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J.P.Morgan Global Manufacturing PMI™

Contraction in global manufacturing output shows signs of easing at start of 2023

Key findings

Rates of decline in output and new orders slow

Consumer goods production expands for second month

Input cost and output price inflation both edge higher

The global manufacturing downturn showed signs of easing at the start of 2023, according to the latest PMI[™] surveys. Rates of contraction in output and new orders both slowed, while employment posted a slight increase.

At 49.1 in January, the J.P.Morgan Global Manufacturing PMI™ – a composite index produced by J.P.Morgan and S&P Global in association with ISM and IFPSM – remained below the 50.0 mark that separates contraction from expansion, but rose from 48.7 to signal a slower rate of decrease.

The survey's Output Index, which acts as an advance indicator of worldwide factory production trends, signalled a second successive month of slower decline. That index rose to its highest since last August, adding to signs that the global manufacturing downturn reached its nadir in November.

Only nine out of the 31 nations for which January data were available signalled expansions in output. The few pockets of growth were largely confined to Asia, with India, Indonesia, Russia, the Philippines, Thailand and Myanmar all registering increases. Italy, the Netherlands and Canada were the remaining nations to see production rise.

Elsewhere there were also signs of the downturn easing. Although the largest industrial regions of China, the US, the euro area and Japan all saw output contract, rates of decrease eased in all four cases. A similar picture of moderating contraction was also seen in the UK, Brazil and Turkey.

Data broken down by sector indicated that the downturn was centred on the intermediate and investment goods industries. In contrast, consumer goods production rose for the second successive month.

Manufacturers' business confidence continued to revive at the start of 2023, with optimism hitting a ten-month high (albeit still below its long-run average). The cyclicallysensitive new orders-to-finished goods stock ratio also

J.P.Morgan Global Manufacturing PMI™

sa, >50 = improvement since previous month



Source: J.P.Morgan, S&P Global.

■ Consumer Goods PMI

Intermediate Goods PMI

■ Investment Goods PMI



Source: J.P.Morgan, S&P Global

Index summary

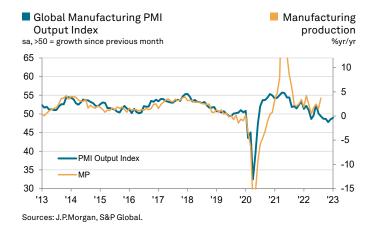
sa, 50 = no change over previous month. *50 = no change over next 12 months.

Index	Dec-22	Jan-23	Interpretation
PMI	48.7	49.1	Deterioration, slower rate
Output	48.5	49.0	Decline, slower rate
New Orders	46.4	47.8	Decline, slower rate
New Export Orders	46.2	47.5	Decline, slower rate
Future Output	60.0	62.3	Growth expected, better sentiment
Employment	49.8	50.1	Growth, from declining
Input Prices	56.8	57.1	Inflation, faster rate
Output Prices	54.7	54.8	Inflation, faster rate









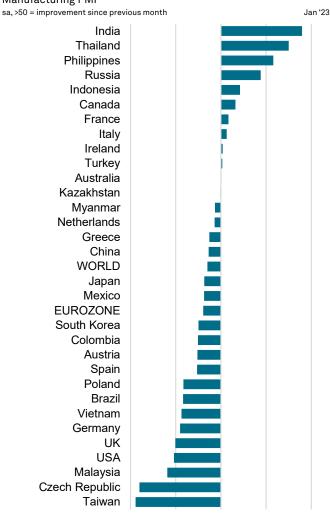
climbed to a seven-month record.

The level of incoming new business fell for the seventh consecutive month in January, albeit to the least marked extent since last August. A similar trend was signalled for new export business, where the pace of contraction was a six-month low. The continued downturn in new order intakes nonetheless meant that spare capacity remained in global industry, as highlighted by a solid decrease in backlogs of work at factories.

Staffing levels edged higher at the start of 2023, after falling in each of the prior two months. Among the larger industrial regions covered by the survey, job creation was seen in the US, Japan and the euro area, offsetting cuts in nations such as China, the UK and Brazil. By sector, employment rose in the consumer and investment goods categories, but fell at intermediate goods producers.

January data pointed to mild upticks in the rates of both input price and output charge inflation, halting recent sequences of moderation. Supply chain pressures continued to ease, with average vendor lead times lengthening to the lowest extent in three years.

Manufacturing PMI



47 Sources: J.P.Morgan, S&P Global, Unicredit Bank Austria, Caixin, Davivienda, BME, HPI, AIB, Jibun Bank, NEVI, AERCE, Istanbul Chamber of Industry, CIPS.

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Comment

Bennett Parrish, Global Economist at J.P.Morgan, said:

"The manufacturing PMI output and new orders indices both moved higher in January, raising hopes that the downturn in global industry reached its nadir before the turn of the year. Rising business optimism, an improved orders-to-inventory ratio and a boost to growth as China re-opens should also provide a boost in the months ahead. The slight upticks in the price indices are of limited concern in the near term, staying well below earlier peaks and are likely to resume their easing trends as supply chain constraints ease."

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Survey methodology

The J.P.Morgan Global Manufacturing PMI™ is produced by S&P Global in association ISM and IEPSM

Global manufacturing PMI indices are compiled by S&P Global from responses to monthly questionnaires sent to purchasing managers in survey panels in over 40 countries (see table, right for full coverage), totalling around 13,500 companies. These countries account for 98% of global manufacturing value added*.

Survey responses are collected in the second half of each month and indicate the direction of change compared to the previous month. A diffusion index is calculated for each survey variable, at the country level. The index is the sum of the percentage of 'higher' responses and half the percentage of 'unchanged' responses. The indices vary between 0 and 100, with a reading above 50 indicating an overall increase compared to the previous month, and below 50 an overall decrease. The indices are then seasonally adjusted.

Indices are calculated for the following variables: output, new orders, new export orders, future output, backlogs of work, employment, quantity of purchases, suppliers' delivery times, stocks of purchases, stocks of finished goods, input prices and output prices.

Global manufacturing indices are calculated by weighting together the country indices. Country weights are calculated from annual manufacturing value added*.

The headline figure is the Global Manufacturing Purchasing Managers' Index™ (PMI). The PMI is a weighted average of the following five global indices: new orders (30%), output (25%), employment (20%), suppliers' delivery times (15%) and stocks of purchases (10%). For the PMI calculation the Suppliers' Delivery Times Index is inverted so that it moves in a comparable direction to the other indices.

Underlying survey data are not revised after publication, but seasonal adjustment factors may be revised from time to time as appropriate which will affect the seasonally adjusted data series.

For further information on the PMI survey methodology, please contact <u>economics@</u>

The J.P.Morgan Global Manufacturing PMI provides the first indication each month of world manufacturing business conditions. The data enable decision makers in the financial world and in government to make better judgements much earlier than would otherwise be the case. The wide coverage of the indices, together with their speed of production, accuracy and direct comparability, make them unmatched as economic indicators. They provide truly "must have" information for financial institutions of all kinds and for major corporations world wide

* Source: World Bank World Development Indicators.

About J.P.Morgan

JPMorgan Chase & Co. (NYSE: JPM) is a leading global financial services firm with assets of \$2.3 trillion and operations in more than 60 countries. The firm is a leader in investment banking, financial services for consumers, small business and commercial banking, financial transaction processing, asset management and private equity. A component of the Dow Jones Industrial Average, JPMorgan Chase & Co. serves millions of consumers in the United States and many of the world's most prominent corporate, institutional and government clients under its J.P. Morgan and Chase brands. www.jpmorganchase.com.

About S&P Global

S&P Global (NYSE:SPGI) S&P Global provides essential intelligence. We enable governments, businesses and individuals with the right data, expertise and connected technology so that they can make decisions with conviction. From helping our customers assess new investments to guiding them through ESG and energy transition across supply chains, we unlock new opportunities, solve challenges and accelerate progress for the world.

We are widely sought after by many of the world's leading organizations to provide credit ratings, benchmarks, analytics and workflow solutions in the global capital, commodity and automotive markets. With every one of our offerings, we help the world's leading organizations plan for tomorrow, today. www.spglobal.com.

About ISM

Institute for Supply Management® (ISM®) serves supply management professionals in more than 90 countries. Its 50,000 members around the world manage about US\$1 trillion in corporate and government supply chain procurement annually. Founded in 1915 as the first supply management institute in the world, 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 leads the profession through the ISM Report On Business®, its highly regarded certification programs and the ISM Mastery Model® www.instituteforsupplymanagement.org

About IFPSM

The International Federation of Purchasing and Supply Management (IFPSM) is the union of 48 National and Regional Purchasing Associations worldwide. Within this circle, about 250,000 Purchasing Professionals can be reached. IFPSM facilitates the development and distribution of knowledge to elevate and advance the procurement profession, thus favourably impacting the standard of living of citizens worldwide through improved business practices. The term procurement is taken to embrace purchasing, materials management, logistics, supply chain management and strategic sourcing. IFPSM is a non-political, independent and non-profit oriented International Organization. www.ifpsm.org

About PM

Purchasing Managers' Index™ (PMI™) surveys are now available for over 40 countries and also for key regions including the eurozone. They are the most closely watched business surveys in the world, favoured by central banks, financial markets and business decision makers for their ability to provide up-to-date, accurate and often unique monthly indicators of economic trends. ihsmarkit.com/products/pmi.html.







Data sources

Region Australia Austria Brazil Canada China (mainland) Colombia Czech Republic Denmark Egypt* France Germany Greece Hong Kong SAR ^{1*} Hungary India Indonesia Ireland Israel Italy Japan Kazakhstan Kenya* Lebanon* Malaysia Mexico Myanmar Netherlands (The) New Zealand Nigeria* Philippines (The) Poland Russia Saudi Arabia* Singapore* South Africa* South Korea Spain Switzerland Taiwan	Business NZ S&P Global S&P Global S&P Global S&P Global S&P Global S&P Global S&P Global S&P Global procure.ch S&P Global	In association with Judo Bank Unicredit Bank Austria / OPWZ Caixin Davivienda - Kairoscommodities BME HPI AIB Bank Hapoalim Ltd - au Jibun Bank Tengri Partners Stanbic Bank BLOMINVEST Bank Nevi Bank of New Zealand Stanbic IBTC Bank Riyad Bank Riyad Bank AERCE Credit Suisse
	S&P Global	_
Spain Switzerland	S&P Global procure.ch	
Vietnam	S&P Global	-

*Indices calculated from manufacturing responses extracted from survey panels covering the entire private sector economy.

¹Hong Kong is a Special Administrative Region of China.

 $^2 \text{US}$ data compiled by ISM pre-February 2010 and by S&P Global post-January 2010.

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