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J.P.Morgan Global Manufacturing PMI™

Global manufacturing output rises as supply chains improve, but new order intakes continue to fall

Key findings

Manufacturing PMI unchanged at 49.6 in May

Business optimism dips to five-month low

Input costs decrease for first time since May 2020

Global factories raised production for the fourth successive month in May, as improving supply chains boosted output. There were more worrying signs on the demand front, however, as total new orders and international trade flows deteriorated further.

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 – posted 49.6 in May, unchanged from April and March. The headline PMI has remained below the neutral 50.0 mark in each of the past nine months.

Growth of manufacturing production accelerated to an 11-month high in May, as a strengthening performance (on average) in Asia offset weaker expansion in North America and a further downturn in Europe. That said, the overall rate of increase remained relatively subdued.

Output growth recovered to an 11-month high in China, Japan saw expansion following ten months of contraction, while India and Thailand registered strong increases. Growth slowed in the US, while Greece was the only eurozone nation covered by the survey to register expansion. The UK, Australia and Brazil all saw production contract.

The level of incoming new business fell for the eleventh month running in May, although the pace of contraction has remained relatively mild in recent months. A similar regional pattern was observed for new orders to that for output. Asian economies such as China, Japan and India saw new business increase, while intakes fell in the US, the euro area, the UK and Brazil.

Data broken down by sector showed output expanding across the three main product categories – consumer, intermediate and investment goods – the first time concurrent growth has been signalled since June 2022. In contrast, only consumer goods registered an expansion of new order intakes.

International trade volumes continued to weigh on demand, with new export orders dropping for the fifteenth consecutive

J.P.Morgan Global Manufacturing PMI™

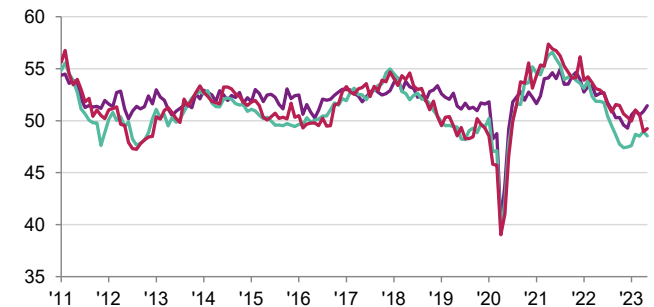
sa, >50 = improvement since previous month



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

- Consumer Goods PMI
- Intermediate Goods PMI
- Investment Goods PMI

sa, >50 = improvement since previous month

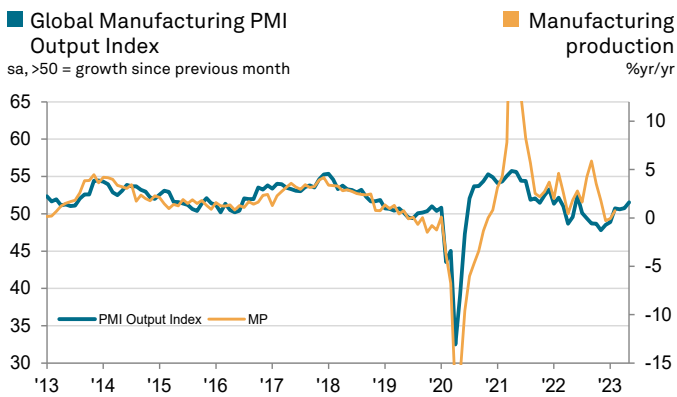


Source: J.P.Morgan, S&P Global.

Index summary

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

Index	Apr-23	May-23	Interpretation
PMI	49.6	49.6	Deterioration, same rate
Output	50.8	51.5	Growth, faster rate
New Orders	49.4	49.3	Decline, faster rate
New Export Orders	48.4	47.3	Decline, faster rate
Future Output	63.0	61.1	Growth expected, weaker sentiment
Employment	50.5	50.1	Growth, slower rate
Input Prices	52.3	49.3	Decline, from increasing
Output Prices	51.6	49.8	Decline, from increasing



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

month and at the fastest pace in 2023 so far. The US, the euro area, Japan, the UK and Brazil were among the nations to see contractions, whereas China and India were among those reporting growth.

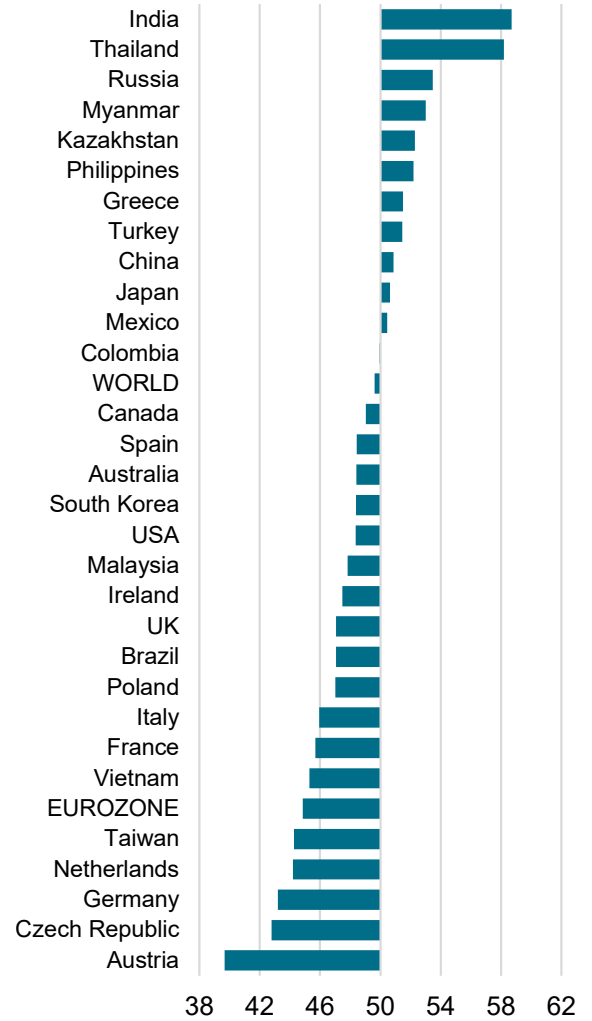
Business optimism continued to wane in May. Although global manufacturers expect production to increase (on average) over the next 12 months, confidence dipped to its weakest since December. This filtered through to the trends in employment, purchasing and stock holdings, with staffing levels unchanged since April and decreases signalled for input buying volumes and stocks of both raw materials and finished products.

There was better news on the costs and supply chain fronts in May. Average purchase prices fell, albeit slightly, for the first time in three years. Average vendor lead times meanwhile shortened to the greatest extent since April 2009, amid reports of improved material availability and lesser supply chain pressure. Average selling prices also fell marginally for the first time since mid-2020.

Manufacturing PMI

sa, >50 = improvement since previous month

May '23



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

Comment

Bennett Parrish, Global Economist at J.P.Morgan, said: "The May PMI surveys suggest continued positive momentum in the global manufacturing sector. The global output index—boosted by a sizable gain in China—strengthened 0.7-points and is consistent with 1.6%ar gain in global factory output. However, the internals of the May PMIs temper the positive signal from the output index and suggest lackluster growth in goods demand. The new orders PMI ticked down again last month to remain below the 50 mark. Also concerning is that the ratio of orders to finished goods inventories held stable at 0.99, a level consistent with output declines. A move back down in the employment index reversed the April improvement."

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Survey methodology

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

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 economic@ihsmarkit.com.

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.

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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 PMI

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	Producer	In association with
Australia	S&P Global	Judo Bank
Austria	S&P Global	Unicredit Bank Austria/ OPWZ
Brazil	S&P Global	–
Canada	S&P Global	–
China (mainland)	S&P Global	Caixin
Colombia	S&P Global	Daviyenda
Czech Republic	S&P Global	–
Denmark	DILF	Kairoscommodities
Egypt*	S&P Global	–
Eurozone	S&P Global	HCOB
France	S&P Global	HCOB
Germany	S&P Global	HCOB
Greece	S&P Global	HPI
Hong Kong SAR ¹ *	S&P Global	–
Hungary	HALPIM	–
India	S&P Global	–
Indonesia	S&P Global	–
Ireland	S&P Global	AIB
Israel	IPLMA	Bank Hapoalim Ltd
Italy	S&P Global	HCOB
Japan	S&P Global	au Jibun Bank
Kazakhstan	S&P Global	Stanbic Partners
Kenya*	S&P Global	Stanbic Bank
Lebanon*	S&P Global	BLOMINVEST Bank
Malaysia	S&P Global	–
Mexico	S&P Global	–
Myanmar	S&P Global	–
Netherlands (The)	S&P Global	Nevi
New Zealand	Business NZ	Bank of New Zealand
Nigeria*	S&P Global	Stanbic IBTC Bank
Philippines (The)	S&P Global	–
Poland	S&P Global	–
Russia	S&P Global	–
Saudi Arabia*	S&P Global	Riyad Bank
Singapore*	S&P Global	–
South Africa*	S&P Global	–
South Korea	S&P Global	–
Spain	S&P Global	HCOB
Switzerland	procure.ch	Credit Suisse
Taiwan	S&P Global	–
Thailand	S&P Global	–
Turkey	S&P Global	Istanbul Chamber of Industry
UAE*	S&P Global	–
United Kingdom	S&P Global	CIPS
United States ²	S&P Global / ISM	–
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.

²US data compiled by ISM pre-February 2010 and by S&P Global post-January 2010.

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