



CHINESE MACHINE TOOL MARKET - WEEKLY BULLETIN

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Expert says automation will spin long-term gains



Industrial automation on the back of the Made in China 2025 strategy will generate huge growth momentum for businesses such as industrial electronics, semiconductors, data analysis and telecommunications in the long run, said the head of a global consulting firm.

Charles-Edouard Bouee, CEO of Roland Berger Strategy Consultants, a Germany-headquartered company, said many opportunities come from the country's ongoing policy reform, the fast-growing artificial intelligence or Al field and 5G technology.

"It's worth differentiating between two major trends in the Chinese economy. China sets out improving and upgrading industries to a high degree, and the economy is developing an increasingly changing complex business environment on the onset of disruptive innovation," said Bouee, whose firm employs 2,400 staff in 34 countries and regions.

Given the tremendous investment in research and development by the Chinese government, the emerging industries like biotech, life sciences, imaging, new material, semiconductors and 5G telecommunication technology are likely to experience high growth, he said.

China will completely open up its general manufacturing sector, and access to sectors such as high-tech industrial products, telecommunications, medical services, education,

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elderly care; and new energy vehicles will be expanded, according to the annual government plan announced in March.

Policies that support the Made in China 2025 strategy are applicable to all kinds of businesses, and domestic and foreign-funded companies are treated equally, under the government plan.

Bouee said production safety and environment protection have been identified as two key industries that are in need of improvement. Therefore, there are opportunities in each industry for professional suppliers of safe production solutions and environment protection, he said.

"Of course, the oil and gas, mining, refinery, chemical, pipeline, energy and utility industries are of particular interest. Overall, technology and service providers will find huge market opportunities."

Agreed Tu Xinquan, director of the China Institute for WTO Studies at the University of International Business and Economics in Beijing. "The Made in China 2025 strategy brings equal opportunities to foreign and domestic companies and will strengthen the role of the market."

As high-tech products like industrial chips or automobile engines are critical to a country's industrial development, Tu said China will deploy more resources to boost core manufacturing innovation activities such as intelligent manufacturing, green manufacturing and high-end equipment innovation projects.

Bouee said he believes AI will emerge as a leading industry, and will greatly improve consumer electronics and data analytics. Ultimately, AI will change business models in telecommunication, media, financial, retail, transportation, insurance, consumer goods, automotive and education sectors, he said.

To further compete with its global rivals, the Ministry of Industry and Information Technology announced earlier this year that China will set up a Made in China 2025 National Demonstration Zone, nurture several world-class advanced manufacturing industry clusters and promote integrated development of the manufacturing sector and internet.

A group of key landmark programs and projects have already been launched or notably developed across the country.

In priority areas such as large passenger aircraft, integrated circuits, new material, aircraft engines, gas turbines, 5G and new energy vehicles, encouraging results have already been achieved, according to government documents.





China's foreign trade to further stabilize in 2018

CHINA'S foreign trade development is expected to further stabilize and improve in 2018, the Ministry of Commerce said on May 10th.

"China's foreign trade continued to stabilize and improve in the first four months this year and the trend will continue through the year," said Gao Feng, the ministry spokesperson.

China's goods exports rose 6.4 percent year-on-year to 4.81 trillion yuan (US\$756 billion) in the January-April period, while imports grew 11.7 percent to 4.3 trillion yuan, resulting in a trade surplus of 506.24 billion yuan, which narrowed by 24.1 percent, data from the General Administration of Customs showed.

In April, the goods trade surplus shrank by 27 percent to 182.8 billion yuan, as exports rose 3.7 percent year-on-year to 1.27 trillion yuan, while imports grew 11.6 percent to 1.09 trillion yuan.

China hoped the development of its foreign trade would not only benefit Chinese people, but also the rest of the world and the global economy, to bring the community with a shared future for mankind even closer, according to the spokesman.

Speaking of Sino-US economic and trade ties, Gao said China and the United States should strengthen cooperation and properly manage differences.

Gao expressed expectations that under the guidance of the two heads of state, China and the United States would earnestly continue in-depth communication under the principles of mutual respect and equal consultation.

The two heads of state have reached important consensus on properly solving bilateral economic and trade issues during a phone conversation on May 8, according to Gao.

As to possible imposition of additional tariffs on Chinese products announced by the U.S. side, Gao reiterated that China's position on the issue has not changed and will not change.

"China objects to the practices of unilateralism and trade protectionism, and the US should put away its threatening stick," Gao said, adding that "the Chinese side will resolutely defend the interests of the state and its people."





Nation gears up for robotics race

China will ramp up resources to build a globally competitive robotics industry by attaching high importance to tackling core technological bottlenecks, an official from the country's top industry regulator said.

Luo Junjie, deputy director of the industrial equipment department at the Ministry of Industry and Information Technology, said more efforts are needed to cultivate high-end products after China produced over 130,000 industrial robots last year, accounting for one-third of the world's annual production volume.

"We have approved a plan to build a national robotics innovation center, which will focus on tackling common bottlenecks such as human-machine interaction technologies and compliant control," Luo said at a news conference for the 2018 World Robot Conference in Beijing.

According to Luo, the plan is designed to help the country lead the world in the race toward a smarter, automated society by accelerating the development of high-end industrial and service robots.

As robotics becomes increasingly intertwined with artificial intelligence, big data and other technologies, the 2018 World Robot Conference, which will be held in Beijing from Aug 15 to 19, will feature a slew of competitions such as a brain control technology contest to find promising robotics research and development teams.

Xu Xiaolan, secretary-general of the Chinese Institute of Electronics, one of the organizers of the 2018 World Robot Conference, said more than 300 industry experts and senior company executives from around the world will attend the annual robotics event this year to share their views on the booming industry. Companies such as ABB Group of Switzerland and Fanuc from Japan will also demonstrate their latest products.

China has been the world's largest market for robot applications since 2013, data from the International Federation of Robotics show. The trend has been further fueled by a corporate push to upgrade labor-intensive manufacturing plants and comes amid surging demand from the healthcare, education and entertainment sectors.

In 2016, China unveiled an ambitious plan to triple its annual production of robots used in the manufacturing sector to 100,000 in five years. It also aims to sell more than 30 billion yuan (\$4.6 billion) worth of service robots by 2020 amid the increasing use of assistant robots in an aging society.





The rise of Changchun's old industrial base

One of China's old industrial bases under transformation and upgrading, Changchun, capital of Jilin province, has made achievements and will obtain more support from the central government in 2018.

The establishment of Huawei's cloud calculating center, the launching of Jilin-1 satellites, the opening of innovation and entrepreneurship bases and the operation of international railroads all reflect a rising Changchun in both economic performance and global influence.

Entrepreneurs who settled their programs and companies here speak highly of the city.

Vice president of Huawei Yang Ruikai said "I can always see changes in Changchun. People are vigorous, the local government keeps improving its working efficiency and the environment is getting better."

Wang Junzheng, Party secretary of the city, said the Changchun government will apply the central government's policies to the real situation of the city's development and promote revitalization in all aspects.

The city also explored cooperation with other cities and provinces in China.

For instance, officials visited Tianjin and signed an agreement on port cooperation soon after the suggestion of the cooperation mechanism between NE China cities and coastal cities given by the central government.

In the past few years, the city was selected as one of the pilot cities involved in the China Made 2025 initiative and a total of 236 innovation and entrepreneurship bases have been built.

Increases in livelihoods were also evident. One hundred and twenty-four villages were pulled out of poverty and the registered unemployment rate has been controlled at around 3.4 percent.

The local government will continue to focus on industrial transformation and upgrading to promote its economic growth and will support development of emerging industries to open a new page in old industrial base revitalization.





<u>Jincheng marks mass production of wind turbines</u>



A launch ceremony marking the mass production of wind turbines of China Haizhuang Jincheng Wind Power Base was held in Jincheng city, Shanxi province, on April 28.

The wind turbine project, being built by Haizhuang Windpower, a subsidiary of China Shipbuilding Industry Co and Shanxi Jianghuai Heavy Industry Co, began construction on Feb 13, 2017. The turbine is designed for a maximum capacity of 300,000 kWh. The first wind turbine was produced at the end of 2017.

China sees booming robotics industry

China's robotics industry saw steady development in 2017 with about 1,686 robotics companies established last year, according to a report released at the ongoing 5th China Robot Summit.

By the end of 2017, the number of robotics companies in China exceeded more than 6,500, mainly located in China's Beijing-Tianjin-Hebei region, the Yangtze River Delta and the Pearl River Delta, said the report.

In 2017, the global robotics industry market reached \$23.2 billion, with annual growth of 17 percent between 2012 and 2017.

China became the largest market for industrial robots in 2013. In 2017, sales of China's industrial robots hit \$4.22 billion, up 24 percent year on year, while sales of service robots totaled \$1.32 billion, up 28 percent year on year.





Hiwin 1Q18 revenues, profit hit records

Mechanical motion control component and industrial robot maker Hiwin Technologies has reported consolidated revenues of NT\$6.553 billion (US\$223 million) and net profit of NT\$1.215 billion for first-quarter 2018 - both hitting record levels.

The first-quaerter gross margin of 40.04% was the highest quarterly level since third-quarter 2012.

Smart manufacturing based on integration of precision machinery with AI (artificial intelligence) has become a global trend and, in order to maintain market leadership, Hiwin will keep investing in technology R&D, company chairman Eric Chuo said.

Hiwin has received orders in excess of production capacity, with shipments scheduled through the end of this year, Chuo noted. Business is expected to improve sequentially in second-quarter 2018, and in the third quarter, Chuo indicated. Hiwin is developing smart ball screws integrated with sensors and plans to start production in 2019, Chuo said.

Linear guideways accounted for 56.4% of the first-quarter revenues, ball screws 25.1%, industrial robots 9.3% and others 9.1%. Chinese mainland and accounted for 59% of the revenues, Chinese Taiwan 14%, Europe 21%, and North and Latin Americas 6%.

For capacity expansions in China (including Taiwan) and setting up factories in Japan, South Korea and Italy beginning from second-half 2018, Hiwin estimates capex for the year at over NT\$5.4 billion.

Hiwin has acquired a 2.48 hectares factory site in Kobe, Japan, and will finalize a construction plan by the end of June 2018.

Hiwin will raise capital by issuing 12 million new shares, equivalent to expanding current paid-in capital by 4.28%.

Hiwin Technologies: Financial results, 1Q18 (NT\$b)					
Item	Amount	Q/Q	Y/Y		
Consolidated revenues	6.553	6.59%	52.40%		
Gross margin	40.04%	0.84pp	7.76pp		
Net operating profit	1.400	15.13%	209.73%		
Net profit	1.215	43.62%	324.83%		
Net EPS (NT\$)	4.34				





Comau presents at the 4th Automotive Manufacturing Summit



The 4th Automotive Advanced Manufacturing Technology Summit is being held April 10-12, 2018 in Guangzhou, China. This summit, which is considered to be the highest level automotive technology summit, will involve more than 1000 professionals from the automotive industry.

"It's an honor to present our vision of digital transformation and smart manufacturing," says Mauro Anselmetto, CEO of Comau China and ASEAN. "Digitalization is transforming the industry in amazing ways. Comau can provide customers with a full range of industrial robots and automation products, together with customized solutions that are fully connected and easy to use. Comau solutions for digital manufacturing enable customers to increase productivity and quality, reducing equipment downtime."

More than 100 Comau assembly lines have been installed in automotive plants of China. "ComauFlex is an operational philosophy that maximizes production efficiency and creates a more orderly and rational layout of the industrial production environment," says Comau China's Global Solution Development Manager Mr. Tao Xiaowei. "The system guarantees the maximum in operations flexibility, even when dealing with space constraints or the pressure to machine large volumes of new materials and joint types."

Mr. Tao Xiaowei introduces "LHYTE is a cutting-edge hybrid laser solution that combines a direct diode and fiber laser source within the same modular system. The system is adaptable to any industrial application and enables Comau to meet the needs of a market in continuous evolution, in which manufacturers and system integrators are constantly in search of high-performance, versatile technologies."





Yaskawa foresees strong profits amid China's electric car boom



Industrial equipment maker Yaskawa Electric expects strong earnings in the current fiscal year, banking on active capital investment in China to support the shift to electric vehicles and green energy sources.

The Japanese company said it anticipates its net profit for the year that began March 1 to reach about 50 billion yen (\$465 million). Yaskawa changed its fiscal year-end to Feb. 28 from March 20 last fiscal year, complicating the year-on-year comparison. But the tally would in effect mark a record profit.

And China, with its strong demand for automation equipment, is expected to drive the earnings growth.

"Due to labor shortages, companies cannot continue business without steady investment in automation," Shuji Murakami, senior managing executive officer, told reporters at the earnings release event. "Business managers in China are desperate."

In fiscal 2017, Yaskawa's sales to China reached 103.3 billion yen, accounting for more than a fifth of its overall revenue and rising roughly 30% on the year in a simplified comparison. Chinese sales grew more sharply than the 10%-20% in the U.S. and Europe.

With factors like rising labor costs pushing manufacturers to accelerate automation, business opportunities abound for Yaskawa.





One of the earnings engines is servo motors, which are used in devices like chip-making equipment and machine tools to enable precision processing. Industrial robots containing motors are another strength for Yaskawa. Chinese demand is growing for both categories of products.

Current trade tensions between the U.S. and China and a slowdown in smartphone production have raised alarm for market investors. Yaskawa's stock has thus undergone a correction since reaching a high in January. But the latest earnings announcement shows the company's confidence.

Investors are worried that Chinese manufacturers may slow their capital investment due to the threat of a trade war with the U.S. But Murakami said Yaskawa's customers in China supply Asian rather than American markets, and therefore the impact should not be significant.

"Investment will pick up in electric vehicles and green energy" as smartphone-related spending slows, he added.

And the Chinese government's strategy to lift the manufacturing sector up the value chain benefits Yaskawa. "Now there is a sense of assurance" about the company's business environment, said Shinji Kuroda at Credit Suisse Securities (Japan).

The company is known for being conservative with its earnings guidance, so its optimistic outlook carries that much more weight.

Other China-linked manufacture stocks in Japan have languished as well. Construction machinery maker Komatsu has fallen 10.9% from the end of February, and automation equipment builder Fanuc has slid 3.2%. Kobe Steel has declined 9.5%, and bearings maker NSK is down 17%. Over the same period, the Nikkei Stock Average has decreased just 1.8%.

"With big uncertainties around U.S.-China relations, it's difficult to go for China-linked stocks for the time being," said Soichiro Monji of Daiwa SB Investments.

U.S. President Donald Trump may become even more hawkish in his China policy ahead of the midterm elections in November. But many acknowledge the steady growth of the Chinese economy. Robot maker Nachi-Fujikoshi says demand for its products continues to thrive, thanks to efforts to save manpower. Machine tool builder Tsugami says it has not observed concerning changes in orders recently.

Investors may take a second look at China-related stocks if they hear more encouraging news in late April, when more companies release their earnings.





Delta Electronics to set up robotics R&D center at CTSP



Power electronics and automation solution provider Delta Electronics has disclosed a plan to invest NT\$1.5 billion (US\$50.7 million) to set up a robotics R&D center at Central Taiwan Science Park (CTSP), with inauguration scheduled for September 2020.

There are 70 precision machinery makers at CTSP and 15 of them are developing robotic components and modules, robots and application of robotic systems, Delta chairman Yancey Hai said.

Delta's robotics R&D center will contribute to development of robotic arms and related products and drive growth in smart robot, Hai noted, adding during the center's construction, Delta will seek cooperation with universities to develop robotic technology.

Smart manufacturing features flexible production for diverse models in small volumes, and smart robots, industrial automation and IoT technology are key to smart manufacturing, Hai said.

Delta has offered 4-axis and 6-axis robots since 2015 and sold more than 2,000 units, Hai noted. Delta also produces key components including servomotors, server drivers, controllers, human-machine interfaces, machine vision and sensing systems for production of robots, with in-house-produced components taking up 85% of all.

Delta will also invest over NT\$4 billion to set up a power supplies plant in northern Taiwan and expand an existing factory at Southern Taiwan Science Park (STSP) for producing industrial controllers, PV inverters and UPS (uninterruptible power supplies).





<u>DMC2018 Leads New Developments in the Mold Industry</u>

Die & Mould China 2018 (DMC2018) and the 2018 Shanghai International Automotive Moulding and Forming Technology Expo, co-organized by the China Die & Mould Industry Association and Shanghai International Exhibition Co., Ltd., will be held from June 5 to June 9, 2018 at the National Exhibition and Convention Center in Hongqiao, Shanghai (2H/3H/4.1H Halls). The theme of event, "bringing together refined manufacturing and integration technologies while showcasing integrated molding and collaborative manufacturing for higher quality and efficiency", accurately portrays the current direction of the industry. The 2018 Shanghai International Automotive Moulding and Forming Technology Expo held concurrently will bring in more molding equipment and technical content, demonstrating the highest levels of China's automotive molding and forming technology and equipment.

The 100,000-square meter event is expected to attract thousands of exhibitors from nearly 20 countries and regions, including Switzerland, Japan, Germany, South Korea, Italy and France. With a focus on industry needs, DMC2018 creates a platform that showcases lean manufacturing equipment, automated and intelligent manufacturing technologies as well as integrated molding and precision mold manufacturing.

With a new venue and longer exhibition period, DMC2018 leads new developments across the mold industry

DMC2018 will move to the National Exhibition and Convention Center in Hongqiao, Shanghai, as part of its strategy of achieving wider coverage across China, and will lead the optimization and upgrading of mold manufacturing through manufacturing technologies defined by streamlining of processes, automation, digitalization, integration, networking and intelligence, promoting the transformation of the mold industry.

With the exhibition extended to five days, the event creates a top industry platform with more value-added services

Given the continued economic growth and accelerated transformation of the mold industry, in a move to fully meet the purchasing needs of exhibitors and visitors and provide more value-added services for exhibitors, the organizers have extended the exhibition period from four to five days, creating a larger networking platform for exhibitors and visitors and maximizing the business and trade value of the event.