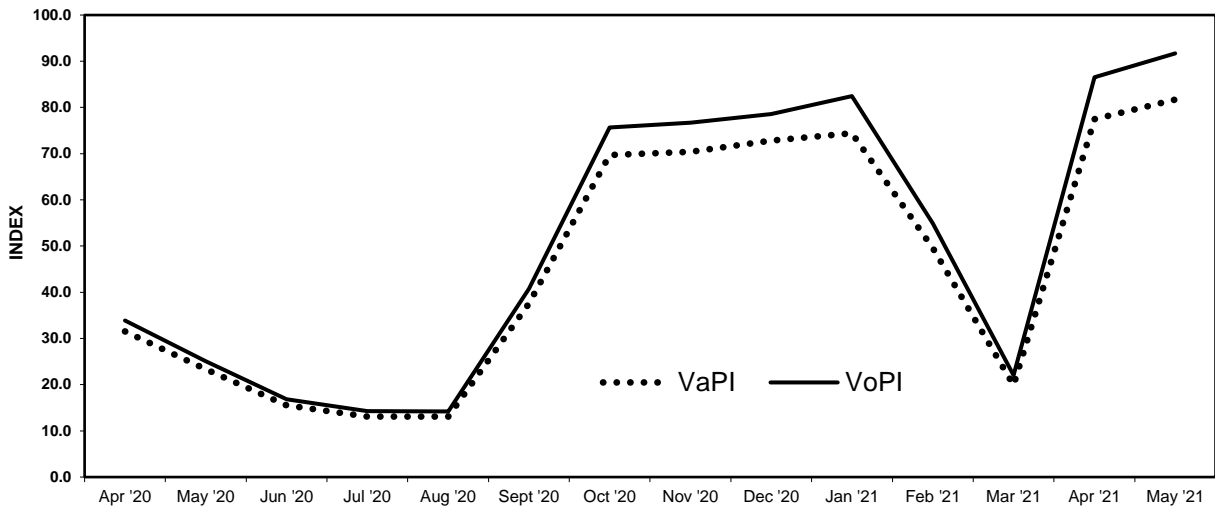
Volume of Production Index further increased

The Volume of Production Index (VoPI), likewise, posted a three-digit annual rate of 265.0 percent in May 2021. This increment was faster than the 155.6 percent increase registered in the previous month. In contrast, the annual growth rate for VoPI in May 2020 was recorded at -73.2 percent. (*Tables A and 2*)

The expansion in VoPI for manufacturing sector in May 2021 were observed in 18 out of the 22 industry divisions. The fastest growth was registered in **manufacture of coke and refined petroleum products** at 1,366.1 percent. On the contrary, four industry divisions recorded decrements with **manufacture of tobacco products** registering the fastest annual decline of -68.7 percent. (*Tables 1-B and 2*)

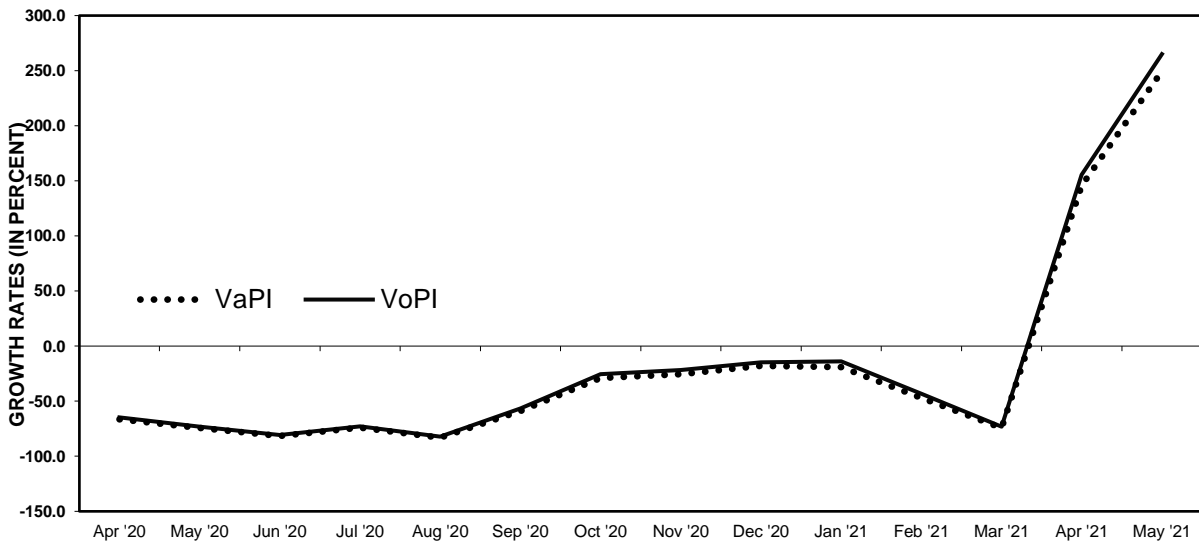
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Figure 1. Value and Volume of Production Index for Total Manufacturing
April 2020 - May 2021^p (2018 = 100)



p – preliminary
Source: Philippine Statistics Authority

Figure 2. Year-on-Year Growth Rates of Value and Volume of Production Index for Total Manufacturing (in percent)
April 2020 - May 2021^p (2018 = 100)



p – preliminary
Source: Philippine Statistics Authority

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NET SALES

Value of Net Sales Index continued to gain at a slower pace

The Value of Net Sales Index (VaNSI) posted a slower annual increase of 55.6 percent in May 2021 compared with the three-digit growth rate of 184.2 percent in the previous month. The year-on-year growth rate in May 2021 was the third positive growth since March 2020. In May 2020, the annual decrease of VaNSI was recorded at -47.2 percent. *(Tables A and 3)*

The increment in VaNSI was brought about by the positive growth rates of 20 industry divisions, eight of which posted three-digit annual growth rates, led by **manufacture of wearing apparel** with 208.3 percent. On the other hand, the remaining two industry divisions, namely, **printing and reproduction of recorded media** and **manufacture of tobacco products** recorded two-digit decrements of -43.4 percent and -10.1 percent, respectively. *(Tables 2-A and 3)*

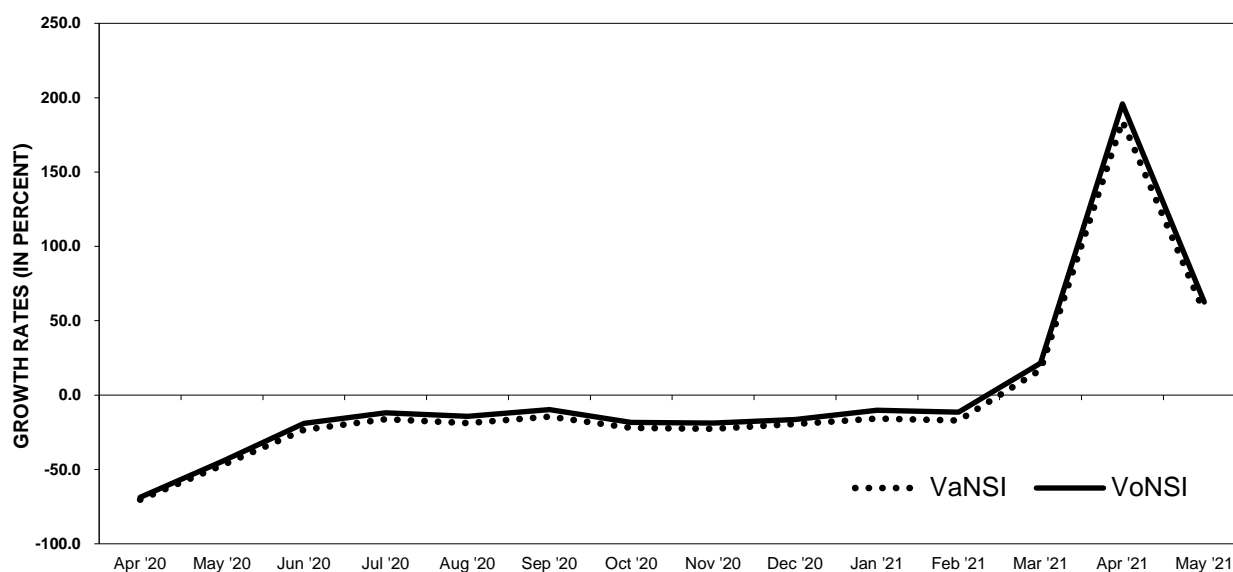
Volume of Net Sales Index also grew at a slower rate

The Volume of Net Sales Index (VoNSI) recorded a year-on-year increment of 62.5 percent in May 2021. This annual rate is slower than the three-digit growth rate of 195.8 percent in April 2021. In May 2020, VoNSI declined by -44.7 percent. *(Tables A and 4)*

Of the 22 industry divisions, 19 exhibited positive growths, 10 of which recorded three-digit annual increases. The fastest growth rate was registered in **manufacture of wearing apparel** at 216.7 percent. Meanwhile, only three industry divisions showed decreases during the period, which were **printing and reproduction of recorded media** (-43.4%), **manufacture of tobacco products** (-8.4%), and **manufacture of beverages** (-0.03%). *(Tables 2-B and 4)*

106

Figure 3. Year-on-Year Changes in Net Sales (in percent):
April 2020 - May 2021^p (2018 = 100)



p – preliminary

Source: Philippine Statistics Authority

CAPACITY UTILIZATION

Average capacity utilization rate for manufacturing increased

Based on responding establishments, the average capacity utilization rate for the manufacturing sector in May 2021 rose to 66.1 percent, from 64.0 percent in the previous month.

Eighteen (18) of the 22 industry divisions had at least 50 percent average capacity utilization rate which was led by **manufacture of furniture (83.0%)**, **manufacture of other non-metallic mineral products (79.6%)**, and **manufacture of machinery and equipment except electrical (74.2%)**. (*Table 6*)

One-fifth of the responding establishments operated at full capacity

The proportion of establishments that operated at full capacity (90% to 100%) was 20.8 percent of the total number of responding establishments. Meanwhile, 33.9 percent operated at 70 to 89 percent capacity, while 45.3 percent operated below 70 percent capacity. (*Table B*)

106

Table B. Distribution of Responding Establishments
by Capacity Utilization for Total Manufacturing: May 2021^P

Capacity Utilization	Number of Responding Establishments	Percent Share to Responding Establishments
TOTAL	472	100.0
Below 50%	103	21.8
50% - 59%	63	13.3
60% - 69%	48	10.2
70% - 79%	66	14.0
80% - 89%	94	19.9
90% - 100%	98	20.8

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 32 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: April 2021^r and May 2021^p
(2018 =100)

INDUSTRY DIVISION	April 2021 ^r	May 2021 ^p
Gainers		
Manufacture of coke and refined petroleum products	-24.3	1,472.7
Manufacture of transport equipment	315.6	123.1
Manufacture of basic metals	778.5	155.4
Manufacture of computer, electronic, and optical products	64.8	50.2
Manufacture of fabricated metal products, except machinery and equipment	564.2	270.3
Manufacture of food products	35.2	24.0
Manufacture of other non-metallic mineral products	291.6	96.6
Manufacture of electrical equipment	262.2	76.0
Manufacture of wood, bamboo, cane, rattan articles and related products	134.0	233.1
Manufacture of rubber and plastic products	192.5	57.8
Manufacture of wearing apparel	508.4	120.4
Other manufacturing and repair and installation of machinery and equipment	249.1	69.3
Manufacture of leather and related products, including footwear	132.0	150.1
Manufacture of paper and paper products	62.5	41.1
Manufacture of beverages	139.3	14.8
Manufacture of machinery and equipment except electrical	43.7	29.7
Manufacture of furniture	546.2	93.6
Manufacture of textiles	248.7	41.9
Losers		
Manufacture of tobacco products	-0.4	-69.3
Printing and reproduction of recorded media	288.7	-43.5
Manufacture of chemical and chemical products	34.0	-1.7
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-19.2	-2.0

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

TABLE 1-B. Year-on-Year Growth Rate (%) of Volume of Production Index by Industry Division: April 2021^r and May 2021^p
(2018 = 100)

INDUSTRY DIVISION	April 2021 ^r	May 2021 ^p
Gainers		
Manufacture of coke and refined petroleum products	-32.0	1,366.1
Manufacture of wood, bamboo, cane, rattan articles and related products	181.3	301.0
Manufacture of fabricated metal products, except machinery and equipment	602.7	275.6
Manufacture of leather and related products, including footwear	134.8	155.9
Manufacture of basic metals	734.2	138.3
Manufacture of transport equipment	334.0	130.2
Manufacture of wearing apparel	540.4	126.5
Manufacture of furniture	634.4	118.7
Manufacture of other non-metallic mineral products	304.8	103.3
Manufacture of computer, electronic, and optical products	108.3	96.0
Other manufacturing and repair and installation of machinery and equipment	265.6	78.3
Manufacture of electrical equipment	261.8	75.2
Manufacture of rubber and plastic products	185.9	54.5
Manufacture of paper and paper products	66.1	42.2
Manufacture of machinery and equipment except electrical	52.8	41.1
Manufacture of textiles	242.3	34.3
Manufacture of food products	33.1	21.0
Manufacture of beverages	135.0	12.1
Losers		
Manufacture of tobacco products	0.1	-68.7
Printing and reproduction of recorded media	288.7	-43.5
Manufacture of chemical and chemical products	37.5	-3.0
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-19.0	-2.9

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

TABLE 2-A. Year-on-Year Growth Rate (%) of Value of Net Sales Index
by Industry Division: April 2021 and May 2021^P
(2018 =100)

INDUSTRY DIVISION	April 2021	May 2021 ^P
Gainers		
Manufacture of transport equipment	551.0 ^r	114.3
Manufacture of computer, electronic, and optical products	108.8 ^r	60.3
Manufacture of basic metals	337.9 ^r	123.3
Manufacture of fabricated metal products, except machinery and equipment	287.2 ^r	202.5
Manufacture of other non-metallic mineral products	316.6 ^r	100.2
Manufacture of rubber and plastic products	235.8 ^r	82.0
Manufacture of wearing apparel	60.0 ^r	208.3
Manufacture of electrical equipment	896.2 ^r	61.9
Manufacture of chemical and chemical products	91.0 ^r	26.2
Manufacture of coke and refined petroleum products	-3.6	20.7
Manufacture of machinery and equipment except electrical	75.0 ^r	54.4
Manufacture of leather and related products, including footwear	176.6 ^r	142.7
Other manufacturing and repair and installation of machinery and equipment	137.3 ^r	58.0
Manufacture of wood, bamboo, cane, rattan articles and related products	201.4 ^r	89.6
Manufacture of furniture	537.5 ^r	146.3
Manufacture of paper and paper products	69.4 ^r	28.8
Manufacture of food products	27.9 ^r	3.1
Manufacture of textiles	102.4 ^r	121.2
Manufacture of beverages	127.2 ^r	2.4
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-2.3 ^r	8.4
Losers		
Printing and reproduction of recorded media	350.0 ^r	-43.4
Manufacture of tobacco products	-13.1 ^r	-10.1

p - preliminary, r- revised

Source: Philippine Statistics Authority

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TABLE 2-B. Year-on-Year Growth Rate (%) of Volume of Net Sales
Index by Industry Division: April 2021^r and May 2021^p
(2018 = 100)

INDUSTRY DIVISION	April 2021 ^r	May 2021 ^p
Gainers		
Manufacture of computer, electronic, and optical products	163.8	109.2
Manufacture of transport equipment	579.8	121.0
Manufacture of basic metals	315.8	108.3
Manufacture of fabricated metal products, except machinery and equipment	309.6	206.8
Manufacture of other non-metallic mineral products	330.7	107.0
Manufacture of rubber and plastic products	228.2	78.2
Manufacture of wearing apparel	68.5	216.7
Manufacture of electrical equipment	895.1	61.1
Manufacture of chemical and chemical products	95.9	24.6
Manufacture of machinery and equipment except electrical	86.1	68.0
Manufacture of wood, bamboo, cane, rattan articles and related products	262.2	128.3
Other manufacturing and repair and installation of machinery and equipment	148.4	66.3
Manufacture of leather and related products, including footwear	180.0	148.4
Manufacture of furniture	624.5	178.1
Manufacture of coke and refined petroleum products	-13.4	12.5
Manufacture of paper and paper products	73.1	29.8
Manufacture of textiles	98.7	109.5
Manufacture of basic pharmaceutical products and pharmaceutical preparations	-2.1	7.5
Manufacture of food products	25.9	0.6
Losers		
Printing and reproduction of recorded media	350.0	-43.4
Manufacture of tobacco products	-12.6	-8.4
Manufacture of beverages	123.1	<u>2/</u>

p - preliminary, r- revised

2/- Less than 0.05 percent decrease

Source: Philippine Statistics Authority

106



DENNIS S. MAPA, Ph.D.

Undersecretary

National Statistician and Civil Registrar General

Attachments:

1. *Table 1. Value of Production Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – May 2021^P*
2. *Table 2. Volume of Production Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – May 2021^P*
3. *Table 3. Value of Net Sales Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – May 2021^P*
4. *Table 4. Volume of Net Sales Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – May 2021^P*
5. *Table 5. Producer Price Index (2018=100), Year-on-Year Growth Rates for Manufacturing Sector, January 2020 – May 2021^P*
6. *Table 6. Average Capacity Utilization Rate by Industry Division: MISSI, January 2020 – May 2021^P*
7. *Table 7. Distribution of Samples and Responding Establishments by Industry Division: MISSI, April 2021^f and May 2021^P*
8. *Table 8. Distribution of Samples and Responding Establishments by Industry Division: PPS, April 2021^f and May 2021^P*
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 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 Census of Philippine Business and Industry (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

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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.

106

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

$$VoPI_{im} = \frac{VaPI_{im}}{PPI_{im}}$$

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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

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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*

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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

106