

Week Ahead Asia-Pacific Economic Preview

- Worldwide PMI surveys to provide early clues on manufacturing activity at start of 2019
- FOMC meeting
- Taiwan Q4 GDP
- Special focus on artificial intelligence

The worldwide release of PMI data next week will provide the first clues of manufacturing performance across the globe at the start of 2019, with a particular focus on China and the US. Global growth is widely expected to weaken this year amid rising political and economic risks, which could stall major central banks' plans to normalise monetary policy.

With key US data releases delayed by the government shutdown, hindering economic analysis, the survey data will come under ever-greater scrutiny, especially in a week in which the FOMC meets to set policy. In Asia, China's industrial profits and Japan's retail sales and consumer confidence data, alongside GDP figures from Taiwan, are published in the coming week.

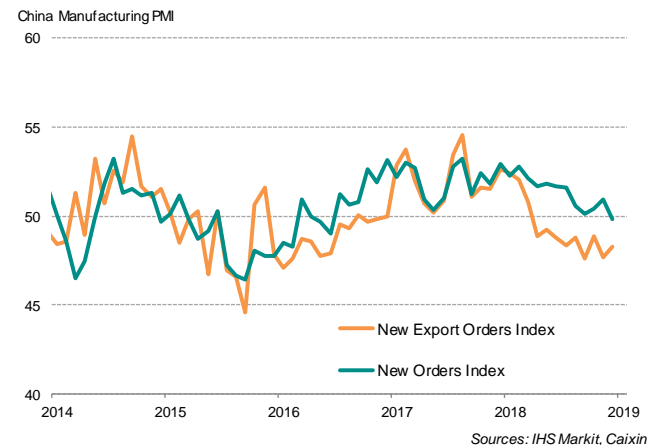
Our special focus looks at Asia's artificial intelligence revolution.

Eyeing China PMI amid growth slowdown

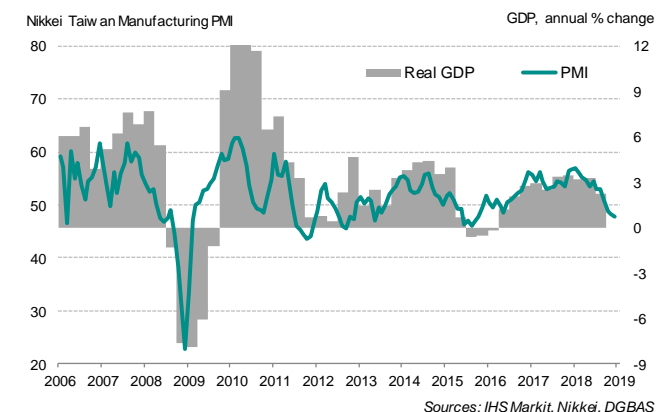
China watchers will eagerly anticipate the PMI data releases for an early insight into Chinese growth at the start of 2019, as well as trends in employment, prices and inventories. The PMI data come on the heels of GDP numbers confirming a deepening of China's slowdown at the end of 2018, which has raised worries over the depth of its economic malaise and fueled speculation as to whether Beijing will further step up its recent policy stimulus measures.

In December, Caixin manufacturing PMI fell below the 50.0 threshold for the first time in over one-and-a-half years, indicating deteriorating business conditions. New orders fell for the first time since June 2016, alongside a ninth consecutive month of decline in export sales, both of which hint at further demand weakness in the manufacturing sector. Meanwhile, the December update to industrial profits will also be scrutinised after the annual growth in [profits of industrial enterprises](#) above designated size fell for the first time in almost three years during November.

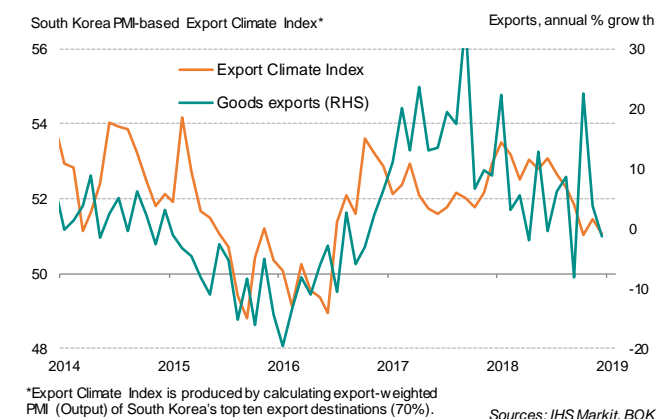
Caixin China manufacturing PMI



Taiwan PMI and GDP



South Korea PMI-based export climate index



Continued...

Taiwan GDP

Taiwan GDP report for its fourth quarter will be especially important as, being export-driven, Taiwan's GDP performance is widely seen as barometer of global demand, particularly in relation to technology. Recent economic indicators signalled further weakness in December. Most notably, the Nikkei manufacturing PMI [fell to the lowest in over three years](#), indicating contraction. New orders and export sales declined at a faster pace. Official export data have likewise been weak. Shipments to many key export markets fell, blamed on slowing global demand.

South Korea's growth momentum

With fourth quarter GDP exceeding expectations, analysts will be looking to January PMI and trade data for signals as to the sustainability of growth momentum. Meanwhile, updated numbers for industrial production and retail sales for December should also be of interest.

Global PMIs, FOMC and Brexit

Friday's release of global manufacturing PMI data will provide a comprehensive insight into how goods producers and exporters are managing in the face of headwinds which include escalating trade wars and rising political uncertainty. [In December](#), the number of countries reporting a deterioration of business conditions rose to one-in-three, pushing the global PMI down to a 27-month low. In contrast, this time last year just one of the 30 countries covered by the PMIs (Columbia) was in decline.

In the US, the IHS Markit and ISM PMI surveys will fill a welcome void in the dataflow amid the government shutdown. These surveys have diverged in the past two years, but [our analysis](#) suggest the ISM survey has been buoyed by international revenues growth at contributing companies whereas the IHS Markit PMI has provided the better indication of domestic economic trends, including for manufacturing output, orders, employment and prices. The survey data will likewise help guide GDP estimates in the absence of official GDP numbers, the scheduled release of which will be delayed.

The US also sees the FOMC meets to set interest rates, though no action is anticipated at the meeting, though investors will look for guidance as to how the central bank sees the balance of growth risks.

In the UK, the government meets to once again vote on the Brexit deal.

Monday 28 January

BOJ meeting minutes
 China industrial profits (Dec)
 Hong Kong trade (Dec)
 US trade, new home sales, construction spending and wholesale inventories (Nov) *Potentially subject to delay*
 US retail sales, durable goods orders, housing starts and building permits (Dec) *Potentially subject to delay*

Tuesday 29 January

Australia business confidence (Dec)
 Brazil consumer confidence (Jan)
 US wholesale inventories (adv, Dec) *Subject to delay*
 US Case-Shiller home price (Nov)

Wednesday 30 January

UK vote on Brexit deal
 Japan retail sales (Dec) and consumer confidence (Jan)
 Australia inflation (Q4)
 France GDP (1st est, Q4)
 Germany consumer confidence (Feb)
 UK consumer credit, mortgage lending and approvals (Dec)
 Euro area business confidence (Dec), economic sentiment, consumer confidence and inflation expectations (Jan)
 Germany inflation (prelim, Jan)
 US ADP employment change (Jan)
 US GDP and PCE prices (adv, Q4) and pending home sales (Dec) *Potentially subject to delay*

Thursday 31 January

FOMC policy meeting
 South Korea industrial output and retail sales (Dec)
 Japan industrial output (Dec) and housing starts (Dec)
 China NBS manufacturing PMI (Jan)
 Australia private sector credit (Dec)
 Singapore jobless rate (prelim, Q4)
 Taiwan GDP (adv, Q4)
 UK consumer confidence and housing prices (Jan)
 Germany retail sales (Dec) and jobless rate (Jan)
 Euro area, Spain and Italy GDP (flash, Q4)
 US employment cost index (Q4), personal income and spending (Dec) *Potentially subject to delay*

Friday 1 February

Worldwide release of IHS Markit manufacturing PMI surveys (Jan)
 South Korea inflation and trade (Jan)
 Euro area inflation (flash, Jan)
 Brazil industrial production (Dec)
 Russia GDP (prelim, Q4)
 US nonfarm payrolls, average earnings and unemployment rate (Jan) *Some granular jobs data may be delayed*
 US ISM PMI surveys (Jan)

Special Focus

Asia's Artificial Intelligence Revolution

By Rajiv Biswas, Asia-Pacific Chief Economist, IHS Markit

The Fourth Industrial Revolution, the Internet of Things, big data and artificial intelligence are driving digital transformation and disruptive change in the global economy. Asian industrial nations such as China, Japan and South Korea are among the global leaders at the forefront of this technological revolution, with China aiming to become the world leader in AI by 2030.

Disruptive change from AI driving industrial transformation

Digital disruption and the impact of artificial intelligence (AI) and machine learning are transforming global industries, with a number of Asia-Pacific (APAC) industrial economies, notably China, Japan and South Korea, at the forefront of global AI innovation and structural change, albeit the US is still the dominant global leader in AI technology. AI applications are creating disruptive change across many industry sectors, ranging from services such as communications and healthcare to advanced manufactured products such as driverless cars and commercial aircraft. The financial services sector is among the sectors at the forefront of far-reaching transformation, with fintech innovations driving disruptive change in retail banking, insurance and payments technology.

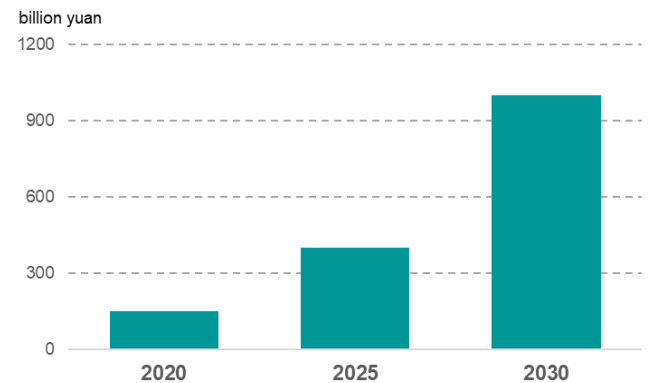
According to IHS Markit Technology, AI has matured to the point where it is being used as a competitive differentiator in several industries, particularly in the smartphone, automotive and medical markets. The speed of development in AI has aided its adoption in several industries, including consumer electronics, healthcare, industrial and automotive. By 2025, IHS Markit Technology forecasts that in the automotive sector alone, more than 170 million AI systems are expected to be implemented. The application of AI techniques to data will drive monetization in the form of cost savings, greater efficiencies and a transition from product- to service-centric business models. IHS Markit Technology has estimated that more than 5 billion consumer devices with AI-driven digital assistants were in use by 2018, with almost 3 billion more to be added by 2021.

According to the PWC 22nd Annual Global CEO Survey for 2019, 72% of APAC CEOs surveyed believed that AI would have a greater impact than the internet on the world. According to the PWC Survey, 45% of APAC CEOs indicating their firms either had plans, or had already introduced, AI initiatives within their firms, with 60% of APAC CEOs surveyed expecting significant disruptive change with AI displacing more jobs than it creates.

China's AI roadmap

With China forecast by IHS Markit to become the world's largest economy by 2028, the Chinese government has placed a high priority in investing in AI. The authorities see AI as critical to transforming China's manufacturing sector into a high technology industrial sector that is globally competitive, with better long-term productivity growth rates. The Chinese Government's State Council has already developed a long-term roadmap for the development of China's AI industry, which it aims to build into a Yuan 400 billion (USD 59 billion) sector by 2025 and into a Yuan 1 trillion (USD 147 billion) industry by 2030.

China's AI Industry, Targeted Size



Source: Chinese State Council

Chinese technology multinationals such as Alibaba, Baidu and Tencent are playing a leading role in investing in China's AI research and development, while Chinese venture capital-financed start-ups will also play an important part in developing new AI technologies. Ping An Technology, the technology subsidiary of Ping An Insurance Group, a leading Chinese insurance multinational, is investing in high technology including AI, with USD 15 billion planned for expenditure on high technology for the healthcare, finance and smart cities sectors over the next decade. Another company, Zhongguancun Development Group, is developing a USD 2.1 billion AI development park for Beijing. In addition, the Chinese government is

driving initiatives to boost public expenditure on AI and to build international co-operation with other key R&D leaders, to help accelerate the development of China's AI capabilities.

Japan's artificial intelligence strategy

Japan has been one of the earliest nations to establish an AI Technology Strategy, which was published by Japan's Strategic Council for AI Technology in March 2017, while Japanese IT multinationals are global leaders in AI development.

Research and development (R&D) spending on AI by Japan's key automakers, including Honda, Mazda, Mitsubishi, Nissan, Subaru, Suzuki, and Toyota, has ramped up as the auto industry races to develop autonomous vehicles. Japan's SoftBank has also established a new AI-focused Deepcore Fund providing an AI-incubation business to catalyse AI-related innovation. Due to Japan's ageing demographics and shrinking workforce, automation and AI are critical to boosting productivity and mitigating the impact of ageing demographics on potential economic growth.

South Korea ramps up AI investment

In May 2018, the South Korean government's Presidential Committee on the Fourth Industrial Revolution adopted a plan to boost public expenditure on AI technology, with 2.2 trillion won to be invested in the AI sector over the next five years. An important element of the government strategy is also to boost AI talent, through the development of AI institutes that will develop AI research and skills in data management.

However, the South Korean government initiatives for AI are dwarfed by the scale of South Korea's Samsung Group AI expenditure. Samsung announced plans in August 2018 to invest 25 trillion won (USD 22 billion) over the 2019-2021 period in new technologies, including AI, 5G technology, auto electronics, and biopharmaceuticals. Samsung Research, the R&D unit of Samsung Electronics' SET (end-products) business, also announced plans in 2018 to establish three artificial intelligence (AI) centers in Cambridge (UK), Toronto and Moscow to strengthen the company's AI capabilities and to have 1,000 advanced AI researchers by 2020.

South Korea's LG Electronics is also creating a global AI research network, with AI research labs in Seoul, India, Moscow, Toronto and Santa Clara, California.

India's AI talent pool

India has meanwhile become a global hub for multinationals establishing AI research centres, including firms such as Accenture, Adobe, LG, Amazon, SAP and Intel. Indian multinationals such as Wipro and L&T Infotech have also been developing AI research centres. Bangalore and Delhi have become the largest Indian hubs for AI R&D. The Indian government's AI Task Force report was launched in March 2018, setting out policy recommendations for the future development of India's AI industry.

APAC winners and losers

A number of APAC nations with advanced industrial economies are among the global leaders in the AI revolution, driving technological change and industrial transformation related to AI. While much of the future investment in AI technology in APAC will be driven by large Asian IT multinationals, such as Alibaba, Baidu, Hitachi, LG, Samsung, Softbank and Tencent, Asian AI start-ups will also play an important role in driving AI innovation. APAC governments will also have a key role in driving national AI strategies and investing in R&D in universities and research institutes, as well as catalysing ecosystems for AI innovation.

However, an important risk for the APAC region is from a widening technological divide amongst nations within the region, as advanced industrial economies and leading corporations adopt digitisation strategies and implement AI into their processes, while less developed economies confront a widening technological gulf. Disruptive change in the APAC labour market will also be one of the key long-term consequences of the increasing adoption of AI, with many industries in both manufacturing and services facing far-reaching technological change.

For further information:

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