



PRESS RELEASE

PRODUCTION INDEX AND NET SALES INDEX (Monthly Integrated Survey of Selected Industries) July 2020

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Table A. Year-on-Year Growth Rates for Production Index,
Net Sales Index, and Producer Price Index
July 2020, June 2020, and July 2019
(In Percent)

TOTAL MANUFACTURING	JULY 2020^p	JUNE 2020^r	JULY 2019
Production Index (2000=100)			
Value (VaPI)	-14.8	-16.0	-7.9
Volume (VoPI)	-11.9	-12.5	-8.5
Net Sales Index (2000=100)			
Value (VaNSI)	-13.5	-16.7	-2.4
Volume (VoNSI)	-10.6	-13.3	-3.1
Producer Price Index (2000=100)	-3.3	-3.9	0.7

p – preliminary, r- revised

Source: Philippine Statistics Authority



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PRODUCTION

Value of Production Index further contracted

The Value of Production Index (VaPI) for Manufacturing sector reflected an annual decrement of -14.8 percent in July 2020, from a faster drop of -16.0 percent in the previous month. The contraction of VaPI in July 2020 was the fifth consecutive month that it exhibited annual decline. In July 2019, the annual decrease was observed at -7.9 percent. *(Table A)*

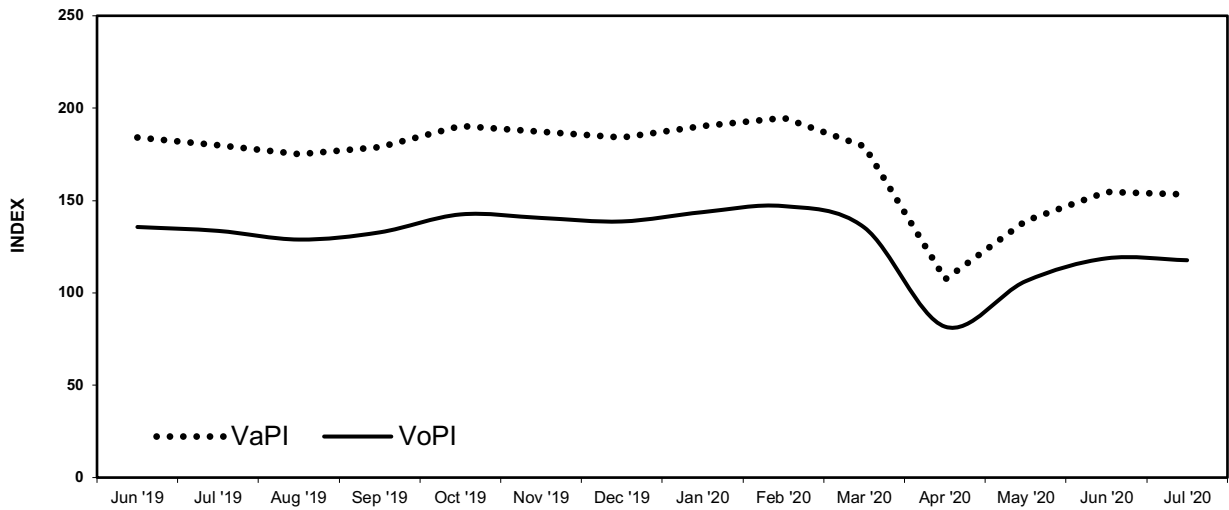
The major contributory to the slower annual decline of VaPI for manufacturing sector in July 2020 was the significant expansion observed in **petroleum products** which grew by 364.2 percent. Other industry groups with positive growth rates in July 2020 were **wood and wood products** (8.4%), and **furniture and fixtures** (2.3%). The slower drop in the indices of nine industry groups also tapered off the rate of decline in the index for the sector. *(Tables 1-A, and 1)*

Volume of Production Index also dropped at a slower rate

The Volume of Production Index (VoPI) for manufacturing sector in July 2020 likewise contracted at a slower rate of -11.9 percent in July 2020 compared with the -12.5 percent decrease in June 2020. In July of the previous year, year-on-year decline was -8.5 percent. *(Table A)*

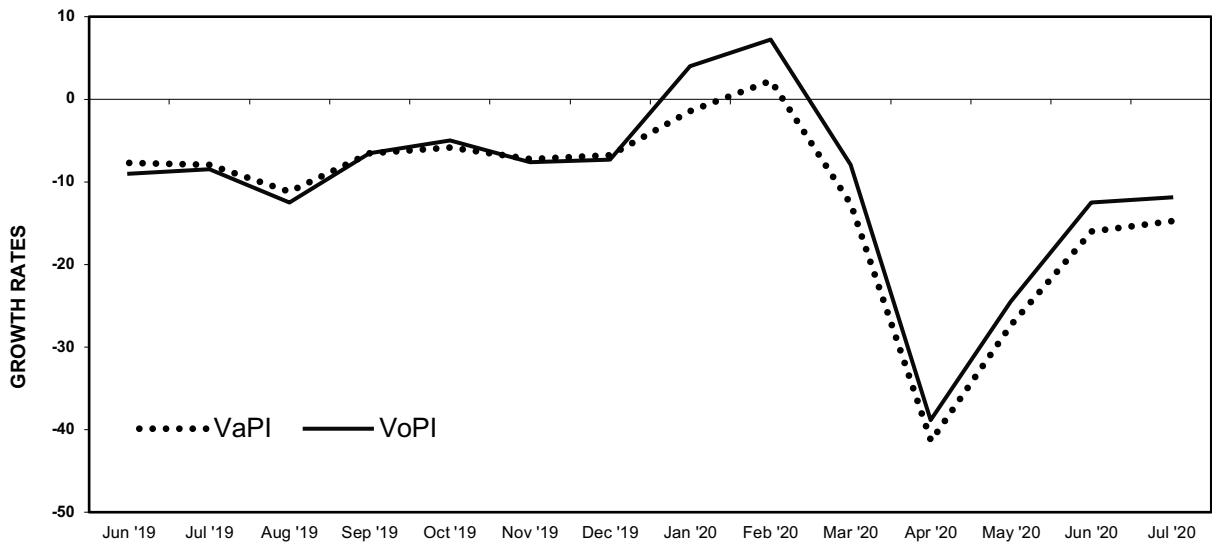
The slower downtrend in the VoPI for the sector was brought about by the increases in the indices of three industry groups led by **petroleum products**. Contributing further to the slower drop in July 2020 for the sector was the slower decreases in the indices of seven industry groups. *(Tables 1-B, and 2)*

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



p - preliminary
Source: Philippine Statistics Authority

Figure 2. Year-on-Year Growth Rates of Value and Volume of Production Index for Total Manufacturing June 2019 - July 2020^p (2000 = 100)



p - preliminary
Source: Philippine Statistics Authority

NET SALES

Value of Net Sales Index continued to decline

The Value of Net Sales Index (VaNSI) continued to drop at an annual rate of -13.5 percent in July 2020. This decline, however, was slower than the reported annual decrease of -16.7 percent in the previous month. The July 2020 figure was the fifth consecutive month that VaNSI had a negative growth, and the third straight month that it was declining at a slower rate. In July 2019, VaNSI dropped at a much slower rate of -2.4 percent. (*Table A*)

Of the 20 industry groups, positive growths were observed in four industry groups, namely, **tobacco products** (23.7%), **food manufacturing** (15.5%), **wood and wood products** (10.7%) and **chemical products** (8.2%) in July 2020.

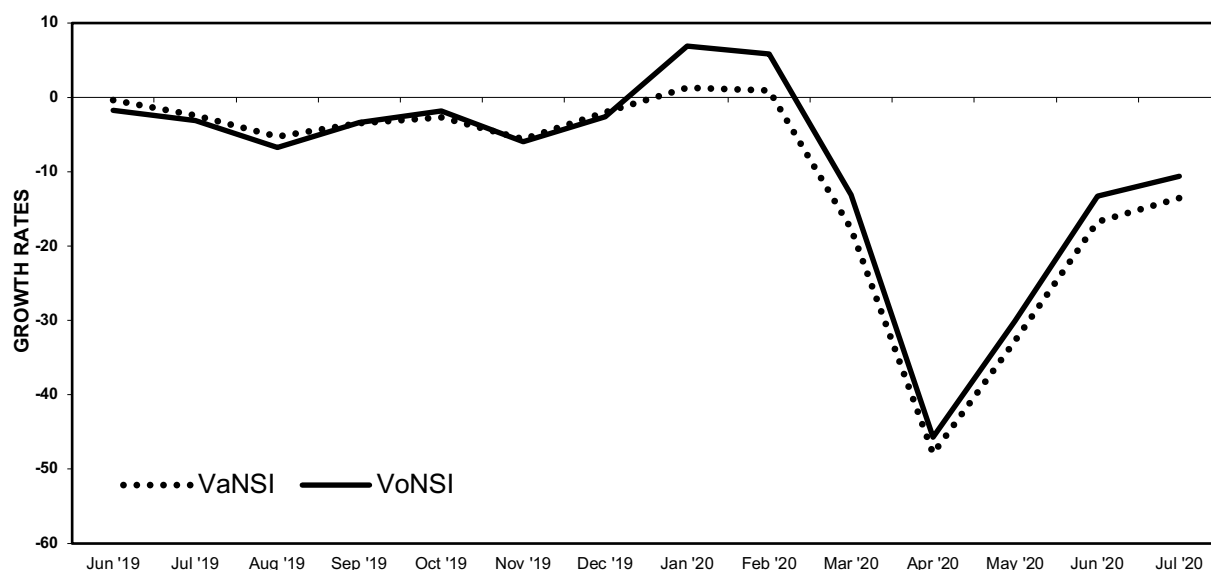
The rest of the industry groups exhibited negative growths but majority (12) were on a slower rate of decline. (*Tables 2-A, and 3*)

Volume of Net Sales Index likewise posted a slower negative rate

The Volume of Net Sales Index (VoNSI) also continued to exhibit a downtrend at an annual rate of -10.6 percent in July 2020, from a faster decline of -13.3 percent in the previous month. In July 2019, VoNSI dropped by -3.1 percent. (*Table A*)

Contributing to the slower decline in VoNSI for manufacturing sector in the period were the positive annual growths in four major industry groups led by **tobacco products** with 18.3 percent growth rate. The slower drop in the indices of 11 industry groups also triggered the narrower rate of decrease of VoNSI for the manufacturing sector. (*Tables 2-B and 4*)

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



p - preliminary

Source: Philippine Statistics Authority

CAPACITY UTILIZATION

Average capacity utilization rate for manufacturing slightly decreased

Based on responding establishments with responses on capacity utilization, average capacity utilization rate for manufacturing sector in July 2020 slightly decreased to 75.4 percent from 75.8 percent in the previous month.

Seven of the 20 industry groups had at least 80 percent average capacity utilization rate which was led by **machinery except electrical** (86.5%), followed by **printing** (83.3%), and **textiles** (82.2%). (*Table 6*)

Almost one-fifth of responding establishments operated at full capacity

The proportion of establishments that operated at full capacity (90% to 100%) was 17.3 percent of the total number of responding establishments with responses on capacity utilization. More than two-fifths (46.0%) operated at 70 to 89 percent capacity, and more than one-third (36.7%) operated below 70 percent capacity. (*Table B*)

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

Capacity Utilization	Number of Responding Establishments	Percent Share to Responding Establishments
TOTAL	300	100.0
Below 50%	40	13.3
50% - 59%	32	10.7
60% - 69%	38	12.7
70% - 79%	63	21.0
80% - 89%	75	25.0
90% - 100%	52	17.3

p - preliminary

Notes:

- 1) Results are based on the responses of establishments which were in operation during the reference month.
- 2) There were 28 establishments which responded but were not included in the tabulation as they temporarily 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 Group: June and July 2020
(2000 =100)

INDUSTRY GROUP	July 2020 ^p	June 2020 ^r
Gainers		
Petroleum products ^a	364.2	6.9
Wood and wood products	8.4	9.5
Furniture and fixtures	2.3	5.6
Losers		
Machinery except electrical	-51.3	-35.2
Electrical machinery	-23.5	-24.0
Transport equipment	-62.0	-48.7
Food manufacturing	-9.1	-7.4
Footwear and wearing apparel	-36.2	-44.1
Beverages	-17.4	-18.7
Tobacco products	-38.4	-31.9
Non-metallic mineral products	-21.2	-30.6
Textiles	-24.2	-19.9
Rubber and plastic products	-15.5	-14.8
Printing	-35.3	-58.8
Chemical products	-4.5	1.1
Basic metals	-7.2	-8.9
Paper and paper products	-16.2	-16.7
Miscellaneous manufactures	-8.4	-19.9
Fabricated metal products	-10.5	-2.3
Leather products	-34.5	-35.0

p - preliminary, r - revised

a - the abrupt increase in July 2020 was due to plant maintenance shutdown in July 2019
of sample establishments

Source: Philippine Statistics Authority

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

INDUSTRY GROUP	July 2020 ^p	June 2020 ^r
Gainers		
Petroleum products ^a	400.0	16.1
Wood and wood products	14.4	19.9
Chemical products	0.1	6.3
Losers		
Machinery except electrical	-49.5	-32.5
Electrical machinery	-22.3	-19.4
Transport equipment	-58.5	-44.5
Food manufacturing	-9.8	-8.1
Footwear and wearing apparel	-33.0	-41.4
Beverages	-21.4	-22.7
Tobacco products	-41.0	-34.9
Non-metallic mineral products	-19.4	-29.9
Textiles	-23.9	-19.2
Printing	-34.4	-58.2
Rubber and plastic products	-13.8	-12.7
Fabricated metal products	-11.3	-2.8
Miscellaneous manufactures	-7.2	-18.8
Paper and paper products	-6.1	-4.9
Furniture and fixtures	-14.3	-11.8
Basic metals	-1.9	-3.8
Leather products	-28.1	-36.4

p - preliminary, r - revised

a - the abrupt increase in July 2020 was due to plant maintenance shutdown in July 2019 of sample establishments

Source: Philippine Statistics Authority

TABLE 2-A. Year-on-Year Growth Rate (%) of Value of Net Sales Index
by Industry Group: June and July 2020
(2000 =100)

INDUSTRY GROUP	July 2020 ^p	June 2020 ^r
Gainers		
Food manufacturing	15.5	16.8
Chemical products	8.2	1.0
Tobacco products	23.7	37.4
Wood and wood products	10.7	-15.2
Losers		
Petroleum products	-47.8	-53.1
Machinery except electrical	-29.9	-30.2
Electrical machinery	-15.3	-21.9
Transport equipment	-41.0	-40.1
Footwear and wearing apparel	-38.4	-45.8
Non-metallic mineral products	-30.4	-30.8
Basic metals	-15.9	-11.9
Textiles	-26.1	-15.9
Paper and paper products	-22.7	-22.4
Beverages	-8.8	-11.5
Miscellaneous manufactures	-12.3	-21.7
Rubber and plastic products	-21.2	-21.7
Printing	-14.5	-53.0
Fabricated metal products	-5.3	-19.0
Furniture and fixtures	-5.3	-13.2
Leather products	-17.3	-27.2

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

TABLE 2-B. Year-on-Year Growth Rate (%) of Volume of Net Sales
Index by Industry Group: June and July 2020
(2000 = 100)

INDUSTRY GROUP	July 2020 ^p	June 2020 ^r
Gainers		
Food manufacturing	14.6	16.0
Chemical products	13.4	6.2
Tobacco products	18.3	31.3
Wood and wood products	16.8	-7.2
Losers		
Petroleum products	-43.9	-49.1
Machinery except electrical	-27.4	-27.3
Electrical machinery	-13.9	-17.1
Transport equipment	-35.6	-35.2
Footwear and wearing apparel	-35.3	-43.2
Non-metallic mineral products	-28.9	-30.2
Beverages	-13.2	-15.8
Basic metals	-11.1	-7.0
Textiles	-25.9	-15.1
Paper and paper products	-13.5	-11.4
Rubber and plastic products	-19.6	-19.7
Miscellaneous manufactures	-11.2	-20.6
Furniture and fixtures	-20.7	-27.5
Printing	-13.3	-52.3
Fabricated metal products	-6.2	-19.3
Leather products	-9.6	-29.2

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

Technical Notes

I. Introduction

The Monthly Integrated Survey of Selected Industries (MISSI) is one of the designated statistical activities undertaken by the Philippine Statistics Authority with the objective of providing flash indicators on the performance of growth-oriented industries in the manufacturing sector. The survey gathers monthly data on employment, compensation, production, net sales, inventories, and capacity utilization from manufacturing establishments.

The indicators generated from the 2020 MISSI at the 3/4-digit 2009 Philippine Standard Industrial Classification (PSIC) level are Value of Production Index (VaPI), Volume of Production Index (VoPI), Value of Net Sales Index (VaNSI), Volume of Net Sales Index (VoNSI) and capacity utilization of industries. The VoPI and VoNSI, however, are derived indicators using the 2020 Producer Price Index (PPI) as deflator.

II. Method of Index Computation

The MISSI utilizes the Laspeyres-type method of index computation where the weights are based on the value of production from the Census of Philippine Business and Industry (CPBI).

For the 2020 MISSI index series with base year of 2000, the weights of the major industries and sub-industries are based from the results of the 2000 CPBI for manufacturing establishments with average total employment of 20 and over. The weights are computed from the value of products sold plus change in inventories.

The formula in the computation of indices and growth rates are as follows:

1. Value of Production Index (VaPI)

a. Computation of Index for Industry Class Level

i. Initial Index

$$VaPI_{ijm} = \frac{V_{ijm}}{V_{ij0}} \times 100$$

where:

- $VaPI_{ijm}$ = VaPI for the i^{th} industry class of the j^{th} industry group at the current month m
- V_{ijm} = total value of production for all sample establishments in the i^{th} industry class of the j^{th} industry group at the current month m
- V_{ij0} = average monthly value of production at base year 0

ii. Monthly Index

$$VaPI_{ijm} = \frac{V_{ijm}}{V_{ij(m-1)}} \times VaPI_{ij(m-1)}$$

where:

- $VaPI_{ijm}$ = VaPI for the i^{th} industry class of the j^{th} industry group at the current month m
- $VaPI_{ij(m-1)}$ = VaPI for the i^{th} industry class of the j^{th} industry group for the previous month $m-1$
- V_{ijm} = total value of production for all sample establishments in the i^{th} industry class of the j^{th} industry group at the current month m
- $V_{ij(m-1)}$ = total value of production for all sample establishments in the i^{th} industry class of the j^{th} industry group for the previous month $m-1$

b. Computation of Index for Industry Group Level

$$VaPI_{jm} = \sum_{i=1}^n W_{ij} \times VaPI_{ijm}$$

where:

- $VaPI_{jm}$ = VaPI for j^{th} industry group at current month m
- $VaPI_{ijm}$ = VaPI for the i^{th} industry class of the j^{th} industry group at the current month m
- W_{ij} = Weight for the i^{th} industry class of the j^{th} industry group
- n = Number of industry class in the j^{th} industry group

Same formula for industry groups without industry class

c. Computation of Index for Total Manufacturing

$$VaPI_m = \sum_{j=1}^p W_j \times VaPI_{jm}$$

where:

- $VaPI_m$ = VaPI for the current month m
- $VaPI_{jm}$ = VaPI for j^{th} industry group (2/3-digit) at current month m
- W_j = Weight for the j^{th} industry group
- p = Number of industry groups = 20

2. Value of Net Sales Index (VaNSI)

The same methodology is used to compute the Value of Net Sales Index (VaNSI).

3. Volume of Production Index (VoPI)

a. Computation for Index for Industry Class Level

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

where:

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

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

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

b. Computation of Index for Industry Group Level

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

where:

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

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

PPI_{jm} = PPI for the j^{th} industry group at the current month m

c. Computation of Index for Total Manufacturing (1-digit PSIC)

$$\text{VoPI}_m = \frac{\text{VaPI}_m}{\text{PPI}_m}$$

where:

VoPI_m = VoPI for total manufacturing at the current month m

VaPI_m = VaPI for total manufacturing at the current month m

PPI_m = PPI for total manufacturing at the current month m

4. Volume of Net Sales Index (VoNSI)

The same methodology is used to compute the Volume of Net Sales Index (VoNSI).

5. Capacity Utilization Rate

Capacity Utilization Rate is the ratio of total output to the maximum rated capacity of the establishment. Rated Capacity refers to the largest volume of output possible at which the factory can operate with an acceptable degree of efficiency taking into consideration unavoidable losses of productive time (i.e., vacation, holiday, and repair of equipment) and availability of raw materials.

The formulas in obtaining the Average Capacity Utilization Rate are the following:

a. Computation of Index for Industry Class Level

$$\text{AveCU}_m = \sum_{k=1}^n \left(\text{CU}_{ikjm} \times \frac{\text{Prod}_{kijm}}{\text{Prod}_{ijm}} \right)$$

where:

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

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

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

Prod_{ijm} = Total value of production for the i th industry class of the j^{th} industry group at the current month m

b. Computation of Index for Industry Group Level

- **With Industry Classes**

$$\text{AveCU}_{jm} = \sum_{j=1}^{20} (\text{AveCU}_{ijm} \times W_{ij})$$

where:

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

- **Without Industry Classes**

$$\text{AveCU}_m = \sum_{k=1}^n \left(\text{CU}_{kjm} \times \frac{\text{Prod}_{kjm}}{\text{Prod}_{jm}} \right)$$

where:

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

c. Computation of Index for Total Manufacturing

$$\text{AveCU}_m = \sum_{j=1}^{20} (\text{Ave CU}_{jm} \times W_j)$$

where:

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

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

W_j = Weight of the j^{th} industry group at the current m

III. Computation of Growth Rates

Year-on-year growth rates are computed by dividing the current month index by the index in the same month of the previous year less 1.

IV. Imputation and Revision

Imputation is done for sample establishments that are in operation during the reference period but no response during the release date. Results are revised accordingly when the actual data are received and these revisions are reflected in the next release.

V. Industry Coverage

The 2020 MISSI utilizes the 2009 PSIC to classify major industries and sub-industries. Twenty major industries of the 2009 PSIC were formed to comprise the industry coverage of the 2020 MISSI.

The table below presents the industry coverage of 2020 MISSI by 2009 PSIC code.

2009 PSIC CODE	INDUSTRY DESCRIPTION
C10	Food manufacturing *
C11	Beverages
C12	Tobacco products
C13	Textiles*
C14, C152	Footwear and wearing apparel
C151	Leather products
C16	Wood and wood products*
C17	Paper and paper products
C18	Printing
C19	Petroleum products*
C20,C21	Chemical products*
C22	Rubber and plastic products*
C23	Non-metallic mineral products*
C24	Basic metals*
C25,C3311	Fabricated metal products
C262,C275,C28, C263,C268,C3312,C332	Machinery except electrical*
C261,C264,C27, C29301,C3314,C332	Electrical machinery*
C29 except C29301, C30,C3315	Transport equipment
C31	Furniture and fixtures
C265,C266,C267,C32, C3313,C3319	Miscellaneous manufactures

* Industry groups categorized into industry classes