News Release

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J.P.Morgan Global Manufacturing PMI™

Growth of global manufacturing output slows amid record supplier delays, rising costs and stalling export trade

Key findings

Manufacturing PMI little-changed at 54.3 in October

Record lengthening in supplier lead times

Steeper increases in output prices and input costs

The rate of expansion in global manufacturing production was the weakest during the current 16-month upturn in October. Output growth was stymied by substantial disruption to raw material deliveries, resulting input shortages, rising cost inflation and a near-stalling of international trade flows.

The J.P.Morgan Global Manufacturing PMI™ – a composite index produced by J.P.Morgan and IHS Markit in association with ISM and IFPSM – edged higher to 54.3 in October, up from 54.1 in September. The rise in the headline index reflected a record lengthening of vendor lead times, increased stock holdings and faster jobs growth. This offset the effect on the PMI level of slower increases in both output and new orders.

Of the 31 nations for which October data were available, all except two (Mexico and Myanmar) registered PMI readings above the 50.0 no-change mark. The euro area remained a bright spot, with the top-five ranked countries all members of the currency bloc. The US, Japan and China were in sixth, nineteenth and twenty-eighth positions respectively. Data broken down by sector, signalled expansions across the consumer, intermediate and investment goods industries.

The upturn in global manufacturing production eased to a marginal pace during October, with rates of expansion slowing in the US, the euro area and the UK. The downturn in China extended into a third successive month while Japan registered renewed growth but at only a modest pace. Among the largest emerging markets, India saw a sharp output growth acceleration, while Brazil sank back into contraction territory.

Production rose at a marginally quicker rate in the consumer goods sector, but decelerated slightly in the intermediate goods category. Meanwhile, the investment goods industry saw output decrease for the first time in 16 months.

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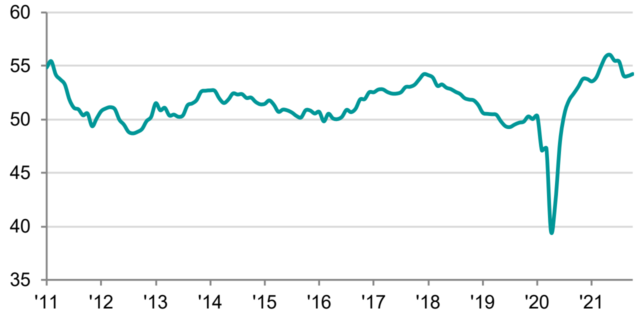
J.P.Morgan Global Manufacturing PMI™

sa, >50 = improvement since previous month

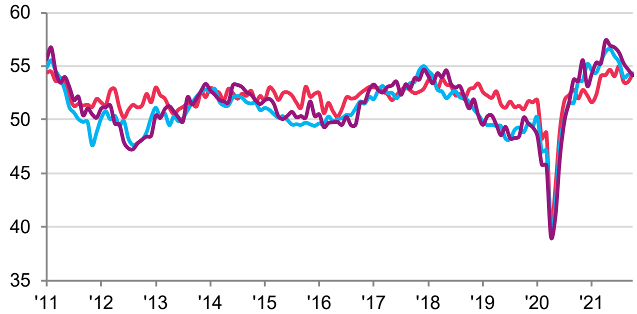


Sources: J.P.Morgan, IHS Markit.

PMI by goods sector

Consumer / Intermediate / Investment

sa, >50 = improvement since previous month



Sources: J.P.Morgan, IHS Markit.

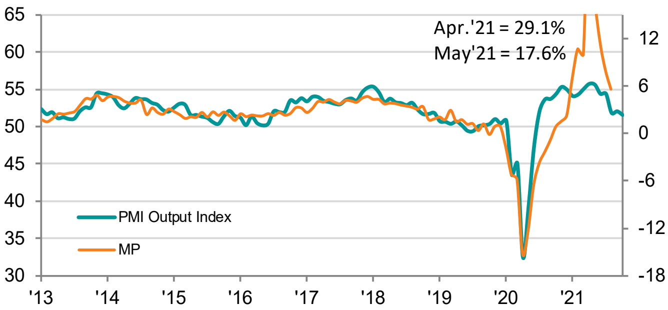
Index summary

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

Index	Sep-21	Oct-21	Interpretation
PMI	54.1	54.3	Improvement, faster rate
Output	52.1	51.6	Growth, slower rate
New Orders	53.9	53.7	Growth, slower rate
New Export Orders	51.0	50.6	Growth, slower rate
Future Output	64.2	63.3	Growth expected, lesser sentiment
Employment	51.4	51.8	Growth, faster rate
Input Prices	71.2	74.4	Inflation, faster rate
Output Prices	60.9	63.7	Inflation, faster rate

PMI Manufacturing Output Index
sa, >50 = growth since previous month

Global manufacturing production
%yr/yr



Sources: J.P.Morgan, IHS Markit.

The level of incoming new business rose at a slower pace at the start of the final quarter, in part reflecting weaker growth in international trade volumes. Capacity at manufacturers remained under pressure despite the muted trend in demand, as highlighted by a further solid increase in backlogs of work.

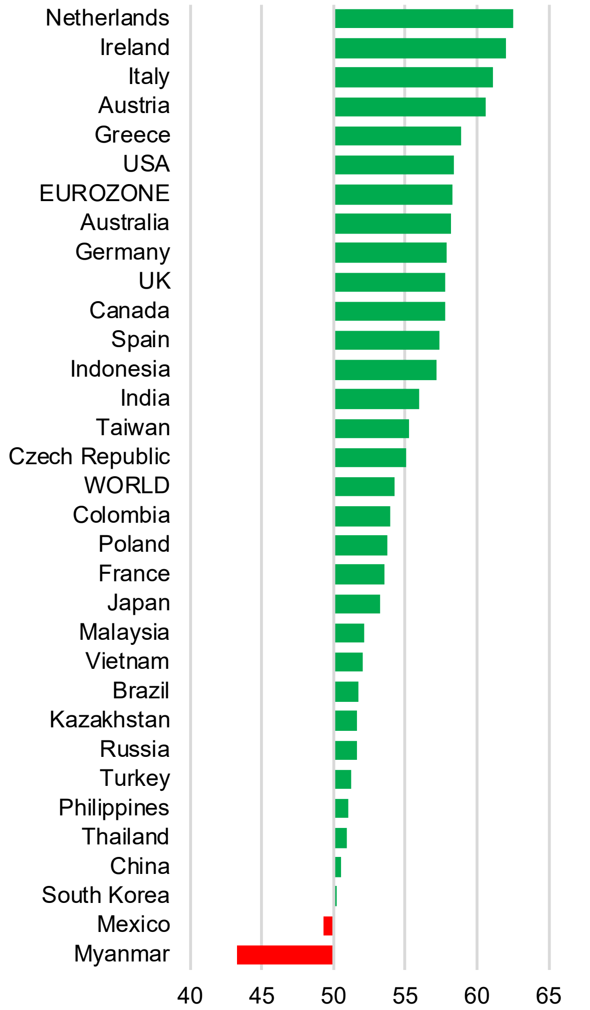
Rising levels of outstanding business, alongside a positive outlook for future growth of manufacturing production, led to a modest increase in employment. That said, the overall degree of business confidence dipped to a 12-month low. Workforce numbers were added to in the US, the euro area, Japan, the UK and Brazil (among others). In contrast, cuts were seen in China and India.

Global supply chains remained under severe pressure during October, with average vendor delivery times increasing to the greatest extent in the survey history. Supplier performance deteriorated to record, or near-record, extents across the consumer, intermediate and investment goods industries.

The impact of supply-chain issues filtered through to price inflation during October. Input costs increased at the fastest pace in over 13 years, while average output charges rose to the greatest extent on record. Rates of inflation in both price measures were noticeably steeper (on average) in developed nations compared to emerging markets.

Manufacturing PMI
sa, >50 = improvement since previous month

Oct '21



Sources: J.P.Morgan, IHS Markit, Unicredit Bank Austria, Caixin, Davivienda, BME, HPI, AIB, Jibun Bank, NEVI, AERCE, Istanbul Chamber of Industry, CIPS.

Methodology

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

Global manufacturing PMI indices are compiled by IHS Markit 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 economics@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.

Data sources

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

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

[1]Hong Kong is a Special Administrative Region of China.

[2]US data compiled by ISM pre-February 2010 and by IHS Markit post-January 2010.

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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 IHS Markit

IHS Markit (NYSE: INFO) is a world leader in critical information, analytics and solutions for the major industries and markets that drive economies worldwide. The company delivers next-generation information, analytics and solutions to customers in business, finance and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. IHS Markit has more than 50,000 business and government customers, including 80 percent of the Fortune Global 500 and the world's leading financial institutions.

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 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