

INSIGHTS

Stimulus Policies Boost China's Economic Outlook

Voice of the World

By GONG Qian

China's gross domestic product (GDP) grew 4.8 percent year-on-year in the first three quarters of 2024, reaching around 94.97 trillion RMB (about 13.33 trillion USD), data from the National Bureau of Statistics (NBS) showed on October 18.

Given that, the full year GDP growth target of around five percent is now within reach with extra stimulus in the fourth quarter of 2024, Xu Tianchen, senior economist at The Economist Intelligence Unit, told CNBC.

Despite a complicated external environment and emerging challenges at home, the Chinese economy has posted generally stable performances.

The Associated Press reported, citing the NBS's statement, that the Chinese economy has been "generally stable with steady progress" even in the face of a "complicated and severe external environment" and complicated domestic economic development.

China has recently ramped up policy stimulus with a slate of support measures aimed at boosting the economy, including reducing mortgage rates for existing homes and allowing banks to lend more.

These measures reflect China's



Visitors sunrise scenery at the Dongji Square in Fuyuan, northeast China's Heilongjiang province. Booming travel and holiday consumption mirror vitality of Chinese economy. (PHOTO: XINHUA)

commitment to ensure stable economic performance and bolster market confidence for the remainder of the year, according to the Pakistani magazine *Diplomatic Insight*.

The efforts are also welcomed by many economists and international financial institutions such as Goldman Sachs and Union Bank of Switzerland who have raised their 2024 China economic growth forecasts from 4.7 percent to 4.9 percent.

"The latest round of China stimulus clearly indicates that policymakers have made a turn on cyclical policy management and increased their focus on the economy," Goldman economists, including chief China economist Hui Shan, wrote in a research note.

"The goals are to enhance the strength of macro policies to expand domestic demand and reach this year's GDP growth target," Chinese vice minister of Finance Liao Min told Bloomberg

News. "And in the meantime to coordinate with monetary policy to push for the restructuring of the economy, particularly to boost domestic demand including consumption."

On October 29, the second edition of the Asia Manufacturing Index by Dezan Shira & Associates was unveiled. It offers manufacturers a rare and thorough comparison of 11 economies to guide informed decision-making in Asia.

China has topped the index for two consecutive years. Despite its challenges, China's dominance as a global hub for efficient, high-quality manufacturing across various industries continues to be evident, Dezan Shira & Associates said.

Russia news agency Tass reported that China is a leading global manufacturer, supplying a wide range of products to the international market. China actively supports and constantly strengthens trade contacts with most countries, Tass said.

According to the General Administration of Customs of China, the country's total goods imports and exports maintained stable growth in the January-September period, expanding to 32.33 trillion RMB (about 4.57 trillion U.S. dollars) with a year-on-year increase of 5.3 percent.

"There's reason to be more optimistic about growth in the coming years, given how the government is committed to shoring up the economy," Xu said.

Comment

Protectionism Can't Save U.S. Shipbuilding Industry

By LI Linxu

The U.S. shipbuilding industry is shrinking. Its labor unions and some politicians are blaming China for it and trying to resort to protectionist measures to save it.

However, this is not the right path to revive the U.S. shipbuilding industry but a wrong way that will only lead to its further decline.

In fact, the decline of the U.S. shipbuilding industry started long before the rise of China's shipbuilding industry.

Even in its better days in the 1970s, the U.S. shipbuilding industry accounted for less than five percent of the world's tonnage. By the 1980s, the figure had dropped to less than one percent of global production of commercial vessels, about the same number as it is today.

At that time, China's shipbuilding industry had just started to catch up. Even in 1999, China accounted for only about five percent of merchant shipping tonnage globally.

We can see from the timeline of U.S. decline in the global shipbuilding market that it has nothing to do with China's development of its own industry.

In fact, as many experts have pointed out, the decline is the result of many factors, including blatant protectionism, aging infrastructure, an insufficient

number of skilled workers, and lack of competitiveness.

Even today, U.S. laws require that ships traveling between U.S. ports or on its internal waterways must be American made, owned, and operated.

Various studies show that the U.S. shipbuilding industry lost its competitive advantage many years ago due to overprotection.

On the other hand, the growth of China's shipbuilding industry is the result of Chinese companies' tech innovation and participation in market competition. It has also benefited from the country's fully-fledged industrial manufacturing system and vast domestic market.

Blaming China's rise for the U.S. decline in the shipbuilding industry is a lame excuse and won't do any good for the latter's improvement. What the U.S. should really do is not to hype the so-called external threat but look into its internal problems to find a viable path for going forward.

In today's world, a globalized shipbuilding industry is a critical lifeline of global trade. Resorting to protectionist measures will not save the U.S. shipbuilding industry but cause the opposite of what the U.S. wants, making its shipbuilding industry less competitive and disrupting the supply chain of the global shipbuilding industry.

New Angles on AI at China-Singapore Symposium

AI Ripples

By CEN Yingjie

The China-Singapore Symposium on AI Frontiers and Governance was held at Tongji University in Shanghai on October 28, bringing together 14 academicians from the Chinese Academy of Engineering (CAE) and the Singapore Academy of Engineering (SAEng). The experts shared their latest research findings on AI innovation and governance, both nationally and globally, revealing some interesting new perspectives.

"AI+ model accelerates scientific revolution"

Today, generative AI has become a widely used productivity tool. By improving the accuracy and efficiency of radar perception technology, it has been applied in smart healthcare for fall detection, vital sign monitoring, and sleep monitoring. In radio frequency chip design, AI can improve design efficiency and circuit performance, ac-

ording to Guo Yongxin, academican of SAEng, chair professor at City University of Hong Kong.

The combination of AI and mathematics serves as a powerful driving force for technological transformation. Yan Shuicheng, academican of SAEng and director of the Kunlun World Wide 2050 Global Research Institute, suggested that the quality of foundational models can be improved from a mathematical perspective. By facilitating dialogue, discussion, and evaluation among large models, higher-quality data can be generated, enhancing the effectiveness of large models and accelerating technological transformation.

According to Wang Jian, academican of CAE, director of Zhejiang Lab and founder of Alibaba Cloud, integrating computation-intensive, data-driven, and model-based approaches will lead to a new transformation in scientific paradigms. In this new paradigm, researchers will be able to leverage advanced computing technologies and data analysis tools, boosting scientific discovery, promoting interdisciplinary collaboration and ultimately providing

more effective solutions to complex problems in the real world.

AI has great untapped potential

Combined with computational electromagnetics, the integrated AI technology shows great promise in addressing electromagnetic challenges in 3D chip systems and communication networks. The application of AI in this field has the potential to optimize communication systems by reducing interference and improving signal integrity, according to Li Erping, academican of SAEng and Qiushi chair professor at Zhejiang University.

Looking ahead, AI is expected to incorporate mechanisms inspired by human memory. According to Zheng Qinghua, academican of CAE and president of Tongji University, this improvement holds the promise of overcoming the inherent limitations of large models, enabling the creation of new machine intelligence frameworks that can more effectively mimic human cognitive processes and adapt to complex tasks.

Exercise caution when using AI

AI, as an enabling technology, faces widespread security issues in many

aspects. Wu Jiangxing, academican of CAE, director of the National Digital Switching System Engineering and Technology Research Center, and director of Institute for Big Data at Fudan University, pointed out that it is crucial to develop safe and trustworthy AI application systems.

Similarly, CAE academican Dai Qionghai, dean of the School of Information Science and Technology at Tsinghua University, noted that deep learning or large models are unreliable in open general scenarios, and their efficiency and energy consumption are challenging energy security.

Like all powerful technologies, great care must be taken in the development and deployment of AI. Wu and Dai highlighted the necessity of the right theoretical guidance and the importance of efficient, low-energy optical computing respectively. To reap the benefits of AI, we first need to trust it and make sure that it would follow the same ethical principles, moral values, professional codes, and social norms that we humans follow in the same scenario.



The port of Los Angeles. (PHOTO: XINHUA)

AI Model for Satellites

Hi! Tech

By GONG Qian

Chinese tech company Zhongke Tianta Technology Company launched a large language model, "Huashan", specifically applied in the aerospace field for the first time, at the 2024 China Satellite Application Conference held in Beijing from October 23 to 25.

The "Huashan" is built on a professional knowledge base for in-orbit satellite management, creating a spacecraft control platform that can complete in-orbit management of spacecraft and train for spacecraft management personnel.

It features multi-round natural language question and answer capability, real-time malfunction analysis and early warning, and database search and analysis. It is also capable of perform-

ing multi-modal retrieval and organization of knowledge about satellites, and generating work plan documents.

The AI model can assist humans with in-orbit management tasks including spacecraft intelligent control, orbit calculation and analysis, and command code generation, contributing to the stable operation of satellites in space.

At present, individual technicians are capable of managing a limited number of satellites, as highlighted by the company. With the rapid construction of satellite Internet, the number of satellites in orbit is experiencing explosive growth. Current manpower will be unable to meet the demand.

When conventional working methods fall short, it is only through groundbreaking technological advancements and the effective harnessing of artificial intelligence's strengths that we can address the dramatic scaling up of satellite management requirements.

Developing Smart Farming Ensures Food Security

Opinion

By TANG Zhexiao

Following nine consecutive years of maintaining grain output above 650 million tonnes, China's 2024 grain output is set to produce more than 700 million tonnes for the first time despite extreme weather events, vice minister of the Ministry of Agriculture and Rural Affairs Zhang Xingwang said on October 25.

According to the ministry, the summer grain and early rice harvests have already been completed, with summer grain output totaling 149.78 million tonnes. As of October 24, more than 80 percent of this year's autumn crops have been harvested, signaling a bumper harvest.

It reflects the country's sustained and stable grain production capacity, and provides strong support for consolidating and enhancing the economic re-

covery and promoting high-quality development.

As one of the world's largest food producers and consumers, China has stepped up efforts to promote food security amid climate change and global market turmoil.

In addition to increasing financial support for food production, the Ministry of Agriculture and Rural Affairs has also introduced a series of policy measures to continuously promote the application of technology in all aspects and fields of the agricultural industry, aiming to improve production efficiency as well as developing smart farming.

Agricultural machinery equipped with the BeiDou navigation satellite system, unmanned driving, and other intelligent equipment has become a symbol of agricultural modernization. According to the International Federation of Robotics, the global agricultural robot market will reach 10 billion U.S. dollars by 2025. Among them, the Chinese market will become the largest growth point.

Recently, an automatic grape-picking robot that can pick a bunch of grapes in one piece every four seconds was displayed at the 31st China Yangling Agricultural Hi-tech Fair. "Unmanned products" are the general trend of the agricultural industry development," Yin Yuhan, a member of the Xi'an Jiaotong University R&D team, said that based on the intelligent perception technology of deep learning, this robot can be used in orchards with irregular land, saving manpower and improving picking efficiency.

As the integration of modern technologies such as AI, 5G, and big data into the agricultural sector continues to deepen, agricultural infrastructure is also constantly being updated to make field work more efficient. For example, the solar heat collection and release system developed by Northwest Agriculture and Forestry University is installed in a greenhouse, collecting heat during the day and releasing heat at night, greatly increasing the air temperature in the greenhouse. Operating stably in tempera-

tures as low as -40°C, the system has been applied to 110,000 acres in China's Shaanxi, Gansu, Henan and other provinces, achieving a total output value of approximately 5.5 billion RMB.

In Shouguang, known as "Chinese Vegetable Town," the 5G+ agricultural behavior intelligent identification and analysis system integrates 5G+ high-definition video and AI recognition technology. It can automatically and accurately record and analyze agricultural behavior, realize the convenience and electronicization of production records, and provide strong support for establishing an agricultural behavior indicator database, carrying out remote technical services and quality and safety supervision.

China released a five-year action plan to boost food output and accelerate its agriculture industry's digital transformation. The plan, set to run from 2024 to 2028, aims to establish a digital planting technology scheme and create a national agricultural and rural big data platform by 2028, according to the ministry.



The large language model, "Huashan", specifically applied in the aerospace field, is launched at the 2024 China Satellite Application Conference held in Beijing from October 23 to 25. (PHOTO: XINHUA)