

Economic activity in the manufacturing sector contracted in December for the 14th consecutive month following a 28-month period of growth, say the nation's supply executives in the latest Manufacturing ISM® *Report On Business*®.

The Manufacturing PMI® registered 47.4 percent. The overall economy continued in contraction for a third month after one month of weak expansion preceded by nine months of contraction and a 30-month period of expansion before that. (A Manufacturing PMI® above 48.7 percent, over a period of time, generally indicates an expansion of the overall economy.) The New Orders Index remained in contraction territory at 47.1 percent, 1.2 percentage points lower than the figure of 48.3 percent recorded in November. The Production Index reading of 50.3 percent is a 1.8-percentage point increase compared to November's figure of 48.5 percent. The Prices Index registered 45.2 percent, down 4.7 percentage points compared to the reading of 49.9 percent in November.

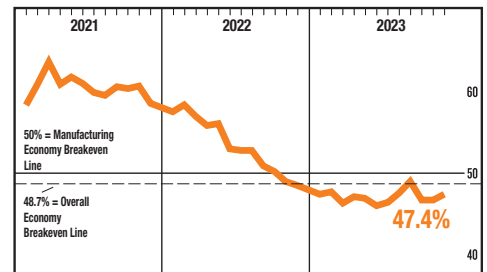
The 16 industries reporting contraction in December — in the following order — are: Printing & Related Support Activities; Apparel, Leather & Allied Products; Plastics & Rubber Products; Machinery; Nonmetallic Mineral Products; Textile Mills; Petroleum & Coal Products; Paper Products; Wood Products; Fabricated Metal Products; Computer & Electronic Products; Miscellaneous Manufacturing†; Furniture & Related Products; Electrical Equipment, Appliances & Components; Transportation Equipment; and Chemical Products. **ISM**

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



MANUFACTURING PMI® at 47.4%

The U.S. manufacturing sector contracted in December, as the Manufacturing PMI® registered 47.4 percent in December, up 0.7 percentage point as compared to November's reading of 46.7 percent. This is the 14th month of contraction. Four out of the five subindexes that directly factor into the Manufacturing PMI® are in contraction territory, down from all five in November. The New Orders Index logged its 16th month in contraction territory at a faster rate in December. Of the six biggest manufacturing industries, none registered growth in December.



Manufacturing at a Glance

INDEX	Dec Index	Nov Index	% Point Change	Direction	Rate of Change	Trend* (months)
Manufacturing PMI®	47.4	46.7	+0.7	Contracting	Slower	14
New Orders	47.1	48.3	-1.2	Contracting	Faster	16
Production	50.3	48.5	+1.8	Growing	From Contracting	1
Employment	48.1	45.8	+2.3	Contracting	Slower	3
Supplier Deliveries	47.0	46.2	+0.8	Faster	Slower	15
Inventories	44.3	44.8	-0.5	Contracting	Faster	10
Customers' Inventories	48.1	50.8	-2.7	Too Low	From Too High	1
Prices	45.2	49.9	-4.7	Decreasing	Faster	8
Backlog of Orders	45.3	39.3	+6.0	Contracting	Slower	15
New Export Orders	49.9	46.0	+3.9	Contracting	Slower	7
Imports	46.4	46.2	+0.2	Contracting	Slower	14
Overall Economy				Contracting	Slower	3
Manufacturing Sector				Contracting	Slower	14

*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

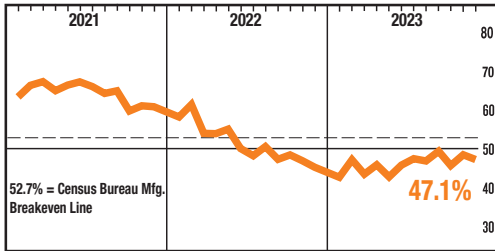
Commodities Up in Price: Aluminum* (2); Electrical Components (2); Electronic Components (4); Fasteners; Labor — Temporary (4); Polypropylene (3); Steel (6); Steel — Cold Rolled (2); Steel — Hot Rolled (2); Steel — Scrap; and Steel Products*.

Commodities Down in Price: Aluminum* (7); Copper Products; Corrugate; Corrugated Boxes (5); Crude Oil (2); Diesel (2); Natural Gas; Packaging Materials; Pallets; Plastic Resins; Stainless Steel Products; and Steel Products* (7).

Commodities in Short Supply: Electrical Components (39); Electronic Components (37); Labor — Skilled/Technical; and Semiconductors (2).

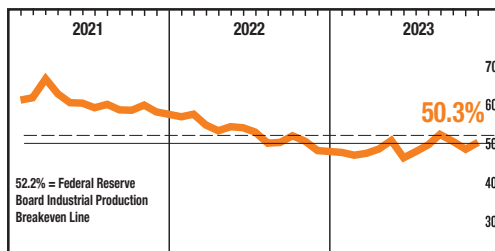
Manufacturing PMI[®]

Analysis by **Timothy R. Fiore, CPSM, C.P.M.**, Chair of the Institute for Supply Management[®] Manufacturing Business Survey Committee



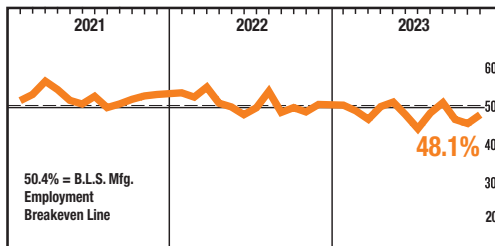
New Orders

ISM's New Orders Index registered 47.1 percent. The four manufacturing industries that reported growth in new orders in December are: Textile Mills; Primary Metals; Miscellaneous Manufacturing[‡]; and Chemical Products.



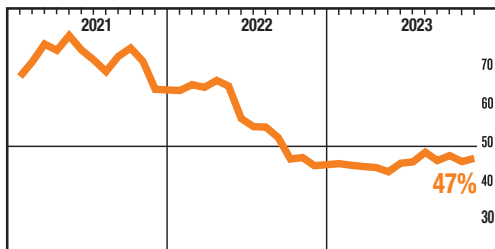
Production

The Production Index moved back into expansion territory in December, registering 50.3 percent. The three industries reporting growth in production during the month of December are: Transportation Equipment; Food, Beverage & Tobacco Products; and Primary Metals.



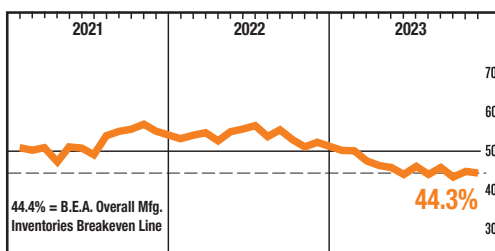
Employment

ISM's Employment Index registered 48.1 percent. Of 18 manufacturing industries, three reported employment growth in December: Nonmetallic Mineral Products; Transportation Equipment; and Chemical Products.



Supplier Deliveries

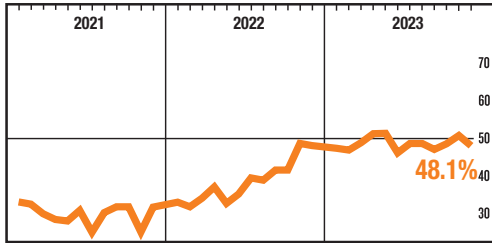
Delivery performance of suppliers to manufacturing organizations was faster for the 15th straight month in December, as the Supplier Deliveries Index registered 47 percent. The three manufacturing industries reporting slower supplier deliveries in December are: Furniture & Related Products; Food, Beverage & Tobacco Products; and Miscellaneous Manufacturing[‡].



Inventories

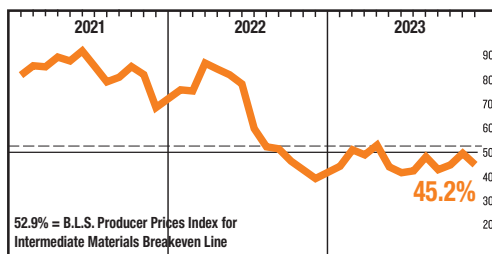
The Inventories Index registered 44.3 percent. Of 18 manufacturing industries, four reported higher inventories in December: Electrical Equipment, Appliances & Components; Primary Metals; Chemical Products; and Furniture & Related Products.

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



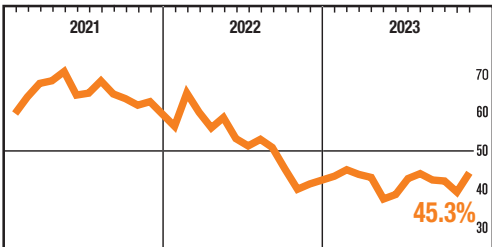
Customers' Inventories

ISM's Customers' Inventories Index registered 48.1 percent. The six industries reporting customers' inventories as too high in December — in the following order — are: Apparel, Leather & Allied Products; Wood Products; Furniture & Related Products; Plastics & Rubber Products; Electrical Equipment, Appliances & Components; and Computer & Electronic Products.



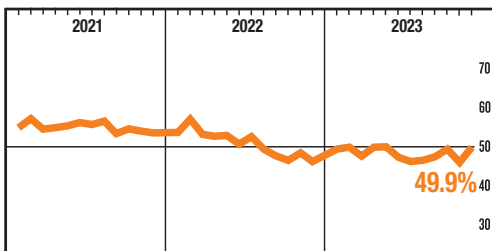
Prices

The ISM Prices Index registered 45.2 percent, 4.7 percentage points lower compared to the November reading of 49.9 percent, indicating raw materials prices decreased in December for the eighth consecutive month. In December, the four industries that reported paying increased prices for raw materials are: Fabricated Metal Products; Machinery; Electrical Equipment, Appliances & Components; and Miscellaneous Manufacturing‡.



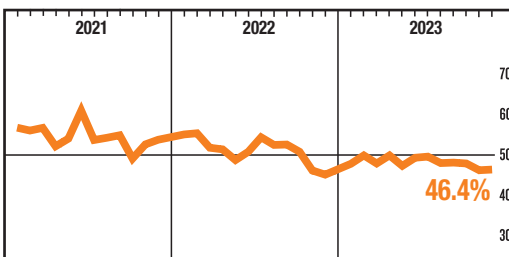
Backlog of Orders

ISM's Backlog of Orders Index registered 45.3 percent. Of 18 manufacturing industries, the five that are reporting growth in order backlogs in December are: Nonmetallic Mineral Products; Paper Products; Petroleum & Coal Products; Miscellaneous Manufacturing‡; and Chemical Products.



New Export Orders

ISM's New Export Orders Index registered 49.9 percent. The six industries reporting growth in new export orders in December — in the following order — are: Paper Products; Food, Beverage & Tobacco Products; Chemical Products; Plastics & Rubber Products; Primary Metals; and Transportation Equipment.



Imports

ISM's Imports Index registered 46.4 percent. The two industries reporting an increase in import volumes in December are: Food, Beverage & Tobacco Products; and Primary Metals.

‡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 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. According to the BEA estimates for 2021 GDP (released December 22, 2022), the six largest manufacturing subsectors are: Computer & Electronic Products; Chemical Products; Transportation Equipment; Food, Beverage & Tobacco Products; Machinery; and Petroleum & Coal 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 on each industry's 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 the BEA estimates for 2021 GDP (released December 22, 2022), the six largest services sectors are: Real Estate, Rental & Leasing; Government; 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 48.7 percent, over a period of time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 48.7 percent, it is generally declining.

The distance from 50 percent or 48.7 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 49.9 percent, over time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 49.9 percent, it is generally declining. The distance from 50 percent or 49.9 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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