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October 2019 Manufacturing ISM® Report On Business®

PMI[®] at 48.3%

GDP Growing at 1.6%

New Orders, Production, and Employment Contracting

Supplier Deliveries Faster from Slower; Backlog Contracting

Raw Materials Inventories Contracting; Customers' Inventories Too Low

Prices Decreasing; Exports Growing, but Imports Contracting

(Tempe, Arizona) — Economic activity in the manufacturing sector contracted in October, and the overall economy grew for the 126th consecutive month, say the nation's supply executives in the latest Manufacturing ISM[®] Report On Business[®].

The report was issued today by Timothy R. Fiore, CPSM, C.P.M., Chair of the Institute for Supply Management[®] (ISM[®]) Manufacturing Business Survey Committee: "The October PMI[®] registered 48.3 percent, an increase of 0.5 percentage point from the September reading of 47.8 percent. The New Orders Index registered 49.1 percent, an increase of 1.8 percentage points from the September reading of 47.3 percent. The Production Index registered 46.2 percent, down 1.1 percentage points compared to the September reading of 47.3 percent. The Backlog of Orders Index registered 44.1 percent, down 1 percentage point compared to the September reading of 45.1 percent. The Employment Index registered 47.7 percent, a 1.4-percentage point increase from the September reading of 46.3 percent. The Supplier Deliveries Index registered 49.5 percent, a 1.6-percentage point decrease from the

September reading of 51.1 percent. The Inventories Index registered 48.9 percent, an increase of 2 percentage points from the September reading of 46.9 percent. The Prices Index registered 45.5 percent, a 4.2-percentage point decrease from the September reading of 49.7 percent. The New Export Orders Index registered 50.4 percent, a 9.4-percentage point increase from the September reading of 41 percent. The Imports Index registered 45.3 percent, a 2.8-percentage point decrease from the September reading of 48.1 percent.

"Comments from the panel reflect an improvement from the prior month, but sentiment remains more cautious than optimistic. October was the third consecutive month of PMI® contraction, at a slower rate compared to September. Demand contracted, with the New Orders Index contracting marginally, the Customers' Inventories Index moving into 'about right' territory and the Backlog of Orders Index contracting for the sixth straight month (and at a faster rate). The New Export Orders Index surged into expansion territory, likely contributing to the slowing contraction of the New Orders Index. Consumption (measured by the Production and Employment indexes) contracted, due primarily to lack of demand, but contributed positively (a combined +0.3-percentage point increase) to the PMI® calculation. Inputs — expressed as supplier deliveries, inventories and imports — were again lower in October, due primarily to supplier delivery contraction offset by improvements in inventories. This resulted in a combined 0.4-percentage point net improvement in the Supplier Deliveries and Inventories indexes. Imports contraction quickened. Overall, inputs indicate (1) supply chains are meeting demand and (2) companies are more confident that materials received will be consumed in a reasonable time period. Prices decreased for the fifth consecutive month, at a faster rate."

"Global trade remains the most significant cross-industry issue. Food, Beverage & Tobacco Products remains the strongest industry sector and Transportation Equipment the weakest sector. Overall, sentiment this month remains cautious regarding near-term growth," says Fiore.

Of the 18 manufacturing industries, five reported growth in October: Furniture & Related Products; Printing & Related Support Activities; Food, Beverage & Tobacco Products; Wood Products; and Computer & Electronic Products. The 12 industries reporting contraction in October — in the following order — are: Primary Metals; Apparel, Leather & Allied Products; Textile Mills; Transportation Equipment; Plastics & Rubber Products; Machinery; Chemical Products; Petroleum & Coal Products; Electrical Equipment, Appliances & Components; Fabricated Metal Products; Miscellaneous Manufacturing; and Paper Products.

What respondents are saying...

"Customer demand is down, and we are expecting a very soft fourth quarter, without much relief in sight for Q1. Suppliers report the continued rise in labor costs, which are ultimately reflected in the rising product costs." (Computer & Electronic Products)

"The chemical manufacturing industry is depressed; demand across many markets globally is down, and pricing is as a result." (Chemical Products)

"Automotive sales continue to decrease; however, trucks and SUVs are still providing decent revenue. Cautiously optimistic for the near term." (Transportation Equipment)

"Economy is showing slight signs of weakening. The same business headwinds on trade, tariffs, and currency uncertainty are making the environment challenging." (Food, Beverage & Tobacco Products)

"Been hearing from lots of my suppliers that their business is down and [they are] looking for more work in the metal processing [and] machining areas. We remain very busy." (Fabricated Metal Products)

"Production demand is softening; some [of it is] due to seasonality, [but] much [is] due to customer order rate declining and dealer inventory stabilizing." (Machinery)

"Business for thermoplastic resins is very strong, but margins continue to be under pressure due to tariffs and global economy uncertainty." (Plastics & Rubber Products)

"Trade cost pressures continue to be a headwind in our business." (Paper Products)

"Automotive related manufacturing is definitely slowing in the U.S. I think we are seeing the negative impacts of the tariff war with China and the unsigned [U.S.-Mexico-Canada Agreement] deal starting to hurt consumer confidence, especially on large purchases. Corporations are slowing orders/production accordingly." (Primary Metals)

"Our business levels have softened over the last three to five months, in the U.S. market [and] globally. Germany and China are both experiencing similar slowdowns. We are in the industrial industry, and the outlook appears to remain soft into Q1 of 2020." (Electrical Equipment, Appliances & Components)

Manufacturing at a Glance October 2019

Index	Series Index Oct	Series Index Sep	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
PMI®	48.3	47.8	+0.5	Contractin	gSlower	3
New Orders	49.1	47.3	+1.8	Contractin	gSlower	3
Production	46.2	47.3	-1.1	Contractin	gFaster	3
Employment	47.7	46.3	+1.4	Contractin	gSlower	3
Supplier Deliveries	5 49.5	51.1	-1.6	Faster	From Slowing	1
Inventories	48.9	46.9	+2.0	Contracting	gSlower	5
Customers' Inventories	47.8	45.5	+2.3	Too Low	Slower	37

Index	Series Index Oct	Series Index Sep	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
Prices	45.5	49.7	-4.2	Decreasing	g Faster	5
Backlog of Orders	44.1	45.1	-1.0	Contractin	g Faster	6
New Export Orders	50.4	41.0	+9.4	Growing	From Contracting	1
Imports	45.3	48.1	-2.8	Contractin	gFaster	4
OVERALL ECONON	ΛY			Growing	Faster	126
Manufacturing Sector				Contractin	gSlower	3

Manufacturing ISM[®] Report On Business[®] data is seasonally adjusted for the New Orders, Production, Employment and Supplier Deliveries Indexes.

*Number of months moving in current direction.

Commodities reported up/down in price and in short supply

Commodities Up in Price

Corn; Ethylene; Nickel; Polypropylene Resin; Propylene; Steel; and Steel — Stainless.

Commodities Down in Price

Aluminum (7); Caustic Soda; Copper; Freight; Nylon (2); Solvents; Steel (4); Steel — Carbon; Steel — Hot Rolled (3); Steel — Scrap; Steel Products (10); and Sulfuric Acid.

Commodities in Short Supply

Electrical Components; Electronic Components (3); and Helium (4).

Note: The number of consecutive months the commodity is listed is indicated after each item.

OCTOBER 2019 Manufacturing Index Summaries

PMI®

Manufacturing contracted in October, as the PMI[®] registered 48.3 percent, an increase of 0.5 percentage point from the September reading of 47.8 percent. "The PMI[®] contracted for the third straight month, but at slower levels compared to September. This marks seven straight months of softening or contraction in manufacturing. All but one (New Export Orders) of the PMI[®] subindexes registered at levels associated with contraction. Two of the six big industries expanded, and four contracted," says Fiore. A reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally contracting.

A PMI[®] above 42.9 percent, over a period of time, generally indicates an expansion of the overall economy. Therefore, the October PMI[®] indicates growth for the 126th consecutive month in the overall economy, and the third month of contraction following 35 straight months of growth in the manufacturing sector. "The past relationship between the PMI[®] and the overall economy indicates that the PMI[®] for October (48.3 percent) corresponds to a 1.6-percent increase in real gross domestic product (GDP) on an annualized basis," says Fiore.

The Last 12 Months

Month	PMI®
Oct 2019	48.3
Sep 2019	47.8
Aug 2019	49.1
Jul 2019	51.2
Jun 2019	51.7
May 2019	52.1
Month	PMI®
Apr 2019	52.8
Mar 2019	55.3
Feb 2019	54.2

Month	PMI®
Jan 2019	56.6
Dec 2018	54.3
Nov 2018	58.8
Average for 12 months - 52.7 High - 58.8 Low - 47.8	

New Orders

ISM[®]'s New Orders Index registered 49.1 percent in October, an increase of 1.8 percentage points when compared to the 47.3 percent reported for September. This indicates that new orders contracted for the third straight month, but at a slower rate. "The Transportation Equipment sector had the biggest drag on the New Orders Index in October. Three of the top six industry sectors expanded, and three contracted," says Fiore. A New Orders Index above 52.5 percent, over time, is generally consistent with an increase in the Census Bureau's series on manufacturing orders (in constant 2000 dollars).

Of 18 manufacturing industries, five reported growth in new orders in October: Wood Products; Furniture & Related Products; Food, Beverage & Tobacco Products; Computer & Electronic Products; and Fabricated Metal Products. The 10 industries reporting a decline in new orders in October, in the following order, are: Primary Metals; Apparel, Leather & Allied Products; Textile Mills; Transportation Equipment; Plastics & Rubber Products; Nonmetallic Mineral Products; Petroleum & Coal Products; Machinery; Miscellaneous Manufacturing; and Chemical Products.

New Orders	% Higher	% Same	% Lower	Net	Index
Oct 2019	20.5	51.0	28.5	-8.0	49.1
Sep 2019	18.8	55.2	26.0	-7.2	47.3
Aug 2019	17.5	56.6	25.9	-8.4	47.2
Jul 2019	23.0	52.1	24.9	-1.9	50.8

Production

ISM[®]'s Production Index registered 46.2 percent in October, which is 1.1 percentage points lower when compared to the 47.3 percent reported for September, indicating the third consecutive month of

contraction. "Two of the big six industry sectors expanded, and three contracted," says Fiore. An index above 51.7 percent, over time, is generally consistent with an increase in the Federal Reserve Board's Industrial Production figures.

The six industries reporting growth in production during the month of October — listed in order — are: Printing & Related Support Activities; Furniture & Related Products; Paper Products; Food, Beverage & Tobacco Products; Electrical Equipment, Appliances & Components; and Fabricated Metal Products. The 11 industries reporting a decrease in production in October — listed in order — are: Textile Mills; Primary Metals; Apparel, Leather & Allied Products; Petroleum & Coal Products; Nonmetallic Mineral Products; Wood Products; Machinery; Plastics & Rubber Products; Transportation Equipment; Chemical Products; and Miscellaneous Manufacturing.

Production	% Higher	% Same	% Lower	Net	Index
Oct 2019	20.8	49.5	29.7	-8.9	46.2
Sep 2019	20.3	52.5	27.2	-6.9	47.3
Aug 2019	22.0	54.7	23.2	-1.2	49.5
Jul 2019	19.7	59.4	20.8	-1.1	50.8

Employment

ISM[®]'s Employment Index registered 47.7 percent in October, an increase of 1.4 percentage points when compared to the September reading of 46.3 percent. This indicates contraction in October for the third consecutive month, but at a slower rate. "One of the six big industry sectors expanded, and four contracted during the period. Labor force-reduction concerns increased, indicated in 40 percent of employment comments," says Fiore. An Employment Index above 50.8 percent, over time, is generally consistent with an increase in the Bureau of Labor Statistics (BLS) data on manufacturing employment.

Of 18 manufacturing industries, five reported employment growth in October: Printing & Related Support Activities; Textile Mills; Furniture & Related Products; Nonmetallic Mineral Products; and Food, Beverage & Tobacco Products. The nine industries reporting a decrease in employment in October, in the following order, are: Apparel, Leather & Allied Products; Primary Metals; Transportation Equipment; Machinery; Chemical Products; Paper Products; Computer & Electronic Products; Electrical Equipment, Appliances & Components; and Fabricated Metal Products.

Employment	% Higher	% Same	% Lower	Net	Index
Oct 2019	16.3	62.3	21.4	-5.1	47.7
Sep 2019	14.6	62.3	23.0	-8.4	46.3

Employment	% Higher	% Same	% Lower	Net	Index
Aug 2019	15.0	66.0	19.0	-4.0	47.4
Jul 2019	19.2	66.3	14.5	+4.7	51.7

Supplier Deliveries

The delivery performance of suppliers to manufacturing organizations was faster in October, as the Supplier Deliveries Index registered 49.5 percent. This is 1.6 percentage points lower than the 51.1 percent reported for September. "This is the first month of quickening supplier deliveries after 43 consecutive months of slowing. There were minimal respondents' comments on supply chain constraints, lead-time extensions and shortages," says Fiore. A reading below 50 percent indicates faster deliveries, while a reading above 50 percent indicates slower deliveries.

The six industries reporting slower supplier deliveries in October — listed in order — are: Apparel, Leather & Allied Products; Textile Mills; Food, Beverage & Tobacco Products; Primary Metals; Miscellaneous Manufacturing; and Computer & Electronic Products. The seven industries reporting faster supplier deliveries in October — listed in order — are: Fabricated Metal Products; Nonmetallic Mineral Products; Paper Products; Transportation Equipment; Plastics & Rubber Products; Chemical Products; and Machinery.

Supplier Deliveries	% Slower	% Same	% Faster	Net	Index
Oct 2019	10.0	80.1	9.9	+0.1	49.5
Sep 2019	10.8	81.0	8.2	+2.6	51.1
Aug 2019	12.7	77.8	9.5	+3.2	51.4
Jul 2019	13.1	80.8	6.1	+7.0	53.3

Inventories*

The Inventories Index registered 48.9 percent in October, an increase of 2 percentage points from the 46.9 percent reported for September. "The index contracted for the fifth straight month, but at a slower rate. Improvements in new orders and stocking for the fourth quarter both contributed positively to the index compared to September," says Fiore. An Inventories Index greater than 44.3 percent, over time, is generally consistent with expansion in the Bureau of Economic Analysis (BEA) figures on overall manufacturing inventories (in chained 2000 dollars).

The seven industries reporting higher inventories in October, in the following order, are: Nonmetallic Mineral Products; Wood Products; Furniture & Related Products; Petroleum & Coal Products; Plastics & Rubber Products; Food, Beverage & Tobacco Products; and Transportation Equipment. The 11 industries reporting a decrease in inventories in October — listed in order — are: Printing & Related Support Activities; Apparel, Leather & Allied Products; Textile Mills; Primary Metals; Electrical Equipment, Appliances & Components; Paper Products; Chemical Products; Machinery; Miscellaneous Manufacturing; Computer & Electronic Products; and Fabricated Metal Products.

Inventories	% Higher	% Same	% Lower	Net	Index
Oct 2019	19.8	58.1	22.1	-2.3	48.9
Sep 2019	16.3	61.3	22.5	-6.2	46.9
Aug 2019	19.4	61.0	19.7	-0.3	49.9
Jul 2019	17.4	64.1	18.4	-1.0	49.5

Customers' Inventories*

ISM[®]'s Customers' Inventories Index registered 47.8 percent in October, which is 2.3 percentage points higher than the 45.5 percent reported for September, indicating that customers' inventory levels were considered too low. "Customers' inventories are too low for the 37th consecutive month but are closer to 'just right' territory. This is the highest customer inventory level since July 2017, when the index registered 48 percent," says Fiore.

The five industries reporting customers' inventories as too high during the month of October are: Nonmetallic Mineral Products; Apparel, Leather & Allied Products; Primary Metals; Furniture & Related Products; and Miscellaneous Manufacturing. The six industries reporting customers' inventories as too low during October — listed in order — are: Wood Products; Machinery; Chemical Products; Computer & Electronic Products; Fabricated Metal Products; and Transportation Equipment. Seven industries reported no change in customer inventories in October.

Customers' Inventories	% Reporting	% Too High	% About Right	% Too Low	Net	Index
Oct 2019	79	15.4	64.7	19.9	-4.5	47.8
Sep 2019	77	12.8	65.4	21.9	-9.1	45.5
Aug 2019	79	11.9	66.0	22.0	-10.1	44.9
Jul 2019	74	10.5	70.5	19.1	-8.6	45.7

Prices*

The ISM[®] Prices Index registered 45.5 percent in October, a decrease of 4.2 percentage points from the September reading of 49.7 percent, indicating raw materials prices decreased for the fifth consecutive month. "Prices contracted in October, at a faster rate compared to September. Respondents reported decreases in prices for aluminum, copper, basic chemicals, steel, steel scrap and freight expenses. The panel also reported price growth in ethylene, propylene, corn and nickel. Price stability remains elusive," says Fiore. A Prices Index above 52.5 percent, over time, is generally consistent with an increase in the Bureau of Labor Statistics (BLS) Producer Price Index for Intermediate Materials.

Four of the 18 industries reported paying increased prices for raw materials in October: Food, Beverage & Tobacco Products; Petroleum & Coal Products; Miscellaneous Manufacturing; and Computer & Electronic Products. The 12 industries reporting a decrease in prices for raw materials in October — listed in order — are: Primary Metals; Wood Products; Fabricated Metal Products; Furniture & Related Products; Apparel, Leather & Allied Products; Paper Products; Plastics & Rubber Products; Nonmetallic Mineral Products; Chemical Products; Machinery; Electrical Equipment, Appliances & Components; and Transportation Equipment.

Prices	% Higher	% Same	% Lower	Net	Index
Oct 2019	15.7	59.6	24.7	-9.0	45.5
Sep 2019	16.4	66.5	17.1	-0.7	49.7
Aug 2019	14.9	62.2	22.9	-8.0	46.0
Jul 2019	15.9	58.4	25.7	-9.8	45.1

Backlog of Orders*

ISM[®]'s Backlog of Orders Index registered 44.1 percent in October, which is 1 percentage point lower than the 45.1 percent reported in September, indicating order backlogs contracted for the sixth consecutive month, at a faster rate in October. "Backlogs continued to contract moderately, despite new order contraction slowing compared to September. Five of the six big industry sectors' backlogs contracted during the period," says Fiore.

Five of the 18 industries reported growth in order backlogs in October: Printing & Related Support Activities; Wood Products; Furniture & Related Products; Paper Products; and Food, Beverage & Tobacco Products. The 11 industries reporting a decrease in order backlogs during October — listed in order — are: Textile Mills; Primary Metals; Electrical Equipment, Appliances & Components; Petroleum & Coal Products; Transportation Equipment; Plastics & Rubber Products; Nonmetallic Mineral Products; Machinery; Chemical Products; Fabricated Metal Products; and Computer & Electronic Products.

% Reporting	% Higher	% Same	% Lower	Net	Index
88	16.4	55.3	28.2	-11.8	44.1
89	15.0	60.2	24.8	-9.8	45.1
87	17.9	56.8	25.3	-7.4	46.3
88	13.6	59.0	27.5	-13.9	43.1
	88 89 87	88 16.4 89 15.0 87 17.9	88 16.4 55.3 89 15.0 60.2 87 17.9 56.8	88 16.4 55.3 28.2 89 15.0 60.2 24.8 87 17.9 56.8 25.3	88 16.4 55.3 28.2 -11.8 89 15.0 60.2 24.8 -9.8 87 17.9 56.8 25.3 -7.4

New Export Orders*

ISM[®]'s New Export Orders Index registered 50.4 percent in October, 9.4 percentage points higher compared to the September reading of 41 percent, indicating that new export orders grew in October after three consecutive months of contraction. "The index is back in positive territory, which contributed to the improvement in new orders in October. Two of the six big industry sectors expanded, and four contracted during the period. Transportation Equipment contracted strongly," says Fiore.

The five industries reporting growth in new export orders in October are: Petroleum & Coal Products; Wood Products; Miscellaneous Manufacturing; Electrical Equipment, Appliances & Components; and Food, Beverage & Tobacco Products. The 10 industries reporting a decrease in new export orders in October — listed in order — are: Apparel, Leather & Allied Products; Primary Metals; Textile Mills; Nonmetallic Mineral Products; Transportation Equipment; Plastics & Rubber Products; Machinery; Chemical Products; Fabricated Metal Products; and Computer & Electronic Products.

New Export Orders*	% Reporting	% Higher	% Same	% Lower	Net	Index
Oct 2019	76	18.1	64.7	17.2	+0.9	50.4
Sep 2019	77	6.3	69.6	24.2	-17.9	41.0
Aug 2019	75	10.4	65.8	23.8	-13.4	43.3
Jul 2019	75	8.5	79.3	12.2	-3.7	48.1

Imports*

ISM[®]'s Imports Index registered 45.3 percent in October, 2.8 percentage points lower when compared to the 48.1 percent reported for September, indicating that imports contracted for the fourth consecutive month. "Five of the six big industry sectors contracted, with none expanding during the period. Respondents noted a need to place orders in advance of the Lunar New Year season in Asia," says Fiore.

None of the 18 industries reported growth in October. The six industries reporting no change in imports during the month of October — listed in order — are: Apparel, Leather & Allied Products; Furniture & Related Products; Printing & Related Support Activities; Petroleum & Coal Products; Paper Products; and Wood Products. The 12 industries reporting a decrease in imports in October — listed in order — are: Textile Mills; Primary Metals; Nonmetallic Mineral Products; Transportation Equipment; Fabricated Metal Products; Machinery; Electrical Equipment, Appliances & Components; Plastics & Rubber Products; Food, Beverage & Tobacco Products; Miscellaneous Manufacturing; Computer & Electronic Products; and Chemical Products.

Imports	% Reporting	% Higher	% Same	% Lower	Net	Index
Oct 2019	80	6.6	77.3	16.1	-9.5	45.3
Sep 2019	81	14.0	68.3	17.8	-3.8	48.1
Aug 2019	81	8.5	74.9	16.5	-8.0	46.0
Jul 2019	83	8.6	76.7	14.7	-6.1	47.0

*The Inventories, Customers' Inventories, Prices, Backlog of Orders, New Export Orders and Imports Indexes do not meet the accepted criteria for seasonal adjustments.

Buying Policy

Average commitment lead time for Capital Expenditures decreased by two days in October to 146 days. Average lead time for Production Materials was unchanged in October, at 63 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies decreased by two days in October to 30 days.

Percent Reporting

Capital Expenditures	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Oct 2019	22	5	11	14	27	21	146
Sep 2019	22	5	9	16	26	22	148
Aug 2019	21	4	11	18	26	20	144
Jul 2019	20	6	8	18	27	21	148

Production Materials Hand-to-Mouth 30 Days 60 Days 90 Days 6 Months 1 Year + Average Days

Production Mater	ials Hand-to-M	outh 30	Days 60 D	ays 90 Da	ays 6 Month	s 1 Year	+ Average Days
Oct 2019	12	35	24	20	7	2	63
Sep 2019	11	33	30	18	6	2	63
Aug 2019	10	35	29	15	9	2	65
Jul 2019	11	36	26	18	6	3	65
MRO Supplies	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Oct 2019 4	41	38	15	4	2	0	30
Sep 2019 4	40	35	17	6	2	0	32
Aug 2019 4	40	34	15	7	3	1	37
Jul 2019 4	40	36	16	6	2	0	31

About This Report

DO NOT CONFUSE THIS NATIONAL REPORT with the various regional purchasing reports released across the country. The national report's information reflects the entire U.S., while the regional reports contain primarily regional data from their local vicinities. Also, the information in the regional reports is not used in calculating the results of the national report. The information compiled in this report is for the month of October 2019.

The data presented herein is obtained from a survey of manufacturing supply executives based on information they have collected within their respective organizations. ISM[®] makes no representation, other than that stated within this release, regarding the individual company data collection procedures. The data should be compared to all other economic data sources when used in decision-making.

Data and Method of Presentation

The Manufacturing ISM® Report On Business® is based on data compiled from purchasing and supply executives nationwide. The composition of the Manufacturing Business Survey Committee is stratified according to the North American Industry Classification System (NAICS) and each of the following NAICS-based industry's contribution to gross domestic product (GDP): Food, Beverage & Tobacco Products; Textile Mills; Apparel, Leather & Allied Products; Wood Products; Paper Products; Printing & Related Support Activities; Petroleum & Coal Products; Chemical Products; Plastics & Rubber Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Electrical Equipment, Appliances & Components; Transportation Equipment; Furniture & Related Products; and Miscellaneous Manufacturing (products such as medical equipment

and supplies, jewelry, sporting goods, toys and office supplies). The data are weighted based on each industry's contribution to GDP. Beginning in January 2018, computation of the indexes is accomplished utilizing unrounded numbers.

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured (New Orders, Backlog of Orders, New Export Orders, Imports, Production, Supplier Deliveries, Inventories, Customers' Inventories, Employment and Prices), this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Supplier Deliveries) and the negative economic direction (lower, worse and faster for Supplier Deliveries), and the diffusion index. Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive).

The resulting single index number for those meeting the criteria for seasonal adjustments (PMI[®], New Orders, Production, Employment and Supplier Deliveries) is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various institutional arrangements, and differences attributable to non-moveable holidays. All seasonal adjustment factors are subject annually to relatively minor changes when conditions warrant them. The PMI[®] is a composite index based on the diffusion indexes of five of the indexes with equal weights: New Orders (seasonally adjusted), Production (seasonally adjusted), Employment (seasonally adjusted), Supplier Deliveries (seasonally adjusted), and Inventories.

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. A PMI® reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally declining. A PMI® above 42.9 percent, over a period of time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 42.9 percent, it is generally declining. The distance from 50 percent or 42.9 percent is indicative of the extent of the expansion or decline. With some of the indicators within this report, ISM® has indicated the departure point between expansion and decline of comparable government series, as determined by regression analysis. The Manufacturing ISM® Report On Business® survey is sent out to Manufacturing Business Survey Committee respondents the first part of each month. Respondents are asked to report on information for the current month for U.S. operations only. ISM® receives survey responses throughout most of any given month, with the majority of respondents generally waiting until late in the month to submit responses in order to give the most accurate picture of current business activity. ISM® then compiles the report for release on the first business day of the following month.

The industries reporting growth, as indicated in the Manufacturing ISM[®] Report On Business[®] monthly report, are listed in the order of most growth to least growth. For the industries reporting contraction or decreases, those are listed in the order of the highest level of contraction/decrease to the least level of contraction/decrease.

Responses to Buying Policy reflect the percent reporting the current month's lead time, the approximate weighted number of days ahead for which commitments are made for Capital Expenditures; Production Materials; and Maintenance, Repair and Operating (MRO) Supplies, expressed as hand-to-mouth (five days), 30 days, 60 days, 90 days, six months (180 days), a year or more (360 days), and the weighted average number of days. These responses are raw data, never revised, and not seasonally adjusted since there is no significant seasonal pattern.

ISM ROB Content

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*Unless the NYSE is closed.