

Week Ahead Economic Preview

Fed minutes, RBNZ meeting and a busy economic calendar

11 August 2023

The week ahead is packed with central bank updates, including Fed minutes and monetary policy meetings in New Zealand and the Philippines. Furthermore, a series of economic releases will be anticipated including GDP data from the eurozone, Japan and other APAC economies. Both the US and mainland China will meanwhile release retail sales and industrial production data, with the former also updating housing market figures. Other data to watch includes labour market and inflation reports from the UK.

The latest S&P Global Investment Manager Index survey unveiled that concerns over valuation heightened in August among US equity investors. To a large extent, this stemmed from both an elevated US market and worries over the outlook amid lingering central bank policy and macroeconomic risks. Next week's releases will therefore provide further insights as to whether these equity market woes deserve greater attention or otherwise.

The Fed minutes from the July Federal Open Market Committee (FOMC) meeting will notably be scrutinised next week with the market holding mixed views on whether more hikes may be expected for the rest of 2023. However, with the Fed's clear data-dependent view towards shifting rates in the coming meetings, the series of economic releases such as retail sales, industrial production and housing figures will be the highlights as well. July's US PMI data revealed continued, albeit slower, growth for services while manufacturing output expanded marginally, which hints at better readings for the two gauges.

Beyond the US, the UK releases both labour market and inflation reports. The KPMG and REC report on jobs in the UK alluded to slowing hiring momentum in July while PMI data showed inflationary pressures continued to dissipate. Official confirmations will be sought with the economic releases next week, and could lead to further moderation in rate hike speculations.

Finally, in APAC, the RBNZ and BSP meet though little surprises are anticipated. Japan's GDP and inflation data may capture the focus instead, alongside mainland China activity readings after <u>Caixin PMI data showed composite output expanded at the slowest rate for six months.</u>

Broad-based slowdown affects hiring

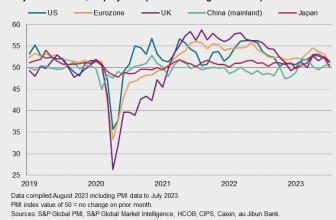
July's PMI data revealed that the latest slowdown in global economic growth became more broad-based at the start of the second half of 2023. While emerging markets were showing more resilience relative to developed economies earlier, both had since seen the pace of expansion ease from peaks in May.

Developed vs Emerging Markets PMI



As a result, the labour market which significantly tightened since the pandemic have been showing more slack into the latter half of 2023. Official UK employment numbers will be assessed next week after UK jobs growth hit a four-month low on the PMI front. Meanwhile broader jobs developments remain in focus amid sustained waning of post-pandemic demand (see special report).

Major economies, employment (manufacturing & services)



Key diary events

Monday 14 Aug

Thailand Market Holiday

Germany Wholesale Prices (Jul)

India WPI and CPI (Jul)

United States Consumer Inflation Expectations (Jul)

Tuesday 15 Aug

India, South Korea Market Holiday

Japan GDP (Q2, prelim)

South Korea Trade (Jul)

Australia RBA Meeting Minutes (Aug)

Australia Wage Price Index (Q2)

China (Mainland) Industrial Production (Jul)

China (Mainland) Retail Sales (Jul)

China (Mainland) Unemployment (Jul)

China (Mainland) Fixed Asset Investment (Jul)

Thailand GDP (Q2)

Indonesia Trade (Jul)

Japan Industrial Production (Jun, final)

Japan Capacity Utilisation (Jun)

United Kingdom Labour Market Report (Jun)

Germany ZEW Economic Sentiment (Aug)

India Trade (Jul)

Canada Inflation (Jul)

Canada Manufacturing Sales (Jun, final)

United States Retail Sales (Jul)

United States Import and Export Prices (Jul)

United States Business Inventories (Jun)

United States NAHB Housing Market Index (Aug)

Wednesday 16 Aug

New Zealand RBNZ Interest Rate Decision

China (Mainland) House Price Index (Jul)

United Kingdom Inflation (Jun)

United Kingdom Retail Sales (Jul)

Eurozone Industrial Production (Jun)

Eurozone GDP (Q2, prelim)

Canada Housing Starts (Jul)

United States Building Permits and Housing Starts (Jul)

United States Industrial Production (Jul)

Thursday 17 Aug

Indonesia Market Holiday

Japan Trade and Machinery Orders (Jul)

Singapore Non-oil Domestic Exports (Jul)

Australia Employment (Jul)

Philippines BSP Interest Rate Decision

United States Fed FOMC Minutes (Jul)

Friday 18 Aug

Japan Inflation Rate (Jul)

Malaysia GDP (Q2)

United Kingdom Retail Sales (Jul)

Taiwan GDP (Q2, final)

Eurozone Inflation (Jul, final)

Canada PPI (Jul)

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

What to watch

Americas: FOMC minutes, US retail sales, industrial production, housing starts and building permits data, Canada CPI

Minutes from the July Federal Open Market Committee (FOMC) meeting will be due next week for insights into the Fed's thoughts in what was widely regarded to be the last, if not almost the last meeting that the Fed hikes rates for the year. This is according to indications from the CME FedWatch tool, currently pointing to almost two-thirds chance of the Fed holding steady by year end.

Concurrently, a series of economic data releases including industrial production and retail sales figures will be closely watched for updates of US economic conditions. Better readings for both gauges are expected in July according to consensus, including industrial production. This is in line with indications from the latest <u>S&P Global US Manufacturing PMI</u> which showed the decline in manufacturing performance softening over July. Further watch for US housing data and CPI figures from Canada.

Europe: Eurozone Q2 GDP, CPI, UK employment and inflation reports, German ZEW survey

The eurozone releases Q2 GDP and July CPI next Wednesday and Friday respectively, though these are final numbers.

Instead, watch for UK releases on both employment and inflation fronts next week. The earliest signals from the S&P Global / CIPS UK PMI reflected easing employment growth and inflationary pressures in July on the back of rising interest rates, thereby preluding lower readings for the abovementioned gauges.

Asia-Pacific: RBNZ, BSP meetings, Japan GDP, inflation, China industrial production and retail sales, India CPI

In APAC, central bank meetings in New Zealand and the Philippines unfold, though the focus may well be on data releases from mainland China as well as Japan's growth and inflation numbers next week.

A <u>weak start to the third quarter for mainland China</u> was noted as the PMI signalled divergent sector growth and inflation trends. Meanwhile, Japan's expansion rose further into Q2 according to PMI data as we await the official GDP release.

Special reports:

Global Upturn Loses Further Momentum at Start of Third Quarter, Hiring Spree Cools | Chris Williamson | page 4

Taiwan Economy Rebounds in Second Quarter of 2023 | Rajiv Biswas | page 7

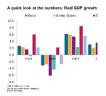


Recent PMI and economic analysis from S&P Global

Global	Monthly PMI Bulletin: August 2023	10-Aug	Jingyi Pan
	Global trade downturn accelerates in July	8-Aug	Jingyi Pan
	PMI surveys show global inflation pressures ticking higher in July on rising staff costs	4-Aug	Chris Williamson
	Worldwide producer prices deflation slows in July amid rising wage pressures	2-Aug	Chris Williamson
	Factories report deeper global production downturn in July as world trade slumps	2-Aug	Chris Williamson
Europe	United Kingdom flash PMI data point to cooler inflation as economy stalls	24-Jul	Chris Williamson
	Eurozone flash PMI signals cooling inflation amid rising recession risks	24-Jul	Chris Williamson
us	Flash US PMI signals growth slowdown but stubborn price pressures at start of third quarter	24-Jul	Chris Williamson
Asia-Pacific	Weak start to third quarter for China as PMI signals divergent sector growth and inflation trends	3-Aug	Chris Williamson
	APAC merchandise exports remain weak in first half of 2023	28-Jul	Rajiv Biswas
Commodities	Weekly Pricing Pulse: Commodity markets calm as traders await Fed's next move	28-Jul	Michael Dall

S&P Global Economics & Country Risk highlights

Persistent headwinds hinder global growth prospects



While S&P Global Market Intelligence's global real GDP growth forecast for 2023 is unchanged at 2.4%, this masks regional divergence. Growth forecasts for 2023 have been revised markedly upward in North America, primarily reflecting the recent resilience of economic activity. In contrast, the forecasts for mainland China and parts of Europe have been revised down.

Click here to read our research and analysis

PMI Insights: Divergent trends in goods and services



Our Purchasing Managers' Index team compiles data for more than 40 economies around the world. In this episode, the economists explore the divergence in the performance of the manufacturing and services sectors in countries including Australia and Greece. They zero in on how this is showing up in labour markets, looking at employment growth and wages.

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 https://www.spglobal.com/. For more information on our PMI business surveys, please visit https://www.spglobal.com/.

The intellectual property rights to the data provided herein are owned by or licensed to S&P Global and/or its affiliates. Any unauthorised use, including but not limited to copying, distributing, transmitting or otherwise of any data appearing is not permitted without S&P Global's prior consent. S&P Global shall not have any liability, duty or obligation for or relating to the content or information ("data") contained herein, any errors, inaccuracies, omissions or delays in the data, or for any actions taken in reliance thereon. In no event shall S&P Global be liable for any special, incidental, or consequential damages, arising out of the use of the data. Purchasing Managers' Index™ and PMI™ are either registered trade marks of Markit Economics Limited or licensed to Markit Economics Limited and/or its affiliates.

Special Focus

Global Upturn Loses Further Momentum at Start of Third Quarter, Hiring Spree Cools

The global economy continued to lose growth momentum in July, according to the S&P Global PMI surveys, based on data provided by over 27,000 companies. A further cooling of a recent revival of service sector growth, which had been buoyed by a post-pandemic tailwind of increased spending, waned for a second month in a row, accompanied by a deepening manufacturing downturn.

The month also saw companies pull back on their hiring to result in only modest jobs growth, reflecting increasingly depleted order books as well as a slump in business expectations for the year ahead.

Europe led the deteriorating picture, but growth also slowed in the US, mainland China and Russia, while Brazil saw a renewed fall in output. India, in contrast, reported the strongest expansion for 13 years and Japan reported a resilient, albeit moderate expansion.

Global economic growth and the PMI



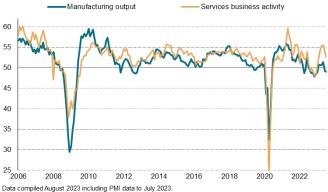
Global output growth wanes to lowest since February

Global economic growth slowed for a second successive month in July, down to its lowest since the current upturn began in February, according to the Global PMI data – compiled by S&P Global. The headline PMI, covering manufacturing and services across over 40 economies and sponsored by JPMorgan, fell from 52.7 in June to 51.7.

The current reading takes the PMI further below the survey's long-run average of 53.3 and broadly consistent with annualized quarterly global GDP growth of around 2% at the start of the third quarter, below the long-run average of 2.9%.

Slowing service sector accompanies factory downturn

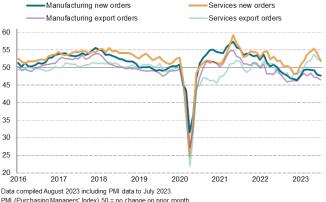
Global PMI output by sector



Data compiled August 2023 including PMI data to July 2023.
PMI (Purchasing Managers' Index) value of 50 = no change on prior month
Sources: S&P Global PMI with J.P.Morgan, S&P Market Intelligence
© 2023 S&P Global.

The slowdown was led by manufacturing, which saw output decline for a second consecutive month and at the steepest rate since January. In a sign that production will likely fall at an increased rate in August, new orders for goods declined at a steeper rate during July, led by the sharpest drop in global goods export orders seen so far this year. The decline in global goods exports was among the quickest seen since the global financial crisis, albeit far smaller than the losses seen in the early days of the pandemic. Companies often reported falling customer demand, exacerbated by the unwinding of inventories.

Global PMI new orders



Data complies August 2023 including thin data to July 2023.

PMI (Purchasing Managers' Index) 50 = no change on prior month.

Sources: S&P Global PMI with J.P.Morgan, S&P Market Intelligence

© 2023 S&P Global

The manufacturing downturn was accompanied by a second month of slowing service sector activity, which registered the smallest expansion since February. New business inflows into the service sector rose at the slowest rate since January, rising at a softer rate than business activity to hint at a further slowing of activity in August.

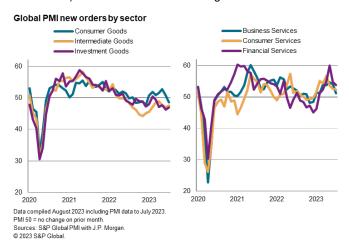
Broad-based demand downtrend evident as consumer upturn fades

Looking further into demand growth, the strongest improvement among the broad categories of goods and services monitored by the PMI was recorded for financial services, though even here growth continued to cool from May's recent peak.

Although demand for consumer services continues to grow, sustaining the expansion that has been recorded over the year-to-date, the rate of improvement was the weakest since January, pointing to a waning of this recent global growth driver.

A sharp slowing was also recorded in demand for business services, which registered the smallest increase since February to round off a broad-based weakening of demand for services.

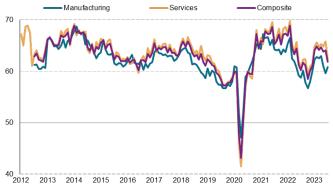
In the manufacturing sector, a broad-based deterioration was likewise evident in July, with demand for consumer goods sliding into decline for the first time this year, joining investment goods and intermediate goods manufacturers in their soft patch. Demand for investment goods, such as plant and machinery, has now fallen for 13 out of the past 14 months, and demand for intermediate goods (inputs sold to other firms) has now fallen for 16 straight months.



Business confidence slumps

Looking ahead, the survey data underscore the gloomy outlook. Expectations of growth in the year ahead fell to their lowest since December, down markedly compared to the first six months of the year. Although business confidence lifted off June's seven-month low in manufacturing, it remained the second-weakest seen so far this year and well below the survey's long-run average. Confidence meanwhile slumped in the services sector, sliding to its lowest so far this year and likewise now running below the long-run average.

Global PMI output expectations



Data compiled August 2023 including PMI data to July 2023.
PMI (Purchasing Managers' Index) value of 50 = no change no change in output over next 12 months
Sources: S&P Global PMI with J.P.Morgan, S&P Market Intelligence

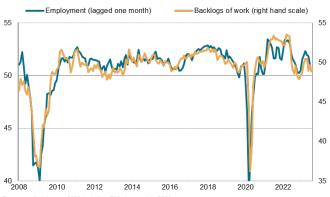
Employment close to stalling

The deterioration in growth of new orders fed through to a further reduction in companies' backlogs of work, which fell at the fastest pace since January.

Falling backlogs of work are generally a precursor to a cooling labour market, as companies adjust headcounts lower in line with the lower capacity requirements. Hence overall global employment growth slowed in July to the lowest since January, registering only a very modest increase.

A near-stalled manufacturing employment situation was joined by only weak service sector jobs growth, which sank to the lowest since January.

Global employment



Data compiled August 2023 including PMI data to July 2023.
PMI index value of 50 = no change on prior month, covers manufacturing and services
Source: S-S&P Global PMI with J.P. Morgan.
@ 2023 S&P Global

Japan remains resilient in developed world slowdown

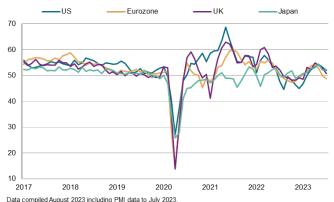
Few economies managed to buck the global slowdown. In the developed world, where output rose at the slowest rate since growth was resumed in February, the eurozone recorded the worst performance of the major economies. Euro area output fell for a second successive month, with the rate of decline accelerating to the fastest since last November. A near-stalling of service sector activity was accompanied by an increasingly severe manufacturing downturn.

The UK meanwhile reported a near-stalling of output growth, registering the weakest increase since the current upturn began six months ago. Slower service sector growth was joined by a steepening factory downturn.

Growth also slowed in the US, down to a five-month low, a deteriorating expansion in the services economy was recorded alongside a near-stalled manufacturing sector.

Of the four largest developed world economies, only Japan avoided a growth slowdown, with output growth ticking slightly higher compared to June, albeit remaining below recent peaks. However, the upturn masked an ongoing decline in Japan's manufacturing economy and a slight cooling of the recent strong service sector expansion.

Major developed economies, output (manufacturing & services)



PMI index value of 50 = no change on prior month, covers manufacturing and services.

Sources: S&P Global PMI, S&P Global Market Intelligence, HCOB, CIPS, au Jibun Bank

© 2023 S&P Global.

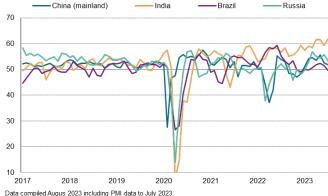
India bucks emerging market malaise as growth hits 13-year high

In the emerging markets, where output growth slipped to the lowest since January, it was India that avoided a slowdown, ratcheting up its strongest expansion for 13 years. India's services economy grew at a rate not seen since June 2010 and manufacturing growth also remained very strong by historical standards.

In contrast, growth slowed to a six-month low in mainland China, as a renewed manufacturing downturn dampened a further expansion of services activity, the latter having cooled markedly compared to the post-pandemic surge seen in February through to May. Measured across goods and services, mainland China's expansion was the weakest since January.

Growth also slowed in Russia, down to a five-month low, and Brazil slipped into decline for the first time since February, as an ongoing manufacturing downturn was accompanied by a near-stagnation of service sector activity growth.

Major emerging economies, output (manufacturing & services)



Data Complied Pagists 2023 including 1 fill data to 301/2023.

Mill index value of 50 = no change on prior month, covers manufacturing and services.

Sources: S&P Global PMI, S&P Global Market Intelligence, Caixin.

© 2023 S&P Global.

Broad-based pullback in hiring bar China

The deteriorating labour market picture was more broadbased across the world, with only mainland China reporting an increased rate of hiring, though even here the gain was only marginal. Eurozone employment growth sank to the lowest since February 2021, while similarly modest UK and US jobs growth hit four and six-month lows respectively. An especially meagre jobs gain in Japan was meanwhile the smallest for six months.

Major economies, employment (manufacturing & services)



Data compiled August 2023 including PMI data to July 2023.
PMI index value of 50 = no change on prior month.

Sources: S&P Global PMI, S&P Global Market Intelligence, HCOB, CIPS, Caixin, au Jibun Bank © 2023 S&P Global.

Chris Williamson

Chief Business Economist S&P Global Market Intelligence London

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

Special Focus

Taiwan Economy Rebounds in Second Quarter of 2023

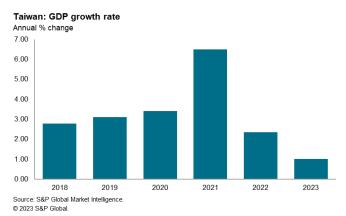
Taiwan's emerged out of technical recession in the second quarter of 2023, with GDP growth of 1.7% quarter-on-quarter (q/q) after two successive quarters of GDP contraction. The rebound was driven by private consumption, which grew by 12.1% year-on-year (y/y) in the second quarter of 2023.

However the export sector has continued to be hit by slumping exports, which fell by 6.6% y/y in the second quarter of 2023. The net impact on GDP was mitigated by a sharp decline in imports, which fell by 7.7% y/y. A key factor driving the export slowdown has been weak demand for Taiwan's electronics exports in key global markets, notably the US, EU and mainland China. The latest S&P Global Taiwan Manufacturing Purchasing Managers' Index (PMI) reading was at 44.1 in July, still indicating contractionary conditions for Taiwan's manufacturing sector during the second half of 2023.

Taiwan's exports continue to slump

Taiwan's economy rebounded in the second quarter of 2023, returning to growth after having recorded two successive quarters of negative growth. Consequently, Taiwan's technical recession that ran from the fourth quarter of 2022 until the first quarter of 2023 ended in the second quarter of 2023, primarily due to the strength of private consumption spending growth.

Taiwan's growth slowdown follows a period of strong economic expansion in 2021 and 2022. In 2021, annual GDP rose by 6.5 percent y/y. This was the fastest pace of annual economic growth since 2010, boosted by export growth of 29% y/y, with exports of semiconductors up by 27% y/y.



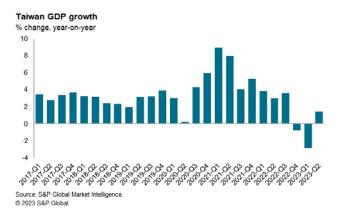
This was followed by continued positive GDP growth at a pace of 2.4% in calendar 2022, helped by strong global demand for electronics exports during most of 2022. Taiwan's merchandise exports rose by 7.4% y/y in 2022, buoyed by strong expansion in exports of electronics components, which rose by 16.4% y/y, while semiconductors exports rose by 18.4% y/y.

However, since mid-2022, Taiwan's electronics sector exports, which are a key export, have weakened significantly, due to slumping electronics demand in the US, EU and mainland China. The downturn in Taiwan's exports has been a key factor contributing to its economic slowdown.

Taiwan's exports have remained weak during the first seven months of 2023, with merchandise exports in July 2023 contracting by 10.4% y/y, after an even sharper downturn of 23.4% y/y in June. In the first seven months of 2023, Taiwan's exports fell by 16.9% y/y.

Exports to mainland China and Hong Kong SAR declined by 16.3% y/y in July, after contracting by 22.2% y/y in June. Mainland China and Hong Kong SAR remained the largest export market and accounted for 34.6% of Taiwan's total exports in July.

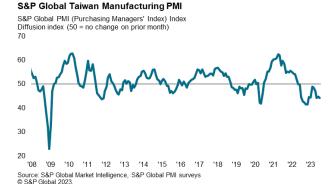
In July, Taiwan's exports to ASEAN fell by 8.4% y/y, while exports to the US declined by 3.3% y/y. Exports to Europe performed strongly, rising by 24% y/y due to higher exports of ICT products.



Taiwan's manufacturing sector business conditions have remained weak in mid-2023. Industrial production fell by 16.6% y/y in June, with manufacturing output down by 17.2% y/y.

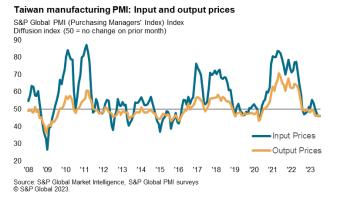
At 44.1 in July, the S&P Global Taiwan Manufacturing PMI slipped from 44.8 in June and signalled a deterioration in the health of the sector for the fourteenth consecutive month. The pace of decline was the sharpest recorded since November 2022 and among the steepest since the survey began in April 2004. A key factor pushing the headline index lower in July was an accelerated fall in manufacturing production. Output has now been scaled back in each of the

past 16 months, with the latest reduction the quickest seen since January.



Total new business likewise fell at the fastest rate since January and rapidly overall. Panel members noted lower sales across both domestic and external client bases. Notably, new export business contracted at the steepest rate for six months, with firms commenting on reduced demand across a variety of markets, including Europe, Japan, mainland China and the US.

Weak demand and improved material availability led to a further drop in average input costs during July. Input prices fell at a solid pace that was the second sharpest since May 2020. Notably, selling prices were cut at the quickest pace in just over three years.



Taiwan's CPI inflation rate moderated to 1.9% y/y in July 2023, while core CPI excluding energy and food rose by 2.7% y/y, indicating retail inflationary pressures remain contained. Although inflation has been moderating in recent months, Taiwan's central bank raised its policy rate by 12.5 basis points (bps) on 23 March 2023 in order to limit potential further inflation pressures, after having acted pre-emptively during 2022 with a series of modest tightening steps to contain inflation pressures.

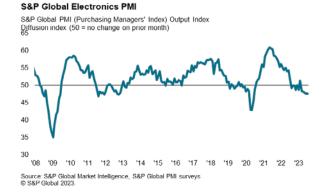
The central bank started its tightening cycle in March 2022, with its tightening step of 25bps having been the first rate

hike since June 2011. The previous most recent change to policy rates had been a rate cut in March 2020 in response to the global COVID-19 pandemic. The March 2022 rate hike was followed by a 12.5 bps increase in June 2022, a 12.5 bps hike in September 2022 and another 12.5 bps in December 2022.

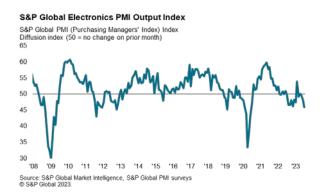
Global headwinds facing electronics industry

In July 2023, Taiwan's exports of electronics products fell by 7.9% y/y. Despite the significant contraction, the July outturn showed a less severe decline compared with the 21.3% y/y fall in exports in June.

The downturn in Taiwan's ICT exports reflects the slowdown in the global electronics industry since mid-2022. The headline seasonally adjusted Electronics PMI was at 47.6 in July, signalling continued contraction in operating conditions across the global electronics manufacturing sector for the fifth consecutive month. A solid decline in order book volumes contributed to the sharpest fall in output since June 2020. While demand conditions were muted, firms took the opportunity to clear outstanding work, as backlogs of work fell by the greatest extent since May 2020.

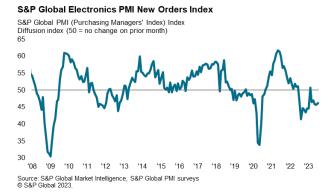


At the same time, electronics goods producers signalled an acceleration in input price pressures for the first time since last September, with the latest round of input price inflation the strongest for three months.



Global electronics manufacturers recorded a sustained contraction in output at the start of the third quarter of the year. The downturn was sharp, and the strongest recorded since June 2020.

New orders placed with global electronics producers fell for the fifth month in a row during July. The New Orders index continued to reflect contractionary conditions with a sub-50 reading and was often attributed by panellists to weak demand conditions in the US, Europe and China due to general economic weakness and market uncertainty.



Economic outlook

After rapid economic growth in 2021 and continued firm expansion in 2022, Taiwan's economy has moderated in 2023, mainly due to the downturn in exports. This reflects continued weakness in key markets for Taiwan's electronics exports, notably the US, EU and mainland China. Taiwan's export orders fell by 24.9% y/y in June 2023, signalling continued near-term weakness for the manufacturing export sector.

Taiwan's medium-term outlook remains for sustained positive expansion at a moderate pace, underpinned by improving global electronics demand during 2024 and 2025. The impact of the COVID-19 pandemic has accelerated the pace of digital transformation due to the global shift to working remotely, which has boosted demand for electronic devices such as computers, printers and mobile phones.

The medium-term 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. Taiwan's electronics industry will continue to benefit from its leading role in production of advanced semiconductors as well as from its production of a wide range of other electronics products for consumer and industrial electronics.

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)
- <u>Understanding the headline PMI and its</u> various subindices
- PMI data use-case illustrations, from nowcasting to investment strategy
- PMI podcasts
- How to subscribe to PMI data

CONTACT US

The Americas

+1-877-863-1306

Chris Williamson

Chief Business Economist S&P Global Market Intelligence London

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

EMEA

+44-20-7176-1234

Jingyi Pan

Economics Associate Director S&P Global Market Intelligence Singapore

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

Asia-Pacific

+852-2533-3565

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