



PRESS RELEASE

**PRODUCTION INDEX AND NET SALES INDEX
(Monthly Integrated Survey of Selected Industries)
April 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, March 2022^r, and April 2022^p (in Percent)

| TOTAL MANUFACTURING | APRIL 2021 | MARCH 2022^r | APRIL 2022^p |
|--|-----------------------|-----------------------------------|-----------------------------------|
| Production Index (2018=100) | | | |
| Value (VaPI) | 150.1 | 375.1 | 9.7 |
| Volume (VoPI) | 157.8 | 352.3 | 3.4 |
| Net Sales Index (2018=100) | | | |
| Value (VaNSI) | 180.5 | 21.2 | 20.1 |
| Volume (VoNSI) | 189.1 | 15.4 | 13.3 |
| Producer Price Index (2018=100) | -3.0 | 5.1 | 6.1 |

p – preliminary, r- revised

Source: Philippine Statistics Authority



PRODUCTION

Value of Production sustained positive growth

The Value of Production Index (VaPI) registered a slower increment of 9.7 percent in April 2022, from an annual growth rate of 375.1 percent in the previous month. In April 2021, the VaPI grew at an annual rate of 150.1 percent. (Tables A and 1)

Of the 22 industry divisions, 16 reported positive growths which was led by **manufacture of textiles** with 51.1 percent annual growth rate. On the contrary, the remaining six industry divisions recorded annual decreases in their production. The **manufacture of electrical equipment** had the fastest annual drop of -25.4 percent. (Tables B.1 and 1)

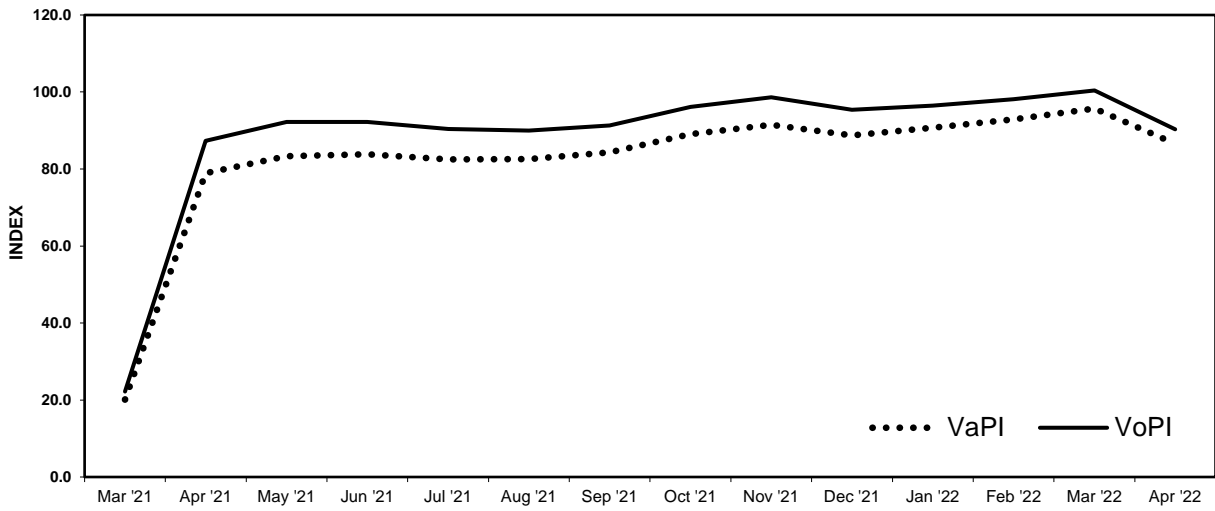
Volume of Production Index likewise increased

The Volume of Production Index (VoPI) continued to exhibit a year-on-year growth rate of 3.4 percent in April 2022. This annual rate, however, was slower than the 352.3 percent increase recorded in the previous month. In April 2021, VoPI accelerated with an annual rate of 157.8 percent. (Tables A and 2)

The upturn in VoPI was brought about by the expansions in production of 14 industry divisions. Of these, **manufacture of textiles** was the major contributing factor with 45.6 percent annual growth rate.

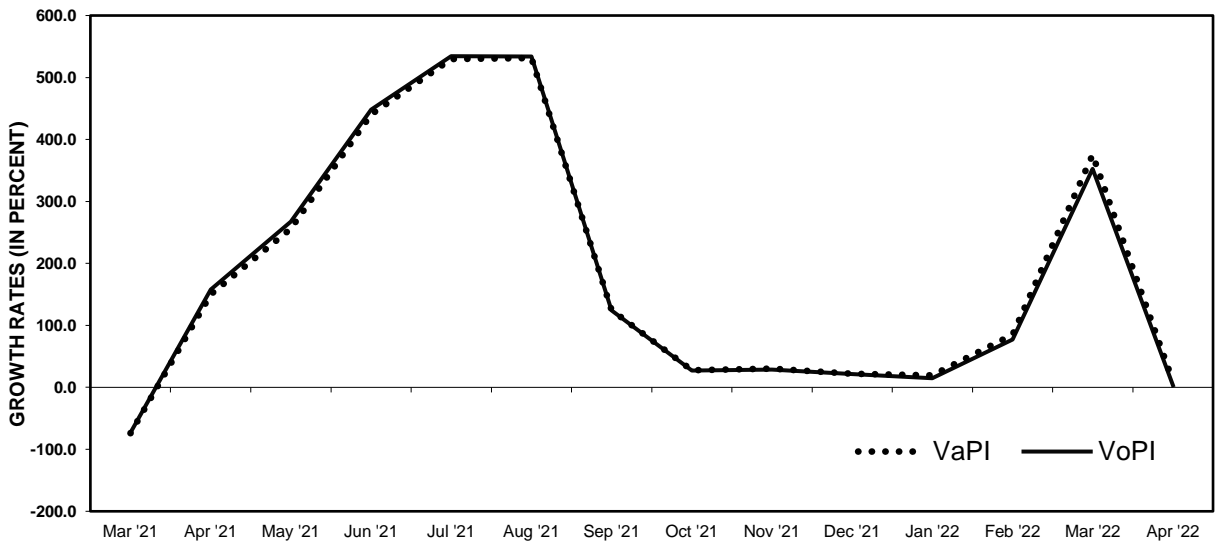
Meanwhile, eight industry divisions showed downturns in April 2022 with **manufacture of electrical equipment** registering the highest annual decline of -28.1 percent. (Tables B.2 and 2)

Figure 1. Value and Volume of Production Index for Total Manufacturing
March 2021 - April 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 (in percent)
March 2021 - April 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: March 2022^r and April 2022^p
(2018 =100)

| INDUSTRY DIVISION | March 2022 ^r | April 2022 ^p |
|--|-------------------------|-------------------------|
| Gainers | | |
| Manufacture of food products | 9.3 | 16.1 |
| Manufacture of beverages | 28.1 | 34.7 |
| Manufacture of chemical and chemical products | 40.7 | 47.7 |
| Manufacture of computer, electronic, and optical products | 13.9 | 13.0 |
| Manufacture of fabricated metal products, except machinery and equipment | 32.7 | 31.8 |
| Manufacture of coke and refined petroleum products | 2,669.0 | 8.9 |
| Manufacture of machinery and equipment except electrical | 46.9 | 43.4 |
| Manufacture of rubber and plastic products | 24.6 | 15.2 |
| Manufacture of textiles | 29.4 | 51.1 |
| Manufacture of paper and paper products | 6.8 | 10.6 |
| Manufacture of tobacco products | 19.3 | 17.0 |
| Manufacture of basic metals | 8.4 | 3.4 |
| Manufacture of wearing apparel | 10.4 | 10.7 |
| Other manufacturing and repair and installation of machinery and equipment | 24.7 | 6.3 |
| Manufacture of leather and related products, including footwear | -3.9 | 18.6 |
| Manufacture of wood, bamboo, cane, rattan articles and related products | 26.5 | 3.6 |
| Losers | | |
| Manufacture of transport equipment | -8.8 | -9.7 |
| Manufacture of electrical equipment | -28.3 | -25.4 |
| Printing and reproduction of recorded media | -12.9 | -17.7 |
| Manufacture of furniture | -0.3 | -13.9 |
| Manufacture of other non-metallic mineral products | -1.8 | -1.8 |
| Manufacture of basic pharmaceutical products and pharmaceutical preparations | -3.2 | -10.5 |

p - preliminary, r- revised

Source: Philippine Statistics Authority

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

| INDUSTRY DIVISION | March 2022 ^r | April 2022 ^p |
|--|-------------------------|-------------------------|
| Gainers | | |
| Manufacture of beverages | 24.2 | 29.2 |
| Manufacture of computer, electronic, and optical products | 16.8 | 12.6 |
| Manufacture of chemical and chemical products | 28.3 | 33.7 |
| Manufacture of food products | 1.9 | 7.5 |
| Manufacture of fabricated metal products, except machinery and equipment | 29.1 | 22.9 |
| Manufacture of machinery and equipment except electrical | 48.4 | 39.2 |
| Manufacture of rubber and plastic products | 17.9 | 9.5 |
| Manufacture of textiles | 24.0 | 45.6 |
| Manufacture of tobacco products | 17.4 | 14.7 |
| Manufacture of paper and paper products | 3.9 | 6.4 |
| Manufacture of wood, bamboo, cane, rattan articles and related products | 35.4 | 13.3 |
| Other manufacturing and repair and installation of machinery and equipment | 24.2 | 6.7 |
| Manufacture of wearing apparel | 6.0 | 6.1 |
| Manufacture of leather and related products, including footwear | -5.2 | 17.0 |
| Losers | | |
| Manufacture of transport equipment | -11.0 | -11.5 |
| Manufacture of coke and refined petroleum products | 2,242.3 | -9.0 |
| Manufacture of electrical equipment | -30.5 | -28.1 |
| Manufacture of basic metals | -3.0 | -5.7 |
| Manufacture of other non-metallic mineral products | -5.8 | -6.8 |
| Printing and reproduction of recorded media | -11.8 | -17.3 |
| Manufacture of furniture | -1.6 | -14.5 |
| Manufacture of basic pharmaceutical products and pharmaceutical preparations | -5.2 | -11.8 |

p - preliminary, r- revised

Source: Philippine Statistics Authority

NET SALES

Value of Net Sales Index accelerated at a slower pace

The Value of Net Sales Index (VaNSI) remained at an upward trend but posted a slower annual rate of 20.1 percent in April 2022, compared with the increase of 21.2 percent in March 2022. In April 2021, VaNSI upsurged with an annual rate of 180.5 percent. (Tables A and 3)

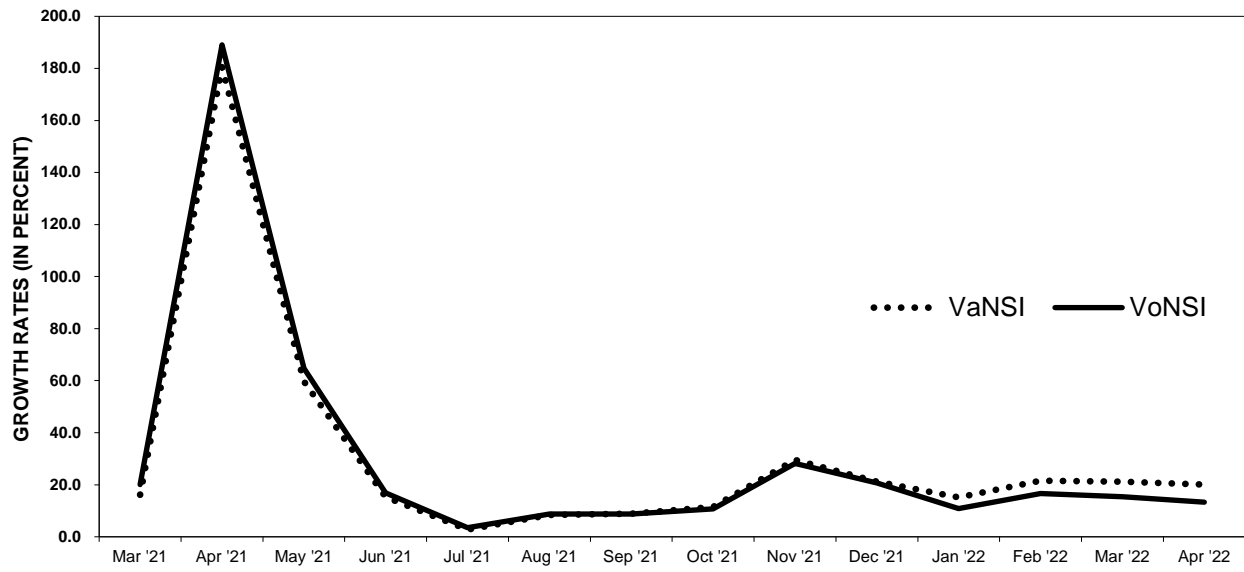
The growth in VaNSI was attributed to the positive growth rates of 15 industry divisions. Among these, **manufacture of coke and refined petroleum products** exhibited the highest annual growth with 118.4 percent in April 2022. On the other hand, the remaining seven industry divisions recorded decrements in their sales with **manufacture of fabricated metal products, except machinery and equipment** registering the fastest annual decrease of -16.9 percent. (Tables C.1 and 3)

Volume of Net Sales Index also posted double-digit increments

The Volume of Net Sales Index (VoNSI), likewise, gained an annual rate of 13.3 percent in April 2022, compared with the previous month's annual rate of 15.4 percent. In April 2021, VoNSI accelerated with an annual rate of 189.1 percent. (Tables A and 4).

The increase in VoNSI for April 2022 was contributed by the upturns in sales of 15 of the 22 industry divisions. Among these, the top contributor was **manufacture of coke and refined petroleum products** with 82.5 percent annual growth rate. On the contrary, seven industry divisions exhibited declines during the period. The **manufacture of fabricated metal products, except machinery and equipment** had the lowest annual rate of -22.6 percent. (Tables C.2 and 4).

Figure 3. Year-on-Year Changes in Net Sales (in percent):
March 2021 – April 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: March 2022^r and April 2022^p
(2018 =100)

| INDUSTRY DIVISION | March 2022 ^r | April 2022 ^p |
|--|-------------------------|-------------------------|
| Gainers | | |
| Manufacture of coke and refined petroleum products | 140.9 | 118.4 |
| Manufacture of computer, electronic, and optical products | 31.1 | 23.9 |
| Manufacture of food products | 8.8 | 18.8 |
| Manufacture of beverages | 30.2 | 16.8 |
| Manufacture of transport equipment | 18.2 | 11.3 |
| Manufacture of chemical and chemical products | 13.1 | 25.7 |
| Manufacture of other non-metallic mineral products | 3.3 | 14.4 |
| Manufacture of textiles | 40.5 | 47.9 |
| Printing and reproduction of recorded media | 30.4 | 22.0 |
| Manufacture of wearing apparel | 24.7 | 21.4 |
| Manufacture of rubber and plastic products | 12.9 | 6.2 |
| Manufacture of tobacco products | -3.9 | 13.0 |
| Other manufacturing and repair and installation of machinery and equipment | -2.5 | 5.8 |
| Manufacture of machinery and equipment except electrical | 3.6 | 4.4 |
| Manufacture of wood, bamboo, cane, rattan articles and related products | 22.5 | 5.9 |
| Losers | | |
| Manufacture of fabricated metal products, except machinery and equipment | -15.9 | -16.9 |
| Manufacture of basic metals | -16.2 | -11.1 |
| Manufacture of paper and paper products | -5.5 | -7.2 |
| Manufacture of furniture | 4.4 | -16.6 |
| Manufacture of electrical equipment | -14.1 | -6.2 |
| Manufacture of basic pharmaceutical products and pharmaceutical preparations | 15.0 | -8.3 |
| Manufacture of leather and related products, including footwear | 5.3 | -2.2 |

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: March 2022^r and April 2022^p
(2018 = 100)

| INDUSTRY DIVISION | March 2022 ^r | April 2022 ^p |
|--|-------------------------|-------------------------|
| Gainers | | |
| Manufacture of coke and refined petroleum products | 103.8 | 82.5 |
| Manufacture of computer, electronic, and optical products | 34.4 | 23.6 |
| Manufacture of beverages | 26.2 | 12.0 |
| Manufacture of food products | 1.4 | 10.0 |
| Manufacture of transport equipment | 15.4 | 9.1 |
| Manufacture of chemical and chemical products | 3.1 | 13.8 |
| Manufacture of other non-metallic mineral products | -0.9 | 8.5 |
| Printing and reproduction of recorded media | 32.1 | 22.7 |
| Manufacture of textiles | 34.5 | 42.6 |
| Manufacture of wearing apparel | 19.6 | 16.3 |
| Manufacture of tobacco products | -5.5 | 10.8 |
| Manufacture of wood, bamboo, cane, rattan articles and related products | 31.2 | 15.9 |
| Other manufacturing and repair and installation of machinery and equipment | -2.8 | 6.2 |
| Manufacture of rubber and plastic products | 6.9 | 1.0 |
| Manufacture of machinery and equipment except electrical | 4.6 | 1.4 |
| Losers | | |
| Manufacture of basic metals | -25.0 | -18.9 |
| Manufacture of fabricated metal products, except machinery and equipment | -18.2 | -22.6 |
| Manufacture of paper and paper products | -8.0 | -10.7 |
| Manufacture of electrical equipment | -16.9 | -9.5 |
| Manufacture of furniture | 2.9 | -17.3 |
| Manufacture of basic pharmaceutical products and pharmaceutical preparations | 12.6 | -9.7 |
| Manufacture of leather and related products, including footwear | 3.9 | -3.5 |

p - preliminary, r- revised

Source: Philippine Statistics Authority

CAPACITY UTILIZATION

Average capacity utilization rate for manufacturing slightly decreased

Based on responding establishments, the average capacity utilization rate for manufacturing sector in April 2022 was reported at 69.2 percent, from 70.9 percent in the previous month.

There were 18 out of 22 industry divisions with more than 60 percent average capacity utilization rate, led by **manufacture of furniture** (79.2%), **manufacture of other non-metallic mineral products** (79.0%), and **manufacture of wearing apparel** (77.8%). (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 21.7 percent of the total number of responding establishments. Meanwhile, 39.7 percent operated at 70 to 89 percent capacity, while 38.6 percent operated below 70 percent capacity. (Table D)

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

| Capacity Utilization | Number of Responding Establishments | Percent Share to Responding Establishments |
|-----------------------------|--|---|
| TOTAL | 589 | 100.0 |
| Below 50% | 82 | 13.9 |
| 50% - 59% | 69 | 11.7 |
| 60% - 69% | 76 | 13.0 |
| 70% - 79% | 125 | 21.2 |
| 80% - 89% | 109 | 18.5 |
| 90% - 100% | 128 | 21.7 |

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 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 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

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

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

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.