

Economic activity in the manufacturing sector contracted in December for the second consecutive month after 29 consecutive months of growth, say the nation's supply executives in the latest Manufacturing ISM® *Report On Business*®.

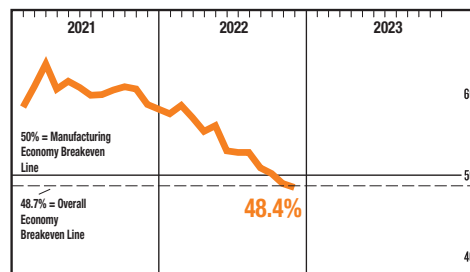
The December Manufacturing PMI® registered 48.4 percent. Regarding the overall economy, this figure indicates contraction after 30 straight months of expansion. The Manufacturing PMI® figure is the lowest since May 2020, when it registered 43.5 percent. The New Orders Index remained in contraction territory at 45.2 percent, 2 percentage points lower than the 47.2 percent recorded in November. The Production Index reading of 48.5 percent is a 3-percentage point decrease compared to November's figure of 51.5 percent.

The Prices Index registered 39.4 percent, down 3.6 percentage points compared to the November figure of 43 percent; this is the index's lowest reading since April 2020 (35.3 percent). The Backlog of Orders Index registered 41.4 percent, 1.4 percentage points higher than the November reading of 40 percent. The Employment Index returned to expansion territory (51.4 percent, up 3 percentage points) after contracting in November (48.4 percent).

The two manufacturing industries that reported growth in December are: Primary Metals; and Petroleum & Coal Products. **ISM**

MANUFACTURING PMI® at 48.4%

The U.S. manufacturing sector contracted in December, as the Manufacturing PMI® registered 48.4 percent, 0.6 percentage point below the reading of 49 percent recorded in November. This is the second month of contraction and, as predicted, will likely be the norm for the PMI® at least through the first quarter of 2023, with the PMI® expected to be between 48 and 52 percent. Of the five subindexes that directly factor into the Manufacturing PMI®, two (Employment and Inventories) were in growth territory, with both gaining a bit of ground.



Manufacturing at a Glance

INDEX	Dec Index	Nov Index	% Point Change	Direction	Rate of Change	Trend* (months)
Manufacturing PMI®	48.4	49.0	-0.6	Contracting	Faster	2
New Orders	45.2	47.2	-2.0	Contracting	Faster	4
Production	48.5	51.5	-3.0	Contracting	From Growing	1
Employment	51.4	48.4	+3.0	Growing	From Contracting	1
Supplier Deliveries	45.1	47.2	-2.1	Faster	Faster	3
Inventories	51.8	50.9	+0.9	Growing	Faster	17
Customers' Inventories	48.2	48.7	-0.5	Too Low	Faster	75
Prices	39.4	43.0	-3.6	Decreasing	Faster	3
Backlog of Orders	41.4	40.0	+1.4	Contracting	Slower	3
New Export Orders	46.2	48.4	-2.2	Contracting	Faster	5
Imports	45.1	46.6	-1.5	Contracting	Faster	2
Overall Economy				Contracting	From Growing	1
Manufacturing Sector				Contracting	Faster	2

*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: Copper; Electrical Components (2); Electricity (2); Electronic Components (25); Freight*; Labor — Temporary (4); Semiconductors; and Zinc.

Commodities Down in Price: Aluminum (8); Aluminum Products; Corrugate; Crude Oil; Diesel; Freight* (2); Natural Gas; Ocean Freight (4); Plastic Resins (7); Polyethylene; Polypropylene (5); Solvents; Steel (8); Steel — Cold Rolled; Steel — Hot Rolled (8); Steel — Stainless Steel Products; Steel Bars; and Steel Products (6).

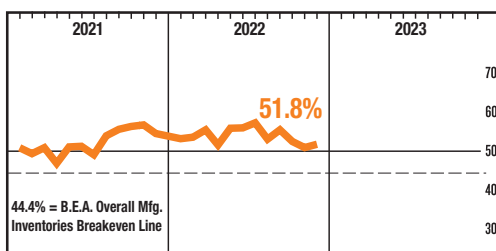
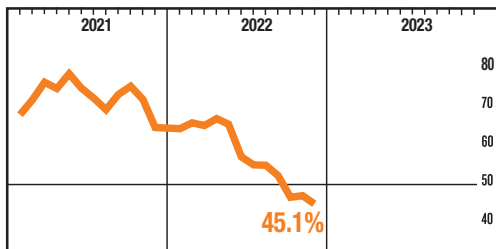
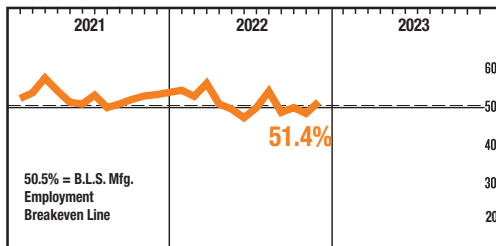
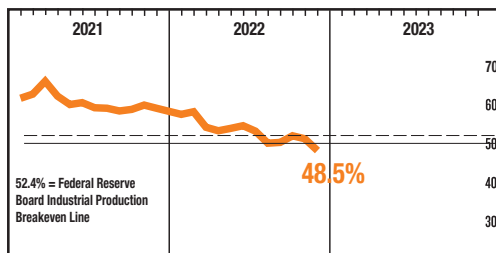
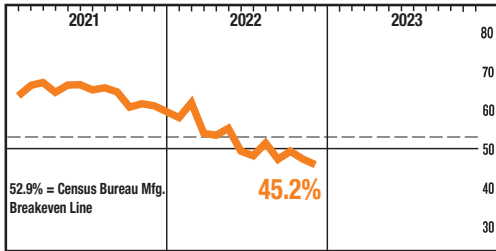
Commodities in Short Supply: Bearings; Electrical Components (27); Electronic Components (25); Hydraulic Components (8); Labor — Temporary; Rubber Based Products (2); Semiconductors (25); Steel Products (2); Tyvek; and Wire Harnesses.

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

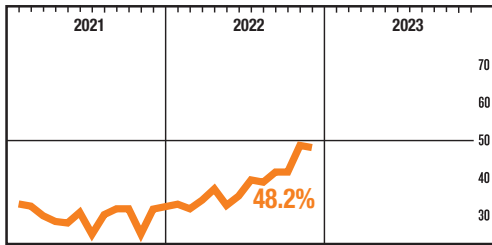


Note: To view the full report, visit the ISM® *Report On Business*® website at ismrob.org

The number of consecutive months the commodity has been listed is indicated after each item. *Reported as both up and down in price.

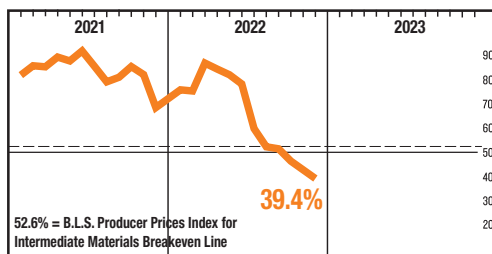


[‡]Miscellaneous Manufacturing (products such as medical equipment and supplies, jewelry, sporting goods, toys and office supplies).



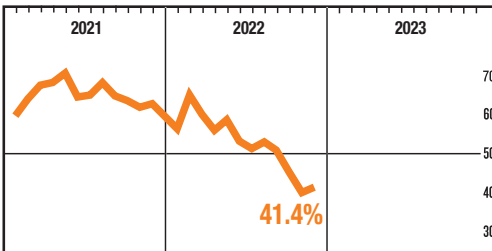
Customers' Inventories

ISM's Customers' Inventories Index registered 48.2 percent. Five industries reported customers' inventories as too high in December: Paper Products; Furniture & Related Products; Wood Products; Computer & Electronic Products; and Electrical Equipment, Appliances & Components.



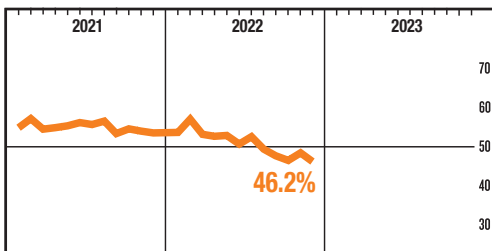
Prices

The ISM Prices Index registered 39.4 percent. In December, only one industry reported paying increased prices for raw materials: Apparel, Leather & Allied Products. The 10 industries reporting paying decreased prices for raw materials in December — in the following order — are: Textile Mills; Wood Products; Petroleum & Coal Products; Fabricated Metal Products; Transportation Equipment; Plastics & Rubber Products; Furniture & Related Products; Chemical Products; Food, Beverage & Tobacco Products; and Machinery.



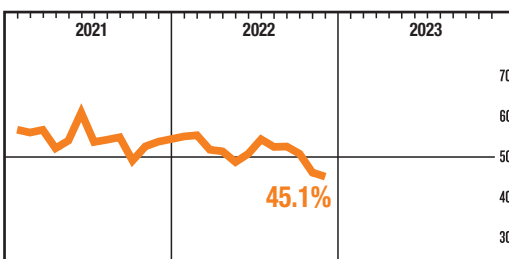
Backlog of Orders

ISM's Backlog of Orders Index registered 41.4 percent. Two industries reported growth in order backlogs in December: Textile Mills; and Machinery. Twelve industries reported lower backlogs in December, in the following order: Wood Products; Paper Products; Electrical Equipment, Appliances & Components; Plastics & Rubber Products; Fabricated Metal Products; Furniture & Related Products; Food, Beverage & Tobacco Products; Primary Metals; Chemical Products; Miscellaneous Manufacturing[‡]; Computer & Electronic Products; and Transportation Equipment.



New Export Orders

ISM's New Export Orders Index registered 46.2 percent. Five industries reported growth in new export orders in December: Wood Products; Apparel, Leather & Allied Products; Plastics & Rubber Products; Electrical Equipment, Appliances & Components; and Miscellaneous Manufacturing[‡].



Imports

ISM's Imports Index registered 45.1 percent. The only industry reporting growth in imports in December is Computer & Electronic Products. Eight industries reported lower volumes of imports in December, in the following order: Paper Products; Wood Products; Primary Metals; Plastics & Rubber Products; Chemical Products; Fabricated Metal Products; Electrical Equipment, Appliances & Components; and Miscellaneous Manufacturing[‡].

[‡]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 2020 GDP (released December 22, 2021), the six largest manufacturing subsectors are: Computer & Electronic Products; Chemical Products; Transportation Equipment; Petroleum & Coal Products; Food, Beverage & Tobacco Products; and Machinery. Beginning in February 2018 with January 2018 data, computation of the indexes is accomplished utilizing unrounded numbers.

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 2020 GDP (released December 22, 2021), the six largest services sectors are: Real Estate, Rental & Leasing; Government; Professional, Scientific, & Technical Services; Health Care & Social Assistance; Information; and Finance & Insurance. Beginning in February 2020 with January 2020 data, 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. 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 50.1 percent, over time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 50.1 percent, it is generally declining. The distance from 50 percent or 50.1 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.

ISM ROB Content

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