Economy Momentum Leads Transformation of Green Finance

Voice of the World

Edited by QI Liming

China's economy grew faster than expected in the first three months of the year. Compared to the same period last year, the country's GDP grew by 4.5 percent, according to recent reports. To meet the target of carbon peaking and carbon neutrality, China is introducing more eco-friendly practices in the financial services sector as part of its emissions reduction plan.

China's economy recovers with expectations

According to *The Guardian*, the first quarter growth rate in China was higher than forecast by analysts, as the country's retail sector performed better than expected.

"The speed of recovery has exceeded even our relatively upbeat expectations," said Julian Evans-Pritchard, head of China economics at Capital Economics, adding that full-year growth could reach six percent, exceeding the government's official target of about five percent.

"With consumer confidence on the mend and credit growth accelerating, there is still scope for a further pickup in activity over the coming months," he said.

As BBC reported, the key measure of economic activity was driven up by a boost in household spending and rising factory activity. Separate data for March showed that retail sales, the main indicator of household consumption, jumped by 10.6 percent, compared to a year earlier.

Meanwhile, there was also evidence of a strong rebound in the country's airline industry.

Green economy promotes agricultural development. (PHOTO: XINHUA & VCG)

Civil Aviation Administration of China data showed that more than 45 million air passenger trips were taken in March, almost a threefold increase on the same time last year. The country resumed processing visa applications in March as well. Investors had been eagerly waiting for the figures to get clues on the strength of China's recovery.

Becoming a leader in green finance

China's green finance market has already reached 2.3 trillion USD, according to the Union Bank of Switzerland.

To meet its net-zero emissions target, China needs 140 trillion RMB (about 21.3 trillion USD) of debt financing over the next 40 years, according to China International Capital Corp. Green bonds are an important part of the picture. According to S&P Global Market Intelligence, China issued the most green bonds globally in 2022 at 76.25 billion USD. This year, China is expected to issue 90 billion to 100 billion USD in green bonds.

Other Asian countries are much smaller players in this market. Japan and India ranked No. 7 and No. 10 respectively on the global league table of green bond issuance in 2022. Overall, Asia-Pacific countries issued 120.83 billion USD of green bonds in 2022, so China accounted for almost two thirds of the total issuance.

Data compiled by Bloomberg show that as of late 2022, China's green bond market had reached 300 billion USD in value. There were 1,029 entities made up of 1,029 bonds. About 70 percent of that market is made up of local notes denominated in RMB.

According to *Forbes*, renewable energy attracts the most funding with about 46 percent of projects. The funds raised will be used to support renewable energy in turn.

In 2022, the Chinese market was an outlier. While the U.S. and European markets were weighed down by high interest rates and geopolitical tumult, China's green bond market managed to increase 30 percent, and is continuing to grow steadily.

Comment

Washington's Attempt to Suppress China Backfiring

By QI Liming

In August 2022, the White House signed the *CHIPS and Science Act (CHIPS Act)*, a bipartisan effort to curb the development of China's chips.

However, the *CHIPS Act* alone won't secure U.S. semiconductor supply chains, despite a year of egregious efforts to support it, according to U.S. think tank RAND corporation.

U.S. Senate democrat and majority leader Chuck Schumer announced a new initiative dubbed "China Competition 2.0" on May 3 after a weekly policy luncheon. He added that the initiative would be "one that will build on this momentum and develop new and significant bipartisan legislation," expressing his hopes that it would broaden last year's *CHIPS Act*.

Under the cover of bringing manufacturing back onshore, Washington is doing everything it can to crack down on China, even seeking political dividends at the expense of national interest.

"The fragmented, piecemeal nature of CHIPS investments will not be enough to address long-standing structural inequalities in the education and training, invention, and commercialization stages of innovation, especially in the most marginalized regions of the U.S." according to Brookings fellow researchers Annelies Goger and Banu Ozkazanc-Pan.

Since Biden's *CHIPS Act* will restrict certain investments in China, there should be "clear rules of the road," according to the U.S. trade association chief. American semiconductor companies want access to the China's market and need clear rules from the Biden administration, he added.

John Neuffer, president and chief executive officer of the Semiconductor Industry Association, said that China is still a huge market for U.S. chip companies. "It's our biggest market and we're not the only industry that lays claim to that." However, instead of self-reflection, U.S. politicians continue to make it worse. They have once again launched efforts to counter China.

According to Schumer, they would plan to write legislation aimed at limiting the flow of technology to China and tightening rules to block U.S. capital from going to Chinese companies, hoping to introduce the legislation in the next couple of months. "This year's planned legislation would also seek funding for additional domestic investments in key technology areas and provide a better U.S. alternative to China's Belt and Road global infrastructure initiative, in an effort to counter Beijing's international influence." Schumer also said lawmakers would look at TikTok and other foreign-based Apps while writing the "China bill."

Ironically, on the same day, U.S. Ambassador to China Nicholas Burns said the U.S. is ready to hold high-level talks with China and wants to forge better communication channels between the two countries.

It is hoped that U.S. lawmakers can match their words with deeds for the welfare of all mankind. Do not slander China while suppressing the nation. Facts prove that those who play with fire will eventually get burned.

Opinion

Don't Be Hypocrite in Maintaining Cybersecurity

By TANG Zhexiao

The leak of a trove of highly sensitive Pentagon documents online weeks ago exposes U.S. spy activities on its allies and foes.

It also highlights the country's hegemonic mindset in cyber security, going against the Clean Network initiative that is the U.S. State Department's approach to safeguarding the nation's assets, including citizens' privacy and companies' most sensitive information.

The leaked Pentagon documents have opened a unique and rare window into the inner workings of American espionage.

The information reveals where the Central Intelligence Agency (CIA) has recruited agents privy to the closed-door conversations of world leaders, as well as what types of satellite imagery the U.S. uses to track Russian forces, including a rare advanced technology that has never been publicly identified, said *The Washington Post*.

The UN expressed concern to the U.S. that communication between the Secretary General and other senior UN officials have been on the subject of surveillance and interference by the U.S. government. "Such actions," said UN spokesperson Stephane Dujarric, "are inconsistent with the [U.S.] obligations enumerated in the UN charter and the Convention on the Privileges and Immunities of the United Nations."

The documents that Edward Snowden leaked in 2013 revealed that a new age of spying had begun post September 2001.

Driven by fears of foreign terrorism and empowered by technological advances, the U.S. created a sophisticated network of global surveillance that was scooping up vast amounts of data from millions of emails and phone calls around the world, according to *The New York Times*.

Based on global cybersecurity communities' analysis, a report released in April by China Cybersecurity Industry Alliance has illustrated cyber-attacks, surveillance and secret thefts carried out by the CIA.

Hi! Tech

Soft Hand Exoskeleton Benefits Stroke Patients

Edited by GONG Qian

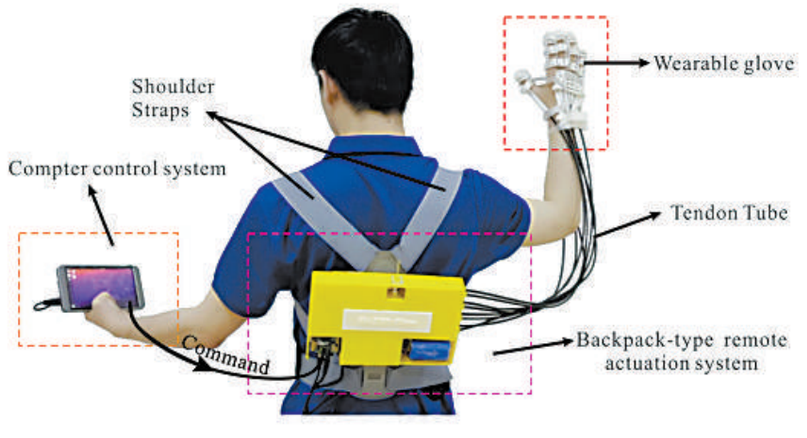
A hybrid soft hand exoskeleton, which combines a flexible link with a tendon-driven soft glove to drive thumb motion, has been developed by researchers from Shenyang Institute of Automation, Chinese Academy of Sciences. The impressive hardware can help stroke patients do self rehabilitation exercises or serve as a daily living assistance device for patients with hand dysfunctions.

The hand exoskeleton is composed of three main systems, a wearable glove which weighs less than 200g; a backpack-type remote actuation system (RAS) that drives the wearable glove through the tendon tubes; and a computer control system that plans the motions and commands the RAS.

The exoskeleton is designed based on the analysis of the human musculoskeletal anatomy and the basic motion types of the thumb. At least two degrees-of-freedom (DoF) of motions (flexion/extension, and abduction/adduction) are needed in order to generate arbitrary thumb motions. Therefore, four biomimetic tendons (flexor, extensor, abductor, and adductor) are needed for generating the thumb motions.

To reduce the number of actuators, a simple pulley mechanism is employed to generate bidirectional motions. As a result, this hybrid configuration can perform dexterous thumb operations (such as thumb encircling) with only two actuators. Minimizing the number of actuators would benefit patients as it reduces the cost of the device without sacrificing the dexterity of it.

The device has been tested on a stroke patient with hemiplegia and a healthy person. The experimental results show that the hand exoskeleton could assist the stroke patient to accomplish various training tasks, such as thumb encircling, grasping, pinching, releasing, and writing.



The soft hand exoskeleton is composed of three systems: wearable glove, wearable backpack-type remote actuation system, and a computer control system. (PHOTO: SCREENSHOT)

Restrict Technology Flows Could Reduce Global Knowledge Availability

Research Box

Politics, rather than economic fundamentals and predictable rules, are molding trade patterns and the resulting uncertainty could discourage investment in other countries.

Potentially more important than the impact on trade may be the impact on knowledge. Bilateral restrictions on technology flows and collaboration between large countries could reduce the global availability of knowledge.

Initial firm-level evidence suggests adverse effects of recent restrictions on firms in both China and the U.S.

What happens to both Chinese and U.S. innovation matters for other countries in the region. Innovation builds on prior knowledge, and backward citations in patents can reflect which sources of prior knowledge are important.

While still small compared to the advanced economies like the U.S., China has become an increasingly important source of knowledge for innovation in other East Asia and the Pacific countries, using these citation measures.

By 2014 - 2019, China reflected around 10 percent of the prior knowledge used for Singapore or Thailand innovation.

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Ecological Restoration Path with Chinese Characteristics

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Since 2000, MEE, with joint efforts from the Chinese Academy of Sciences (CAS) or other relevant institutes, has completed three ecological condition surveys and assessments nationwide, which provides scientific foundations for launching ecological protection and restoration policies.

A survey surrounding the ecological changes in the Yellow River Basin over the past 20 years found that the vegetation cover of the Yellow River Basin has increased significantly with its "green line" moving westward for about 300 km.

China has formed a special monitoring network covering a number of taxa such as terrestrial vertebrates, insects, freshwater fishes and a variety of ecosystems. For example, the China Biodiversity Monitoring and Research Network, established based on a major biodiversity conservation project, has established 749 monitoring sample areas nationwide and obtained 1.8 million monitoring records.

"The Chinese Biodiversity Monitoring and Research Network established by CAS is the world's first forest monitoring and research network with a complete latitudinal gradient, containing the largest real-time online monitoring system and database for birds in Asia." Wang said.