

Back on track

Huawei succeeds in getting over 'crisis', is confident of turnaround

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Shaping culinary history

Documentary reveals how farming of grains is about much more than food

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CHINA DAILY

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Modernization of China expected to benefit world

Key vision ensures common prosperity for all, pursues peaceful development

By XU WEI
xuwei@chinadaily.com.cn

China's broader push for its path to modernization has fueled expectations that the nation will bring more opportunities and create a dynamic of growth that will deliver wide-ranging benefits for the world, according to business leaders and analysts.

The Chinese path to modernization, a key vision outlined by Xi Jinping, general secretary of the Communist Party of China Central Committee, in his report to the 20th CPC National Congress, is the modernization of a huge population, and it ensures common prosperity for all and pursues peaceful development.

This path will also entail the promotion of high-standard opening-up, including the high-quality development of the Belt and Road Initiative and broader steps to share its development experience, analysts said.

Raymund Chao, chairman of PwC Asia-Pacific and China, said the vision of the Chinese path to modernization was proposed at a pivotal moment with the international environment becoming increasingly complex and uncertain and global leaders contemplating solutions to the challenges brought about by COVID-19, regional conflicts and supply chain and trade disruptions.

"The path to 'Chinese modernization' and developing China as a 'great modern socialist country' by the mid-21st century will have profound implications for economic and social development, both for the world and China, in the coming years," Chao said.

To follow this path and attain this goal, he said the nation will expand institutional opening-up with regard to rules, regulations, management and standards, promote high-quality development of the BRI and endeavor to preserve the diversity and stability of the international economic landscape and trade relations.

China's top leadership reaffirmed its push for the Chinese path to modernization at the annual tone-setting Central Economic Work Conference in December, during which policymakers pledged to make greater efforts to attract more foreign capital, widen market access and further open up the modern services sector.

They also highlighted the nation's unwavering commitment to join high-standard economic and trade agreements, including the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and the Digital Economy Partnership Agreement.

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Return of Lula



Brazil's president-elect Luiz Inacio Lula da Silva (left), his wife, Rosangela Silva (second from left), vice-president-elect Geraldo Alckmin (right) and his wife, Maria Lucia Ribeiro, ride to Congress on Sunday in Brasilia, the capital, for their swearing-in ceremony. Lula vowed to fight for the poor and the environment and "rebuild the country" as he took office for a third term as Brazil's president. ANDRE PENNER / AP See story, page 7

Shopping app Temu becomes big hit in US

By MINLU ZHANG in New York
minluzhang@chinadailyusa.com

A portable mini humidifier for \$3.48, 12 silicone bowl covers for \$2.09 and a digital camera for children at \$12.99 — amid inflation and recession fears, consumers in the United States haven't seen prices this low for a long time.

Temu, an online shopping platform that sells goods made in China, has racked up 10.8 million sales in the US since its launch in September, making it the most downloaded free app on both App Store and Google Play for much of the past two months, according to data from analytics company Sensor Tower.

Boston-based Temu is a subsidiary of PDD Holdings, which is the parent company of China's e-commerce giant Pinduoduo. Pinduoduo recorded success in selling heavily discounted products in China over the past few years, and now it has a market cap of \$102 billion. Given the success of Temu, its stock — listed on the Nasdaq exchange as PDD — has gained over 32 percent in three months.

Temu's business model is an experiment to remove the middleman from the equation, allowing Chinese suppliers to sell directly to US consumers and ship directly from China, instead of building a network of US warehouses.

For Chinese suppliers, Temu offers an alternative to Amazon as a path to US consumers, avoiding the fees that the US company charges suppliers, including a referral fee of up to 15 percent.

Temu can offer unbeatable low prices by accessing PDD Holdings' "deep network of merchants and logistic partners, and its established ecosystem built over the years," according to the company's website.

Temu's deep discounts have resonated with US consumers, especially in the recent holiday shopping season, when they were facing the highest inflation in a generation, posing a new challenge to US e-commerce leader Amazon and other Western online stores.

Bene Neumann bought some children's toys, shoes and a bathroom rug from Temu during the holiday

shopping season. "I don't think Amazon has as many good toys on it. I have looked for toys like these on Amazon," he told China Daily.

On Temu, a pair of slippers for women costs \$7.19. On Amazon, a similar-looking pair is priced anywhere between \$18 and \$24.

"Wow! I say wow! I purchased two pairs of these slippers, one gray and one green. They are, by far, the most comfortable slippers I have ever owned," Marcia Stocker, a customer, said in a product review last week. "The price was right, too. Thank you, TEMU!"

Temu's sales in November were roughly four times its sales in October, peaking during Black Friday shopping when daily sales hit \$7 million in seven days, according to research company YipitData.

Rui Ma, an investor and analyst who founded Tech Buzz China, a podcast and an investor community, told WIRED that Temu is growing at "China speed" — the kind of rapid growth Chinese companies are known for, and that US companies would struggle to keep up with.

"I think it's offering a pretty good customer experience," said Ma, who has ordered goods three times from the shopping platform. Her orders include household items and \$9 Lenovo headphones, more than 11,000 pairs of which have sold on Temu.

Previous attempts by some Chinese companies to break into the US e-commerce market met with limited success. Shein has been successful in fast fashion, but has also been criticized for the environmental impact of selling clothes so cheap that they are almost disposable.

Temu's website says it "will offset carbon emissions from every delivery" and prominently displays its intellectual property policy.

Its shipping process is slower than that of Amazon. According to the company, orders take seven to 15 business days to arrive, longer than Amazon's delivery time, which averages three to five business days.

"However, the prices on Temu are better. It's cheaper and worth the wait," Neumann said.

Festive celebration



A dragon dance troupe performs on Sunday during a New Year's Day parade in London. Dancers, musicians, acrobats and performance artists participated in the celebration, which began in front of The Ritz Hotel in Green Park. RASID NECATI ASLIM / ANADOLU AGENCY

CONFIDENCE MOUNTS FOR ECONOMIC RECOVERY

Activity picks up as nation optimizes COVID-19 control measures

By ZHOU LANXU
zhoulanxu@chinadaily.com.cn

Hopes are rising that the Chinese economy can make a strong recovery and lead the way for the global economy as the world faces challenges on a number of fronts this year.

Economists have warned that a potential global economic recession is looming as tighter financial conditions weigh on demand while geopolitical tensions linger. According to the International Monetary Fund, "the worst is yet to come", as global growth is forecast to further weaken in 2023.

However, economic activity has shown signs of picking up in China



as the nation pursues a smooth transition in its phased response to COVID-19.

For example, according to market tracker Wind Info, 6,316 domestic flights took to the skies on Dec 26, almost double the number a month ago, while the previous day, movie box office takings nationwide rose to 106.17 million yuan (\$15.39 million), up from 14.47 million yuan a month earlier.

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COP15 deal pivotal for reversing biodiversity losses

In the United States, the ivory-billed woodpecker was lost as of 2021. In Brazil, the Spix's macaw has been officially extinct in the wild since 2019. Australia's Bramble Cay melomys, a rodent, was no more as of 2015. In July 2022, the International Union for Conservation of Nature declared the Chinese paddlefish of the Yangtze River extinct.

The sheer number of mammals, birds, fishes and reptiles that have been wiped out in the past five decades is staggering. The International Union for Conservation of Nature's Red List now includes 147,517 species, of which 41,459 are threatened with extinction.

Yet global efforts to date to protect biodiversity have proved, on balance, to be token at best.

Now, in the wake of a pivotal global meeting on biodiversity



chaired by China, there may be a unique opportunity to change course.

The 15th meeting of the Conference of the Parties to the United Nations Convention on Biological Diversity, or COP15, which was held in Montreal, Canada, between Dec 7 and 19, was a timely reminder of two disparate realities: that biodiversity loss is a pressing issue and that a lot more needs to be done about it, and soon.

COP15 was originally meant to take place in Kunming, Yunnan province, in October 2020, but it was delayed four times due to

the COVID-19 pandemic. China officially opened the conference in October 2021, but the offline portion was moved to Montreal. China remained the official president of the meeting.

There were about 10,000 delegates from countries around the world at the conference. Unfortunately, no heads of state were present and there were only a few minister-level delegates to what has been touted as the biggest biodiversity conference in a decade.

COP15 took place just weeks after the 2022 United Nations Climate Change Conference, or COP27, in Egypt.

COP27 and COP15 dealt with different environmental topics. The combination of the two events was powerful but, unfortunately, the former stole some of the thunder

from the latter and, to top it off, the policy-heavy Montreal conference happened at the same time as FIFA World Cup 2022, with all its attention-gathering impact.

Another hurdle to overcome for all those gathered at COP15 was the reality that goals set at the biodiversity conference COP10 in Japan were never met. Likewise, goals set in 2002 to significantly reduce biodiversity loss by 2010 were also never met.

The UN noted in 2002 that it was aware of the challenges that had to be overcome, including a chronic and widespread lack of political will, limited public participation and even less stakeholder involvement, a shortage of human resources and very little public education.

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www.chinadailyglobal.com Newsstand prices: US \$1 Canada C\$1; UK 1.5; EU 1.6; Kenya 50 Kenya Shilling; Asia Pacific: Thailand 120; Hk: Philippines 120 php; Myanmar 2000 kyat; Japan 210 yen; Dubai 10 dirham; Pakistan 300 rupee

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LI MIN / CHINA DAILY

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These positive signs have persuaded a growing number of international investment banks and asset managers to the view that a substantial economic rebound will unfold in China. The rebound will be underpinned by three key factors — a rally in domestic consumption due to reduced COVID-19 disruptions, improving confidence in the property and private sectors, and stepped-up macroeconomic policy adjustments.

Kristina Hooper, chief global market strategist at Invesco, a global investment management company, said optimized COVID-19 containment and measures to stabilize the property sector “could help propel China to be a key growth engine in 2023”.

The tone-setting Central Economic Work Conference, held in the middle of last month, prioritized increasing domestic demand by boosting consumption to promote economic growth amid pressure from “demand contraction, supply shocks and weakening expectations”.

ECONOMY: CONSUMER SPENDING TO REBOUND

The meeting stressed the need for better coordination of epidemic prevention and control measures with economic and social development, and called for efforts to optimize response to the epidemic.

Officials and experts said consumer spending will rebound, as reduced disruption from COVID-19 is expected to release pent-up demand, which will be seen after the first quarter and be a key driver for economic recovery this year.

Yin Yanlin, deputy director of the office of the Central Committee for Financial and Economic Affairs, said the optimization of COVID-19 containment measures will create favorable conditions for economic recovery.

“The worst moment is over. With the implementation of optimized COVID containment measures, (China will see) a smoother flow of people and logistics, and accelerated recovery in business and social activities,” Yin told a recent forum.

The World Bank said in its latest China Economic Update that consumer confidence is expected to improve as pent-up demand is released after the first quarter.

China has stepped up optimization of COVID-19 controls since November and will scrap the quarantine requirement for international arrivals from Sunday. It has also changed the name of the disease from “novel coronavirus pneumonia” to “novel coronavirus infection”.

Hu Yifan, regional chief investment officer and head of macroeconomics for Asia-Pacific at UBS Global Wealth Management, said the Swiss wealth manager forecasts that China’s year-on-year retail sales growth may rally from about 1 percent last year to at least 5 percent this year as economic activity returns to normal from COVID-19 and creates more offline consumption.

A consumption rebound may contribute to more than half the nation’s economic growth this year, which could rise to about 5 percent year-on-year, up from about 3 percent last year, Hu said.

Investment growth is expected to remain robust this year thanks to infrastructure construction supported by high-speed railway projects, manufacturing investment driven by high-tech sectors, and a narrower slide in real estate development investment, Hu said.

She said such a recovery in domestic demand will likely help offset downward economic pressure from slowing exports amid weakening global demand.

Data from the National Bureau of Statistics, or NBS, show that China’s exports rose by 11.9 percent year-on-year to 21.83 trillion yuan from January to November, but single-month growth for November fell to 0.9 percent, pointing to the downside risk facing exports as global growth slows.

Experts said this situation underscores the significance of increasing policy support to ensure a sound rebound in domestic demand, especially as the consumption recovery still faces hurdles such as rising unemployment.

The NBS said China’s surveyed urban jobless rate stood at 5.7 percent in November, up by 0.2 of a percentage point from October. The rate among those in the 16 to 24 age group was 17.1 percent.

Ample macro tools

Zhang Bin, deputy director of the Institute of World Economics and Politics at the Chinese Academy of Social Sciences, said strengthened fiscal and monetary support will be needed this year to ensure a steady expansion in domestic demand.

This measure is required, as the economy’s recovery momentum might not be sufficiently strong for growth to return to a level on par with China’s potential growth rate, given COVID-related damage to financial conditions and risk appetite among businesses and households, Zhang said.

To expand domestic demand, the Central Economic Work Conference decided to take a number of steps to raise incomes and support consumption of housing, new energy vehicles and care services for the elderly.

The meeting decided that proactive fiscal policy should be stepped up, with a better mix of tools including fiscal deficits, special-purpose bonds and interest subsidies. Prudent monetary policy should be targeted and effective, with reasonable and sufficient liquidity maintained.



Xu Hongcai, vice-minister of finance, said at a recent event that China’s deficit-to-GDP ratio and the scale of local government special-purpose bonds will be set properly to ensure the intensity of government-backed investment does not slow.

As fiscal policy increases support for the economy, Wen Bin, chief economist at China Minsheng Bank, said he expects the nation’s deficit-to-GDP ratio to stand at about 3 percent this year, up by 0.2 of a percentage point from the previous year, while the annual quota of special-purpose bonds may rise to 3.8 trillion yuan, up from 3.65 trillion yuan last year.

Wen said tax-cut campaigns might continue, and they could save some 3 trillion yuan in tax and fee burdens for businesses and residents to help strengthen their spending ability.

Liu Guoqiang, deputy governor of the People’s Bank of China, the nation’s central bank, said the aggregate strength of monetary policy should not be lower than the level last year, and should be raised further if needed — unless economic growth and inflation exceed expectations.

The central bank, which aims to provide “adequate” aggregate support and “accurate” structural aid, has abundant policy tools to hand, Liu said.

Experts said Liu’s remarks show there might be further room to ease monetary policy in the first half of this year, with the possibility of cuts in interest rates and the reserve requirement ratio.

Property market

While recognizing the need to reduce overall costs for businesses and households to facilitate their credit growth and spending power, experts called for mortgage rate reductions as a key step to stabilize the real estate sector.

Shao Yu, chief economist at Orient Securities, said, “It is necessary to reduce interest rates, as the housing market faces some obstacles to achieving a soft landing.” Cutting interest rates can help bolster homebuying demand and stabilize the property market, which is a major drag on growth, Shao added.

Zhu Haibin, JPMorgan’s chief China economist, said in a note that the government may introduce additional measures to support housing demand, such as lowering down payments and relaxing or removing home purchase restrictions at city level.

To promote steady development of the property market, the Central Economic Work Conference stressed the need to ensure prompt delivery of pre-sold housing and to meet reasonable financing demand in the sector, as well as people’s basic housing requirements and the need for improved housing conditions.

The positive signals sent by the conference, along with 16 recently announced measures to stabilize lending to the real estate sector, have helped stabilize market expectations for the operations of private real estate developers — triggering hopes for a recovery in home sales this year.

Lu Ting, Nomura’s chief China economist, said, “Markets have many reasons to turn positive.” Lu cited COVID-19 optimization measures, adjusted regulations for the property sector, and the reassertion of respect for private entrepreneurs as key encouraging developments.

Experts said that with a number of factors aiding China’s recovery in the coming year, the world’s second-largest economy may become an even more important driving force for the world economy by stabilizing a choppy global economic recovery.

A Goldman Sachs report said the potential rally in Chinese consumer spending may accelerate imports of goods and services, helping boost GDP in economies such as Singapore and Australia, while Thailand and Vietnam could be among the biggest beneficiaries of a recovery in international travel by Chinese tourists.

However, experts said China’s unfolding economic rebound is not without caveats, especially considering uncertainties over COVID-19 and a harsher international economic and geopolitical situation.

Boosting market confidence by creating a more enabling environment for private and foreign enterprises is necessary for the Chinese economy to sail through potential headwinds, the experts added.

In addition to pledging to promote the opening up of modern service industries, the Central Eco-

nomics Work Conference promised that law-based protection would be provided for the property rights of private enterprises and the interests of entrepreneurs.

Tao Dong, vice-chairman for Greater China at Credit Suisse Wealth Management Asia Pacific, said, “Policy stimulus is important, but private investment and consumption remain the bulk of economic activity.”

“Ensuring stimulus measures and government spending strengthen confidence in the private sector will be crucial for policies to be successful and sustainable. Further policy details are awaited.”

Specific policy efforts have been stepped up.

The China Securities Regulatory Commission said it will work to ensure equal treatment for State-owned and private enterprises regarding market entry, information disclosure and continuous supervision in the coming year. It will also facilitate overseas listings by platform enterprises.

Li Xiang and Ouyang Shijia contributed to this story.



TOP NEWS

Opportunity seen for repairing Sino-US ties in the new year

By ZHANG YUNBI
zhangyunbi@chinadaily.com.cn

Scholars have hailed the latest phone talk between China's new Foreign Minister Qin Gang and United States Secretary of State Antony Blinken, and they urged Washington to grab fresh opportunities to further repair relations and trust with Beijing in the new year.

While still in the US, Qin had a telephone conversation with Blinken on Sunday and bid farewell in his capacity as both foreign minister and ambassador, according to a readout of China's Foreign Ministry on Monday.

Qin, 56, who had assumed his post as Beijing's top envoy in Washington in July 2021, was appointed as foreign minister on Friday.

"I appreciate several candid, in-depth and constructive meetings with (Blinken) during my tenure. I look forward to continuing close working relations with him for a better China-US relationship," Qin wrote in a tweet after the phone call.

Blinken said in a tweet that they had discussed US-China relations and "maintaining open lines of communication".

The two also exchanged New Year's greetings during the call.

Scholars said that the top priority in 2023 for the world's two largest economies is to avoid further deterioration of their relations and manage risks brought by sensitive issues such as the Taiwan question.

"It is a good thing in any sense for both countries and the world that the foreign ministers of China and the US interacted with each other at the start of the new year," said Chen Fengying, a senior economist and former director of the Institute of World Economic Studies at the China Institutes of Contemporary International Relations.

The year 2023 "should be a window period for cooperation between

the two countries and the world, and this opportunity cannot be missed", she added.

Tension had not faded between Beijing and Washington by the end of 2022, given the latest approval by the US Congress of military aid to Taiwan and tense encounters by military aircraft above the South China Sea.

In addition, the US "has been pressuring its security partners", including South Korea, the Netherlands and Japan, to "comply with sweeping curbs on the sale of advanced semiconductors to China", according to Bloomberg News.

Senior Chinese and US officials have made several official contacts following the face-to-face meeting between President Xi Jinping and US President Joe Biden in Bali in November.

"However, whether China-US relations can usher in a window of opportunity for adapting to one another is still subject to the US policy toward China," said Wu Xinbo, dean of the Institute of International Studies at Fudan University.

Currently, the fundamental thinking of the US policy toward China has not changed, and the working team responsible for China affairs has not changed, he said.

"If the US fails to make significant adjustments to its China policy, 'managing differences' and 'avoiding crises' will remain in rhetoric rather than in practice," Wu added.

Wang Yi, the new director of the Office of the Foreign Affairs Commission of the Communist Party of China Central Committee, wrote in an article published on Sunday in Qishi Journal, the flagship magazine of the CPC Central Committee, that "the two countries should properly perceive each other's domestic and foreign policies and strategic intentions".

The two countries should also "set a tone of dialogue and win-win approach rather than confrontation and zero-sum exchanges", Wang added.



Attack in Mexico

Relatives of inmates gather outside a prison in Ciudad Juarez, Chihuahua, Mexico, where an armed attack on Sunday left 14 people dead. Gunmen attacked the prison in the northern Mexican city, allowing 24 inmates to escape, the Chihuahua state prosecutor's office said.

HERIKA MARTINEZ / AFP

Notable recovery likely in 2023, experts say

Country's economy set to improve as policy measures take effect

By OUYANG SHIJIA
and ZHOU LANXU

While headwinds and pressures from a cloudy global outlook and COVID-19 shocks will continue to weigh on China's short-term outlook, the nation's economy still shows strong resilience and vitality, which are expected to lead to a notable recovery in 2023, officials and experts said.

Zhao Chenxin, deputy director of the National Development and Reform Commission, said that despite difficulties and challenges, China's economy will likely witness an overall recovery and improvement this year as a series of supportive policy measures gradually take effect.

China will work to give full play to the basic role of consumption and the key role of investment this year, while it will also continue to support the growth of the nonpublic sector and encourage the participation of private enterprises in major national strategic projects, Zhao said in a recent interview with Xinhua News Agency.

Data from the National Bureau of Statistics offers the latest snapshot of the multiple pressures from shrinking demand, supply shocks and weakening expectations.

The official purchasing managers index for China's manufacturing sector fell to 47 in December from 48 in November, the NBS said on Saturday. This is the third consecutive month in which the PMI remained below the 50-point mark, separating growth from contraction, with the pandemic continuing to weigh on both output and demand.

Zheng Houcheng, director of Yingda Securities Research Institute, said the data points to mounting pressures facing the economy, adding that China's GDP is likely to grow at a slower pace in the fourth quarter compared with the third quarter.

Zheng warned that COVID-19 infections may peak in China between January and February, which will impact the consumption recovery and property investment, and manufacturing investment will likely slow down.

Looking ahead, he expected to

see stronger policy support to help the economy recover from the COVID-19 shocks, including a further cut in banks' reserve requirement ratio and increased financial support for key fields such as infrastructure construction, technological innovation, elder care, logistics and carbon emissions reduction.

Li Chao, chief economist at Zhesang Securities, said that while the pandemic will continue to disrupt economic activity in the short term, China will gradually shake off the COVID-19 impact and witness a notable recovery in 2023.

"Private consumption and, to a lesser extent, fixed investment and infrastructure spending, will be key drivers of the rebound," said Louise Loo, senior economist at British think tank Oxford Economics.

Despite the impact of COVID-19 outbreaks, troubles in the property sector and weakening external demand amid growing global recession fears and rising interest rates, China's economy has shown strong resilience and vitality.

The onshore renminbi rose past the 6.9-per-dollar level on Friday, the last trading day before the New Year holiday, jumping more than 700 basis points from Thursday's close, said market tracker Wind Info.

The offshore renminbi also gained more than 500 basis points to close at 6.921 on Friday, though retreating to roughly 6.93 as of Monday afternoon, according to Wind Info.

The jumps came amid China's latest steps to expand financial opening-up and internationalize the renminbi. The People's Bank of China, the nation's central bank, said on Friday that the trading hours of the interbank foreign exchange market will be extended to 3 am the next day, effective from Tuesday, when the market reopens after the New Year holiday break. Prior to the new move, the onshore foreign exchange market closed at 11:30 pm.

Loo from Oxford Economics said the renminbi may trade around the 7-per-dollar level and strengthen moderately as China's economic rebound gathers pace in the second and third quarters.

But the renminbi may still feel some depreciation pressure from the greenback in the near term as the US Fed rate hike cycle has yet to end, while COVID-19 uncertainties remain in China, Loo said.

Contact the writers at
ouyangshijia@chinadaily.com.cn

Open-air lessons



Afghan children attend a class on Sunday in Dand district, Kandahar province. AFP

Biodiversity: There is still time for positive changes

From page 1

However, 20 years after the meeting in Japan, the same obstacles remain, even as humanity watches the loss of biodiversity with not so much as an eyebrow raised.

"An average of around 25 percent of species in the assessed animal and plant groups are threatened, suggesting that around 1 million species already face extinction, many within decades, unless action is taken to reduce the intensity of drivers of biodiversity loss," said the Global Assessment Report on Biodiversity and Ecosystem Services.

Global Biodiversity Outlook 5, presented by the Secretariat of the Convention on Biological Diversity

in 2020, acknowledged the failures of the world to achieve the goals set at earlier conferences, including one in 2010.

"At the global level, none of the 20 targets have been fully achieved, though six targets have been partially achieved," the Secretariat of the CBD noted in 2020.

The good news is that there is still time for positive change. The same 2020 report said that "it is not too late to slow, halt and eventually reverse current trends in the decline of biodiversity".

The China-led meeting could prove pivotal, with the deal reached at COP15 hopefully going a long way toward reversing this dismal trend.

The deal includes goals like safeguarding 30 percent of the world's land, water and marine resources by 2030 and pouring \$200 billion into biodiversity-related investments by the end of the decade.

The reality is that the need for action is urgent — the type of action that the COP15 deal calls for.

Without such action, global biodiversity is heading the same way as the climate, only faster, and the consequences for the world could be dire.

"Children born today who live to their 70s will witness literally thousands of animals disappear in their lifetime, from lizards and frogs to iconic mammals such as elephants and koalas,"

wrote professors Corey Bradshaw and Giovanni Strona in an article in *The Conversation*.

COP15 was the most important biodiversity conference of the decade. It may have opened the door to the implementation of relevant strategies for humanity, finally, to stop destroying biodiversity.

The world has to take notice now, and countries have to step up with both action and funds to stop biodiversity losses. If not, by the time the next gathering takes place, it probably will be too late.

The author is managing director of *Bahati*, an editorial services agency based in Hong Kong. The views do not necessarily reflect those of *China Daily*.

Vision: China committed to providing new choices for developing nations, official says

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Xi said in a written speech delivered at the APEC CEO Summit in Bangkok in November that no more than 30 countries, with a total population of less than 1 billion, have achieved industrialization so far. He said that China's middle-income population will increase to over 800 million in the next 15 years and promote the sustained growth of China's supersized market.

Chao said the modernization of China's 1.4 billion population to promote common prosperity will unleash consumer demand for high-quality goods and services as the nation pushes for the building of a community with a shared future for mankind.

"A modernized China will bring more opportunities and create a dynamic of growth in both the region and the world," he said. "It is also a strong signal of China further

opening up to the world, underscoring the country's commitment to pursue an open strategy of achieving peaceful and coordinated development for win-win outcomes."

Ivona Ladjevac, deputy director of Serbia's Institute of International Politics and Economics, said China's modernization is inextricably linked with socialist modernization, which contains unique elements making it unlike modernization pursued by any other countries.

"Not for a moment rejecting the fact that it is a long-term process, it was started with the desire that the end result would be a prosperous society based on equity and justice, a society that would not be polarized," she said.

Ladjevac said that China's vision for its modernization has been encouraging to other developing countries. "A commitment to peace, development, cooperation and mutual benefit, along with a firm

determination to preserve world peace and development, underlies China's modernization."

"Through its realization, China makes a greater contribution to peace and development in the world," she said.

As part of its broader push to promote global development, China decided last year to upgrade its South-South Cooperation Assistance Fund to a Global Development and South-South Cooperation Fund and add \$1 billion to the fund on top of the \$3 billion already committed.

In a speech on China's diplomacy delivered on Dec 25, Wang Yi, who was then foreign minister and is now director of the Office of the Foreign Affairs Commission of the CPC Central Committee, said Beijing will stay committed to a Chinese path to modernization, not only creating a new form of human advancement, but also providing new choices for developing countries.

"We will firmly support developing countries in exploring development paths suited to their national conditions and embarking on a fast track toward modernization at an early date," Wang said.

Sharing of expertise

Chea Munyith, president of the Cambodian Chinese Evolution Researcher Association, said he believes the Chinese path to modernization will entail further sharing of China's expertise on development, including for global poverty reduction and the easing of the global food crisis.

For example, he said that Chinese experts are working with their counterparts from Cambodia in devising a master plan for the development of modern agriculture in his country.

As part of the plan, experts sent by the Foreign Economic Cooperation Center of the Chinese Ministry of

Agriculture and Rural Affairs will help the Southeast Asian nation build up its expertise in growth of milled rice, corn, rubber, cassava, bananas, animal production and aquaculture and work toward better food security.

"This is another vivid example that China, after its success in attaining rural development, is sharing its outcomes from development through win-win cooperation with developing economies," he said.

The Cambodian scholar also underscored the significance of China's commitment to free trade and sharing its large domestic market with the world, especially developing countries, which will offer strong impetus to the global economic recovery.

Andy Mok, a senior research fellow at the Center for China and Globalization, a Beijing-based think tank, said China's development is especially important for

developing countries because it also provides a successful model that is based on actual experience and "not erroneous beliefs and self-serving ideologies that have led some nations astray".

"By adhering to a path of peaceful development, China can play a positive role in avoiding or minimizing future conflicts," Mok said.

He added that making greater strides in opening-up is an inevitable choice for China's future modernization efforts as opening-up provides domestic benefits for China by giving consumers a wider array of products and services to enjoy while fostering a more competitive economy that leads to greater efficiency.

"China's opening-up provides market and investment opportunities for all types of businesses around the world, ranging from Fortune 500 to small and medium-sized enterprises," he said.

CHINA

Hospitals prepared for surge in cases

Senior health official calls for increased coordination among medical facilities

By ZOU SHUO
zoushuo@chinadaily.com.cn

Hospitals should make use of all medical resources available to cope with surging COVID-19 patients, according to a senior health official.

Jiao Yahui, head of the bureau of medical administration of the National Health Commission, said when fever clinics have a large number of patients, all beds, equipment and medical workers in hospitals need to be coordinated to assist, and when emergency intensive care units are too busy, the entire hospital also needs to coordinate.

The commission has asked emergency ICUs to transfer patients to other departments within 24 hours to make sure more severe patients receive treatment, Jiao said in an interview with China Central Television.

She said when measures are taken to flatten the peak of infection and hospitalization, existing medical resources are enough to cope with the epidemic.

As of Dec 25, major hospitals in the country had opened 16,000 fever clinics, and another 41,000 fever clinics had been opened by grassroots medical institutions, she said.

However, it is still not enough. Therefore, in Beijing, temporary fever clinics were also opened in gymnasiums and makeshift hospitals to provide drugs to patients with mild symptoms. As the number of severe patients rises, the pressure on ICUs becomes more acute, making it difficult to get an ICU bed, she said.

The commission issued guidelines in early December on expanding ICU resources and asked hospitals to prepare convertible ICU beds.

Efforts are required to make sure there is early intervention and treatment to prevent patients with mild symptoms from worsening into severe patients, she said, adding grassroots medical institutions have been asked to shift through high-risk groups and divide them into different levels based on their health conditions.

With Spring Festival approaching and the mass movement of people from cities to rural areas, Jiao said

she was worried about the epidemic situation in the countryside.

The key is to make sure rural areas have sufficient stores of drugs for even after the Spring Festival travel rush and that all severe patients in rural areas can be transferred to bigger hospitals in time for treatment, she said.

Responding to complaints about difficulty in getting drugs, Jiao said it has been mainly caused by hoarding. In addition, it takes time for drug companies to increase production capacity and there is also a lack of workers at the companies as some have been infected, she said.

As there are more severe elderly patients who want to get treatment in top hospitals, the mismatch between demand and supply will also become more serious, Jiao said.

Tong Zhaohui, vice-president of Beijing Chaoyang Hospital Affiliated to Capital Medical University, said that compared with previous epidemics, the number of patients infected with the Omicron variant and needing hospitalization and ICU treatment is still low.

The number of serious and severe patients at two Beijing hospitals he has been working at account for 3 to 4 percent of the total, he said.

He acknowledged that there have been more deaths, but the number of critical patients and patients with pneumonia symptoms is still low.

Jiao said people might feel that the number of severe patients and deaths is high, and it is because China has a large population.

Difficulty getting medical treatment due to COVID-19 infection peaks has also happened in other countries in the past three years, and what makes China unique is that medical workers in the country have always fought the battle without any hesitation, she said.

"Some have been infected themselves and some have family members infected, and they still fight on the front line, just like soldiers going into battle."

The most difficult time is the peak in the number of severe patients that some cities are experiencing right now, but the infection curve will turn downward afterward, she added.

On the mend



Centenarian Cheng Yusheng (right) receives treatment before being discharged from the Fifth People's Hospital in Jinan, Shandong province, on Monday. The elderly man contracted COVID-19 on Dec 23 and was hospitalized a week ago after falling into a brief coma. WANG HANBING / FOR CHINA DAILY

Measures aim to reduce impact of COVID-19 on production

By ZOU SHUO
zoushuo@chinadaily.com.cn

Authorities have implemented a slew of measures to minimize the impact of COVID-19 on normal production and people's daily lives, according to a recent government work notice.

As the country continues to optimize its epidemic responses, consistent efforts have been made to effectively coordinate epidemic control with economic and social development, especially in the more vulnerable rural areas.

A recent notice for the New Year holiday and Spring Festival issued by the general offices of the Communist Party of China Central Committee and State Council asked local authorities to make sure optimized measures of epidemic control are carried out in an orderly way.

Adhering to putting people first and giving top priority to people's lives, local authorities should take scientific and targeted measures and focus on epidemic control in key institutions and groups to minimize the impact on people's daily lives and production.

They should make adequate preparation for intensive care resources, bolster the production and delivery of drugs and testing equipment, regulate against hoarding and profiteering, and guide the public to take personal protection measures and take responsibility for their own health, the notice said.

The notice required meeting the demand for travel during the holidays and providing safe and convenient transportation services to the public, and reducing the risks of infections during the Spring Festival travel rush.

It also stressed the importance of safe production to ensure the safety of people's lives and property. Special inspections should be carried out in high-risk areas including dangerous chemicals, mines and construction sites to resolutely prevent major accidents.

The Office of the Central Leading Group for Rural Work, the Ministry

Hospitals in urban areas have established cooperation mechanisms with county hospitals, so that whenever there are severe patients in rural areas, they can be transferred to cities quickly."

Jiao Yahui, head of the National Health Commission's medical administration bureau

of Agriculture and Rural Affairs and the National Rural Revitalization Administration have also asked local rural affairs authorities to win the tough battle against epidemic control in rural areas.

Rural areas are weak links in epidemic control as they cover vast regions, have huge populations and weaker foundations, according to a recent release from the Ministry of Agriculture and Rural Affairs.

As a large number of people travel during the holidays, local authorities must realize the huge importance and urgency in rural epidemic control and coordinate resources from all sides to make sure major tasks are carried out effectively, the release said.

Efforts should be made in increasing the supply of drugs, equipment, manpower and funding in rural areas to ensure the supply of medical resources and improve medical treatment and intensive care, the release said.

Epidemic control in rural areas should focus on key groups and continuous efforts are required to push for more vaccination among the elderly, it said.

The release also stressed coordination between epidemic control and agricultural production to ensure the supply of winter vegeta-

bles and animal products while making preparations for spring sowing.

A notice by the joint prevention and control mechanism of the State Council has asked medical facilities and drugstores in townships and villages to increase their inventories of fever and cough medicines, traditional Chinese medicine and antigen test kits.

Jiao Yahui, head of the National Health Commission's medical administration bureau, said epidemic control in rural areas is a key task at the current stage.

"Efforts should be made so that drugs are delivered to medical institutions in counties, townships and villages while critical patients in rural areas can be transferred to bigger hospitals for treatment in time," she said at a recent news conference.

"Hospitals in urban areas have established cooperation mechanisms with county hospitals, so that whenever there are severe patients in rural areas, they can be transferred to cities quickly," she said.

Township and village hospitals have been asked to conduct health monitoring on high-risk groups. Urban hospitals should send experts to county hospitals to offer guidance and local authorities need to send medical teams to rural areas and offer timely services to high-risk groups, she said.

To ensure its agricultural products are not affected by the epidemic, the Hainan Provincial Department of Agriculture and Rural Affairs has issued nine measures to boost production and sales.

License applications for vehicles transporting agricultural produce are required to be finalized in less than three hours and after verifying the licenses, checkpoints cannot add any restriction on the vehicles, the Hainan authorities said.

The province is also providing convenient nucleic acid testing for truck drivers and exempting ferry fees for trucks transporting fresh agricultural produce from the island.

Omicron subvariants detected in Shanghai

By LIN SHUJUAN in Shanghai
linshujuan@chinadaily.com.cn

Scientists have detected XBB.1.5, a new and super-transmissible subvariant of Omicron, in Shanghai, but the subvariant, mostly found among the city's imported cases, has yet to cause local transmissions, according to the research team that keeps track of the COVID-19 strains present on the Chinese mainland.

The research team, comprised of researchers from Ruijin Hospital Affiliated to Shanghai Jiao Tong University School of Medicine and Shanghai Public Health Center, has recently added 369 new sequencing results of COVID-19 to the database of the Global Initiative to Share All Influenza Data, an upload made by team member Chen Saijuan, a member of Chinese Academy of Engineering.

The research team said these samples came from patients with COVID-19 in Shanghai and were randomly collected between Nov 23 and Dec 22. Gene sequencing confirmed 30 known subvariants of Omicron, and no new mutations of COVID-19 have been found. The two subvariants, BQ.1 and XBB, which are widely prevalent in Europe and the United States, accounted for more than one-third of the samples.

Yet the two subvariants, detected mostly among imported cases, have yet commanded the field in China, where BA.5.2 and BF.7 remain the main strains, the research team said.

Among the 25 XBB samples monitored in Shanghai, there were three cases of XBB.1.5, which is widely projected by scientists to become the dominant strain globally in the near future because of its increased transmissibility and enhanced ability to evade the immune system, stronger than any other known strains.

Scientists in the US have estimated XBB.1.5 will make up 40.5 percent of new infections in the US in the near future.

Chinese scientists also predict that new mutant strains, such as BQ.1 and XBB, will likely form a co-circulation with BA.5.2 and BF.7 in the country due to their spread advantage.

"XBB has a strong ability to evade the immune system, which has led to an increase in the number of infections in some countries," Li Tongzeng, chief physician of the respiratory and infectious diseases department of Beijing You An Hospital, told People's Daily.

Thanks to their strong ability to dodge the immune system barriers set up by vaccines and previous infections, the new subvariants including XBB.1.5 will also infect those who've had previous infections, Li said.

"But data from other countries shows that the pathogenicity of the new subvariants is no different from previous strains," Li added.

While caution is being urged by public health experts with regard to the new subvariants, they also warn against indiscriminate use of medicine.

Li has been joined by many other experts debunking the claim that XBB.1.5 mainly attacks the cardiovascular systems and the stomach. The claim has recently gone viral online in China and sparked panic buying of montmorillonite powder and norfloxacin.

Both montmorillonite powder and norfloxacin are drugs for treating diarrhea, but are not necessarily applicable for treating diarrhea brought on by COVID-19, Li said.

Norfloxacin, a kind of broad-spectrum antibiotic that is often used for diarrhea caused by bacteria, such as enteritis and dysentery, is ineffective for diarrhea caused by viruses, which can usually be relieved on its own within one to three days, Li said.



A medical worker registers a patient at a community fever clinic in Shanghai on Sunday. Community fever clinics are being used to relieve pressure on major hospitals. YIN LIQIN / CHINA NEWS SERVICE

Free medicines provide relief for people in need

By CHEN BOWEN in Haikou
chenbowen@chinadaily.com.cn

To provide medicine for people in need, local governments, private institutions and individuals are coming up with new ways to "share the medicine box" and provide free medical supplies, as the number of COVID infections rises across the country.

Chang Jie, a customer service supervisor at Xingfuli property management in Haikou, Hainan province, manages a shared medicine box in his community to help residents get urgently needed medical supplies.

The shared medicine box was launched to encourage people to

donate surplus medical supplies for neighbors in need and get essential medical goods in exchange, and it worked.

Last Friday, within 10 minutes after he received a call for an antigen testing kit, Chang delivered it.

"After the initiative was issued, many people responded and donated their medical supplies," Chang said.

"Now we can make the most out of the limited medical resources. Every request for help will be responded to quickly."

In the shared medicine box, there are cold medicines, antipyretic and anti-inflammatory drugs, Chinese medicine, antigen testing kits and thermometers.

Along with government efforts in increasing the medicine supplies and setting up more fever clinics and emergency rooms for people with severe symptoms, many individuals and institutions have launched various measures like shared medicine boxes to help people who have minor symptoms at home.

The health commission of Changjiang Li autonomous county and Changjiang medical group in Hainan have provided traditional Chinese medicine in packages to the public free of charge along with guidance from experts.

Yang Xingquan, head of Longzhilin pharmacy in Sanya, Hainan, said via his WeChat account that

anyone with fever who couldn't buy antipyretic drugs can get eight urgently needed pills for free.

The message proved popular in his community, and the pharmacy has helped more than 400 people. "I prepared a total of 5,000 pills, and there are still more than 1,000 left," he said.

"I'm very happy to do something within my capacity for the local people."

Fujian Kangbaijia Medicine Group has also distributed ibuprofen to people for free across its 40 stores in 13 areas of Fuzhou, Fujian province since Saturday.

"The first batch of 150,000 ibuprofen tablets was delivered by

online appointment," said Wang Hui, chairman of the company.

"Each person can receive six tablets. This service is estimated to benefit about 25,000 people."

So far, pharmacy chains in Fuzhou have distributed nearly 200,000 packages of fever relief free of charge.

"The daily number of medicines distributed by our pharmacies and the duration of free distribution are not set," said Wang Yang from Haoyaoshi Pharmacy Corporation in Fujian, which gives out ibuprofen tablets in its 21 retail stores.

"We'll do what we can and continue to dispense medicines until we have zero in store. If we replenish any stock, we will put them on the market immediately and give priority to those who urgently need fever and pain relief."

CHINA

Sci-tech serves nation's strategic needs

In the past 12 months, Chinese experts provided the impetus for many discoveries. **Zhang Zhihao** reports.

Fostering quality scientific talent, employing innovation to serve the country's strategic needs and achieving major milestones in research capacities were last year's highlights for China's science and technology sector.

Science and technology underpinned many of the nation's biggest achievements, including hosting the Beijing 2022 Winter Olympics, finding new engines for socioeconomic growth and completing construction of the Tiangong Space Station.

Last year, the country climbed one place to 11th out of 132 economies on the Global Innovation Ranking 2022, published by the World Intellectual Property Organization. China was the only middle-income economy to make it into the top 20.

The country topped nine indicators out of the roughly 80 criteria used by the list to measure innovation capacity, including: domestic market size; the number of companies offering formal training; patents by origin; growth of labor productivity; trademarks by origin; industrial designs by origin; and exports of creative goods.

For the first time, China had as many top 100 science and technology clusters as the United States, with 21 apiece, according to WIPO.

Meanwhile, Shenzhen-Hong Kong-Guangzhou was the world's second-most innovative sci-tech cluster, with Beijing in third place.

Speaking via a video address to the publication ceremony of the Global Innovation Ranking 2022 in September, Wang Zhigang, minister of science and technology, said that over the past decade, China's science and technology sector has seen historic and profound changes. "China has been a key participant in global frontier science, technology and innovation, as well as a key contributor to jointly solving global challenges," he said.

He added that China will facilitate opening-up and international cooperation, actively integrate into the global innovation network and foster bigger and deeper collaboration in science and technology.

In an article published last month, Hou Jianguo, president of the Chinese Academy of Sciences, said that a country's research capability in basic sciences is the foundation for supporting innovation and the basis of China's pursuit of self-strengthening and self-sufficiency in science and technology.

The academy will help optimize policies to support scientific research and regulations on cutting-edge technologies such as artificial intelligence and biotechnology, he said, noting that it will also build a more effective innovation mechanism, nurture world-class scientists and promote open sciences and international cooperation.

Research output

One of China's biggest scientific



An aerial photo of "eye on the sky", the Five-hundred-meter Aperture Spherical Telescope, which was taken by a drone in July.



Left: Six astronauts meet in the Tiangong Space Station on Nov 30.



Right: Scientists set up the world's highest automatic weather station at an altitude of 8,830 meters on Qomolangma, aka Mount Everest, in May.

2022 year in Review

milestones last year was that it overtook the US for the first time as the world leader in both the quantity and quality of scientific papers published from 2018 to 2020, according to an annual report published in August by Japan's National Institute of Science and Technology Policy.

China's massive talent pool, growing research budget and sustained social and political support for research undertakings were the sources of the achievement, the report noted.

The statistics were based on yearly averages from 2018 to 2020 compiled by Clarivate, a global analyst. According to the report, Chinese research accounted for 27.2 percent — or 4,744 — of the world's top 1 percent of highly cited papers in those years. The US accounted for 24.9 percent — 4,330 papers — followed by the United Kingdom with 5.5 percent and 963 papers.

It was the first time that China had surpassed the US in this prestigious category, the report noted.

The highly cited papers were studies that outperformed 99 percent of their peers based on the number of citations received, which

is a commonly used measurement of a study's quality and influence.

"China is one of the top countries in terms of both the quantity and quality of scientific papers," Shinichi Kuraki, a researcher with the Japan Science and Technology Agency, told Nikkei Asia.

"In order to become the true global leader, it will need to continue producing internationally recognized research."

Materials science, chemistry, engineering and mathematics were China's most prolific scientific fields, while US researchers were more active in clinical medicines, basic life sciences and physics, the report said.

The report's findings were consistent with a March study published by the journal *Scientometrics*, in which scientists found that China had overtaken the US in 2019 in the number of the top 1 percent of most-cited papers.

Caroline Wagner, the study's co-author, said the papers are seen as the cutting-edge of science. "The US has tended to rank China's work as lower quality. This appears to have changed," she noted.

Notable benefits

From creating salt-resistant varieties of soybean to giant metal bearings for tunnel-boring machines, Chinese scientists and engineers have strengthened their efforts to use their research to fulfill the country's strategic needs, resulting in massive economic and social benefits.

Testimony to this trend is the rapid growth of national high-tech devel-

opment zones, which are the trailblazers of China's innovation-driven development strategy as they host 84 percent of the nation's State Key Laboratories and 78 percent of its national technological innovation centers, according to the Ministry of Science and Technology.

Last year, China had 173 national high-tech development zones, 84 more than in 2012. Meanwhile, the GDP of high-tech development zones grew from 5.4 trillion yuan in 2012 to 15.3 trillion yuan (\$2 trillion) last year.

These zones contributed to 13.4 percent of China's GDP last year, while using just 2.5 percent of the nation's construction land, according to the ministry.

Wu Jiayi, deputy director of the Department of Research Commercialization and Regional Innovation at the ministry, said the high-tech zones have proved to be resilient to risks and have achieved growth despite global uncertainties in recent years.

Li Youping, deputy director of the ministry's Torch High Technology Industry Development Center, said scientists and companies from the high-tech zones have made numerous breakthroughs in strategic fields in recent years.

Those feats included China's first artificial intelligence chip, the first quantum communications satellite, the first vaccines for COVID-19, high-speed rails, the C919 passenger jet and the Beidou satellite navigation system, he added.

Speaking at a forum in Novem-

ber, Zhang Yuzhuo, then vice-president of the China Association for Science and Technology, said the scientific community has been a major contributor to the healthy and inclusive development of the nation's digital economy, which refers to the use of information and communication technologies to support business models and economic activities.

Last year, the value of China's digital economy reached 45.5 trillion yuan, accounting for nearly 40 percent of the nation's GDP, Zhang said.

Meng Xiangfei, chief scientist at the Department of Application and Research at the National Supercomputing Center of Tianjin, said that in the past decade, he and his team have been dedicated to the development of the Tianhe series of Chinese supercomputers.

Tianhe-1, launched in October 2010, has become a valuable instrument that is capable of handling more than 1,400 computing tasks simultaneously, and about 1,000 research groups use the supercomputer every day, he said.

Meng and his colleagues are building the prototype of the nation's exascale supercomputer, Tianhe-3, which will handle more than 1 quintillion operations per second, making it many orders of magnitude more powerful than Tianhe-1.

"I always tell my teammates that every effort we put in will benefit the country in the end," Meng said.

Contact the writer at zhangzhihao@chinadaily.com.cn

Long list of returnees signals new drive for growth

By ZHANG ZHIHAO

On Nov 1, the hottest-trending topic on Chinese social media came from an unlikely source.

Yan Ning, a structural biologist, announced that she would resign her tenured professorship at Princeton University and return to China to help build a new medical academy in Shenzhen, Guangdong province.

The post attracted more than 480 million views on Sina Weibo, with many netizens calling Yan a "goddess scientist" and wishing her success in her new role.

Yan was the latest addition to a growing list of scientists who are returning to China to seek more opportunities and resources, stable employment, and strong policy and social support.

Wang Yunhai, a professor of education policy at the University of International Business and Economics in Beijing, said China is bolstering efforts to nurture and attract top researchers who can contribute to socioeconomic development and strategic needs.

According to the report to the 20th Communist Party of China National Congress in October, such professionals are regarded as a primary resource, and the country will prioritize educational development and rely on them to drive growth.

"For the first time, China has combined its education, science and technology and human resources strategies into one cohesive plan. This shows how important science and technology professionals are for building a strong, modern China," Wang said.

In November, Clarivate, a global analyst, unveiled its 2022 list of highly cited researchers and academics who enjoyed significant and broad influence in their fields.

It featured 6,938 scientists from 69 countries and regions, with the Chinese mainland ranking second with 1,169 highly cited researchers. In the past five years, the mainland's share of the list has risen from 7.9 percent in 2018 to 16.2 percent this year.

The United States was home to 2,764 world-class scientists, accounting for 38.3 percent of the list, but its overall share fell from 43.3 percent in 2018.

To nurture higher-quality scientists, Wang said China will need to improve its policy support for human resources, identify and support young talent more effectively, optimize evaluation standards for career progression and create a rich innovation ecosystem for researchers.

Li Zhiming, vice-president of the Chinese Society of Educational Development Strategy, said educational institutions play a critical role in nurturing young scientists, but for years, the quantity and quality of published papers have been the primary evaluation standards for advancing researchers' careers.

"We need to create the right evaluation framework for our teachers and scientists, encourage them to make more original works and design more inclusive research projects that will allow graduate students to obtain firsthand research experience," Li said.

Top science and technology breakthroughs in 2022

"Eye on the sky" probes the universe



The Five-hundred-meter Aperture Spherical Telescope made several discoveries that challenged conventional understanding of the universe. They included a new type of repeating fast radio burst — extremely brief but bright flashes in the sky — and the largest atom cloud in the universe, 20 times bigger than the Milky Way.

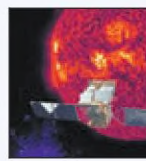
Fish fossil discoveries help rewrite the history of evolution

Chinese paleontologists discovered fish fossils from around 440 million

years ago that provided the "missing link" in the evolutionary origin of the jaw and provided an insight into how humans and other jawed animals evolved from ancient fish.

China launches the world's first comprehensive solar probe

The Advanced Space-Based Solar Observatory studies solar flares, coronal mass ejections and solar magnetic fields. The instrument provides critical insights on these powerful solar activities and their impact on space weather and infrastructure on Earth.



Scientists detail the basic mechanism of photocatalysts

Chinese scientists have mapped the electric charge transfer for turning water into hydrogen gas using sunlight and a catalyst. The breakthrough will allow scientists to improve the efficiency of photocatalysts, paving the way for the green production of hydrogen.

Construction of Tiangong Space Station is completed

In October, three decades of work culminated in China completing its first space station. The launch of the Mengtian lab module cemented the country's position alongside the United States and Russia as one of the world's three top space powers.

Scientific expedition hits milestones



Scientists from China's second comprehensive scientific expedition to the Qinghai-Tibet Plateau set up the world's highest automatic weather station at an altitude of 8,830 meters on Qomolangma, aka Mount Everest. They also set a new world record for the highest aerostat with the Jimu-1 III at 9,032 meters above sea level.

Landmark global standards

The nation's scientists spearheaded and published two landmark international standards: ISO 24603 for stem

cell research and ISO 34501 for testing self-driving vehicle technologies. They signaled that the country has become a globally recognized front-runner in these fields.

Black soil preserved with science

Chinese scientists made many breakthroughs that enabled them to effectively use and protect the country's highly fertile black soil. Some notable achievements included uncovering the mechanisms of black soil degradation, the creation of new soybean varieties and the development of advanced agricultural machinery.

Lunar sample reveals moon mysteries

China's scientists made many discoveries using a lunar sample collected dur-

ing the Chang'e-5 mission. These included a new mineral on the moon named Chang'e Stone, and the first on-site evidence of water on the satellite.

Artificial intelligence helps to discover new antibiotics

The nation's scientists used machine learning to identify new antimicrobial peptides in the human gut. The technique enables researchers to create new antibiotics to fight drug-resistant bacteria, which has become a global public health challenge.

ZHANG ZHIHAO

WORLD

Prosecutor fired after suing JPMorgan Chase

By HENG WEILI in New York
hengweili@chinadailyusa.com

The top prosecutor in the US Virgin Islands has been fired less than a week after she filed a lawsuit accusing JPMorgan Chase of ignoring Jeffrey Epstein's sex-trafficking operation.

Attorney General Denise George filed the lawsuit in Manhattan on Dec 27 alleging that the New York-headquartered financial services giant "provided and pulled the levers through which recruiters and victims" of the late Epstein were paid.

On Sunday, Virgin Islands Governor Albert Bryan confirmed that George had been removed from the office amid reports he had been unaware of the lawsuit.

"I relieved Denise George of her duties as attorney general this weekend," Bryan said in a statement to media outlets, first published by The Virgin Islands Consortium. "Assistant Attorney General Carol Thomas Jacobs will serve as Acting Attorney General."

The website reported that people familiar with the situation said Bryan "had been frustrated" with George for some time and that her action against the bank was "the final straw."

"I thank her for her service to the people of the territory during the past four years as attorney general and wish her the best in her future endeavors," the governor said.

The US Virgin Islands consist of the neighboring islands of St John and St Thomas, and St Croix to the south, and 50 other surrounding minor islands and cays. They are located in the Caribbean east of Puerto Rico.

In the lawsuit filed against JPMorgan Chase, George alleged that "JP Morgan turned a blind eye to evidence of human trafficking over more than a decade because of Epstein's own financial footprint, and because of the deals and clients that Epstein brought and promised to bring to the bank."

"These decisions were advocated and approved at the senior levels of JPMorgan, including by the former chief executive of its asset management division and investment bank, whose inappropriate relationship with Epstein should have been evident to the bank."

"Human trafficking was the principal business of the accounts Epstein maintained at JPMorgan," the suit said, adding that "JPMorgan knowingly, negligently and unlawfully provided and pulled the levers through which recruiters and victims were paid and was indispensable to the operation and concealment of the Epstein trafficking enterprise."

The bank has yet to publicly comment on the lawsuit.

Epstein was a client of JPMorgan's high-end banking services for 15 years, a relationship that continued after his conviction in 2008 on two counts of soliciting prostitution from a teenage girl, The New York Times reported. The bank removed him as a client in 2013.

In November 2022, two of Epstein's victims filed a lawsuit against JP Morgan and Deutsche Bank accusing them of ignoring warning signs about Epstein sending underage girls and women to his private island, Little St. James Island, which he bought in 1998.

That lawsuit, which is cited and attached as an exhibit to the JPMorgan claim, was recently settled for \$105 million, plus half the proceeds of the sale of Little St. James Island, which is listed for \$55 million, the Virgin Islands Daily News reported.

George had spent time and Justice Department resources pursuing that suit against Epstein's estate, which claimed his attorneys and associates fraudulently obtained tax benefits from the Virgin Islands government through the Economic Development Authority, according to the newspaper.

The estate and its co-executors, Darren Indyke and Richard Kahn, have denied any allegations of wrongdoing.

The latest case that George filed against JPMorgan Chase has been marked as related to the proposed class-action lawsuits filed in the same court, also against JPMorgan Chase, and Deutsche Bank.

The lawsuits are pending before US District Court Judge Jed Rakoff and have been scheduled for trial in the Southern District of New York in the summer of 2023.

JPMorgan and Deutsche Bank filed motions Friday to dismiss the lawsuits.

"The time has come for the real enablers to be held responsible, especially his wealthy friends and the financial institutions that played an integral role," the plaintiffs' attorney Brad Edwards told The Wall Street Journal.

Epstein was 66 when he was found hanged in a federal detention center in Manhattan in August 2019 while awaiting trial on sex-trafficking and abuse charges. A medical examiner ruled his death was a suicide.

Epstein's former girlfriend and confidant Ghislaine Maxwell, 61, was sentenced to 20 years in prison in June after being convicted of sex-trafficking and abusing girls as young as 14.

UN chief welcomes truce agreement in Colombia

UNITED NATIONS — UN Secretary-General Antonio Guterres welcomed on Sunday the announcement of a six-month cease-fire between the Colombian government and five armed groups.

Colombian President Gustavo Petro announced on New Year's Eve bilateral cease-fire agreements with five rebel groups from Jan 1 to June 30, 2023, which he said can be extended depending on the progress of negotiations.

The cease-fire is a development that brings renewed hope for comprehensive peace to the Colombian people as the New Year dawns, said Stephane Dujarric, Guterres' spokesman, in a statement. "The secretary-general trusts that adherence to these commitments will reduce violence and the suffering of conflict-affected communities, while helping to build confidence in ongoing dialogues," Dujarric said.

The secretary-general reaffirms the support of the United Nations to Colombia's efforts to achieve full and lasting peace, the statement added.

Seeking 'total peace'

Petro announced on Twitter that he wants "total peace" in the country, with groups of the National Liberation Army, or ELN, the Segunda Marquetalia, the Central General Staff, the AGC and the Self-Defense Forces of the Sierra Nevada.

In a statement on Sunday, the government said the cease-fire would be monitored by the UN, Colombia's

human rights ombudsman and the Catholic Church.

Peace talks had been suspended under the government of former president Ivan Duque, but Petro resumed negotiations soon after taking office on Aug 7.

So far, negotiations with various armed groups, with a combined total of more than 10,000 fighters, have failed to end a spiral of violence engulfing the country. The Institute for Development and Peace Studies, or INDEPAZ, recorded nearly 100 massacres last year.

The ELN has been negotiating with the government since November. On Dec 19, it announced a unilateral cease-fire until Jan 2.

The government then called on other groups to join the truce.

The Segunda Marquetalia and Central General Staff have held separate exploratory talks with the government.

The government is offering the groups "benevolent treatment from the judicial point of view" in exchange for "a surrender of assets, a dismantling of these organizations and the possibility that they stop exercising these illicit economies," Senator Ivan Cepeda told Agence France-Presse.

Colombia has suffered more than 50 years of armed conflict between the state and various armed groups and drug traffickers.

Petro vowed to negotiate with all Colombian armed groups as part of his "total peace" policy when he took power last August.

AGENCIES—XINHUA

Long wait



Passengers wait for flight information at Ninoy International Airport in Metro Manila on Sunday. Thousands were stranded at Philippine airports after a "loss of communication" at the country's busiest hub in Manila. KEVIN TRISTAN ESPERITU / AFP

People always put first, diplomat says

In article, ambassador to UK details progress seen in COVID-19 response

By CHINA DAILY

China has always put people and their lives first as it tries to keep COVID-19 under control, and its recent optimization of response measures is based on the scientific assessment of the pandemic situation.

That's one of the key messages sent from Zheng Zeguang, China's ambassador to the UK, in a signed article in The Guardian, one of the mainstream media outlets in the country. The article, published on Dec 30, is titled "In China, Here is What We Want the West to Know about Our COVID Response."

Over the past weeks, Beijing has become the first city to go through the infection peak, and life and work are returning to normal in the capital, wrote China's top envoy in the UK.

"The COVID-19 in China is generally stable and controllable, and people are making plans to work, study and travel."

That's why the Chinese government has announced that, starting from Jan 8, COVID-19 will be managed with measures against Class B instead of the more serious Class A infectious diseases in accordance with the law, Zheng wrote.

He introduced new cross-border travel rules in the article. For visitors to China, no COVID-19 test will be mandatory upon arriv-

ant, and greatly reduced severe cases and mortality.

He detailed China's achievements in vaccine production and vaccination campaigns with statistics in the latter part of the article.

China's vaccine production capacity is 7 billion doses a year, covering inactivated vaccines, recombinant protein vaccines and adenovirus vector vaccines.

China has administered 3.4 billion doses of the vaccines, and 90 percent of people are fully vaccinated and 86 percent of those aged 60 and above are fully vaccinated. The booster shot is focused on strengthening the vaccination and health management of older people.

As the number of infections increases recently, some people have hoarded medicines as a precaution, resulting in some temporary shortages in certain locations.

"But generally speaking, supply is not an issue because of China's strong production capacity," the ambassador wrote.

As the COVID-19 situation in China continues to improve, the effects of policies to stabilize economic growth continue to emerge, and the exchange of Chinese and foreign personnel becomes easier, China's long-subdued consumer demand will be released, investor confidence will be boosted and the economy will rebound strongly, he wrote.

"This is good news for not just China but the entire global economy."

Scientific measures

Zheng said that with "effective, science-based and in line with China's national conditions" response policies, China has withstood the impact of five infection waves around the world, successfully avoided the widespread prevalence of the original strain and the Delta vari-

ant, and greatly reduced severe cases and mortality.

Meanwhile, the National Aerospace Development Administration will expedite efforts to launch the country's first military satellite at the earliest date possible "by pushing ahead with the full preparation for a reconnaissance satellite and its vehicle in progress at the final stage," the report said.

Early on Sunday, Pyongyang

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Crash injuries

A man cleans up at the site where a car collided with an ambulance near Goffingen in the German state of Baden-Wuerttemberg on Sunday. Two female paramedics were seriously injured in the head-on collision. THOMAS WARNACK / AP



DPRK calls for exponential increase in nuclear arsenal

SEOUL — The Democratic People's Republic of Korea calls for an exponential increase in its nuclear arsenal, the official Korean Central News Agency reported on Sunday.

The ongoing situation on the Korean Peninsula "highlights the importance and necessity of the mass production of tactical nuclear weapons and calls for an exponential increase of the country's nuclear arsenal," the KCNA reported, citing a report made by the country's top leader Kim Jong-un at the Sixth Enlarged Plenary Meeting of the Eighth Central Committee of the Workers' Party of Korea.

The report stressed the importance of bolstering the DPRK's

nuclear force, and made clear that the nuclear force "considers it as the first mission to deter war and safeguard peace and stability."

A task was also raised to develop another intercontinental ballistic missile system with its main mission to have a "quick nuclear counterstrike," the KCNA said.

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Early on Sunday, Pyongyang

fired a rocket shell toward the eastern waters.

A long-range artillery subunit in the western area of the Korean People's Army conducted the firing, using a super large multiple rocket launcher, the KCNA reported.

The firing came a day after the DPRK conducted a test of the weapon systems on Saturday.

The KCNA praised the combat performance of the rocket launchers, saying the three shells fired by the launchers on Saturday had precisely hit a target island in the eastern waters.

The Republic of Korea and the United States are discussing possible joint planning and exercises

EU looking to ensure renewables policy edge

By JULIAN SHEA in London
julian@mail.chinadailyuk.com

The European Union is reportedly planning to overhaul the 27-member bloc's energy market to give greater priority to renewable energy sources, despite suggestions that this could hamper investment in wind and solar.

Currently, a system called merit order puts renewable and nuclear power as priority sources of energy, ahead of gas and coal, but the final price, set by the generator, is pegged to the most expensive fuel source, which at the moment is gas.

This means that renewables, which have lower individual production costs, end up having to share the price burden of more expensive fossil fuels.

The energy supply crisis of the last 12 months has pushed up consumer bills, and with more difficulties forecast over the coming year, France and Spain have led calls for the system to change and bring down prices.

EU Energy Commissioner Kadri Simson admitted that the EU's executive arm, the European Commission, has been under "very strong political pressure" to make changes.

"We are working under extraordinary circumstances and delivering (reforms) faster than the commission usually does," she was quoted as saying by the Financial Times, adding that a clearer proposal was likely to emerge by the end of March.

Limitations exposed

As far back as August, European Commission President Ursula von der Leyen tweeted that skyrocketing electricity prices are now "exposing the limitations of our current market design."

"It was developed for different circumstances. That's why we are now working on an emergency intervention and a structural reform of the electricity market," she tweeted.

European Commission figures showed that around 40 percent of European electricity production came from renewable sources in 2020, as opposed to around 36 percent of fossil fuels and 25 percent from nuclear.

Although the most simple solution would be to reduce demand to the extent that gas-fired production could be ruled out altogether, that is complicated over such a wide-ranging area with such diverse demands.

Simson said the commission wants to enable consumers to have access to the "benefits of a larger share of renewables", but industry figures have warned that interfering with existing arrangements and long-term contracts, including deals known as power purchase agreements, at such a delicate time in the energy sector may end up making renewables less economically attractive.

Nick Keramidis, regulatory affairs director at Greek metallurgy company Mytilineos, told the FT that PPAs were huge deals made based on long-term security, and to make secure investments, "you need to make sure the market fundamentals will ... not change".

XINHUA—AGENCIES

WORLD

Musk sees US meddling in social media as rife

By XINHUA

After a series of "Twitter Files" over the weeks disclosing the United States government's involvement in the social media company's content moderation, the latest installment came as Twitter owner Elon Musk said last week that the same is happening in "every social media company".

"Google frequently makes links disappear, for example," said Musk, who purchased Twitter two months ago and later decided to release the Twitter Files, namely internal documents such as emails and chat logs between employees.

He made the claims in response to Matt Taibbi, one of the freelance journalists to whom Musk gave the files exclusively to delve into and publish excerpts and their findings on Twitter.

As the massive files unfold how Twitter handled high-profile events like the 2020 presidential election, the Jan 6 Capitol riot and the COVID-19 pandemic, US government agencies such as the FBI and the Department of Homeland Security are reported to have long and deep involvement in Twitter's content moderation.

Dubbing Twitter "the FBI subsidiary", Taibbi said the FBI, with "constant and pervasive" contact with Twitter, gave the platform "a surprisingly high number" of requests to take action on "election misinformation", even involving joke tweets from low-follower accounts.

Agencies like the FBI and the DHS regularly send social media content to Twitter for moderation, he added.

The FBI also pushed Twitter to suppress a news story about the lap-top of Hunter Biden, son of then-presidential candidate Joe Biden, during the 2020 election by warning it could be part of a Russian trick, said Michael Shellenberger, another journalist with access to the files.

In a statement, the FBI said: "It is unfortunate that conspiracy theorists and others are feeding the American public misinformation with the sole purpose of attempting to discredit the agency."

Taibbi revealed on Dec 25 that the US government was "in constant contact not just with Twitter, but with virtually every major tech firm", including Facebook, Microsoft, Verizon, Reddit and Pinterest.

'Formalized' censorship

The interference may not be an incident, but a result of institutionalized government censorship. An October report by news site The Intercept has found that government officials directly flag content on Facebook or Instagram through "a formalized process", and request that it be throttled or suppressed.

In the coming years, the DHS plans to target information it deems "inaccurate" on topics including the origins of the pandemic, efficacy of vaccines, racial justice, the US withdrawal from Afghanistan and US support for Ukraine, the report said, citing a leaked draft copy of the DHS.

The "inaccuracy" identification may provide a broad opening for DHS officials to "make politically motivated determinations about what constitutes dangerous speech", the authors said.

"Behind closed doors, and through pressure on private platforms, the US government has used its power to try to shape online discourse," said the report, which analyzed years of internal DHS documents.

Briefly

INDIA
Court upholds legality of 2016 currency ban

India's top court ruled on Monday that the government's surprise decision in 2016 to demonetize high-value bills was legal and taken after consultation with India's central bank. In November 2016, Prime Minister Narendra Modi made a surprise TV announcement that all 500-rupee and 1,000-rupee notes would be withdrawn immediately from circulation. The government defended the decision by saying it would root out illegally hoarded cash, fight corruption and crack down on money laundering and ter-



Supporters cheer Brazil's new President Luiz Inacio Lula da Silva during his inauguration ceremony at Planalto Palace in Brasilia on Sunday. CARL DE SOUZA / AGENCE FRANCE-PRESSE

Returning Lula vows to reunify Brazil

BRASILIA — Luiz Inacio Lula da Silva took office on Sunday for a third term as Brazil's president, vowing to fight for the poor and the environment and "rebuild the country" after the divisive administration of his predecessor Jair Bolsonaro.

The 77-year-old veteran politician, who previously led Brazil from 2003 to 2010, took the oath of office before Congress, capping a remarkable political comeback for the metalworker-turned-president less than five years after he was jailed on convictions related to alleged corruption. The Supreme Court quashed his convictions in 2021, ruling the lead judge in the case had been biased.

Foreign dignitaries including 19 heads of state were in attendance at the ceremony.

They included the presidents of a raft of Latin American countries, Germany, Portugal and the king of Spain.

At the invitation of the Brazilian government, Chinese Vice-President Wang Qishan, as President Xi Jinping's special representative,

also led a delegation to Brazil for the inauguration.

In Brasilia, a sea of red-clad supporters braved the scorching heat to flood the city, exuberantly cheering the new president — popularly known as Lula — as he was driven through the ultramodern capital in a black convertible Rolls-Royce.

"I'm excited beyond measure," retired teacher Zenia Maria Soares Pinto, 71, said after traveling 30 hours by bus from the southern state of Santa Catarina. "I have so much admiration for his humility, his commitment to ensuring the people live in dignity."

Urgent challenges ahead

Giving a blistering overview of the past four years under Bolsonaro, who snubbed the ceremony in a break with tradition, Lula said his government would work to undo a legacy of economic decline, surging poverty and funding cuts in health, education and science.

"Upon these terrible ruins, I pledge to rebuild the country, together with the Brazilian people,"

he said, vowing to fight for poor Brazilians, racial and gender equality, and zero deforestation in the Amazon rainforest, where destruction surged under Bolsonaro.

The swearing-in began with a minute of silence for Brazilian football legend Pele and former pope Benedict XVI, who both died in recent days.

Lula was then driven from Congress to the Planalto presidential palace where he received the presidential sash from eight citizens selected to represent the people.

An emotional Lula broke down in tears, thanking the Brazilian people for their faith in him and vowing to fight for a more just country. He also extended an olive branch to the many Brazilians who did not vote for him in the election, which he won by a razor-thin 50.9 percent to Bolsonaro's 49.1 percent.

"I will govern for all 215 million Brazilians," he said. "There aren't two Brazils. We are one country, one people."

XINHUA—AGENCIES

Ukraine faces grim start to 2023 amid strikes

KYIV — Several waves of Russian drones targeted critical infrastructure in the Ukrainian capital Kyiv and surrounding areas on Monday, Ukrainian officials said as Moscow extended its special military operation into the second day of 2023.

Ukrainians cheered from balconies as their air defenses blasted some Russian missiles and drones out of the sky in the first hours of the New Year.

Ukrainian forces shot down 45 drones fired by Russia on the first night of the year, President Volodymyr Zelensky said on Sunday.

In a stern New Year's speech, Russian President Vladimir Putin signaled no letup in the assault, Reuters reported.

"The main thing is the fate of Russia," Putin said in a New Year's Eve speech to a group dressed in military uniform, instead of the event's normal backdrop of the Kremlin walls.

"Defense of the fatherland is our sacred duty to our ancestors and



Kyiv residents clear away debris after rocket attacks in the Ukrainian capital on Sunday. DANYLO ANTONIUK / GETTY IMAGES

descendants. Moral, historical righteousness is on our side."

The Russian Defense Ministry said it had targeted production, storage and launch sites of Ukrainian drones with long-range missiles on New Year's Eve.

Meanwhile, NATO Secretary-General Jens Stoltenberg said on Sunday that the Western military alliance's 30 members need to "ramp up" arms production in the coming months to maintain their own stockpiles and to keep supplying Ukraine with weapons.

Since October, Russia has launched mass missile and drone attacks on Ukraine's energy infrastructure, casting cities into darkness and cold as winter sets in.

In Russia's Bryansk region bordering Ukraine, a Ukrainian drone attack damaged a power supply facility, the regional governor said on Monday, adding that there were no casualties.

Troops toasted the new year on the front line in Donetsk. One soldier, Pavlo Pryzhehodskiy, played on the guitar a song he had written after 12 of his comrades were killed in a single night.

"It is sad that instead of meeting friends, celebrating and giving gifts to one another, people were forced to seek shelter. Some were killed," the 27-year-old soldier told Reuters.

"It is a huge tragedy. It is a huge tragedy that cannot ever be forgiven. That is why the New Year is sad."

AGENCIES—XINHUA

Xi's address conveys hope, confidence

China will continue to inject positive energy into globalization, observers say

By ZHANG CHI in Nairobi, Kenya and CHEN YINGQUN in Beijing

The New Year speech of President Xi Jinping on Saturday showed China's remarkable achievements in the past year, conveyed hope and injected positive energy into promoting the healthy development of globalization, international observers have said.

Dennis Munene, executive director of the China-Africa Center at the Africa Policy Institute, said the speech was full of hope for a better future. While Xi acknowledged the challenges faced in the ongoing COVID-19 pandemic and various natural disasters such as earthquakes and floods, China continues to brim with vigor and vitality.

He noted that Xi reaffirmed China's commitment and gains in poverty elimination and advances in rural revitalization. To achieve the tremendous "miracle" of lifting more than 800 million people out of extreme poverty, China introduced tax and fee cuts to ease the burden on businesses and solved the most pressing needs of its people.

"Thus, Africa needs to borrow this lesson from China on promoting ease of doing business and reducing the exorbitant taxes currently burdening the investors to foster regional reintegration and ensure the success of the African Continental Free Trade Area," Munene said.

Moreover, Xi reminded the youth to nurture enterprise skills and live their youth with great drive to prove worthy of the times and splendor of the youth, while keeping their country in mind.

"This will help them avoid any negative influence or being used by proponents of instability who want to destabilize global peace and stability," he said. "Indeed, President Xi through his speech shows his statesmanship and foresight, and 2023 will be a year of growth and sustainable development in all aspects for the Chinese people and the world at large."

Nigerian scholar Kayode Ogunbunmi said President Xi's speech is both a fitting tribute to the illustrious past leaders of modern China and an exhortation to present leaders and the youth to uphold the legacy of modernization and all-encompassing prosperity and poverty reduction.

"In other words, as President Xi stated, the main task at the moment is the advancement of the rejuvenation of the Chinese nation on all fronts through a Chinese path to modernization," Ogunbunmi said.

Ogunbunmi also said Xi laid out several broad road maps for the Chinese nation as it engages the rest of the world with a mutually beneficial, win-win framework. Among these is the need for China to continue to play to its strengths to sustain long-term growth plans. Despite headwinds such as the



Africa needs to borrow this lesson from China ... to foster regional reintegration and ensure the success of the African Continental Free Trade Area."

Dennis Munene, executive director of the China-Africa Center at the Africa Policy Institute

pandemic, natural disasters, instability in major trading zones across the world and increasing protectionism in the West, China continues to become stronger.

Xi's address also contains a message of goodwill to all, including both China and foreign nations. While recognizing the multiplicity of views in a country of 1.4 billion people, he emphasized the importance of building consensus through communication and consultation, Ogunbunmi said.

Own modernization path

China's strength, Ogunbunmi said, comes from its unity and this is aptly demonstrated in the relationship between the Chinese mainland and the Hong Kong and Macao special administrative regions. Xi also noted that people on both sides of the Taiwan Straits are members of one and the same family.

Ang Teck Sin, a political commentator in Singapore, said Xi's New Year speech was warm, powerful, hopeful and inspiring. He said it touched on China's remarkable achievements and once again demonstrated the firm determination of the country to pursue a Chinese path to modernization through its own efforts, adding that China has injected positive energy into promoting the healthy development of globalization.

After listening to Xi's New Year speech, Serik Korzhumbayev, editor-in-chief of the Delovoy Kazakhstan newspaper, said the achievements of the Chinese people in 2022 were remarkable.

Against the backdrop of the pandemic, China has optimized and adjusted its prevention and control measures in light of the time and situation, putting its people first and protecting their lives and health to the greatest extent, and ensuring economic and social development, he said.

Xinhua contributed to this story.

Contact the writers at zhangchi@chinadaily.com.cn.

CHINA DAILY USA

NEW YORK HEADQUARTERS

1500 Broadway, Suite 2800,
New York, NY 10036

Telephone: 212-537-8888

Fax: 212-537-8898

editor@chinadailyusa.com

readers@chinadailyusa.com

Subscription: 212-537-8899

Advertising: 212-537-8916

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WASHINGTON

National Press Bldg, Suite 1108 529 14th Street

NW

Washington, DC 20045

Tel: 202-662-7249

Fax: 202-662-7247

SAN FRANCISCO

235 Montgomery Street, Suite 900

San Francisco, CA 94104

Tel: 415-348-8288

Fax: 415-348-8388

SEATTLE

800 Fifth Ave, Suite 4100

Seattle, WA 98104

Tel: 206-922-2868

HOUSTON

1001 South Dairy Ashford Suite 100

Houston, TX 77077

Tel: 713-595-7660

CANADA / TORONTO

471 Yonge Street, 10th Floor

Toronto, Ontario, M2N 6K3

Tel: 416-481-5706

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BUSINESS

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Huawei confident of turnaround this year

By MA SI
masi@chinadaily.com.cn

Huawei Technologies Co will endeavor to turn 2023 into a period of fresh growth opportunities warranting a business-as-usual approach in spite of the US government restrictions, its executives and industry observers said.

The Chinese tech major, they believe, has succeeded in pulling itself out of a "crisis" by ensuring its revenue remained flat when it could have easily declined in 2022 due to a variety of odds.

That in itself is a sort of achievement, which seems to suggest the impact of Washington's restrictions on Huawei's sales has started to wane amid the Chinese company's progress in finding new growth streams, experts said.

This year, the global tech industry is expected to face challenges like weak demand, which might weigh on many companies' performance, they said.

Xu Zhijun, rotating chairman of Huawei, said in a letter to the employees that preliminary data showed that the company's revenue in 2022 was 636.9 billion yuan (\$91.53 billion). The number is fractionally higher than the corresponding 2021 figure, yet marks a big turnaround from the nearly 30 percent year-on-year sales tumble in 2021 due to the US sanctions.

Xu said, "In 2022, we successfully pulled ourselves out of the crisis mode. US restrictions are now our



A Huawei smartphone shop in Changzhou, Jiangsu province. WANG QIMING / FOR CHINA DAILY

new normal, and we're back to business as usual."

He did not divulge Huawei's profit figures. The company typically discloses its full annual results in the following year's first quarter.

According to Xu, looking to 2023, the macroeconomic environment may be rife with uncertainty, but what the company can be certain about is that digitalization and decarbonization are the way forward. The two fields embody future opportunities.

"We need to double down on our commitment to building the foundations of the digital economy and to driving green and sustainable development," Xu told Huawei staff members in his letter.

Specifically, Huawei will maintain heavy investment in research and development, ensure high-quality products and services in its output, leverage a diverse business portfolio, cultivate strong business

resilience for growth, and press ahead with organizational transformation, Xu said.

Xiang Ligang, director-general of the Information Consumption Alliance, a telecom industry association, said ever since the US government placed tough restrictions on Huawei in 2019, the company had been working hard to reduce the negative impact on its revenues.

To that end, the company has been exploring new lines of business. Huawei's efforts include forays into smart car technologies, cloud computing, digital energy solutions and enterprise-oriented businesses. "These efforts have started to pay off," Xiang said.

According to Xu from Huawei, in 2022, the company's information communications technology infrastructure business maintained steady growth, and the decline in its device business has abated. Meanwhile, Huawei achieved rapid

growth in its digital power and cloud computing businesses.

Data from the market research company Omdia showed that shipment of Huawei's smartphones reached 8.6 million units in the third quarter of 2022, up 48 percent year-on-year — a big reversal of the sales plunge in 2021.

Ma Jihua, a veteran tech industry analyst, said Huawei's 2022 revenue level still remained well below its record \$122 billion in 2019, when the company was at its peak as the world's top Android smartphone maker.

"But Huawei started to bounce back," Ma said. "This year, however, the global tech industry is expected to face weak demand, which might affect its revenue."

Recently, global semiconductor companies such as Intel and Qualcomm, and electric carmaker Tesla, have all faced problems like high inventories.

Policy tools to be better used for growth

Deficit-to-GDP ratio may need to be lifted to ease financing burdens

By ZHOU LANXU
zhoulanxu@chinadaily.com.cn

Ramped-up fiscal spending is likely to play a key role in expanding domestic demand and powering China's economic recovery in the new year amid a rise in external headwinds, experts said.

It is necessary to further tap into government spending for growth stabilization as a global economic slowdown could weigh on the country's export growth while the real estate sector is still in the process of bottoming out, said Wang Qing, chief macroeconomic analyst at Golden Credit Rating International.

As downward economic pressure could peak early this year, the country is expected to front-load fiscal support and help achieve double-digit growth in infrastructure investment in the first quarter, funded by local government special bonds and lending from policy banks, Wang said.

His views echo the commitment made by the Ministry of Finance to "appropriately expand fiscal spending" this year as it aims to provide "more direct and effective" fiscal support for economic recovery.

"We will appropriately expand fiscal spending by optimizing the tool kit including fiscal deficit, local government special bonds and interest subsidies to ensure funding support for major national strategic tasks," the ministry said in a statement on Thursday after holding a meeting to discuss fiscal work for 2023.

The ministry aims to strengthen the role of government investment in driving and guiding social investment, the statement said, with spending to be focused on the key areas of science and technology, rural vitalization, major regional strategies, education, people's basic living needs and green development.

Experts said the commitment to properly expand fiscal spending signals that the country might raise this year's deficit-to-GDP ratio while leveraging innovative policy tools to gain more policy leeway.

It might be sensible for the country to set this year's deficit-to-GDP ratio at about 3.0 percent, up by 0.2 percentage point from last year, to strengthen support for the recovery in domestic demand, analysts at Chasing International Economic Institute said in a note.

Meanwhile, policy-based financial instruments and interest subsidies — which feature higher flexibility and more coordination with monetary policy compared to traditional fiscal tools — are expected to see wider utilization and play a bigger role in boosting investment and economic restructuring, they said.

Apart from stressing the role of government spending, the ministry also vowed in the statement to improve the policy on tax and fee cuts to alleviate difficulties facing enterprises, continuously expand transfer payments to local governments and step up efforts to stabilize foreign trade and investment while promoting a recovery in domestic consumption.

Corporate governance of local government financing vehicles will be improved to better resolve the risk of implicit debt, the ministry added.

Monetary policy is also poised to strengthen support for economic recovery as the People's Bank of China, the country's central bank, said it will step up the implementation of prudent monetary policy to stabilize economic growth, employment and price levels.

In the face of a volatile external environment and a foundation of domestic economic recovery that is not yet firm, the PBOC said it will strengthen cross-cycle and counter-cyclical adjustments and give play to the function of monetary policy tools on both the aggregate and structural fronts.

Efforts will be made to keep price levels generally stable amid the favorable conditions of the country's stable food output and energy market, the PBOC said on Friday in a statement after holding its fourth-quarter monetary policy committee meeting.

China-S.Korea trade ties seen benefiting everyone

By LIU ZHIHUA
liuzhihua@chinadaily.com.cn

Closer bilateral trade and economic relations between China and South Korea will benefit both countries and the rest of the world, especially as protectionism practised by some countries is jeopardizing global industrial and supply chains, experts said.

"China welcomes South Korean enterprises to increase their investment in China and expand industrial cooperation in fields like electronic information, automobile manufacturing, digital economy and green development, so as to take the complementary advantages between China and South Korea and their win-win cooperation to a higher level," said Bi Jingquan, executive vice-chairman of the China Center for International Economic Exchanges.

Bi made the remarks at the opening ceremony of the recent third round of a dialogue involving entrepreneurs from the two countries and former high-level officials.

The two countries are expected to speed up the second phase of their free trade agreement or FTA negotiations, make good use of the opportunities brought by the

Regional Comprehensive Economic Partnership agreement, which took effect on Jan 1 last year, and co-develop third-party markets, he said.

Through such efforts, the two countries can jointly ensure the safety and stability of the global industrial and supply chains, and inject new impetus into regional development and prosperity, he said.

China is South Korea's largest export market and the largest source of imports as well. Official Customs data showed bilateral trade between China and South Korea exceeded \$360 billion in 2021, or 72 times that of 1992, when the two countries established diplomatic relations. During a certain period, China was South Korea's largest trading partner for 18 successive years.

Investment from South Korea in China increased more than 106 percent year-on-year during the first 10 months of 2022, according to the Ministry of Commerce.

Analysts said the two countries had benefited from their complementary trade relations in the past, and their strengthening industrial and supply chain coordination and cooperation, particularly in the semiconductor industry, will bring more opportunities for all.

China has reiterated on different occasions that it is willing to work with other countries to jointly ensure the safety and smooth operations of global industrial and supply chains and safeguard the international free trade system.

Yoo Il-ho, former deputy prime minister of South Korea, said while the COVID-19 pandemic destabilized the global industrial chain, some developed countries have been creating trade barriers under the guise of protecting high-end industries and technologies.

That, together with the increase in prices of energy and resources, and the worsening of climate change, have created new challenges for both China and South Korea. So, both countries should see each other in a more positive light, because they can benefit from each other's development, he said in response to Bi's remarks at the dialogue.

Facing disruptions from some countries on global coordination in the semiconductor industry, China and South Korea should pay attention to market needs and make decisions based on economic rather than political factors, in order to establish new focus, patterns and mechanisms for cooperation in the field, and to enhance the conditions for manufacturing and innovative services in the industry, said Zhou Mi, a senior researcher at the Chinese Academy of International Trade and Economic Cooperation, an affiliate with the Ministry of Commerce.

"As the Chinese economy transforms and upgrades, China and South Korea may have competition in some areas like shipbuilding, household electronics and mechanical and electrical products, but healthy competition is good for countries to enhance cross-border industrial and supply chain cooperation," Zhou said.

"More importantly, as their industrial and supply chains further integrate under the free trade agreement arrangements, the two countries will be able to tap new growth opportunities and intensify cooperation on developing third-party markets."

Yoo said as economic cooperation between China and South Korea matures, fair and fierce competition in various fields will be inevitable and ought to be expected. It is necessary for the two countries to cooperate based on their comparative advantages formed through competition, and achieve quality growth.

Briefly

Beijing-Shanghai line hub renovated

The renovation project of Suzhou Station, an Anhui province railway hub along the key Beijing-Shanghai railway line, has been completed and the station officially resumed operations. As one of the project's contractors, China Railway 24th Bureau Group Corp Ltd, a unit of China Railway Construction Corp, overcame challenges such as pandemic control measures, land requisition and demolition work to finish duties four months in advance.

Software sector sees robust revenue growth

China's software industry expanded rapidly in terms of business revenue in the first 11 months of 2022, according to official data. Total revenue stood at nearly 9.47 trillion yuan (\$1.36 trillion) during this period, up 10.4 percent from the same period of the previous year, data from the Ministry of Industry and Information Technology showed.

XINHUA - CHINA DAILY

Local brands revving up electric vehicle sector

By LI FUSHENG
lifusheng@chinadaily.com.cn

Chinese automotive brands, especially electric vehicle brands, are seeing their popularity soar, overshadowing foreign car manufacturers in the world's top auto market.

Analysts said the growing appeal of Chinese brands is boosted by their swifter moves in terms of smart electrification.

China's leading electric carmaker Nio, which positions itself as a rival to BMW, sold 122,000 vehicles last year, up 34 percent year-on-year.

Late last month, Nio unveiled two new models with the latest microchips and a number of sensors as well as the company's latest battery swap technology.

They are expected to help the company to outsell Toyota's premi-

um brand Lexus in China this year, said Nio Chairman William Li.

Aion, the EV arm of State-owned GAC Group, sold 271,000 units in 2022, up 126 percent year-on-year. Aion recently unveiled its Hyper GT sedan, which it expects to rival Tesla's Model 3.

BYD, which ended sales of gasoline-powered cars in 2022, is now the world's largest new energy vehicle maker.

The Shenzhen, Guangdong province-based NEV enterprise expects its sales in 2022 to reach 2 million units. In the first 11 months of 2022, its sales totaled 1,628,297 units, up 219.4 percent on a year-on-year basis.

China's NEV sales have pushed up the market share of local brands, according to the China Association of Automobile Manufacturers.

In the first 11 months of 2022,

sales of Chinese branded electric and gasoline-powered vehicles totaled 10.48 million units, up 24.2 percent year-on-year.

Local brands enjoyed a 49.2 percent share of the Chinese market from January to November, up more than 5 percentage points compared with the same period in 2021.

Chinese car buyers used to prefer foreign brands, but makes and models are not as important for electric car buyers as they are for people purchasing gasoline-powered cars, said Bill Peng, a McKinsey partner.

The rising trajectory of Chinese brands started around 2020, when they accounted for less than 40 percent of the market.

Their popularity has since been on the rise, while foreign brands are losing ground, as they have been slow to introduce electric models.

Japanese carmaker Nissan sold 835,388 vehicles under its Nissan, Venucia and Infiniti brands in China in the first 11 months last year, down 19.1 percent year-on-year.

Nissan launched electric model Ariya in China in late September. Some 387 units were sold in November.

Other major foreign brands have also been slow to electrify. Toyota's first EV in China came in 2022, and Ford has just one electric model in the Chinese market.

Yang Jing, a partner at Fitch Ratings, said Chinese brands are dominating the NEV segment and are thus defining the expectations of local customers, who already feel that foreign brands are lagging in the segment.

Statistics from the China Passenger Car Association show that 12 out of the top 15 NEV brands making



A production line of Nio in Hefei, Anhui province. XIE CHEN / FOR CHINA DAILY

cars in China in the first 11 months last year were Chinese. The three exceptions were Tesla and Volkswagen's two Chinese joint ventures. Chinese NEVs are helping improve the competitive edge of local carmakers.

J.D. Power China's findings in 2022 showed that 53 percent of respondents said they would choose Chinese vehicles, and 67 percent of those who currently drive them said they would choose Chinese brands again.

BUSINESS

Maoming East-Bohe Port freight line starts operating

By HAN JINGYAN
and ZHUANG QIANG

The nation sees its efforts in infrastructure bearing fruit as a new freight rail line was put into operation recently.

As a key part of the infrastructure projects listed on Guangdong's 14th five-year plan (2021-25), the Maoming East-Bohe Port Railway started operating on Saturday, said China Railway 24th Bureau Group Corp Ltd (CR24), a unit of the centrally administered State-owned enterprise China Railway Construction Corp.

The official opening of the new railway marks the efforts by the SOE to play a bigger role in the Belt and Road Initiative, said CR24, which partially built the freight line.

As a key logistics route connecting inland regions in Southwest China with coastal areas, the railway will further facilitate the role that Maoming Port plays in sea-rail intermodal transport services and provide the port with a high-capacity channel for the entry and departure of cargo, said China Railway Guangzhou Group Co Ltd, the provincial rail operator in Guangdong.

The railway will also exert great force in pushing for Maoming and its surrounding area's integration into the Guangdong-Hong Kong-Macao Greater Bay Area, improve connections between international and domestic trade routes and contribute to better operation of the dual-circulation development pattern, said Tan Ying, project manager with CR24.

The railway has a total length of 49.84 kilometers and a designated speed of 120 kilometers per hour with three stations: Maoming East Station, Shuangmu Station and Bohe Port Station.

“Maoming is a coastal city and its port businesses play a major part in its economy. The railway project is a worthy effort by State builders to empower the city to attract more trade opportunities.”

Zhang Yejun, head of Maoming East-Bohe Port Railway Co Ltd

As a flagship project by Guangdong province for the railway construction goals indicated in its 14th five-year plan, the railway will also support Maoming's coastal development strategy, said Zhang Yejun, head of Maoming East-Bohe Port Railway Co Ltd, operator of the railway under the China Railway Guangzhou Group.

“Maoming is a coastal city and its port businesses play a major part in its economy. The railway project is a worthy effort by State builders to empower the city to attract more trade opportunities,” Zhang said.

Undoubtedly, the Maoming-East Bohe Port Railway, another project supporting the BRI, is bound to bring long-term benefits to the development of not only the region but also the country and its trading partners, he added.

Contact the writers at
hanjingyan@chinadaily.com.cn



The first freight train departs from Bohe Port station for Maoming East station in Guangdong province, on Saturday.
PROVIDED TO CHINA DAILY



An employee works at a smart production facility in Tianjin in June. ZHAO ZISHUO / XINHUA

Digitalization gaining ground in China on wider application

IDC: Investment from Chinese firms into digital solutions to boom in next 5 years

By FAN FEIFEI
fanfeifei@chinadaily.com.cn

Chinese enterprises' expenditures on digital businesses will witness speedy growth in 2023, as cutting-edge digital technologies, such as 5G, artificial intelligence and cloud computing, have been increasingly applied into a wide range of fields and integrated with the real economy, according to market research company International Data Corp.

The digital transformation of enterprises will stand at an inflection point this year and the next five years will still be a golden period for pushing forward digitalization, IDC said, expecting more than 50 percent of the global GDP will be driven by digitally transformed enterprises in the next five years.

“Chinese companies' investment in digital transformation is expected to quadruple its economic growth in 2023, with the compound annual growth rate of digital business expenditures reaching 19.1 percent between 2023 and 2026,” said Wu Lianfeng, IDC China vice-president and chief research analyst.

Wu said by 2027, 40 percent of the

total revenue for China's top 2,000 companies will be generated by digital products, services and experiences, while the current figure stands at less than 20 percent.

Spending on digital technologies will still be the key focus of both global and Chinese company executives. The number of technology enterprises among China's top 500 companies will double by 2027. In addition, by 2024, 40 percent of CEOs from China's top 2,000 companies will ink strategic relationships with their cloud computing service providers, according to IDC.

The proportion of enterprises' expenditures in software as a service, or SaaS, business across the globe is likely to surpass 50 percent in total expenses. By 2026, enterprises that fail to effectively address the talent and digital skills gap in their organizations will constrain revenue growth opportunities by 20 percent.

With the blossoming of 5G, big data, AI and other innovative digital technologies, the digital economy is gradually becoming the integral driving force for economic growth.

The scale of China's digital econ-

omy reached 45.5 trillion yuan (\$6.6 trillion) in 2021, ranking second in the world and accounting for 39.8 percent of the country's GDP, according to a white paper released by the China Academy of Information and Communications Technology.

Enterprises in the fields of finance, telecommunications and the internet have taken the lead in digitalization and invested heavily in digital technologies, Wu said, adding that governments around the world have attached great significance to digitalization.

Digital transformation is also accelerating in the new retail, high-tech manufacturing and transportation sectors, and there is huge room for growth in agriculture, Wu said.

Last January, the State Council, China's Cabinet, announced a plan to further promote the development of the digital economy during the 14th Five-Year Plan period (2021-25). The country aims to raise the proportion of the added value of core digital economy industries in its GDP to 10 percent in 2025, according to the plan.

Wu also pointed out that Chinese enterprises are facing mounting difficulties and challenges in the process of digital transformation, such as a lack of innovation and collabo-

ration among various departments of enterprises, budgetary shortfalls and inadequate skills. He called for enterprises to come up with long-term plans for digital transformation and continuously pour money into this field.

The digitalization of enterprises serves as the cornerstone of the digital economy, said Li Wei, deputy head of cloud computing and big data research at the CAICT, adding that the COVID-19 pandemic has accelerated the development of cloud services and cloud computing applications, which has played a vital role in bolstering the development of the digital economy.

Enterprises should speed up the pace of digital transformation, concentrate on consumers' requirements, and integrate online and offline channels, as well as promote the transformation and upgrading of traditional industries, Li said.

Xiang Ligang, director-general of the Information Consumption Alliance, a telecom industry association, said emerging digital technologies represented by 5G, big data and AI have played a critical role in enhancing operational efficiency, cutting costs and improving the core competitiveness of traditional industries amid downward economic pressure.

Fintech biz gains popularity among global investors

By JIANG XUEQING
jiangxueqing@chinadaily.com.cn

The global fintech market attracted nearly \$220 billion of investment in 2022, of which technologies related to payments, cryptocurrencies, banking services, and asset and wealth management contributed nearly 80 percent, said global management consulting firm McKinsey & Company.

There were several changes to trends in financial technology investment. The amount of money raised in a Series D funding round or later rounds accounted for nearly 65 percent of the total last year, up from about 35 percent in 2020, signifying that investors paid more attention to business and monetization models than fresh ideas, said McKinsey in a recently published report.

While the majority of fintech investment came from Europe and North America, which contributed 72 percent of the total last year, such investment increased rapidly in emerging markets. Asia saw an 18 percent growth year-on-year, higher than the 5 percent growth in Europe and North America during the same period.

Although private equity firms remained as primary fintech investors in 2022, their investment in this

field dropped by 14 percent year-on-year. At the same time, technology companies' investment in financial technologies increased significantly by 63 percent year-on-year, revealing their intention to open another front in the financial sector by making strategic investments, the report said.

McKinsey listed artificial intelligence, cloud computing, metaverse, blockchain and Web 3.0, next-generation communications, next-generation integrated development, and trust frameworks and digital identities as the seven technologies that will reshape the pattern of the financial sector in the future.

“These technologies will have a disruptive impact on financial institutions in various aspects, including marketing, product development and operational risk management. Financial institutions should continuously provide drivers for their business innovation and the development of the fintech ecosystem by building their own innovation incubators, joining hands with external agencies to develop fintech accelerators or establishing a fintech investment fund,” said John Qu, senior partner at McKinsey.

Large banks, insurers and securities companies have gradually turned from experimenting with

fintech applications to widely promoting the use of such applications, said Han Feng, partner at McKinsey.

“We believe that fintech applications will enhance the customer experience, foster product innovation and significantly improve business efficiency,” Han said.

Earlier this year, Industrial and Commercial Bank of China, the country's largest State-owned commercial lender by assets, launched a metaverse business hall in Xiong'an New Area of Hebei province.

Using the flagship business hall of ICBC as a prototype, it can provide an immersive experience and varied interactions with clients through the integrated adoption of digital twin modeling, content generation and intelligent interaction technologies.

The bank plans to expand the pilot program for the creation and operation of a metaverse business hall to its Beijing and Shanghai branches, said Jin Haimin, assistant general manager of the financial technology department at ICBC.

“We are exploring future application scenarios of the metaverse in the banking sector in a prudent manner, striving to seize the initiative in terms of technological innovation and the reform of business models,” Jin said. Many other banks listed in China

are also promoting digital transformation and deeper integration of business and technology.

China Construction Bank Corp continued to polish its expertise in technological capabilities by building platforms using artificial intelligence, big data, blockchain, the internet of things, mobile networks and agile development. The large State-owned commercial lender also independently developed blockchain technology and enhanced core technological capabilities to support key applications such as trade finance and cross-border payments, said the bank's 2022 interim report.

Bank of China, another large State-owned commercial lender, takes digital transformation as a strategic reform to continuously enhance its capabilities to serve the real economy, said Liu Jin, president of BOC, at the Annual Conference of Financial Street Forum 2022 in Beijing in November.

Liu advised financial institutions to deepen the application of technologies such as AI and IoT in environmental, social and governance activities to build targeted and effective evaluation models and launch new financial products, thus better meeting the demand for green finance.



An employee of Bank of Communications interacts with a smart robot promoting payment through digital renminbi during an expo in Beijing in September. JIN HAORYUAN / XINHUA

BUSINESSFOCUS



Zhao Ming, CEO of Honor, unveils the company's foldable smartphone Magic Vs in Shenzhen, Guangdong province, in November. PROVIDED TO CHINA DAILY

China foldables on rise, seek more global sales

Samsung still leads segment, niche market awaiting Apple's possible entry

By MA SI
masi@chinadaily.com.cn

Foldable smartphones are becoming a bright light in an otherwise cloudy smartphone market, and shipments of the handsets are expected to see continuous growth in the years to come, as more affordable models are rolled out to attract consumers, and foldable display technologies continue to mature, company executives and experts said.

The comments came as foldable smartphones are expected to see strong growth, with estimated annual shipments hitting 26 million units in 2023, according to market research company Counterpoint. The forecast is an extension of the robust trend seen in 2022, when the global foldable smartphone market was estimated to have grown 73 percent to 16 million units, from 9 million units in 2021. Jene Park, a senior analyst at Counterpoint, said the segment's strong growth defies current economic headwinds as the premium market shows resilience and steady demand.

On the significance of the foldables segment across the broader market, Park said: "Foldables bring not only fresh design to smartphones, but also more screen real estate. This is growing in importance with smartphone use expanding, especially across media, entertainment and work. Framing the growth in foldables, we see the premium market showing strong growth despite macro headwinds, with ultra-premium leading the segment."

Another market research company International Data Corp expects

foldable phone shipments to reach 41.5 million units in 2026, with a compound annual growth rate of 38.7 percent from 2021 to 2026.

The significant growth of the foldable market has been led by Samsung with its Flip and Fold lineup, IDC said, adding that it expects the updated models will outperform their predecessors and grab more consumer attention in the category.

The commercial segment of the market remains ripe for utilizing foldables as two-in-one devices that can replace both a phone and a tablet, IDC said, while highlighting that although it still believes this use case remains a low priority, falling prices and new business use cases make the idea more appealing moving forward.

Anthony Scarsella, research manager with IDC's worldwide quarterly mobile phone tracker, said the launch of the Galaxy Z Flip4 and Fold4 in the second half of 2022 once again shined a spotlight on the entire category as Samsung continues to be the gold standard for foldable devices in the market.

"The launches from Samsung have brought incremental but critical improvements over their predecessors. The success of these devices should be a strong indicator of how foldables will evolve and capture consumers moving forward," Scarsella said.

Samsung said in November that the number of Galaxy Z Fold and Galaxy Z Flip smartphones sold for enterprise use had more than doubled year-on-year. From January to October last year, the number of foldable smartphones Samsung contracted to enterprise customers increased by 105 percent compared with the same period in 2021.



A consumer experiences a Huawei foldable smartphone at an outlet in Chongqing in April. PROVIDED TO CHINA DAILY

“In the future, I believe that 20 to 30 percent of smartphones above 5,000 yuan will be foldable smartphones, and this proportion will grow over time.”

Zhao Ming, CEO of Honor

The ease of multitasking on a larger screen and the powerful app optimizations for foldable devices are helping drive adoption among enterprise users, Samsung said.

Galaxy Z Fold4's expansive screen offers a larger working area, well suited to make the most of features from desktop computers. The tool for juggling multiple tasks, pairs of apps and a PC-like taskbar, enables

users to manage, launch and switch between apps, all without interrupting work, Samsung said.

Chinese smartphone brands Oppo, Vivo, Huawei and Honor are stepping up their push to tap into the market. Since the end of 2021, Chinese phone companies have launched a series of foldable devices, which are key for them to expand their presence in the high-end phone segment.

Oppo, for instance, unveiled its latest flagship foldable smartphone Find N2 series in mid-December, as its latest push to tap into the burgeoning foldables segment.

Honor unveiled its latest foldable smartphone Magic Vs in November. Priced from 7,499 yuan (\$1,087) in China, the Magic Vs will be Honor's very first foldable flagship product to debut in overseas markets, said Zhao Ming, CEO of Honor.

Zhao said foldable smartphones, which have witnessed rapid growth among all handsets during the COVID-19 pandemic, are expected to continue their rise

in the coming years.

"In the future, I believe that 20 to 30 percent of smartphones above 5,000 yuan will be foldable smartphones, and this proportion will grow over time," Zhao added.

Vivo, the official smartphone sponsor of the FIFA World Cup Qatar 2022, also unveiled its latest foldable smartphone X Fold+ in September, which became the first official foldable smartphone in the 118-year history of FIFA. Vivo said its hinge allows the phone to fold flat or to be propped open at angles between 60 and 120 degrees, and the phone's screen should survive 300,000 folds.

Another smartphone brand Motorola, which is owned by Chinese tech company Lenovo, also made a big push with its foldable smartphone Moto Razr 2022. Starting from 5,999 yuan, it can be folded to the size of a wallet and fit in people's pockets or bags. Motorola said users can make video calls, send texts, take pictures and access their favorite apps without opening the foldable smartphone.

Huawei also unveiled its foldable smartphone Mate Xs2 earlier last year, which was the fifth generation of foldable smartphones it had unveiled in the past three years. The move was Huawei's latest push to revive its smartphone business, despite US government restrictions on the company.

In comparison to smartphone makers' optimism, industry analysts remain more conservative. "With almost 70 percent year-on-year growth estimated for foldables in 2022, the biggest question today is whether foldables will become mainstream anytime soon. Unfortunately, the answer is no," said Nabila Popal, research director with IDC's worldwide quarterly mobile phone tracker.

"To me, mainstream means volume, and volume is dominated by

cheaper, sub-\$400 phones. While it may be tempting for vendors to swoop in with lower selling prices to generate an initial boost in sales, I strongly believe that is not a good move — especially not at the expense of quality and user experience. Foldables should remain a niche and premium flagship device," Popal said.

According to her, vendors should focus on improving user experience, increasing confidence in the category and generating long-term growth.

"I believe foldables are the future of premium Android devices even if, as a whole, they are only expected to capture less than 3 percent of global volume by the end of our forecast period (2026)," Popal added.

The views were shared by Zaker Li, principal analyst with market research company Omdia's mobile devices team. Li said as more companies launch foldable smartphones, the diversity of designs and the use of new folding forms will increase.

However, since foldable smartphones are expected to occupy the highest position in the smartphone lineups of all manufacturers in the future, the possibility that foldable phones will become a mainstream market in the future is very low, according to Omdia.

Park from Counterpoint said three key things must happen before the foldable smartphone sector sees any significant sales volume, namely, significant price declines with flagships at around \$1,000-\$1,500, more vendor participants and Apple's entry into the space.

The first two points are happening. "The latter is an important milestone as Apple is known to be extra cautious on costs and component sourcing. A foldable iPhone is a nod to the robustness of the technology," Park added.

Local smartphone eyes bigger piece of key sector

By MA SI

Chinese tech company Oppo aims to compete with Samsung in the international market with its latest foldable smartphone Find N2 Flip as part of its broader push to expand its global presence.

The Find N2 Flip is a clamshell-style foldable that could pose a challenge to Samsung's Galaxy Z Flip4. Currently, clamshell-style foldables sell better than tablet-like foldables in overseas markets, which are attracting more smartphone vendors to tap into the segment, experts said.

The move also comes as Oppo has been working hard to beef up its technological prowess amid intensified competition and a larger market decline.

Pete Lau, senior vice-president and chief product officer at Oppo, said, "When facing the type of challenges that the technology indus-

try is currently coming up against, we believe that the only way forward is to continue innovating and breaking new boundaries."

According to Oppo, the Find N2 Flip, which was unveiled in China earlier in December, features a large external display, which measures 3.26 inches diagonally and can be used to show everything from the weather to notifications, as well as serves as a viewfinder for the camera. That's significantly larger than Samsung's 1.9-inch external display for the Galaxy Z Flip4.

Oppo says it's rated for 400,000 folds, which means that, by its estimates, the mechanism should last for 10 years if consumers fold and unfold it 100 times a day. It has an ultra-thin glass coating, which Oppo said could help with durability.

Li Mingyang, head of product innovation at Oppo, said the company has more than 240 patents in

the field of creases and hinges, which are important technologies for foldable smartphones and are just part of one corner of the company's technical moat.

As of September 2022, Oppo had filed patents in more than 40 countries and regions around the world, with more than 83,000 patent applications and 42,000 of them having been approved.

In China, Oppo has been among the top three enterprises in applying for invention patents for four consecutive years. In 2021, Oppo became the second most active Chinese patent applicant in Europe, behind only Huawei Technologies Co, according to the Munich-based European Patent Office. It was also one of several Chinese companies that made their way into the Top 50 in US patent rankings in 2021, data from US patent service provider IFI Claims showed.

The results came after Oppo doubled down on resources dedicated to R&D. Last year, it announced plans to recruit more than 2,000 R&D professionals, on top of its more than 10,000 existing R&D staff.

Chen Mingyong, founder and CEO of Oppo, said the company aims to be a tech pioneer through long-term R&D input. "We have the ability to sharpen the sword in 10 years. We will ramp up the push to build our technical moat."

Xiang Ligang, director-general of the Information Consumption Alliance, a telecom industry association, said even though Samsung's Galaxy Z Flip is one of the most commercially successful foldables, it is still plagued by a myriad of issues. It has a gap when folded, and the crease is still rather prominent.

The foldable form factor has been heralded as the new frontier in mobile technology, but the technology has recently been paralyzed by a



Consumers check out Oppo's foldable smartphone Find N2 Flip in Shenzhen, Guangdong province, in December. PROVIDED TO CHINA DAILY

certain degree of stagnation. If Samsung were to be challenged outside of China, that would help trigger more innovation, analysts said.

Oppo has also unveiled its mini notebook-like foldable smartphone Find N2 in China, but the company does not have an international

launch plan for the model yet.

That leaves Honor as the only Chinese smartphone maker who's committed to competing with Samsung's tablet-style foldables internationally in 2023 when it is scheduled to release its Magic Vs in overseas markets.

COMMENT

Editorials

Politicizing of pandemic continues with targeting of mainland travelers

Since the National Immigration Administration announced on Thursday last week that it will resume issuing passports for Chinese mainland travelers starting on Sunday, some countries, including the United States, the United Kingdom and Japan, have said they will carry out additional pandemic prevention and control measures, ranging from nucleic acid tests to quarantine, exclusively for arrivals from the mainland, citing pandemic prevention and control as the justification.

However, that does not hold water.

For one thing, as public health scientists from these countries, as well as those from the World Health Organization, have pointed out, the novel coronavirus variants appearing on the mainland so far are not new, and they have already appeared in these countries. And since new variants might emerge anywhere in the world, it begs the question why only arrivals from the mainland are subject to such measures.

The practice is pure discrimination.

Some China-bashers, particularly those in Washington who have always been the cheerleaders of and orchestrators of such discriminatory practices, will no doubt welcome such bigotry. To their delight, the practice portrays the Chinese mainland as a singular source of potential new virus variants, and thus a threat to the rest of the world.

Some apologists for the measures have claimed that it is no different than the rigorous policies for international arrivals enforced by Beijing over the past three years. But the argument that China is

stewing in its own juice does not stand scrutiny.

The mainland's strict virus control measures for international arrivals were an integral part of its overall pandemic prevention and control policy, which has been based on science and the fact that previous strains of the virus were more virulent and of greater concern, the vaccination rate in the country was low and death rate was high around the world. Despite that, the country acted as a logistics hub and manufacturing base for the rest of the world, providing other countries with life necessities and essential medical supplies when many had been forced to impose nationwide lockdowns.

These discriminatory practices targeting Chinese travelers are at odds with the welcomes their enterprises, business councils and tourism industries have extended to Chinese businesspeople and tourists, which highlights the political motivations behind the moves that will hinder international exchanges and lower the efficiency of the global supply chains.

If these countries really want to map and follow the influence of international travel on the spread of the virus, they should take advantage of their strengths in science, technology and capital and work together with the rest of the world, including China, to form a unified set of rules for virus control measures to be implemented for international travel.

That international travel protocol should be based on science and facts, rather than bias and politics, and it should serve the common good of the world, rather than a few politicians' narrow ends.

Sincerity of US key to better China relations

Communication was a key word in former Chinese ambassador to the United States Qin Gang's farewell talk on the phone with US Secretary of State Antony Blinken on New Year's Day.

Qin, who took up his new post as foreign minister last week, said he appreciated the several "candid, in-depth and constructive" meetings that he had had with Blinken during his tenure, and that he looked forward to continuing close working relations with the top US diplomat for better Sino-US relations in the future.

Blinken also remarked on the importance of the US and China maintaining open lines of communication during his talk with Qin.

Although their talk was more of diplomatic protocol than of practical meaning, it has still raised the hope that communication between the two sides can effectively contribute to putting bilateral ties back on a healthy development track.

That the new foreign minister was promoted directly from the post of Chinese ambassador to the US is a telling sign of the tremendous significance Beijing attaches to Sino-US relations, and that should also be a takeaway for the US side.

That Qin took every opportunity during his time as ambassador to promote people-to-people exchanges and mutual understanding between the two countries indicates that maintaining communication between the two countries will be high on his

to-do list in handling Sino-US relations.

However, those pinning hopes upon Qin using his open and friendly style to help thaw the icy state of the ties should not ignore his other side, as he has resolutely defended China's core interests and bottom line in dealing with the US when challenged in his interviews with US media outlets.

With the rebuilding of risk management and control mechanisms being an imperative and urgent task to handle the complicated relations between the two countries, Qin will undoubtedly show both sides of his style in his new role, as cordial by preference, and indurated by transgressions are defining features of Chinese diplomacy. The country is open to constructive and friendly exchanges and win-win cooperation, and it is dedicated to promoting the common interests of countries, but it will never allow its own core interests to be harmed or communication and cooperation to be conducted in an unfair and lopsided way.

Qin's familiarity with the US, his fluency in English and the connections he has established with various parts of US society, will be valuable assets for him to contribute to easing tensions in Sino-US ties. However, it should be borne in mind that the change of foreign minister on the Chinese side does not alter the fact that the crux of mending the Sino-US ties primarily lies with the US side stopping saying one thing and doing another.

Sino-French cooperation benefits all

French President Emmanuel Macron's planned visit to China early this year will certainly add momentum to the steady and sustained development of Sino-French relations and help inject stability in the world amid a fast-changing international landscape full of turbulences.

Chinese ambassador to France Lu Shaye expressed a warm welcome to Macron's upcoming visit in an interview with the media published on Sunday.

Macron has visited China twice since taking office in 2017, and has maintained regular communications with President Xi Jinping. The two leaders have spoken more than 10 times with each other over the past three years. They recently met in Bali, Indonesia, on Nov 15 on the sidelines of the G20 Summit, their first face-to-face meeting since the start of the pandemic.

All this attests to the great importance that the top leaders of both countries attach to their mutually beneficial relations. Indeed, the top-level planning the two countries have devised for their bilateral ties, with a view toward the future, will enable them not only to make continued progress in traditional areas of cooperation such as aviation and civilian nuclear energy, but also tap into the new fields of green energy and scientific and technological innovation. That China has entered a new stage of development marked by high-quality growth, with high-standard opening-up, will offer French enterprises and businesses from other countries new opportunities given the country's huge market.

Moreover, China and France, both permanent members of the United Nations Security Council, have expressed a shared sense of responsibility to uphold international economic and trade rules, and keep global industrial and supply chains stable. Their close communication and coordination will also have a direct bearing on the international efforts to tackle many of the thorny issues the world faces today such as climate change, biodiversity conservation and the food and energy crises.

There is still much room for improvement in terms of further promoting a comprehensive strategic partnership between the two countries. For example, although Sino-French trade increased more than 27 percent to reach \$85.1 billion in 2021, it was still only about one-third of the trade volume between China and Germany. There is no doubt that more potential will be released if France takes concrete steps to provide Chinese enterprises with a fairer and equitable business environment.

After all, France remains the No 1 destination for Chinese tourists in Europe, and a significant target for Chinese investment in the continent, ranking third after the Netherlands and Germany in 2021.

China-France relations have withstood the test of global changes and turbulence, maintained overall stability and showed a positive momentum of development. The upcoming visit of Macron to China will hopefully turn a new page for the further development of Sino-French ties.

Cai Meng



Opinion Line

Adjustment of tariffs signals further opening-up to world

The Customs Tariff Commission of the State Council, China's Cabinet, recently said the country has decided to adjust its tariff plan for 2023 and expand the number of tariff items in line with the need for industrial development and technical advancement.

The country began imposing a provisional import tax rate lower than the "most-favored nation" tariff rate on 1,020 items on Jan 1, also reducing tariffs to zero on ingredients of some anti-cancer and anti-COVID drugs. It also reduced the "most-favored nation" tax rate on 62 types of information technology products, according to a statement issued by the commission on Thursday.

China's overall tariff level will dip from 7.4 percent to 7.3 percent. To promote high-level opening-up, the

country must not only deepen the synergy of domestic rules, regulations, standards with international ones, but also make good use of the traditional tariff tool.

The tariff adjustment plan also shows China matching words with action in its plan to open up wider to the outside world. Despite major worldwide changes, and the challenges of protectionism and ever fiercer decoupling attempts, China will unswervingly open up wider to the outside world, and promote high-level opening-up. The latest tariff adjustment is a routine action, but the lower tariff rates China is expected to impose on more imported goods in the next few years will benefit more countries and groups.

Since joining the World Trade Organization, China's tariff level

has been decreasing. By 2010, the average tariff rate was down to 9.8 percent, fulfilling the tariff reduction commitments it made upon its accession to the WTO. By 2023, the country's average tariff will fall to 7.3 percent, a drop of 2.5 percentage points in the past 13 years.

It is also going to be a year since the Regional Comprehensive Economic Partnership formally took effect, and as relevant member states implement relevant provisions, China will also further increase the number of countries on whose commodities it will apply the agreed tax rate. Such moves will help expand a global network of high-standard free trade areas and contribute to the construction of an open world economy.

— BEIJING NEWS

Twitter's anti-propaganda itself cries 'propaganda'

"Twitter aided the Pentagon in its covert online propaganda campaign." This screaming headline, in bold upper case, in a report in US-based website The Intercept, exposes the irony of the West's hollow claim that the press, the fourth pillar of society, should be independent.

On the one hand, Twitter itself claims it curbs government-backed propaganda. However, The Intercept has reported in detail how the CIA and the FBI meddled in Twitter's content moderation, how it colluded with the Pentagon to run fake account networks around the world, and how it blacklisted or whitelisted certain accounts at the request of the US government.

The widely quoted report tells how Twitter is colluding with the US government to selectively spread propaganda. Which is in keeping with US politicians' plan both at home and abroad to paint any nation they dislike as evil.

It is for this reason that Western politicians incited unrest among young people in the Hong Kong Special Administrative Region in 2019, fabricated "labor camp" lies about the Xinjiang Uygur autonomous region in 2020 and poured dirty water on the non-Western world whichever way they liked.

The relationship between Twitter and the US government makes one see political bias in quite a high percentage of news posted on the platform. In fact, this is how Twitter is

losing its credibility.

Some might argue that Twitter is not a news outlet like New York Times or CNBC. However, unlike other social media sites, Twitter features accounts of almost all mainstream media outlets and many quote Twitter accounts as serious news sources.

But, since 2021, Twitter has labeled Chinese news agencies and personal accounts as "Chinese State-affiliated media" and further warned against links to Chinese media outlets since March 2022, reportedly under guidance from the US government.

So here's propaganda itself crying "stop propaganda". What could be more ironical?

— ZHANG ZHOXIANG, CHINA DAILY

What They Say

Progress of recovery can now accelerate

With many parts of the country, especially the vast countryside, still awaiting the sweeping round of mass COVID-19 infections to peak, and hospitals in major cities such as Beijing and Shanghai still coping with a continuous influx of patients with severe symptoms, the scourge of the pandemic is not yet over.

Nonetheless, the light at the end of the tunnel is getting brighter with each passing day.

The scenes of New Year's Eve celebrations on Saturday night and the increasing numbers of people and vehicles on the streets across the country are unmistakable signs of the country coming back to life.

But the road to full recovery may be long and challenging. Especially as geopolitical hedges are being

erected against it. Even as the country opens its arms to re-embrace the rest of the world, what used to be a land of opportunities is now treated as a burgeoning "threat".

But as the past three years of unspeakable hardships have demonstrated, nothing can hold the country back.

In the darkest hours of the past three years, when everything, even lives themselves, appeared to be in limbo, the indomitable spirit of ordinary citizens was evident. In neighborhoods nationwide, residents reached out to each other, supporting each other in times of need. It was people pulling together that saved the country from total paralysis.

This unbowed spirit has been a source of strength and resilience for

the nation. And it now holds the key to revving up the recovery of the Chinese economy.

With the government maintaining the continuity and stability of macro policies and enhancing their effectiveness and flexibility, and providing support for small and micro enterprises, people can have confidence in expectations that things are now looking up and give full play to their long-constrained desire to get things back to a pre-pandemic normal.

And as business activities pick up and people regain their courage, willingness and ability to consume, the long-suppressed potential of China's super large domestic market can start to be unleashed again.

— CHINA MEDIA GROUP

CHINA DAILY WORLDWIDE

Contact us at:

China Daily
15 HuiXin Dongjie Chaoyang District,
Beijing 100029
News: +86 (0)10 6491-8366
editor@chinadaily.com.cn
Advertisement: +86 (0)10 6491-8631
ads@chinadaily.com.cn
Subscription: +86-400-699-0203
subscription.chinadaily.com.cn
App: www.chinadaily.com.cn/mobile/daily.html

China Daily UK
90 Cannon St, London EC4N 6HA, UK
+44 (0) 207 398 8270
editor@chinadailyuk.com

China Daily Asia Pacific
China Daily Hong Kong
Unit 1818, Hing Wai Centre, 7 Tin Wan
Praya Road, Aberdeen, Hong Kong
+852 2518 5111
editor@chinadailyhk.com
editor@chinadailyasia.com

China Daily USA
1500 Broadway, Suite 2800,
New York, NY 10036
+1 212 537 8888
editor@chinadailyusa.com

China Daily Africa
P.O. Box 27281-00100, Nairobi, Kenya
+254 (0)20 242 8589 (Nairobi)
editor@chinadailyafrica.com
enquiries@chinadailyafrica.com
subscription@chinadailyafrica.com

COMMENT



China and the World Roundtable | Chinese Path to Modernization

Editor's note: The Chinese path to modernization is in line with its national conditions and is the modernization of a huge population. And China's achievements have inspired many developing countries to seek their own path to development and prosperity. Three experts share their views on the issue with China Daily.

Stuart Gietel-Basten

Overcoming demographic challenges

As everyone knows, China is aging rapidly. Not only that, China is expected to see a sharp decline in its total population size over the next century. Against this backdrop, for China's per capita GDP to continue to rise, productivity must grow more rapidly than the rate at which population is declining. Of course, China is not the first country that is going through the process of aging and a rapid slow-down in population growth. Many countries have gone through this transition and have been forced to transform their labor market systems in response. The predominant mode, of course, is the shift from an industrial to a service sector base. This transition is far from complete in China, and will inevitably develop further in the coming decades.

Rather than being only reliant on service industries, however, China should aim to climb further up the value chain of innovation. As a global leader in the development of technology, China still has tremendous potential to develop further in this field. While China's younger population has, indeed, declined in size, its characteristics have changed beyond all recognition in terms of skills and education. Harnessing both this skills revolution, as well as the entrepreneurial mindset of the younger generation, will be critical to China's efforts to develop its innovative industries. Obviously, the development of the Greater Bay Area and the synergies between the strengths of Guangdong province and Hong Kong could prove to be a key motor for such development.

However, developing goods and services which are responsive to the growing demands of the Chinese consumer could also drive stronger growth. Rather than criticizing younger people for their consumption habits, the economy should instead try to understand them, and better pivot towards meeting their needs and innovating in key growth areas such as time-saving and labor-saving products and services; pet products; healthcare and entertainment. Learning from the experience of other countries, developing unique cultural and leisure experiences could also be a means of revitalizing rural communities which are especially vulnerable to population decline and economic stagnation.

At the other end of the age-spectrum, there is tremendous potential in developing the so-called silver economy in response to not only an older population, but one which is relatively well resourced and looking for new consumption opportunities. Developing gerontechnology — or technological solutions to support older persons — could be a win-win scenario.

Currently, China lags far behind Japan as the world leader in innovation in this field. Leveraging its strengths in innova-



The author is professor of humanities and social science at Khalifa University, Abu Dhabi, UAE.

tion and technology, and the burgeoning entrepreneurial mindset, could deliver rapid growth in this area. It would also offset some of the physical and financial obligations associated with rapid population aging. Developing telehealth and e-medicine platforms can also support the country's plans to ensure healthy aging.

More broadly, the plan to develop 10 industrial parks specifically dedicated to

developing silver economy products and services should be welcomed. However, as a government official rightly observed, the underlying goal of developing the silver economy should not only be growth for its own sake, but also to create "equal, attainable services and products for seniors with particular difficulties".

However, in order to make the most of these opportunities, China must strive to ensure that the full potential of all its citizens is maximized. Further reform of the *hukou* (household registration) system will allow labors to move even more flexibly around the country and maximize the opportunities for all.

Clearly, the education system requires some reform: to not only ensure fairer

access to the best education to all regardless of province of birth, but also to ensure it is better aligned with the needs of the contemporary labor market. More broadly, adapting work cultures and systems to accommodate the changing expectations of the younger generation is an urgent necessity. Moving away from the "cult of 996" (9 am to 9 pm, six days a week) to a healthier work-life balance will increase retention and productivity and reduce burnout and ill-health.

In order to ride out the oncoming demographic challenges, China will have to "do more with less". The good news, however, is that there is a lot of potential for the country to do just that.

The views don't necessarily represent those of China Daily.



MA XUEJING / CHINA DAILY

Paul Tembe

20th Party Congress lessons for South Africa

The year of 2023 is the first year after China convened its 20th National Congress of the Communist Party of China. The world's attention was focused on the congress on Oct 16-22, not least because China is the world's second-largest economy and the 20th CPC National Congress charted its future course of development.

The 20th Party Congress was held under strenuous geopolitical conditions — at a time when global inflation was touching new highs, the geopolitical balance was changing, and unilateralism and protectionism was increasing at the cost of multilateralism and peaceful shared development.

Despite all this, however, the 20th Party Congress declared China will adhere to the policy of further opening-up and pursuing win-win partnerships. In opting for cooperation instead of competition and confrontation, China aims to create an atmosphere that will help strengthen and support the United Nations and its mechanisms and work, in order to ensure countries reach a consensus on upholding regional and international bodies that promote harmony and prosperity.

The Chinese path to modernization, a key term defining China's journey toward national rejuvenation, has for the first time been written into the CPC National Congress report, with Xi Jinping, general secretary of the CPC Central Committee,



The author is a sinologist and founder of SELE Encounters based in South Africa.

emphasizing the "central task" of the CPC is to serve the people and calling for efforts to realize national rejuvenation through the Chinese path to modernization.

Under the Party's leadership, China has made in a few decades the economic, technological and social achievements that the developed world took centuries to make.

Today, China is in a position to safeguard multilateralism and help resolve issues related to economic development, environmental protection, climate action and common prosperity that will promote world peace and facilitate the building of a community with a shared future for mankind.

In fact, the 20th Party Congress report is a document of reason in a world affected by rising protectionism and unilateralism. As China's road to modernization widens, its growth prospects will improve, prompting it to help the international community reap more benefits from China's development.

As for South Africa, as a comprehensive

strategic partner of China, it can learn valuable lessons from China's successes. China's per capita disposable income has increased from 16,500 yuan (\$2,370) in 2020 to 35,100 yuan in 2021. Over the past decade, China has focused on promoting high-quality development. As a result, its GDP increased from 54 trillion yuan to 114 trillion yuan.

China has been adhering to a people-centric philosophy of development, especially over the past decade. That China has been creating more than 11 million jobs each year is proof of the success of its people-centric development.

The 20th Party Congress also vowed to strengthen cooperation and deepen people-to-people relations with other countries. So South Africa can expect its trade with China to grow substantially. After all, China is South Africa's biggest trading partner, and South Africa is China's biggest trade partner among all African countries. Their annual trade value has reached \$54 billion.

China is also expected to deepen reform and opening-up, which in turn is expected to also increase China's trade with Nigeria (\$26 billion), Angola (\$23 billion) and Egypt (\$19 billion) and other African nations. As a matter of fact, South Africa and other African countries are set to benefit from an array of resolutions passed by the 20th Party Congress.

Let's not forget, all this has been possible

because China's progress toward modernization has given rise to new mutually beneficial partnerships and strengthened the existing ones with developing countries, allowing them to expedite their economic development and realize modernization.

The rejuvenation of the Chinese nation through Chinese-style modernization will encourage South Africa and other African countries to seek solutions to their development problems from within their own value systems instead of relying on imported and non-productive development policies of the past.

The core message for South Africa and other African countries from the 20th Party Congress can therefore be: adopt long-term planning to improve governance, instead of taking short-term measures which many developed as well as developing countries have done; adopt a people-centric approach to development and modernization, instead of adhering to the notion of rights without obligations; China is committed to sharing the fruits of its economic development; and China's modernization will promote global peace and development.

One can expect China's modernization to also strengthen South-South cooperation.

The views don't necessarily reflect those of China Daily.

Adnan Akfirat

Responsible initiatives in contrast to West's exploitations

The 20th National Congress of the Communist Party of China held in October demonstrated the viability, legitimacy and sustainability of socialism with Chinese characteristics and the socialist market economy, which the Party has established to promote economic development and realize the country's modernization for the benefit of not only the Chinese people but also people in the rest of the world.

China's sense of responsibility is reflected in its initiatives such as the Belt and Road Initiative, Global Development Initiative, and Global Security Initiative. Take the Belt and Road Initiative for example, in the nearly past decade, trade in goods between China and Belt and Road partners reached about \$12 trillion, and Chinese companies invested \$43 billion in overseas economic and trade cooperation zones in partner countries and created 340,000 local jobs.

In stark contrast, after the end of the Cold War, the United States has been hell-bent on subjugating the developing world. The resistance of many developed economies against globalization has become the new driving force of modernization in the Western sense of the term.

Washington gradually established the reign of the US dollar after the end of World War II, eliminating the currency exchange system based on real value measured in terms of gold reserves.

After establishing a dollar-centric global economy, Washington has been using the dollar's supremacy in the global economy and

international trade to export domestic financial crises to other countries while harvesting global riches and ruining the financial stability of other countries.

Seigniorage is a principal way the United States gains monetary benefits. The cost of printing a \$100 bill, for example, is less than 20 cents, while other countries have to pay \$100 in goods or services in exchange for the \$100 paper currency, and since half of the US currency circulates outside the country, earning substantial revenue for the US Treasury every year, one can imagine the sort of money the US earns from printing currency bills. Also, the US has been maintaining an external deficit year after year, importing more than it exports and consuming more than it produces.

The US' usury capital has established a tributary system, with the US military being the force of coercion. The US hegemony has turned into a "mafia-style dictatorship" which oppresses, exploits and alienates humankind.

Today, one of the priority targets is to change the mechanism to create wealth of the global users. The process to seek a fairer world order is taking place on the military, economic and political fronts.

Coming back to the crisis of Western countries, the COVID-19 pandemic has exposed it to the core, which is reflected in the collapse of entire systems, including healthcare and economic systems, in advanced economies. The rich Western countries hoarded more COVID-19 vaccines than they needed, instead of sharing them with developing and least-developed countries.

In stark contrast, President Xi Jinping's proposal to build a community with a shared future for mankind is an inclusive and mutually beneficial development concept.

In fact, the CPC with Xi Jinping at its core is in the best position to further develop scientific socialism, whose application in China has, in no small measure, provided more solutions to the problems facing humankind.

China's proposal to build a community with a shared future for mankind is in stark contrast to the selfish nature of US hegemony. And the crisis the US faces will make Washington face more challenges in keeping its hegemony.

The time has come to develop a global civilization that is people-centric, sharing and values-driven. In a world where production meets human needs, there is no scope for imperialism to dominate every aspect of human life.

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GLOBAL VIEWS



SHI YUMENG / FOR CHINA DAILY

ENRIQUE DUSSEL PETERS

Change for the good

Chinese investments in Latin America and the Caribbean are increasingly in sustainability

Like few other countries in the world, China has shown an impressive commitment to improving the sustainability of its domestic economy as well as in its foreign cooperation. President Xi Jinping highlighted in his speech at the Boao Forum for Asia in April 2022 — and in the context of the concept of a community with a shared future and the Global Development Initiative launched at the 76th United Nations General Assembly in September 2021 — that “countries around the world are like passengers aboard the same ship who share the same destiny”. Health and economic recovery, peace, equity, justice, multilateralism and development, all play a fundamental role in this proposal; a green and sustainable process is fundamental from this perspective. Linking the high-quality component to development, cooperation and environmental needs is a critical aspect of the new development philosophy.

How do these priorities translate for China in its relationship to Latin America and the Caribbean?

First, they have allowed for an important institutional building process between LAC and China. The CELAC-China Forum has, since its existence in 2014 and its first Ministerial Meeting in January 2015, been the main platform of cooperation between China and LAC. In the context of globalization, since 2013 China has maintained a long-term consistent interest in and commitment to the CELAC-China Forum; this regional platform is parallel to bilateral, subregional and multilateral relations with China. China's cooperation strategy with regards to LAC has been in the form of “1+3+6”, which stands for: One cooperation plan through CELAC, three driving forces (trade, investment, and financial cooperation), and six key fields of cooperation (including energy and resources, infrastructure projects, manufacturing, and scientific-technical innovation). The wide extension of specific instru-

ments in the CELAC-China Forum since 2015 has resulted in three action plans for 2015 to 2019, 2019 to 2021, and 2022 to 2024. In all the three action plans sustainability aspects have played an increasing role, such as in the 2022 to 2024 agreement explicitly regarding agriculture and food, energy and resources, tourism, infrastructure, in addition to a subchapter on sustainable development and eradication of poverty and a full chapter on sustainable development.

Second, the LAC-China socioeconomic relationship has become increasingly complex, such as in the case of Chinese infrastructure in the region. So far, the topic has not received sufficient attention as a result of different methodological approaches by official sources, but that has been partially overcome by the annual Monitor of Chinese OFDI in LAC.

Chinese OFDI in LAC accounted for 524 transactions through 2021, resulting in \$171.9 billion and more than 584,000 jobs.

Chinese OFDI has diversified importantly by country. In the initial period from 2000 to 2004, Brazil was the main recipient, accounting for 76.86 percent of China's OFDI in the region. That fell to 39.09 percent for 2015 to 2021. Brazil is still the main recipient of China's recent OFDI in LAC, but countries such as Chile (with 21.15 percent during 2015-2021), Mexico (17.85 percent), and Peru (16.43 percent), with practically no OFDI in the first decade of the 21st century, have played an increasingly dynamic role as a result of the learning process within LAC and of Chinese companies.

This diversification process has also deepened by sector. Historically Chinese OFDI concentrated in raw materials (with only six transactions during 2000 to 2004 representing 81.39 percent of Chinese OFDI), but this declined to 45.69 percent for the more recent 2015 to 2021 period. On the other hand, transactions oriented toward services and LAC's domestic sector (accounting for 26.8 percent in 2015 to 2021) and

manufacturing (23.15 percent) have become the most dynamic recipient recent sectors of Chinese OFDI.

The provided information also allows for a deeper sectorial understanding of China's OFDI in LAC. Energy in the 2015 to 2021 period was the LAC's main recipient of Chinese OFDI with 52 transactions accumulating \$36.3 billion and more than 22,000 jobs. The share of non-fossil energy sources — which were practically non-existent before 2015 — was 49.86 percent during 2015 to 2021 and 44.97 percent if we do not include nuclear energy. Chinese non-fossil OFDI in LAC presents different characteristics and in countries such as Mexico increases to 65.43 percent of total OFDI in energy during the same recent period.

This process of sustainable non-fossil Chinese OFDI in LAC is led by State-owned enterprises such as China Three Gorges Corporation, State Power Investment Corporation, and Sinohydro Corporation, but it also includes private companies such as Envision Energy, Risen Energy, JA Solar, and Trina Solar Energy. These companies are accumulating valuable experiences in the LAC-China relationship, particularly regarding non-fossil energy OFDI.

These recent trends reflect decisive new measures by Chinese OFDI and public and private companies to shift their activities to non-fossil energy sources, also as a result of increasing innovation and production in China. Without a doubt, large challenges remain, but these recent performances indicate an important coherence with Chinese global commitments, and specifically in LAC.

The author is a professor at the National Autonomous University of Mexico and coordinator of the Center for Chinese-Mexican Studies at the university. The author contributed this article to China Watch, a think tank powered by China Daily. The views do not necessarily reflect those of China Daily.

ZHOU YU AND ZHOU TAIDONG

Making global institutions multilateral

China should do more to increase participation of developing countries in global governance

The rise of strategic rivalry between the United States and China has intensified and this has become especially acute in the global governance system. The Joe Biden administration has made it clear in its National Security Strategy that the aim is to “outcompete” China in the global governance domain. In the US script for strategic competition with China, global institutions such as the United Nations play key roles and are becoming one of the main battlegrounds for the US against China.

The influence of a sovereign nation in a multilateral institution can be measured from six dimensions, including the formulation of the institution's charter and location of its headquarters, capital contributions and subscriptions, voting power, the personnel, the coalition of allies, and the domestic supporting system.

If the influences of China and the US in the five key institutions governing global politics, trade, health, finance and development — namely the UN Secretariat, the World Trade Organization, the World Health Organization, the International Monetary Fund and the World Bank Group — are compared, it can be seen that China's influence has made some headway but still lags far behind that of the US.

The US played a dominant role in the formulation of the charters for the five institutions. The headquarters of these institutions resides either in the US or in an ally's territory.

For the funding of the five institutions, the US and China are the top two contributors for the UN's regular budget, the budget of the WTO, and voluntary contributions of the WHO. Yet, the accumulated contributions of the US to the UN regular budget between 2000 and 2022 were four times larger than that of China. The accumulated voluntary contributions of the US to the WHO was 51 times larger than that of China between 2014 and 2019. After the outbreak of the COVID-19 pandemic, China increased its contribution to the WHO nearly five-fold, from \$6.43 million in 2019 to \$30.85 million in 2020. Yet the US contribution was far greater. The gap is even greater when the non-governmental US contributions are taken into account. For instance, the Gates Foundation alone contributed \$376 million to the WHO in 2020, 3.5 times higher than the US government's voluntary contributions. When it comes to the funding of the IMF and the World Bank Group, the US remains the largest contributor while China is at best among the top 10. The US' position as the

largest donor gives it the capability to wield dominant influence in these institutions.

While the UN agencies adopt a “one country one vote” mechanism, the voting power of a sovereign nation in the IMF and the World Bank Group is weighted according to its share of capital subscriptions, which is calculated based on a complex formula that considers the nation's GDP, openness, economic variability, and international reserves, among others. At the moment, the US takes up the largest voting power in the IMF and the World Bank Group, exceeding 15 percent of total voting power (except in the International Development Association), making it the sole member with veto power in these institutions.

Regarding the nationality of professional staff members in the five institutions, Chinese nationals are substantially outnumbered and outranked by US citizens. In 2021, among the nearly 120,000 people employed by the UN system worldwide, 5,567 were US citizens, ranking the highest, while 1,471 were Chinese, ranking 23rd. Similarly, by June 2021, the IMF employed 700 US citizens, accounting for 20 percent of the total staff, while only 224 Chinese worked in the institution, accounting for just 6 percent of the total.

US citizens also take four leadership seats at the UN Secretariat and regional commissions, compared to one Chinese. The situation is the same in the IMF and the World Bank Group. US influence is even greater if the educational background of the professionals is considered. In the leadership of all five institutions, those who have received higher education in the US accounted for 40 percent to 70 percent, while few have gained any educational experience in China.

In terms of coalition in the multilateral institutions, the US enjoys the support of its allies represented notably by the G7. In the IMF and the World Bank Group, the weighted voting power of the G7 combined is around 40 percent, which gives the group the decisive power on almost all decisions that require majority voting. In contrast, the total voting power of China and partners remains below 15 percent, deprived of any possible veto power in the two institutions.

For the domestic support system, it is illuminating to compare the think tanks working on global governance in the two countries. According to the 2020 Global Go To Think Tank Index Report of the University of Pennsylvania, among the top international development policy think tanks, 22 were from

the US while four were from China; among the top international economics policy think tanks, 16 were from the US while four were from China; and among the top foreign policy and international affairs think tanks, 30 were from the US and six from China. In addition, the US think tanks took most of the top 10 seats. These reflect to some extent the unparalleled domestic strength of the US supporting its policies and actions in the global governance system.

As such, though China's participation in and support for global institutions has deepened, China still lags far behind the US in many ways. The US is doing great damage by turning the global institutions into a battlefield for great power competition. To uphold true multilateralism, and broaden and strengthen the voice and participation of developing countries in global governance in a changing world, China could make further efforts in the following aspects.

First, to work with partner countries to initiate the establishment of new global institutions in frontier areas, such as data, carbon emissions, and knowledge cooperation, where global rules and norms remain insufficient and obscure.

Second, to make more contributions to the key institutions within its capability, especially to those institutions facing financial constraints due to the US' failure in meeting its financial obligations.

Third, to cultivate more talent at both junior and senior levels to raise the representativeness of China in multilateral institutions to the level proportionate to its contributions and to its weight in the global economy.

Fourth, to work more closely with developing partners to voice the opinions of the developing world and steer global development agenda toward the priorities that developing countries value most.

Fifth, to invest and encourage more in the development of domestic think tanks working on global governance issues to provide evidence-based, long-term and forward-looking research support to policymakers.

Zhou Yu is an assistant researcher at the China Center for International Knowledge on Development. Zhou Taidong is the director of the division of general affairs at the China Center for International Knowledge on Development. The authors contributed this article to China Watch, a think tank powered by China Daily. The views do not necessarily reflect those of China Daily.



LIMIN / CHINA DAILY

LIFE



From left: Embarking on a new mouthwatering journey, the latest season of the popular documentary series, *Once Upon a Bite*, features a variety of staple foods, such as Zhusheng (bamboo pole) Noodles, rabbit crystal dumpling, glutinous rice and fried gluten puffs. PHOTOS PROVIDED TO CHINA DAILY

An odyssey to find the truth of grains

Farming and harvesting cereals is about more than just food, documentary reveals, **Xu Fan** reports.

For those who initially see how Li Wenlong, the 37-year-old owner of a small restaurant in Macao, works in the kitchen, it is a jaw-dropping moment. As the third-generation inheritor of his family business, Li performs an acrobatic-like routine to prepare the dough for Zhusheng (bamboo pole) Noodles, a type of traditional staple food in southern China.

After mixing flour with chicken and duck eggs and pressing the dough down into a giant flat disc, Li takes out a long bamboo pole, straddling it on one end and putting the dough on the other. Just like being on a seesaw, Li goes up and down around 3,000 times, ensuring that the dough gets the utmost elasticity.

The compelling scene is portrayed in the fourth season of *Once Upon a Bite*, a popular documentary series launched by Chen Xiaoping, a prestigious documentary director and producer known for cultural programs exploring the relationship between people and food. So far, the previous three seasons, released in 2018, 2020 and 2021, respectively, have accumulated a total of 3 billion clicks online.

Commencing its run on streaming site Tencent Video on Nov 24, the latest season, about the variety of grains found around the world, has obtained 9.4 points out of 10 on the review aggregator Douban, the highest score of all the four seasons.

Consisting of six episodes, the new program adopts a global perspective to trace a variety of grains — such as wheat, rice, millet, beans and potatoes — and tell the stories of how they become an essential component of the human diet through different kinds of cooking methods.

"Grains have shaped the culinary history of human beings," Chen Lei, the chief director of the fourth season, explains.

"Grains play a foundational role in modern life. Despite the fact that all of us are quite familiar with grains, there are still a lot of stories behind their evolution that we have yet to know?"

The idea of making a whole season



Clockwise from top left: Stills from the new season of *Once Upon a Bite*, showing a 66-year-old native in Jiangxi province carrying the family-made maltose candies with his wife; a couple who plant hullless oats in Shanxi province; two Tibetan women holding highland barley wine, a type of local alcoholic beverage; and a Palestinian woman with a bunch of green durum wheat.

about grains was first shaped in 2018, when the team was filming a story about cereals for the first season.

Despite the past few years of the pandemic, Chen Lei and producer Deng Jie led their team in comprehensive preparations for the filming of this new season. Such efforts ranged from cooperating with a photographic team that excels in filming plants to recruiting professionals who majored in botany.

Interestingly, they even rented a field on Shanghai's Chongming Island to use as a grain "laboratory" to observe how they grow and

explore time-lapse cinematography. They also figured out a new method, combining computer-generated footage with actual footage, to display how a seed shoots up.

In the first episode, centering on wheat, which director Chen Lei depicts as a base food for Chinese people, the documentary travels to multiple cities in China, like Hangzhou's Fuyang district in Zhejiang province and Chifeng in the Inner Mongolia autonomous region, as well as the Middle East, the United Kingdom and Turkey, to discover how the routine lives of locals are



tightly bonded to wheat.

"Because of the pandemic, we couldn't travel abroad, so we had a total of 10 international teams to help shoot the stories in their respective countries," reveals Deng.

Coordinating with foreign teams amid a complex international situation has been one of the biggest challenges. Deng recalls that the film crew was forced to suspend shooting four times while producing the tale of *freekeh*, a cereal food made from green durum wheat, in Burqa, a village located northwest of Nablus in Palestine.

When the green durum wheat was harvested in 2021, tensions between Palestinians and Israelis were escalating, making the filming difficult, Deng explains.

But most of the international cooperation went smoother than anticipated.

When the Chinese producers were planning to shoot a tale about *manoomin* (wild rice), a staple food for Minnesota's Native American population, a female director residing in the US state, who has been in close contact with the ethnic groups in the country, was recom-

mended to the team.

The director has a profound knowledge of the Ojibwe, one of the largest groups of Native Americans in North America, and a comprehensive understanding of the tribespeople's cherishing of lakes and the local wild rice, injecting the footage with delicate emotion, according to Deng.

"I also contacted a postgraduate student from Yale University's history department to work with her. It was a good cooperation experience that has also made us learn a lot," she adds.

With a touch of regret, according to director Chen Lei, the documentary could have featured more countries, but their previous plans to film the growth of millet in northern Namibia and yams in Papua New Guinea had to be canceled because of COVID-19.

Aside from the overseas stories, the crew also delved into some of the most far-flung areas of rural China, interviewing locals to trace how their centuries-old agricultural traditions have been preserved.

For instance, they traveled to a scarcely populated village on the border of Shanxi province and the Inner Mongolia autonomous region and managed to convince an elderly couple who farm hullless oats to share their decadeslong dedication to the land.

Analyzing the in-depth meaning of the documentary, Chen Xiaoping says that the team members believe that the diversity of grains has shaped human activities, and helped civilizations emerge in different areas.

"Each grain was once the source of energy for the people of a land and the foundation of a civilization," Deng says. "And the fate of grain is highly related to the historical fate of humankind. We hope everyone can have more knowledge of different kinds of grain, sort of as a way to protect and preserve the diversity of cultures."

Contact the writer at xufan@chinadaily.com.cn








东北虎

Amur tiger

Between heaven and earth,
together with other sentient beings, I live.

—Zhuangzi, philosopher, late fourth century BC

天地与我并生，而万物与我为一

—《庄子·齐物论》






LIFE

A mountain of images

Ambitious photographer sets out to record the flora and fauna of the Himalayas, **Yang Feiyue** reports.

An urge to take stock of nature's bounty in his hometown has sent Luo Hao on a 12-year odyssey. The man, who is in his late 50s, has dug into his own pocket and led a team to trek to every nook and cranny in the Tibet autonomous region on a mission to capture images of its precious wildlife.

They have managed to produce hundreds of thousands of photos, some of which are the first recorded images of some of the region's stunning plants and animals.

Extreme conditions on the plateau gave them a difficult time, and there were even death-defying close calls, but Luo says it was all worth it when his photography collection *Top of the World* made its public debut.

The collection is aimed at shedding new light on the distinctive flora and fauna around Qomolangma, known as Mount Everest in the West. "I started planning the book in 2015 and it took eight years for it (the collection) to see the light of day," Luo says.

Their expedition was hindered that year by the devastating earthquake that hit the Nepali capital Kathmandu. "It borders on Tibet, so we had to cancel the trip and postponed it for three years," Luo says.

The investigation restarted in 2018, but then was sidelined by the pandemic. It ended up lasting for another three years.

"But it might be a case of the road to happiness being strewn with setbacks. We basically managed to photograph everything we wanted," Luo says, adding that the book covers 10 new species on Qomolangma.

In many people's mind, Tibet has blue sky, white clouds, monasteries, snowcapped mountains and yaks, but Luo has long realized that there is actually a more microscopic world, and he hopes more people can see it.

Moreover, he believes that the special climate, altitude, wind and sand conditions have made the ecology more fragile in Tibet, and thus it needs more public attention.

In 2010, Luo established the Tibet Biodiversity Image Conservation, which he pulled off partly through sponsorship and also with his own money. He brought together a team of ecological experts, photographers and volunteers to publicize the natural charm of Tibet.

"I was not a biologist and didn't have any related expertise, but my specialty was journalism and photography, so I figured I could independently do something for nature in my own way," he says.

In the winter of 2010, Luo and his team went along the northern slope of the Himalayas, from east to west, starting from the Yarlung Tsangpo



Above: Luo Hao's team members take photos of rare plants in the Tibet autonomous region. **Below:** Luo and his team negotiate the Himalayas in search of the precious wildlife. PHOTOS PROVIDED TO CHINA DAILY

Grand Canyon, across multiple areas such as Basum Lake, to Ngari prefecture. They studied animals, plants, insects, birds of prey and aquatic creatures.

"We first did extensive research on paper, and then planned the routes in the most economical and time-efficient manner," Luo says.

They calculated ahead, such as how long they would spend at a particular site and how many creatures they had to find, so everything could stay under budget.

"We are very much like a big crew, taking tens of thousands of photos at a time," Luo says.

"I'm like a director, asking everyone to ensure that they're taken from the best angle and in the best light."

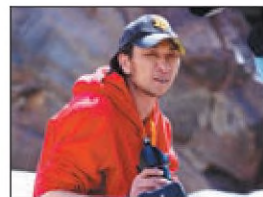
They captured exciting moments seeing red goral, leopards and *Zorotypus medoensis* in the eastern part of the Himalayas, dominated by forest and subtropical rainforest.

On the two sides of central Qomolangma, the team focused on Alpine plants and animals, especially the Himalayan blue poppy.

In Ngari prefecture in the west of the Himalayas, Luo found wild yaks, lynxes and Apollo butterflies.

"The wings of the Apollo are as thin as cicada wings, and it's unbelievable to see such a small insect survive at an altitude of 4,500 meters above sea level, where the wind is often too strong for a person

to stand steady," Luo says. Generally speaking, Luo's team paid attention to rare creatures and those on the verge of extinction in Tibet.



“It's like you finally find what you really want after going around a big circle.”

Luo Hao, photographer

hornets at the Yarlung Tsangpo Grand Canyon when smoke from a photographer's cigarette stirred their nest.

"They are as big as three bees, and three to five times as poisonous," Luo recalls.

A photographer was badly stung and had to go to the hospital, which was a two-hour drive away.

"It was critical, and his life could have been on the line if things got delayed a bit," he says.

They also experienced land collapses and landslides, but fortunately, came away unscathed.

"The hardships are often there, but there's always something that inspires me to go on," Luo says.

Their findings will be made into books featuring vivid photos and scientific texts.

Luo has also staged lectures for younger students to better appreciate nature.

"Some of them might be influenced to become an expert in the field or take action to protect those rare animals in the future," Luo says.

"I believe what I do can be carried forward and is meaningful."

So far, Luo and his team have taken more than 300,000 photographs of Tibet's natural world and published 11 science popularization books.

Li Hui, a journalist based in Guangzhou, Guangdong province, admires Luo's perseverance

with his cause. She covered Luo's trip in 2011 and experienced the hornet's attack herself.

"We ran like hell down the mountain to avoid the hornets, only to be stung during a tea rest at the local village head's home," Li says, adding that the experience made the trip even more impressive.

To Luo's relief, his work has already produced positive results.

The images of *Zorotypus medoensis* taken in 2012 have filled a void in the recordings of the creature since it was found by the Chinese Academy of Sciences in 1976.

"The only thing that was available to refer to the bugs before was a sketch," Luo says, adding that the small bug was found in rotten wood and was considered a living fossil in entomology and a valuable asset for studies into continental drift.

Moreover, Luo's biodiversity work for Basum helped the place become a major historical site under State protection in 2012.

Luo moved to Tibet with his military reporter father in 1970 when he was 6 years old.

"I remember people going on a pilgrimage to Tibet, wearing a big leather rope, and the scripture turning place was packed with people," Luo recalls.

He followed in his father's footsteps and became a photographer.

In 1985, Luo got enrolled into the photography class at the School of Journalism and Communication at Renmin University of China.

"Going to school was mainly to broaden my view," he says.

In 2008, Luo became executive editor of Tibet Geographic, but it didn't take long before he got tired of city life and started longing for home. So, later that year, he quit and returned to his old stomping ground.

"It's like you finally find what you really want after going around a big circle," he says. "Tibet is where I grew up and I've grown used to its cuisine and languages."

To date, Luo says his team's biodiversity studies have covered about 90 percent of the northern slope of the Himalayas. "We've shot images that have added up to dozens of terabytes," he says.

"When I can no longer walk, I will organize these treasures and donate them to the country and to professional institutions around the world that study this area."

Luo plans to continue on to the south of the mountain range, which involves visiting Nepal, Bhutan, India and Pakistan.

"It will be a huge project, but I will stick to it as long as I can," Luo says.

Contact the writer at yangfeiyue@chinadaily.com.cn



Luo Hao and his team have managed to produce hundreds of thousands of photos, some of which are the first recorded images of some of the region's stunning plants and animals.

New findings unveiled at Lingjiatan relics site

HEFEI — New findings have emerged at the Lingjiatan relics site in Ma'anshan, East China's Anhui province, says the provincial cultural relics and archaeology institute.

A remains site of sacrifice burning was discovered, the institute says. Several jade and stone relics were unearthed at the site, including the largest stone tool known as a *yue* and the largest jade ornament known as a *huang* in the Neolithic Age in China, which provides significant materials for in-depth study of the origin, formation and development of the Chinese civilization.

A dragon-head-shaped jade ware was also discovered, which archaeologists say is of great significance to China's prehistoric jade system studies and its influence on the ritual system.

From October 2021 to April 2022, the institute carried out excavations on the Lingjiatan relics site and found two ash pits, one sacrificial pit, one stone remains of the Neolithic Age and five Han Dynasty (206 BC-AD 220) tombs.

More than 400 cultural relics were unearthed, including stone tools, jade artifacts and a few potteries. Archaeologists believe that the discovery of the sacrificial remains

at Lingjiatan provides fresh materials for the study and restoration of sacrificial scenes at that time and improves the understanding of the layout of the sacrificial area of tombs.

The Lingjiatan relics site is a Neolithic settlement site dating back 5,300 to 5,800 years, with a total area of about 1.6 million square meters.

Since it was discovered in 1985, Lingjiatan has been famous for the jade ware unearthed in previous excavations, among which there are some representative jade artifacts in the shape of a turtle, eagle and dragon. Archaeologists believe that Lingjiatan predates Liangzhu Culture, a testament to the 5,000-year-old Chinese civilization, and has a successive relationship with it.

XINHUA

Artifacts reveal an ancient city's past

SHIJIAZHUANG — Archaeologists recently discovered over 240 relics including rammed earth, ash pits, house ruins, wells and tombs, in the ruins of an ancient city in North China's Hebei province. Most of these relics date back to the Han Dynasty (206 BC-AD 220).

Experts believe that this discovery, which also includes over 30,000 pieces of relic fragments, offers a new glimpse into the history of Bairen town. Located in Longyao county, Xingtai, it was an important city during the Warring States Period (475-221 BC).

The four-month excavation, which started in August, was carried out by staff from Renmin Uni-

versity of China, Hebei's provincial institute of cultural relics and archaeology, Xingtai's cultural relics protection and research center, and the Longyao cultural relics protection and management institute.

Archaeologists previously also conducted two excavations of these ruins in 2016 and 2018.

"The age of the cultural layers unearthed this time ranges from the Western Han Dynasty (206 BC-AD 24) to the Eastern Han Dynasty (25-220). In addition, a few relics from the Warring States Period and the Tang Dynasty (618-907) were also discovered, offering resources for a deeper and more thorough understanding of the

development of the Bairen Town ruins," says Lyu Xueming, a professor with Renmin University of China, who was in charge of the excavation.

Among the most important discoveries were a large site of rammed earth, pottery slices inscribed with Chinese characters, and some ancient currencies.

The excavation is of great significance to the study of the settlement changes, living conditions, human activities and historical events in the southern part of the Hebei plain from the time before Qin Dynasty (221-206 BC) to the Han Dynasty, Lyu adds.

XINHUA

LIFE



Clockwise from top left: Robot "chefs" prepare food in a "smart" restaurant in Xihu district, Hangzhou, Zhejiang province, in June. The restaurant attracts customers with dishes made by robots. LONG WEI / FOR CHINA DAILY Mechanical catering at Haidilao hotpot "smart" restaurant at Nanjingnan Railway Station in Nanjing, Jiangsu province. A robot "waitress" delivers food to customers at a restaurant in Fuzhou, Fujian province. Customers take food at a restaurant that can automatically weigh and calculate the price of dishes at Chongqing International Logistics Hub Park in March 2021. PHOTOS PROVIDED TO CHINA DAILY

As COVID-19 restrictions are lifted across the country, Li Xianghui knows it will be challenging for traditional restaurants to handle the increasing number of diners. But for his restaurants, things are different.

Owning four eateries in Wuhan, Hubei province, Li "employs" an array of cooking machines, which can operate tirelessly day and night. Packed in kits, all dishes are semifinished and can be served within minutes after they are put into the machines.

"Automation is the future for the catering industry. It can avoid pressure from labor costs in running a traditional restaurant and increase efficiency," Li says.

"There is a standardized process by the machines, which can guarantee consistency in the taste of each order," the 36-year-old man adds.

The cooking machine can make about 2,000 recipes, according to Li.

Once seated, diners scan a QR code and use an app to make their meal selection and pay. With the only waiter putting the semifinished food kit into the machine, the meal will be served in minutes.

What's more, the robot "chef" has attracted an increasing number of diners since the restaurant's opening in October.

"The taste is good and the price is not expensive," a regular customer, surnamed Xu, says.

With such eateries springing up across the country, robot "chefs" are not only taking over restaurants but also coming into homes.

Behind the scenes is the country's growing service robotics industry, which, as of 2021, had a market value of more than 58 billion yuan (\$8.3 billion), according to the Statista database portal. The industry is projected to reach a value of 291 billion yuan by 2027.

"Service robots are constantly improving the level of social ser-

Robots give diners a taste of the future

Increasing number of eateries put automation on the menu, report **Wang Qian** and **Liu Kun** in Wuhan.



A customer collects food from a device at a "smart" restaurant in the main media center during the Beijing 2022 Winter Olympic Games in January last year. YONHAP NEWS AGENCY

VICES in catering, retail, logistics distribution, medical rehabilitation and other fields," says Wang Hong, an official with the Ministry of Industry and Information Technology.

The "smart" restaurant that Beijing 2022 Winter Olympic Games

may indicate what the future of the food service industry looks like. With no human chefs and waiters, robots took charge of everything.

In 2018, popular hotpot brand Haidilao opened its first "smart" restaurant. The kitchen, equipped with two rows of robotic arms, can

automatically collect prepackaged dishes from cold storage.

For Li, it is only a matter of time before such machinery becomes a common sight in kitchens.

"The labor shortage caused by the pandemic is accelerating this process," Li says, adding that he plans to

open 20 more eateries this year, staffed by robot "chefs".

According to an annual report on the country's restaurant industry released by China Hospitality Association, a shortage of labor is a challenge faced by many business operators.

On Dec 12, the Xidan Mingzhu Market in Beijing announced that it was forced to shorten operating hours because of a shortage of staff.

To seize upon the business opportunity, various domestic robot manufacturers, including Siasun, Udittech and Keenon, have become increasingly more engaged in research and development in the area of service robotics in recent years.

Across the world, robot "chefs" are set to take over cooking in restaurants and technology advances are taking them a step further.

Working in collaboration with domestic appliances manufacturer Beko, researchers from the University of Cambridge have trained their robot "chef" to assess the saltiness of a dish at different stages of the chewing process, imitating a similar process in humans, according to their research published in the journal *Frontiers in Robotics and AI*.

Their results could be useful in the development of automated or semiautomated food preparation by helping robots to learn what tastes good and what doesn't, making them better "cooks".

"Most home cooks will be familiar with the concept of tasting as you go — tasting a dish throughout the cooking process to check whether the balance of flavors is right," Grzegorz Sochacki from Cambridge's Department of Engineering, the paper's first author, told *Frontiers in Robotics and AI*. "If robots are to be used for certain aspects of food preparation, it's important that they are able to 'taste' what they're cooking."

Contact the writers at wangqian@chinadaily.com.cn

The China that lives behind my eyes when I'm in bed

On so many nights over the past 16 years, I suddenly realize that I'm in the wrong country. I'm either in China or the United States and was supposed to catch a flight back the day before. But I got confused because of the International Date Line.

And because I didn't make the plane, I'm in trouble. So, I panic and rush to the airport — or, I try to, at least.

Sometimes, twisting bridges crumble

as we drive over them in a car without brakes. Sometimes, we have to steer up nearly vertical cliffs that are so steep that our vehicle starts to slide backward, threatening to flip down the sheer slopes. Sometimes, I arrive at the airport and realize I'm actually in some country other than China or the United States — recent-

ly, Uganda — and can't fly out, for whatever reason.

It's a reoccurring theme in my dreams and one that has become increasingly frequent since I haven't been able to travel back to the US since the COVID-19 outbreak. During this time, in real life, my parents' house burned down, both my paternal grandparents passed away and my brother got married.

Another variation is that I'm finishing my PhD in a Chinese university but suddenly realize I never completed a required class in high school in the US. And, of course, I can't find my classroom in either place.

This is perhaps the most pervasive, yet far from the only, way China has shaped my dreams since I moved to Beijing 16 years ago.

I've had nightmares about being buried alive after May 2008, since I spent the following half decade making 15 journeys through the quake zone as a journalist and volunteer.

I was actually supposed to be near the epicenter when the tremor struck, but wasn't because of a scheduling change. The person who went in my place broke her neck when a landslide buried the bus she was riding in, and fewer than half of the people aboard survived.

Most of my dreams are set in China, and I mostly speak Chinese in them since most characters are Chinese. However, just like in waking life, I speak mostly English to my family and foreign friends and strangers.

My 11-year-old daughter, who was born and raised in Beijing, reports the same. My wife also speaks both but says her Chinese is better in her dreams than in real life.

However, our 35-year-old friend — a Chinese woman who studied in Australia for a couple of years and works in a bilingual office — reports dreaming exclusively in English.

Still, another Chinese friend who

works in the same office and is also fluent in both languages says she never dreams in English.

But our multilingual Tibetan friend, who has never been abroad, says he dreams in two of his mother tongue's dialects, as well as Chinese and English.

Lately, more of my dreams take place in quaint Chinese villages, likely because I've spent much of my time in the country traveling through rural communities.

The other night, I bought an entire hamlet that hugged the edge of a cliff.

Dozens of lakes blazed neon blue at the foot of the crag. But after I made the purchase, I discovered countless glow-in-the-dark crocodiles writhed in these vibrant water bodies. And they were hungry. I learned, after I dived headfirst into the brilliant waters.

The first time I spoke Chinese in my dream was in 2006, when I

shouted *jiuming* (save me) as I lost control of my parachute and floated toward a lake teeming with cattle-sized piranhas with lions' legs.

Nobody rescued me. I woke up as the first one sank its jaws into my calf.

But when I came to, I remember feeling happy that I was learning enough of the language to start using it in my sleep.

Actually, the first sentence of this column shot to my mind when I awoke from a dream about missing a flight to the US recently.

Thing is, it will actually be a dream come true when I do finally get to visit my family back home for the first time since the pandemic. Then, I will be in the right country at the right time in real life.

But I wonder where I'll go when I fall asleep.

Contact the writer at erik_nilsson@chinadaily.com.cn

Spirit of unity shines through

BEIJING/SHANGHAI — Faced with a rapid wave of COVID-19 infections in China, people have racked their brains to find instant solutions with the help of their warmhearted neighbors and community workers.

In Shanghai, community doctors in the Xietu subdistrict of Xuhui district have limited the amount of antipyretic and analgesic drugs to a maximum of three days' worth per patient. Packages of the most sought-after drugs, like Ibuprofen, are split into halves to better meet the actual medicinal needs for each treatment course.

"It's reasonable for medical institutions to unpack and distribute the cold remedies. Getting a cold is common, and most cold medicines are available over the counter at a low price, so packages of cold medication often exceed the amount needed for a single treatment course," says Zhong Mingkang, chief pharmacist at Huashan Hospital Affiliated with Fudan University.

The community health service center in Xietu subdistrict now serves more than 70,000 local residents, over 16,000 of whom are aged 65 or above, pushing the center to come up with the idea of repackaging its medical resources.

"The practice can more efficiently make use of current resources and benefit more potential patients in the future," Zhong adds.

Additionally, grassroots medical institutions across the country are doing their best to popularize the proper use of medicine, ward off public panic, dispense medicine under professional guidance, as well as cap the amount of medicine being prescribed.

Just as the saying goes, a near neighbor is better than a distant cousin. In Beijing's Fengtai district, residents of the Caoqiaoxinyuan community are sharing their spare medicines with each other during this hard time. Some kind neighbors in the community sent an elderly woman, surnamed Liu, fever-reducing medicine and oranges after she asked for help in the community's online messaging group.

Wang Shiyi, an official with the Yuquanying subdistrict of Fengtai, where Liu's community is located, praised such acts of kindness and unity. "Our subdistrict has encouraged the residents to help each other by sharing their extra medicines and antigen test kits, despite the temporary strained supply. Their spirit of unity can help solve the problems instantly within their residential building," Wang says.

The most mobile workforce in China's major cities has joined the effort to restore normal life in the face of the pandemic.

Ma Liang, head of Shanghai's Huanqiang delivery station of Meituan Waimai, a major Chinese food delivery platform, now prioritizes drugstore orders over their mounting takeout burden.

Since the end of November, the delivery station has seen its takeout orders soar by 40 percent compared to normal volumes. However, many staff members have fallen sick due to the COVID-19 pandemic, and currently, less than 70 percent of the station's total delivery staff are covering the rocketing online orders.

"Those who place drugstore orders are often patients infected by COVID-19 and are in urgent need of medicine, and thus we will deliver such orders first," Ma says.

The courier sector has also adopted similar steps. Couriers at Shanghai's Xuhuan station of ZTO Express now cherry-pick parcels that are sent from drugstores and put them to the top of the queue, so that those packages can be delivered first.

"Though the order boom will continue for some time, I believe we can tough it out as long as we understand and help each other," says Wang Jin, a Meituan delivery rider in Shanghai.

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