

INSIGHTS

Injecting Impetus into Global Economy

Voice of the World

Edited by QI Liming

Under the theme of "Cooperation in a Fragmented World", the 2023 Annual Meeting of World Economic Forum (WEF) brought leaders together from across government, business, and civil society to tackle the numerous and interlinked challenges that the world is facing. The positive impact of China on global growth was focused since it optimized its pandemic response, which is called reopening.

Reuters reported that, as China reopens, the WEF is optimistic about the global economy. China's declaration that it is open for business was welcomed by attendees as a boost to global growth.

Nguzi Okonjo-Iweala, director-general of the World Trade Organization, pointed out that China's reopening could help supply chains work better and also boost consumer demand.

Meanwhile Joe Kaeser, chairman of Siemens Energy, said, "When it comes



UN Secretary-General Antonio Guterres addresses a session of the WEF annual meeting in Davos, Switzerland, January 18, 2023. (PHOTO: VCG)

to summer or fall, China will be moving to the second phase of reform and opening up. That could certainly help the world also grow and ease the pain of a lot of industrial countries, including Europe."

Bloomberg said that according to a WEF panel on the prospects of a recession, China stirs up hope for global growth, and its reopening together with

the resilience of advanced economies provides hope for the world to weather 2023, despite the struggle for growth in some economies.

Standard Chartered Chairman José Viñals, spoke at the WEF, that China is going to have a very good year. "The Chinese economy is going to be on fire and that's going to be very, very impor-

tant for the rest of the world," he said.

Positive comments about China's economy were also made by Rio Tinto's CEO Jakob Stausholm, who told the WEF he was "absolutely convinced" that China's reopening will help the global economy.

Top finance officials at the WEF said that China's reopening from pandemic restrictions could drive global growth beyond expectations and help avoid a broader recession, fueling hopes that the world's second largest economy can resurrect global growth even as the U.S., Eurozone and Britain flirt with a recession over the coming quarters.

"The reopening of China has to be the major event and it will be a key driver for growth," said Laura M Cha, the Chairperson of Hong Kong Exchanges and Clearing. Her comments were echoed by others who saw China as a key to the global recovery.

"There's pent-up savings, there's pent-up demand, so we think that China will see very strong growth, especially as you get later in the year," said Douglas L. Peterson, the President and CEO of S&P Global in a panel discussion.

U.S. Nudging its Allies to Restrict Chips Tech ; Harmful to All

Comment

Edited by GONG Qian

The U.S. has recently ramped up its effort to lobby its allies to further limit China's access to advanced semiconductors by restricting exports.

President Joe Biden met with Japanese Prime Minister Fumio Kishida and Dutch Prime Minister Mark Rutte in January, and discussed a variety of issues, including tougher export restrictions to limit the sale of semiconductor manufacturing technology to China.

Japan and the Netherlands are home to key suppliers of semiconductor manufacturing equipment.

In a joint statement, the U.S. and Japan agreed to sharpen their shared edge on economic security, including protection and promotion of critical and emerging technologies, according to an AP report.

Kishida said he backs Biden's efforts, but he did not agree to match the sweeping curbs targeting China's semiconductor and supercomputing industries.

Rutte's visit followed that of Kishida. The White House press secretary Karine Jean-Pierre confirmed that the two leaders talked about the new U.S. restrictions on exporting chip-making technology to China.

The so-called "new" restrictions refer to the U.S. Commerce Department announcement in October 2022. It warned three U.S. semiconductor companies - LAM Research, KLA Corp, and Applied Materials - could no longer sell semiconductor manufacturing equipment without special permission from authorities.

In this way, the new restriction aims at limiting China's ability to access advanced computing chips, develop and maintain supercomputers, and make advanced semiconductors.

The U.S. ability to prevent other companies from filling the void in the Chinese supply of chipmaking equipment is limited, said British technology news website The Register. It needs plenty of help from allies for the new restrictions to have maximum impact.

Therefore, the U.S. has been trying to get its allies, in particular the Netherlands, to sing from the same hymn sheet.

The Netherlands is home to ASML,

one of the major manufacturer of the world's most advanced semiconductor lithography systems required to manufacture the most advanced chips. China is one of its biggest clients, taking up 15 percent of sales.

Bloomberg reported the Netherlands and Japan reached an agreement with the U.S. on January 27 to limit exports of some advanced chipmaking machinery to China, but no more details were disclosed.

Apart from ASML, companies based in Japan, including Nikon and Tokyo Electron, would be directly or indirectly affected by the agreement. "Japan's chip equipment makers in the dark about new China export restrictions," said Reuters.

China Foreign Ministry spokesman Wang Wenbin said at a regular press briefing in Beijing that the U.S. effort showed its "selfish hegemonic interests" and that Washington pursued its interests at the expense of its allies.

Both Tokyo Electron and ASML seemed annoyed by the decisions taken by their respective governments. According to Bloomberg, Tokyo Electron has said the general clampdown on its Chinese customers is already hurting business, while ASML's CEO Peter Wennink complained that the company has had to make sacrifices.

The Dutch Trade Minister Liesje Schreinemacher also said she would fight for open trade and to prevent protectionism during a semiconductor panel discussion on January 19 at the World Economic Forum in Davos, according to *South China Morning Post*.

It seems that the agreement is a victory for Biden, but Wennink warned that the U.S. campaign could have unintended consequences, and predicted that China will develop the technology itself instead of importing it, according to Bloomberg.

"That will take time, but ultimately they will get there," he said on January 25.



ASML faces the U.S. pressure of restrict exports on chip technology. (PHOTO: VCG)

U.S. Should Share COVID Information with the World

Opinion

Edited by TANG Zhexiao

According to the statistics of the Global Influenza Shared Database (GISD), a global online health database established in 2008, most variants of the COVID virus have been prevalent in the U.S. in the past three years.

Currently, the fast-spreading Omicron subvariant XBB.1.5 is estimated to account for 61.3 percent of the COVID-19 cases in the U.S. in the week ended January 28, the U.S. Centers for Disease Control and Prevention (CDC) reported.

XBB.1.5 is a sub-variant of the Omicron strain, which the UN health agency calls "the most transmissible subvariant detected yet."

First detected in the U.S. in October 2022, it has been circulating in at least 74 countries and regions to date, said outbreak.info, a platform to discover and explore COVID-19 data and variants.

XBB.1.5 can evade the body's immune system. "Kraken variant [XBB 1.5] has an additional mutation. It binds more easily to other cells," said Andrew Pekosz, a virologist at Johns Hopkins

University.

Where did XBB.1.5 first appear? How could it spread so fast? Has the U.S. government taken reponse measures?

Besides these questions, a lack of transparency on COVID information and the country's issue of revising data have become a concern for the global community.

Data published on December 30, 2022 by CDC said that XBB.1.5 represented about 41 percent of new cases nationally in the U.S., nearly doubling in prevalence.

However, according to the U.S. Consumer News and Business Channel's report on January 6, revised CDC data has shown slower increases than previously reported, saying that XBB.1.5 made up 27.6 percent of sequenced COVID cases nationally for the week ending January 7, compared with 18.3 percent for the week ending December 31.

At-home tests means some are not reported through public health or are not testing at all, meaning the official case count may underestimate the actual prevalence.

The COVID States Project is a national 50-state survey of opinions related to the COVID-19 pandemic since March of 2020. It is run by a multi-uni-

versity collaboration effort, including Harvard Kennedy School and Northwestern University.

Its core findings in its latest 96th report said many self-tests are going unreported, "The official data is currently missing about 48 percent of known COVID cases from the last three months."

Considering the new variant XBB.1.5 spreading rapidly worldwide, the

U.S. should share its domestic COVID situation challenges, as well as virus data timely and transparently with the WHO and the global community, and so actively responding to global concerns. This is not only responsible to the American people, but also helps the international community find an effective response to prevent the further spread of the virus worldwide.



A sign is placed near the section for children's medicine after the wave of COVID-19, influenza, and RSV infections wreaking havoc on the nation, New York, United States, December 19, 2022. (PHOTO: VCG)

Hi! Tech

Improving Synthesis Efficiency of Li-ion Battery

By Staff Reporters

Researchers from Tianjin University have developed an ultrafast high-temperature shock (HTS) strategy to synthesize cathode materials through a non-equilibrium reaction.

Different from traditional methods, which usually experience a multi-

step and time-consuming reaction process with limited chemical reaction kinetics and high energy, the HTS process is highly effective and time-saving, as it provides an ultrahigh heating rate leading to a non-equilibrium state.

This enables a high heating rate, high calcination temperature, high cool-

ing rate, and fast reaction kinetics to be achieved simultaneously. The HTS process also produces oxygen vacancies and forms ultra small particles, promising a high electrochemical performance.

The research team has conducted experiments to verify their strategy. Using this method, typical cathode materials are synthesized, including LiMn2O4,

LiCoO2, LiFePO4, and Li-rich layered oxide/NiO heterostructured material, and excellent electrochemical outcomes have been achieved.

Their findings are of great importance to the synthesis of high-performance cathode materials, which is key to the development of advanced Li-ion batteries.

Iontronic Skin with Fast Self-healing Function

By TANG Zhexiao

Researchers from China and South Korea jointly reported a kind of iontronic skin which is capable of healing itself at ultrafast speed.

According to the paper published on *Nature Communications*, mechanical properties of the new skin have demonstrated a maximum self-healing efficien-

cy of 91 percent within 60 mins at room temperature, automatically repairing itself as fast as 4.3 micrometers per minute.

The human skin is a crucial body organ that possesses a self-healing capability to restore its functionalities upon external injury.

Inspired by the sensory structure of the human skin, several research groups have previously reported electronic

skins based on iontronic materials, and applied them to remote controls, sensors and other mechanical devices.

However, such iontronic materials are vulnerable to unexpected mechanical damage caused by continual wear and tear, leading to broken functionalities and limited device longevity.

Researchers thus developed the CLiPS material, which exhibits not only

excellent autonomous self-healing properties, but also mechanosensitive piezoelectric dynamics. Iontronic skin is seen as the next generation of electronic skin, which is still in the R&D stage.

According to the research results, it can respond to pressure variations, demonstrating potential for touch modulation in future wearable electronics and human-machine interfaces.

Chinese Premier Holds Symposium with Foreign Experts

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"China is ready to learn from advanced technologies and management experience, continue extensive international cooperation with other countries, respond to common challenges facing the international community, and safeguard world peace, stability, develop-

ment and prosperity," he added.

Li noted that the Chinese government welcomes more foreign talent to come and work in China, and will continue to improve the level of convenience and services for foreign experts working in China.

Source: XINHUA

New Highlights in China-Africa Cooperation

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China has long supported the infrastructure construction in Africa and trained all kinds of professionals in practical skills, said Paul Frimpong, an associate at Africa-China Centre for Policy & Advisory, a Ghana-based think tank, adding that this would effectively enhance the capacity of African countries to develop on their own.

A total of 163 wind-power generators manufactured by Chinese firms have been installed in the Northern

Cape province, South Africa, to meet the electricity demands of 300,000 local households. In Nigeria, the Zungeru Hydroelectric Power Station commenced operation in March 2022, and is expected to generate an annual 2.64 billion kWh of electricity for local people.

China-Africa trade reached about 254 billion USD in 2021, up 35.3 percent compared to 2020. During the first half of 2022, it was approximately 137 billion USD, an increase of approximately 17 percent year-on-year.