PMI™

by S&P Global

Week Ahead Economic Preview

Key recession-watch updates for US and UK, China data eyed for reopening impact

13 January 2023

The week ahead will again be adorned with an abundance of economic data including December's **retail sales and industrial production** figures from both the **US and China**. Fourth quarter **GDP from China** will also be released. Bank of England watchers will meanwhile be eager to see UK labour market and retail sales data.

Additionally, **US, UK and German PPI plus eurozone and Japanese CPI** will help assess the global inflation trend. On the central bank front, **monetary policy meetings in Japan, Norway, Malaysia and Indonesia** unfold.

The data come amid a busy week for US earnings and follow news that investors in the US are growing increasingly concerned over the impact of higher interest rates on corporate health (see box). Despite robust-looking GDP data for the US in the fourth quarter, various forward-looking survey gauges are flashing warning signals of rising recession risks. The updates to industrial production and retail sales data will therefore be important to watch to see if the US official data are starting to more closely mirror the weakness seen in the surveys, as such a development could encourage a less aggressive policy path from the FOMC.

That said, the longer-term outlook to the end of 2023 offers a glimmer of hope, with indications from the approximate 300 survey participants – managing roughly $3,500 billion assets – pointing to bullish sentiment across all four major asset classes, including equities. Asian markets were notably the most favoured in the equity space, with the loosening of restrictions in mainland China helping boost positive expectations on economic conditions. The upcoming flurry of data releases from China data will therefore be eagerly assessed in tracking the early economy reopening performance.

More central bank meetings and inflation indications will also help in the assessment of both economic and market trajectory into 2023. In particular, the Bank of Japan meeting will likely be scrutinised in the coming week after delivering a surprise that shook the FX market.

In the UK, inflation and labour market updates will meanwhile be key inputs to the scale of the next rate hike at the Bank of England, and downside surprises could even lead to talk of a pause in the hiking cycle.

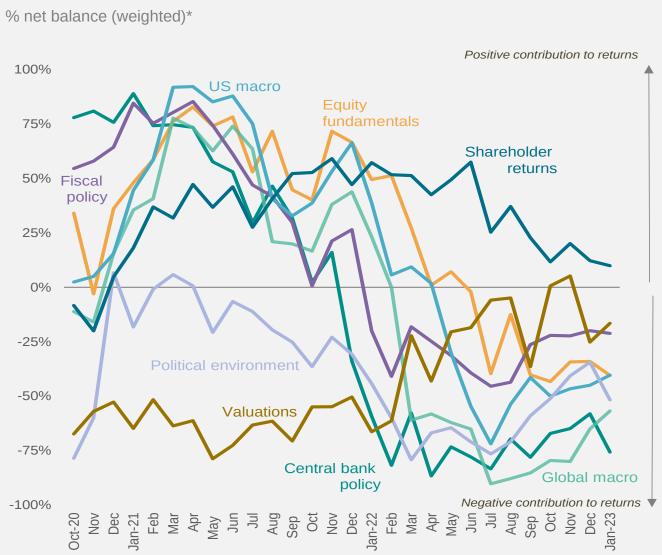
US equity investor remain risk averse amid Fed worries

The year had barely started and reinforcements of the Fed's hawkish views had already landed via both the Fed minutes from the December meeting and recent policymaker comments. It is perhaps of little wonder that the latest S&P Global Investment Manager Index reflected a sombre mood amongst US equity investors, based on results collected at the start of the year.

Risk appetite and expected near-term US equity market returns remained in negative territory in the opening trading sessions of 2023, albeit improving from December. Furthermore, the greatest perceived drag on the market is now viewed to stem from central bank policy, overtaking the global macroeconomic environment as the biggest concern.

Shareholder returns remain the only factor perceived to be supportive of equities, albeit to a waning degree due to concerns over dividends. Equity fundamentals meanwhile seen as increasing drag, hinting at concerns over earnings.

IMI survey: expected drivers of US equity market returns over next 30 days



Source: S&P Global IMI survey

Key diary events

Monday 16 January
US Market Holiday
Japan Corporate Goods Prices (Dec)
South Korea Export and Import Growth (Dec)
Indonesia Trade Balance (Dec)
India WPI Inflation (Dec)
Germany ZEW Economic Sentiment (Jan)
Canada Manufacturing Sales (Nov)

Tuesday 17 January
Singapore Non-Oil Exports (Dec)
China (Mainland) Retail Sales, Industrial Output and Urban FAI (Dec)
China (Mainland) GDP (Q4)
Germany HICP (Dec, final)
United Kingdom PPI (Nov)
United Kingdom Labour Market Report (Nov)
Canada CPI (Dec)

Wednesday 18 January
Taiwan Market Holiday
Japan Machinery Orders (Nov)
Malaysia Trade (Dec)
Taiwan Jobless Rate (Dec)
Eurozone HICP (Dec)
United States PPI (Dec)
United States Retail Sales (Dec)
Canada Producer Prices (Dec)
United States Industrial Production (Dec)
United States Capacity Utilization (Dec)
United States Business Inventories (Nov)
United States NAHB Housing Market Index (Jan)
Japan BOJ Rate Decision
United States Fed Beige Book

Thursday 19 January
Taiwan Market Holiday
Japan Trade (Dec)
United Kingdom RICS Housing Survey (Dec)
Australia Employment (Dec)
Malaysia Policy Rate (19 Jan)
Norway Key Policy Rate (19 Jan)
United States Building Permit and Housing Starts (Dec)
United States Initial Jobless Claims
Canada Wholesale Trade (Nov)
Indonesia 7-Day Reverse Repo (Jan)

Friday 20 January
Taiwan Market Holiday
Japan CPI (Dec)
United Kingdom GfK Consumer Confidence (Jan)
China (Mainland) Loan Prime Rate 1Y and 5Y (Jan)
Germany Producer Prices (Dec)
United Kingdom Retail Sales (Dec)
Canada Retail Sales (Nov)
United States Existing Home Sales (Dec)
Thailand Manufacturing Production (Dec)

* Press releases of indices produced by S&P Global and relevant sponsors can be found **here**.

What to watch

Americas: US PPI, retail sales, industrial production, Canada CPI

Following the December US CPI release, US PPI will be watched in the week ahead with the Refinitiv consensus expectation pointing to no changes on a month-on-month (m/m) basis after rising 0.3% m/m previously. Inflationary pressures at goods producers have eased markedly according to the S&P Global US Manufacturing PMI.

Separately, retail sales and industrial production figures will also be due from the US to outline consumption and production conditions respectively. Consensus expectations currently suggest retail sales and production will have continued to fall on a month-on-month basis in December. A clutch of housing market data are also updated for the US, which will be assessed for the impact of higher rates.

Europe: UK inflation, labour market data, retail sales, eurozone inflation, German inflation, ZEW survey

Inflation readings from the UK, eurozone and Germany will be updated in the coming week. The numbers will be eagerly anticipated after PMI data outlined how lower costs are feeding through to lower selling price inflation for goods and services across both the UK and the eurozone.

At the same time, labour market data will shed light on employment conditions in the UK. As far as the KPMG / REC UK Report on Jobs, compiled by S&P Global Market Intelligence, indicated, uncertainties around the outlook have led to further caution around hiring in the UK with permanent placements declining in December and vacancies rising at a slower rate. UK retail sales data are also updated for the important Christmas holiday period. Also watch out for producer price data for Germany and the UK.

Asia-Pacific: BoJ, BNM, BI meetings, Japan CPI, China retail sales, industrial production, loan prime rates and Q4 GDP

Monetary policy meetings will unfold in Japan, Malaysia and Indonesia in the coming week. The Bank of Japan had previously surprised the market by tweaking its yield curve control policy in December and markets will be closely watching for any further hints of policy shift.

Meanwhile China's retail sales and industrial production numbers arrive in the coming week, capturing early reopening effects, in addition to Q4 GDP.

Special reports:

Global Business Activity Contracts for Fifth Successive Month as Demand Downturn Accelerates | Chris Williamson | **page 4**

Singapore Economic Expansion Moderates as Global Economy Slows | Rajiv Biswas | **page 8**

Recent PMI and economic analysis from S&P Global

Global	Monthly PMI Bulletin: January 2023	8-Jan	Jingyi Pan
	Global business activity contracts for fifth successive month as demand downturn accelerates	6-Jan	Chris Williamson
	Global downturn led by slump in financial services as borrowing costs ratchet higher	6-Jan	Chris Williamson
	Global price pressures cool further as end of 2022 sees manufacturers cut capacity: 10 key charts	4-Jan	Chris Williamson
Americas	Expectations of further Fed tightening in December, as PMI survey data suggest policy is helping cool inflation and reduce demand	9-Dec	Sian Jones
Europe	Eurozone recession fears ease as flash PMI signals slower rate of contraction for second month	16-Dec	Chris Williamson
	Flash UK PMI data signal cooling inflation and moderating downturn, but jobs are cut amid uncertain outlook	16-Dec	Chris Williamson
	Recruitment downturn signals cooling wage growth in UK	12-Dec	Chris Williamson
Asia-Pacific	ASEAN manufacturing outlook for 2023 softens as demand remains lacklustre	4-Jan	Jingyi Pan
	Asia PMI indicates region slipping further into contraction ahead of 2023 arrival	12-Dec	Jingyi Pan
Commodities	Weekly Pricing Pulse: A mixed week for commodity markets overshadowed by sharp decline in energy prices	16-Dec	Michael Dall

S&P Global Economics & Country Risk highlights

Top 10 economic predictions for 2023

Efforts by central banks to subdue inflation will dominate the economic landscape in 2023, producing a pronounced slowdown in global economic growth, according to the annual Top 10 Economic Predictions by S&P Global Market Intelligence.

Click here to read our research and analysis

Purchasing Managers Index: Stocks of finished goods and a new data set

Tune in for the latest trends seen in our Purchasing Managers Index data. Our economists discuss the strength of Middle East economies and challenges facing economies within Africa. They also look at what's driving the rise in global manufacturing stocks of finished goods and highlight a new data set within the PMI offering that aims to quantify the impact of common themes like demand inflation and delivery times.

Click here to listen to this podcast by S&P Global Market Intelligence

For further information:

For more information on our products, including economic forecasting and industry research, please visit the Solutions section of **www.ihsmarkit.com**. For more information on our PMI business surveys, please visit **www.ihsmarkit.com/products/PMI**

Special Focus

Global Business Activity Contracts for Fifth Successive Month as Demand Downturn Accelerates

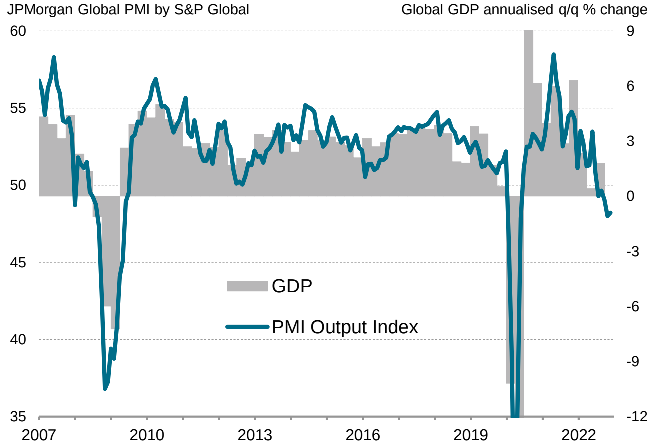
Global business activity fell for a fifth consecutive month in December, with the rate of decline moderating slightly amid improved supply conditions but still rounding off the worst quarter since 2009 barring lockdown months. What's more, with new orders falling at an increased rate, the underlying demand environment appears to have deteriorated further.

Price pressures meanwhile continued to moderate, pointing to a marked cooling of global inflationary pressures.

The steepest downturn - and commensurate calming of inflation - has been seen in the US. In Europe, the pace of decline moderated, fueled in part to fewer energy market worries. China's decline also slowed, thanks to fewer COVID-19 restrictions.

Looking ahead, business confidence has lifted slightly thanks to the changing situation in China and improving global supply-side conditions, but the mood generally remains subdued due to worries over higher interest rates and the possibility of further demand in the months ahead.

JP Morgan Global composite PMI



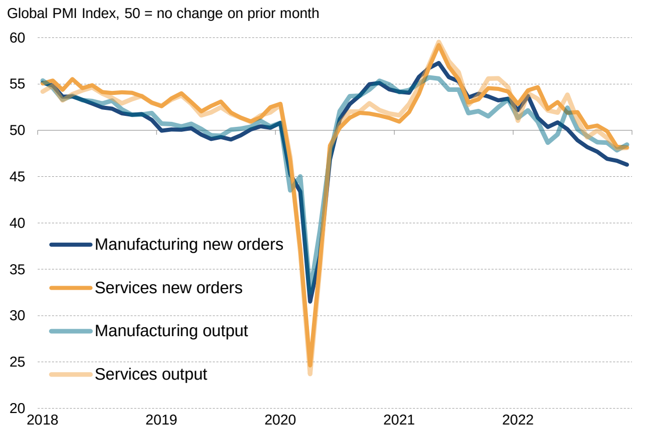
Source: S&P Global, JPMorgan.

December drop in business activity rounds off disappointing fourth quarter

At 48.2 in December, the Global PMI – compiled by S&P Global across over 40 economies and sponsored by JPMorgan – indicated a fifth successive month of falling business activity. Despite rising slightly from 48.0 in November, the December reading rounds off the worst calendar quarter since the second quarter of 2009, during the global financial crisis, if the initial pandemic lockdown months of early 2020 are excluded. The PMI is consistent with global GDP falling at an annualised rate of approximately 1% in the fourth quarter.

Similar rates of decline were recorded across the manufacturing and service sectors, pointing to a broad-based economic contraction at the end of the year. Neither sector has registered any output growth since last July. Although an unchanged rate of output decline in the service sector in December contrasted with brighter news of a slight moderation in the pace of manufacturing decline, the latter reported an increased loss of new orders to hint that the factory production decline could reaccelerate in January.

Global output and new orders



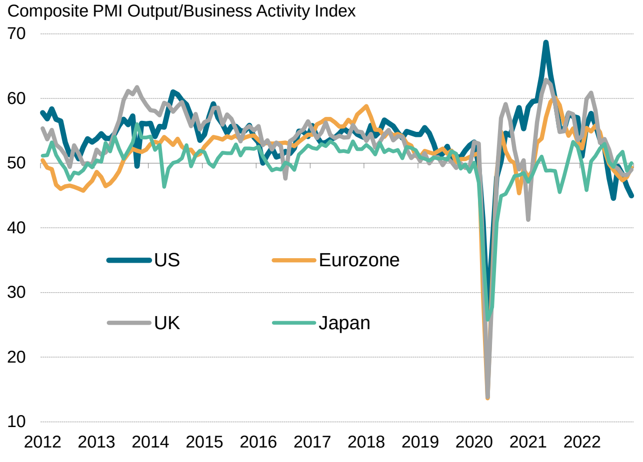
Sources: S&P Global, JPMorgan.

European downturns moderate, US sinks deeper into decline

Looking at the major developed economies, trends varied markedly. Downturns moderated in Europe, with all four of the largest eurozone member states and the UK reporting weaker rates of contraction at the end of the year to consequently indicate only very modest GDP declines in all cases. The European data therefore suggest that the region's decline peaked back in October, though one notable exception is UK manufacturing, where the rate of decline accelerated further in December as Brexit contributed to a worsening of trade performance.

In contrast, the US downturn gathered momentum, with output falling for a sixth successive month in December and contracting at one of the fastest rates since 2009 if pandemic lockdown months are excluded. Both manufacturing and services saw increased rates of output decline. Australia likewise reported a deepening downturn, though Japan saw business activity broadly stabilise after slipping into contraction in November, buoyed by a modest resurgence in service sector activity.

Developed world PMI output indices

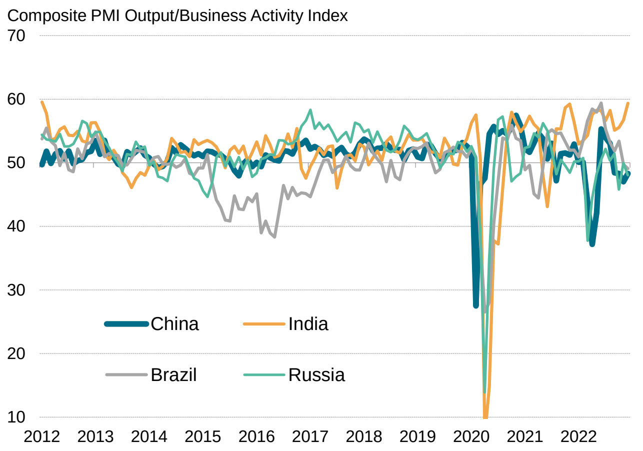


Sources: S&P Global, CIPS, au Jibun Bank

Resurgent India leads emerging markets, China's downturn moderates

Divergent trends were also evident in the major emerging markets. While India notched up the strongest expansion for a decade, fueled by surging growth in both manufacturing and services, Russia, Brazil and mainland China all reported falling levels of business activity.

Emerging market PMI output indices



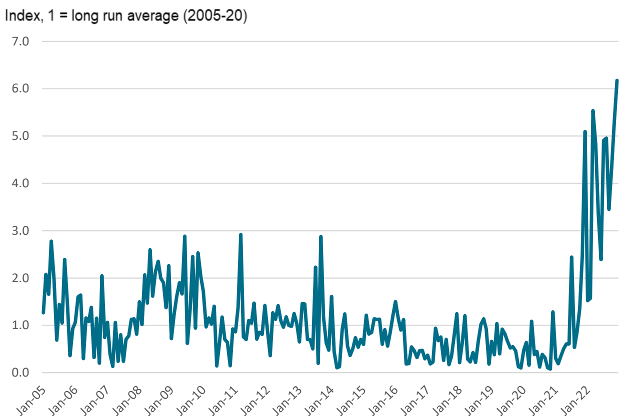
Sources: S&P Global, Caixin.

Encouragingly, China's downturn moderated as activity across both manufacturing and services was buoyed by looser COVID-19 restrictions, but Russia struggled amid ongoing war sanctions, despite a boost to domestic manufacturing as firms benefited from import substitution. Political upheaval and slumping foreign trade meanwhile hit Brazil, leading to a second month of falling output.

Higher prices dampen demand

The most commonly cited cause of the downturn around the world was a weakening of demand due to higher prices. The number of companies reporting order books to have deteriorated as a result of higher prices spiked in December to the highest recorded since data were first available in 2005, running at over six-times the long run average.

Global companies reporting lower orders due to higher prices



Source: S&P Global PMI surveys.

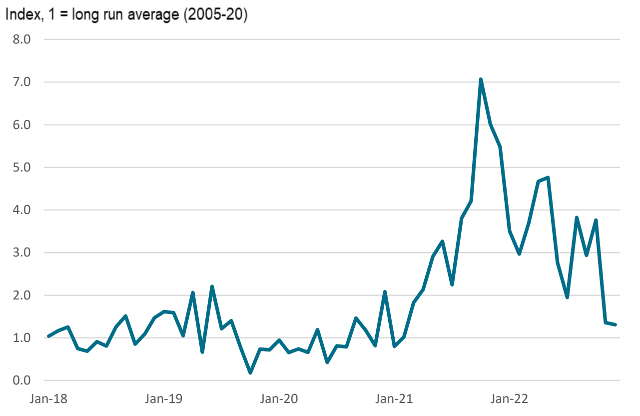
But supply conditions start to improve

However, a factor helping to moderate the downturn – especially in manufacturing – was an improvement in supplier delivery times, reflecting fewer shortages of raw materials. December saw the incidence of supply delays fall to the lowest since January 2020, just prior to the pandemic, to represent a major improvement in the global supply situation compared to the unprecedented supply scarcities reported at the start of the year and throughout 2021.

To illustrate, the number of companies worldwide reporting that backlogs of work are accumulating due to an insufficient supply of raw materials (i.e. both components and energy) has fallen back close to its long-run average in December, having spiked at over seven-times the long-run average back in October 2021.

At the same time, European manufacturers in particular cited fewer constraints on production due to waning energy market concerns, and in particular lower gas prices. State subsidies in Europe have also been widely cited as a key factor supporting spending, both by businesses and households.

Global companies reporting rising backlogs of work due to raw material shortages

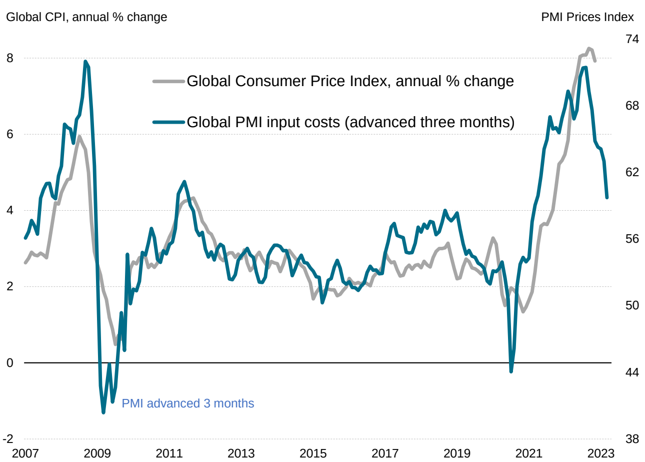


Source: S&P Global PMI surveys.

Price pressures abate

A consequence of the improving supply situation – and the recent slump in demand – was a further softening of price pressures around the world in December. The global PMI input price index, covering both goods and services, registered the weakest rate of inflation for two years, signalling a further marked cooling in the rate of increase from the peak seen in April of last year. As this index acts as a reliable advance indicator of consumer price inflation, the PMI data point to a marked moderation of global inflation in the months ahead.

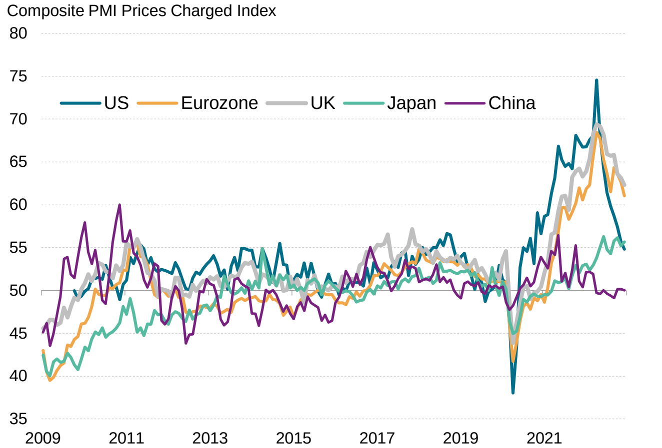
Global PMI costs and inflation



Source: S&P Global, JPMorgan

Lower costs generally fed though to lower selling price inflation for goods and services, especially in the US and to lesser – but still notable – extents in Europe. Price pressures proved stickier in Japan, where the PMI is now registering a slightly steeper rate of increase than seen in the US.

PMI prices charged (goods and services)



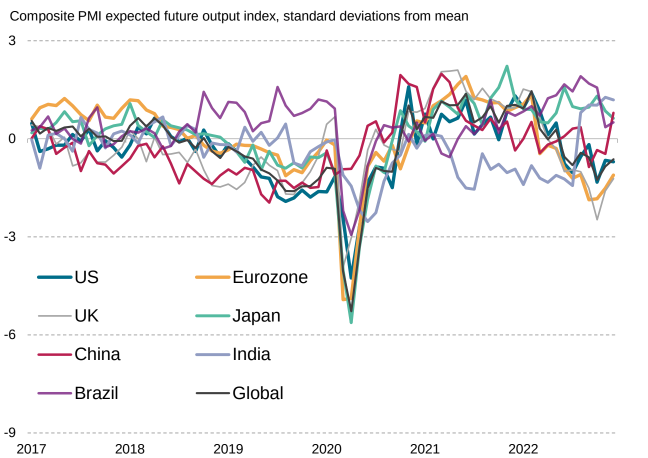
Sources: S&P Global CIPS, Caixin, au Jibun Bank

Outlook remains subdued

While the improving supply situation and cooling of price pressures helped lift business sentiment in December, with news of loosened COVID-19 restrictions in mainland China also bolstering sentiment in some cases, the overall level of optimism regarding output in the year ahead remained firmly below its long run average in December, reflecting broad-based concerns about demand in the coming months and a heightened risk of recession.

Compared to long run averages, sentiment was the weakest in Europe, with UK-based firms especially gloomy, while sentiment lifted especially sharply in China.

Future output expectations



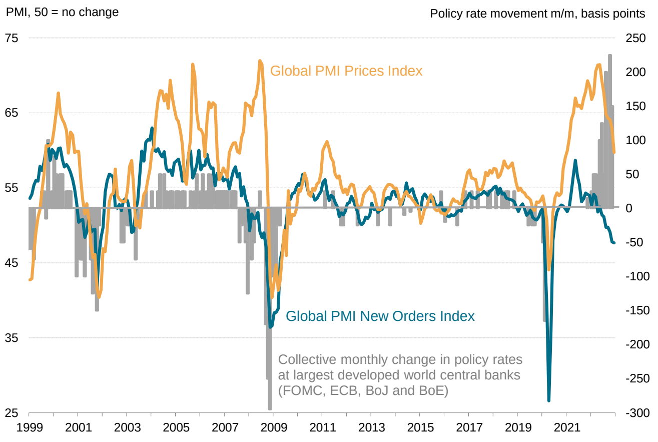
Sources: S&P Global,CIPS, Caixin, au Jibun Bank.

Sentiment also notably remained well below its long-run average in the US, which has seen the most aggressive monetary policy tightening.

While higher interest rates in the US and Europe are having an increasingly evident effect in cooling inflationary pressures, the cost of this fight against inflation has been a demand downturn on a scale not seen since 2009, if the initial pandemic lockdown period is excluded.

Going forward, it is therefore likely that the central bank policy path will be the key determinant of the trajectory of global output in the coming months, with the opening up of China's economy from COVID-19 restrictions also set to have a potential major influence. However, at the moment, it is unclear as to the degree to which policymakers will be swayed by signs of slumping activity and falling inflationary pressures. Equally, it is unclear how China's economy will cope with the relaxation of pandemic restrictions. Flash PMI data, due out on 24th January, will provide the first major insights into how the global economy has fared at the start of 2023.

Global PMI new orders and prices vs. central bank policy



Source: S&P Global, JPMorgan.

Chris Williamson
Chief Business Economist
S&P Global Market Intelligence
London

T: +44 779 5555 061
chris.williamson@spglobal.com

Special Focus

Singapore Economic Expansion Moderates as Global Economy Slows

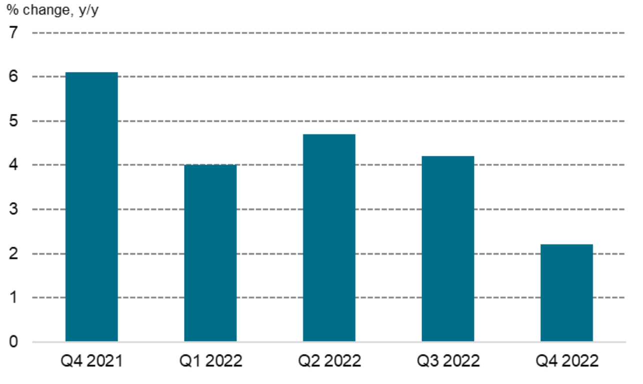
The Singapore economy grew at a pace of 3.8% year-on-year (y/y) in 2022, helped by significant easing of pandemic-related restrictions. However, Singapore's manufacturing sector faced increasing headwinds during the second half of 2022 due to the slowdown in the US, EU and mainland China.

This has been mitigated by improving conditions in the service sector, notably the rebound in international tourism, business conventions and air travel as border restrictions are easing across much of the Asia-Pacific region. The reopening of international borders in mainland China is expected to further boost the rebound in international tourism inflows.

Singapore economy shows some moderation

Singapore's advance estimate for Fourth Quarter GDP for 2022 showed a moderation in the pace of growth to 2.2% y/y, compared with 4.2% y/y in the Third Quarter. On a quarter-on-quarter basis, GDP growth slowed to 0.2% q/q in Q4 2022, compared with 1.1% q/q in Q3 2022.

Singapore real GDP growth

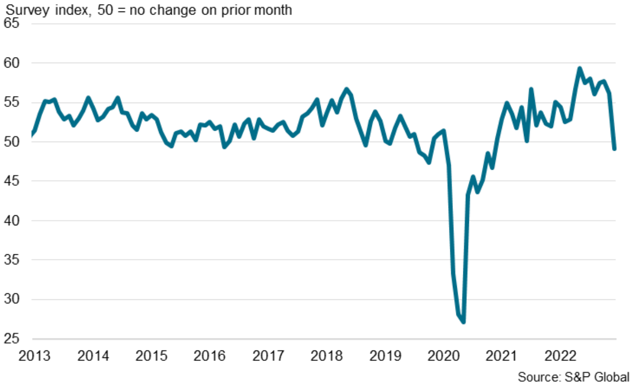


Source: MTI

The service sector recorded a small contraction of 0.4% q/q in Q4 2022, although showing positive growth of 4.1% y/y. The gradual removal of many COVID-19 related restrictions since April 2022 supported buoyant growth in the accommodation and food services, real estate, administration and support services segment, which grew by 8.2% y/y.

The headline seasonally adjusted S&P Global Singapore Purchasing Manager's Index (PMI) eased from 56.2 in November to 49.1 in December. Posting below the 50.0 neutral threshold, the PMI signalled a deterioration in private sector conditions following a two-year growth period, albeit at a mild rate.

S&P Global Singapore PMI



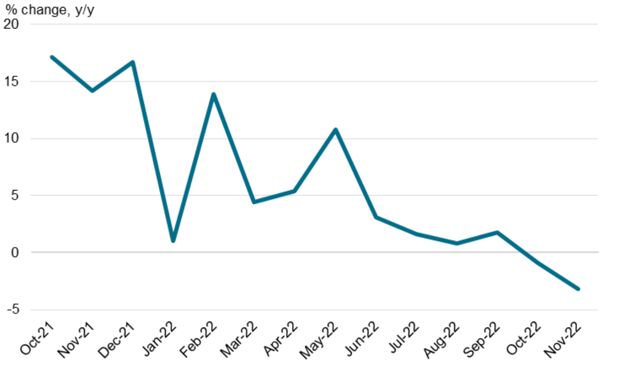
Source: S&P Global

Manufacturing sector slowdown

Latest statistics from Singapore's Economic Development Board showed that manufacturing output continued to weaken in November, declining by 3.2% year-on-year (y/y). This reflected contraction in output of electronics and also chemicals, with together account for 53.3% of the total weight of the manufacturing sector.

The slowdown in global electronics demand has impacted on electronics output, which fell by 12.4% y/y in November, with output in the key semiconductors segment declining by 14.0% y/y. Chemicals output fell by 11.3% y/y in November, with petrochemicals output declining by 17.5% y/y due to the impact of both weak demand as well as plant maintenance shutdowns.

Singapore manufacturing output



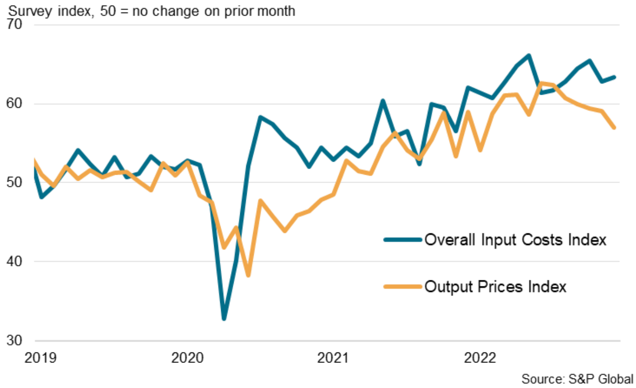
Source: EDB

Overall, total manufacturing output growth during the first eleven months of 2022 was up 3.3% y/y. However, the electronics sector will face continuing headwinds in the near term due to weak growth momentum expected for the US and EU in 2023.

Inflation pressures

According to the December S&P Global Singapore PMI survey, input cost inflation rose at the end of 2022, attributed to higher purchase costs and wages. Cost pressures heightened with higher prices reported across a range of categories such as raw materials, transportation and energy, and was further aggravated by rising interest rates and currency conversion costs. Despite the rise in input costs, output price inflation fell according to latest survey indications. Firms continued to share their cost burdens with clients but at a slower rate in December so as to avoid further dampening demand.

Singapore PMI input and output prices



Singapore's CPI inflation rate remained at 6.7% % year-on-year (y/y) in November, the same pace as in October and remaining lower than the 7.5 y/y recorded in September. The Monetary Authority of Singapore (MAS) Core Inflation measure remained at 5.1% y/y in November, the same pace as in October and remaining below the 5.3% y/y recorded in September.

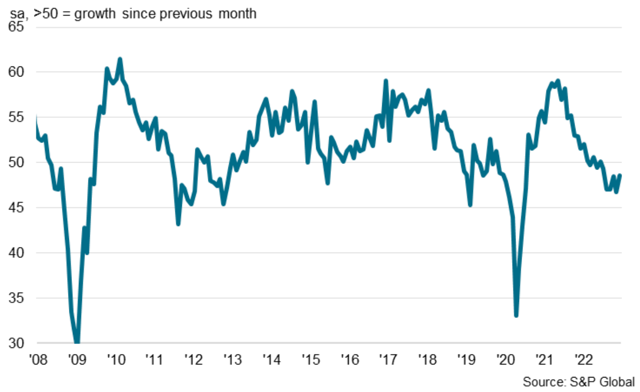
The MAS and Ministry of Trade and Industry (MTI) estimate that for calendar 2022, CPI All Items inflation is expected to average around 6.0%, and MAS Core Inflation around 4.0%.

Moderating global electronics demand adds to headwinds

The electronics manufacturing industry is a key segment of Singapore's manufacturing sector, accounting for 40% of the total weight of manufacturing output, dominated by semiconductors-related production. The latest S&P Global survey data indicates that the global electronics manufacturing industry is facing headwinds from the weakening pace of global economic growth.

According to the headline S&P Global Electronics PMI survey, the global electronics composite index was at 50.4 in December 2022, improving slightly compared to 49.1 in November, but still showing a significant slowdown compared with late 2021 and early 2022. The latest survey results indicate that the global electronics industry is now experiencing neutral conditions, although output and new orders remain weak.

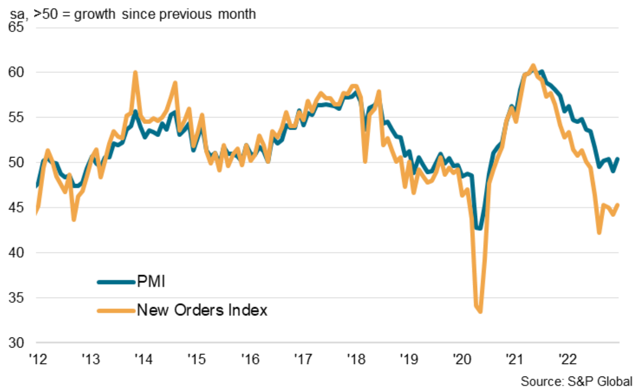
S&P Global Electronics Output PMI



The two principal sub-components of the Global Electronics PMI – new orders and output – both remained in contraction territory during December. December survey data indicated a significant reduction in backlogs of work at global electronics manufacturers. Lower new order inflows allowed firms to work through outstanding business in a timely manner, according to panellists.

Weakening economic growth momentum in the US and EU has impacted on consumer demand for electronics, with the economic slowdown in mainland China during 2022 also contributing to the downturn in new orders.

S&P Global Electronics PMI and new orders



Singapore's economic outlook

The Singapore economy recorded a second year of economic recovery from the pandemic in 2022, growing by 3.8% y/y, after growth of 7.6% y/y in 2021. Singapore's GDP growth in 2022 was buoyed by strong growth in domestic consumption and an upturn in international tourism expenditure, as COVID-19 restrictions were progressively eased in Singapore as well as a growing number of other Asia-Pacific economies.

However, with increasing headwinds to global growth momentum in 2023 due to expected weak growth in the US and EU at the outset of 2023, the outlook for Singapore's manufacturing sector and some trade-related services is for weaker growth in 2023. With domestic demand in mainland China expected to gradually improve during 2023, this should help to mitigate the impact of slowing export orders for Singapore's manufacturing sector from the US and EU.

The increase in Singapore's Goods and Services Tax by 1% from 7% to 8% implemented on 1st January 2023 will also act as a slight drag on economic growth, raising fiscal revenue by an estimated 0.7% of GDP per year.

In 2023, taking into account the 1% increase in GST from 1st January 2023, headline and core CPI inflation are projected to average 5.5%–6.5% and 3.5%–4.5% respectively. MAS Core Inflation is projected by the MAS and MTI to remain elevated over the next few quarters, with risks still tilted to the upside, due to factors such as potential renewed shocks to world commodity prices and persistent global inflation pressures. Although prices of energy and food commodities have eased from their peaks, businesses will face higher utility prices and rising unit labour costs in the near-term. The MAS and MTI expect that MAS Core Inflation will moderate in the second half of 2023, as tightness in the domestic labour market eases and global inflation pressures moderate.

The medium-term outlook for Singapore's manufacturing sector is supported by a number of positive factors.

The medium-term global demand outlook for Singapore's electronics industry remains favourable. The outlook for electronics demand is underpinned by major technological developments, including 5G rollout over the next five years, which will drive demand for 5G mobile phones. Demand for industrial electronics is also expected to grow rapidly over the medium term, helped by Industry 4.0, as industrial automation and the Internet of Things boosts rapidly growth in demand for industrial electronics.

In the biomedical manufacturing sector, significant new manufacturing facilities are being built by pharmaceuticals multinationals. This includes a new vaccine manufacturing facility being built by Sanofi Pasteur and a new mRNA vaccine manufacturing plant being built by BioNTech.

The aerospace engineering sector is currently experiencing rapid growth as the reopening of international borders in APAC is boosting commercial air travel across the region. Singapore's role as a leading international aviation hub is likely to continue to strengthen over the medium-term, helped by strong growth in APAC air travel and its role as a key Maintenance, Repair and Overhaul (MRO) hub in APAC.

In the service sector, Singapore is expected to continue to be a leading global international financial centre for investment banking, wealth management and asset management. Singapore will also continue to be a key APAC hub for shipping, aviation and logistics, as well as an important APAC hub for regional headquartering.

However an important long-term challenge for the Singapore economy will be from ageing demographics, which will result in rising social welfare costs and could gradually reduce Singapore's long-term potential GDP growth rate.

Rajiv Biswas
Asia-Pacific Chief Economist
S&P Global Market Intelligence
Singapore

rajiv.biswas@spglobal.com

Links to more resources

- Sign up to receive updated commentary in your inbox here.
- Calendar of upcoming PMI releases
- Running commentary on the PMI survey findings
- PMI Frequently Asked Questions
- Background to the PMIs (video)
- Understanding the headline PMI and its various subindices
- PMI data use-case illustrations, from nowcasting to investment strategy
- PMI podcasts
- How to subscribe to PMI data

CONTACT US

Chris Williamson
Chief Business Economist
S&P Global Market Intelligence
London

T: +44 779 5555 061
chris.williamson@spglobal.com

Jingyi Pan
Economics Associate Director
S&P Global Market Intelligence
Singapore

T : +65 6439 6022
jingyi.pan@spglobal.com

The Americas
+1-877-863-1306

EMEA
+44-20-7176-1234

Asia-Pacific
+852-2533-3565

spglobal.com/marketintelligence/en/mi/products/pmi.html