INSTITUTE FOR SUPPLY MANAGEMENT® reportonbusiness

Analysis by Timothy R. Fiore, CPSM, C.P.M.

Chair of the Institute for Supply Management® Manufacturing Business Survey Committee

Economic activity in the manufacturing sector expanded in March after contracting for 16 consecutive months, say the nation's supply executives in the latest Manufacturing ISM[®] Report On Business[®].

The Manufacturing PMI® registered 50.3 percent in March. The New Orders Index moved back into expansion territory at 51.4 percent, 2.2 percentage points higher than the 49.2 percent recorded in February. The March reading of the Production Index (54.6 percent) is 6.2 percentage points higher than February's figure of 48.4 percent. The Prices Index registered 55.8 percent, up 3.3 percentage points compared to the reading of 52.5 percent in February. The Backlog of Orders Index registered 46.3 percent, the same reading as in February. The Employment Index registered 47.4 percent, up 1.5 percentage points from February's figure of 45.9 percent. The Supplier Deliveries Index figure of 49.9 percent is 0.2 percentage point lower than the 50.1 percent recorded in February. Supplier Deliveries is the only ISM[®] Report On Business[®] index that is inversed; a reading of above 50 percent indicates slower deliveries, which is typical as the economy improves and customer demand increases. The Inventories Index increased 2.9 percentage points to 48.2 percent following a reading of 45.3 percent in February.

The nine manufacturing industries reporting growth in March are: Textile Mills; Nonmetallic Mineral Products; Paper Products; Petroleum & Coal Products; Primary Metals; Food, Beverage & Tobacco Products; Fabricated Metal Products; Chemical Products; and Transportation Equipment. ISM

#Miscellaneous Manufacturing (products such as medical equipment and supplies, jewelry, sporting goods, toys and office supplies).



PMI® at 50.3%

The U.S. manufacturing sector expanded in March, as the Manufacturing PMI® registered 50.3 percent, up 2.5 percentage points compared to February's reading of 47.8 percent. This is first instance of expansion in 16 months. Two out of five subindexes that directly factor into the Manufacturing PMI® are in expansion territory, up from one in February. The New Orders Index moved into expansion territory after one month of contraction.



Manufacturing at a Glance

| INDEX | Mar Index | Feb Index | % Point Change | Direction | Rate of Change | Trend* (months) |
|------------------------|--------------|--------------|-------------------|-------------|-------------------|--------------------|
| Manufacturing PMI® | 50.3 | 47.8 | +2.5 | Growing | From Contracting | 1 |
| New Orders | 51.4 | 49.2 | +2.2 | Growing | From Contracting | 1 |
| Production | 54.6 | 48.4 | +6.2 | Growing | From Contracting | 1 |
| Employment | 47.4 | 45.9 | +1.5 | Contracting | Slower | 6 |
| Supplier Deliveries | 49.9 | 50.1 | -0.2 | Faster | From Slower | 1 |
| Inventories | 48.2 | 45.3 | +2.9 | Contracting | Slower | 14 |
| Customers' Inventories | 44.0 | 45.8 | -1.8 | Too Low | Faster | 4 |
| Prices | 55.8 | 52.5 | +3.3 | Increasing | Faster | 3 |
| Backlog of Orders | 46.3 | 46.3 | 0.0 | Contracting | Same | 18 |
| New Export Orders | 51.6 | 51.6 | 0.0 | Growing | Same | 2 |
| Imports | 53.0 | 53.0 | 0.0 | Growing | Same | 3 |
| Overall Economy | | | | Growing | Faster | 47 |
| Manufacturing Sector | | | | Growing | From Contracting | 1 |

*Number of months moving in current direction. Manufacturing ISM® Report On Business® data has been seasonally adjusted for the New Orders, Production, Employment and Inventories indexes.

Commodities Reported

Commodities Up in Price: Aluminum* (4); Corrugated Boxes; Corrugated Sheets; Crude Oil; Gasoline; Hydraulic Components Maintenance, Repair, and Operations (MRO) Supplies (2); Ocean Freight (3); Plastic Resins (3); Polyethylene Resins; Polypropylene (6); Solvents; and Steel* (9).

Commodities Down in Price: Aluminum* (10); Copper; Natural Gas (4); Packaging Materials (4); Road Freight; Steel* (2); Steel — Hot Rolled (5); Steel — Scrap; and Steel Products (2).

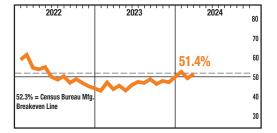
Commodities in Short Supply: Electrical Components (42); Electrical Equipment (2); Hydraulic Components; Plastic Resins; and Semiconductors.

ISM® Report On Business®

Manufacturing PMI®

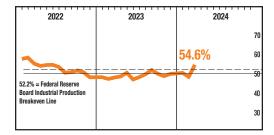
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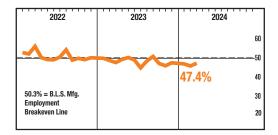
New Orders

ISM's New Orders Index registered 51.4 percent. The 12 manufacturing industries that reported growth in new orders in March — in the following order — are: Nonmetallic Mineral Products; Paper Products; Primary Metals; Printing & Related Support Activities; Wood Products; Petroleum & Coal Products; Plastics & Rubber Products; Computer & Electronic Products; Fabricated Metal Products; Food, Beverage & Tobacco Products; Chemical Products; and Miscellaneous Manufacturing[‡].



Production

The Production Index registered 54.6 percent. The 13 industries reporting growth in production during the month of March, in order, are: Paper Products; Printing & Related Support Activities; Nonmetallic Mineral Products; Petroleum & Coal Products; Chemical Products; Fabricated Metal Products; Food, Beverage & Tobacco Products; Transportation Equipment; Computer & Electronic Products; Miscellaneous Manufacturing[‡]; Primary Metals; Plastics & Rubber Products; and Electrical Equipment, Appliances & Components.



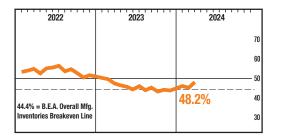
Employment

ISM's Employment Index registered 47.4 percent. Of 18 manufacturing industries, seven reported employment growth in March, in the following order: Textile Mills; Petroleum & Coal Products; Miscellaneous Manufacturing[‡]; Primary Metals; Transportation Equipment; Machinery; and Food, Beverage & Tobacco Products.



Supplier Deliveries

The Supplier Deliveries Index registered 49.9 percent. The four manufacturing industries reporting slower supplier deliveries in March are: Textile Mills; Food, Beverage & Tobacco Products; Chemical Products; and Transportation Equipment.



Inventories

The Inventories Index registered 48.2 percent. Of 18 manufacturing industries, nine reported higher inventories in March, in the following order: Textile Mills; Nonmetallic Mineral Products; Paper Products; Petroleum & Coal Products; Fabricated Metal Products; Primary Metals; Electrical Equipment, Appliances & Components; Chemical Products; and Food, Beverage & Tobacco Products.

[‡]Miscellaneous Manufacturing (products such as medical equipment and supplies, jewelry, sporting goods, toys and office supplies).

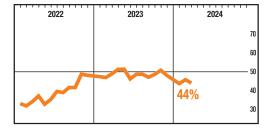
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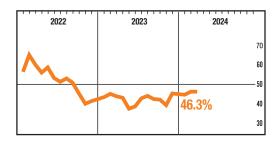
Customers' Inventories

ISM's Customers' Inventories Index registered 44 percent. The two industries reporting customers' inventories as too high in March are: Apparel, Leather & Allied Products; and Electrical Equipment, Appliances & Components.



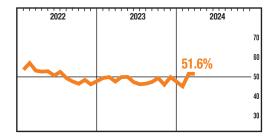
Prices

The ISM Prices Index registered 55.8 percent. In March, the 11 industries that reported paying increased prices for raw materials, in order, are: Apparel, Leather & Allied Products; Printing & Related Support Activities; Textile Mills; Plastics & Rubber Products; Chemical Products; Miscellaneous Manufacturing‡; Nonmetallic Mineral Products; Petroleum & Coal Products; Food, Beverage & Tobacco Products; Computer & Electronic Products; and Machinery.



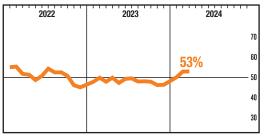
Backlog of Orders

ISM's Backlog of Orders Index registered 46.3 percent. Of 18 manufacturing industries, the three that reported growth in order backlogs in March are: Wood Products; Primary Metals; and Computer & Electronic Products.



New Export Orders

ISM's New Export Orders Index registered 51.6 percent. The eight industries reporting growth in new export orders in March — in the following order — are: Wood Products; Miscellaneous Manufacturing[‡]; Plastics & Rubber Products; Transportation Equipment; Fabricated Metal Products; Chemical Products; Food, Beverage & Tobacco Products; and Machinery.



Imports

ISM's Imports Index registered 53 percent. The seven industries reporting an increase in import volumes in March — listed in the following order — are: Paper Products; Fabricated Metal Products; Food, Beverage & Tobacco Products; Chemical Products; Computer & Electronic Products; Transportation Equipment; and Machinery.

[‡]Miscellaneous Manufacturing (products such as medical equipment and supplies, jewelry, sporting goods, toys and office supplies).

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 data presented herein is obtained from a survey of manufacturing and services 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 industries' 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. According to BEA estimates (the average of the fourth quarter 2022 GDP estimate and the GDP estimates for first, second, and third quarter 2023, as released on December 21, 2023), the six largest manufacturing industries are: Chemical Products; Transportation Equipment; Food, Beverage & Tobacco Products; Computer & Electronic Products; Machinery; and Fabricated Metal Products.

The Services ISM® Report On Business® (formerly the Non-Manufacturing ISM® Report On Business®) is based on data compiled from purchasing and supply executives nationwide. Membership of the Services Business Survey Committee (formerly Non-Manufacturing Business Survey Committee) is diversified by NAICS-based industries' contribution to gross domestic product (GDP). The Services Business Survey Committee responses are divided into the following NAICS code categories: Agriculture, Forestry, Fishing & Hunting; Mining; Utilities; Construction; Wholesale Trade; Retail Trade; Transportation & Warehousing; Information; Finance & Insurance; Real Estate, Rental & Leasing; Professional, Scientific & Technical Services; Management of Companies & Support Services; Educational Services; Health Care & Social Assistance: Arts. Entertainment & Recreation: Accommodation & Food Services: Public Administration; and Other Services (services such as Equipment & Machinery Repairing; Promoting or Administering Religious Activities; Grantmaking; Advocacy; and Providing Dry-Cleaning & Laundry Services, Personal Care Services, Death Care Services, Pet Care Services, Photofinishing Services, Temporary Parking Services, and Dating Services). The data are weighted based on each industry's contribution to GDP. According to BEA estimates (the average of the fourth guarter 2022 GDP estimate and the GDP estimates for first, second, and third quarter 2023, as released on December 21, 2023), the six largest services sectors are: Real Estate, Rental & Leasing; Public Administration; Professional, Scientific, & Technical Services: Health Care & Social Assistance: Information: and Finance & Insurance.

Survey responses reflect the change, if any, in the current month compared to the previous month. 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 (for Manufacturing: New Orders, Production, Employment, and Inventories) (for Services: Business Activity, New Orders, Employment and Prices) 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. The remaining indexes have not indicated significant seasonality. All seasonal adjustment factors are subject annually to relatively minor changes when conditions warrant them.

The Manufacturing 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, and Inventories (seasonally adjusted). The Services PMI® is a composite index based on the diffusion indexes for four of the indicators with equal weights: Business Activity (seasonally adjusted), New Orders (seasonally adjusted), Employment (seasonally adjusted) and Supplier Deliveries.

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 Manufacturing PMI[®] reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally declining. A Manufacturing PMI[®] above 42.5 percent, over a period of time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 42.5 percent, it is generally declining.

The distance from 50 percent or 42.5 percent is indicative of the extent of the expansion or decline. A Services PMI® reading above 50 percent indicates that the services economy is generally expanding; below 50 percent indicates that it is generally declining. A Services PMI® above 49 percent, over time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 49 percent, it is generally declining. The distance from 50 percent or 49 percent is indicative of the strength of the expansion or decline. With some of the indicators within the Manufacturing ISM® *Report On Business*®, ISM® has indicated the departure point between expansion and decline of comparable government series, as determined by regression analysis.

The Report On Business® surveys are sent out to Manufacturing and Services 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 to give the most accurate picture of current business activity.

The industries reporting growth, as indicated in the monthly reports, 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.

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Institute for Supply Management[®] (ISM[®]) is the first and leading not-for-profit professional supply management organization worldwide. Its community of more than 50,000 in more than 100 countries manage about US\$1 trillion in corporate and government supply chain procurement annually. Founded in 1915 by practitioners, ISM is committed to advancing the practice of supply management to drive value and competitive advantage for its members, contributing to a prosperous and sustainable world. ISM empowers and leads the profession through the ISM[®] *Report On Business*[®], its highly-regarded certification and training programs, corporate services, events, and assessments. The ISM[®] *Report On Business*[®], Manufacturing, Services and Hospital, are three of the most reliable economic indicators available, providing guidance to supply management professionals, economists, analysts, and government and business leaders. For more information, please visit: <u>www.ismworld.org</u>.