

## Comment

## Pandemic Can't Stop China's GDP Increasing

By YU Haoyuan

The global pandemic has lasted for two years and every country has imposed sweeping control policies to deal with it. As for China, the government has stuck to a zero tolerance policy (ZTP), while some countries prefer to have a more open approach. Throughout the pandemic, China's GDP has continued to grow, while other economies are struggling.

China is the only major economy to report economic growth in 2020, according to the World Bank. Moreover, many organizations, such as the International Monetary Fund, predicted that in 2021, China's expected GDP would rise by 8 percent.

As many media outlets have also reported, with multiple measures related to investment, foreign trade and consumption, China's GDP will continue its rising trend in 2021.

Firstly, China's economic recovery is mainly based on ZTP.

South China Morning Post said that "China's zero-tolerance stance on the COVID-19 pandemic has helped it recover strongly from the public health crisis."

Meanwhile, the BBC believed that the strict COVID-19 containment measures and emergency relief for businesses helped China's economy recover. The ZTP has made a huge difference between China and the rest of the world. "China's economy has seen a strong rebound, while the rest of the world struggles with anemic demand, millions of job losses, and businesses shutting down," the BBC reported.

According to Investors' Corner, the BNP Paribas Asset Management official blog, ZTP has contained the COVID-19

spread effectively and led to robust export growth since mid-2020. This has allowed China's production to quickly return to normal and able to supply the rest of the world when others' production stagnates.

Critics say that the ZTP will raise costs and diminish benefits in the future. However, the policy is a method that has contained the pandemic successfully. If it hadn't been for the policy, many countries' economies would have crashed harder after the Omicron variant was discovered.

CNBC also reported that based on a study by Peking University mathematicians, "China could face more than 630,000 COVID-19 infections a day if it dropped its zero tolerance policies by lifting travel curbs."

Secondly, the consumption growth that maintained its trend has benefited China's economy.

A recent China National Bureau of Statistics report shows that the country's retail has maintained its economic growth. As a great example of boosting public consumption, this year's Singles Day festival sales have also set a new record. The latest data released by JD.com and Alibaba show that public consumption during the festival is still maintaining momentum. Two platforms have racked up 889 billion RMB (139 billion USD) in total in 2021, which broke the online sales record they reached last year.

According to Asian Times, China's Q3 showed GDP growth despite a real estate drop, which is due to the resilience on the part of the country's consumers. Eviews Econometric Software computed that "the GDP consumption data is consistent with retail sales reports," which means the public consumption level is the



China has always run a mass nucleic acid test in a short time to follow zero tolerance policy. Medical workers take swab samples from residents for nucleic acid testing at a sampling site in Xiangfang district of Harbin city, Heilongjiang province. (PHOTO: XINHUA)

same as the period before the pandemic.

Thirdly, China's foreign trade keeps growing and foreign investors are optimistic about China's future development.

Foreign trade is one of the most accurate economic indicators. The total value of China's trade in goods in the first three quarters was 4.37 trillion USD, increasing 22.7 percent over the same period last year. Exports rose 22.7 percent to 2.4 trillion USD, and imports totaled 1.97 trillion USD with a growth rate of 22.6 percent. Compared with the same period in 2019, China's imports and exports increased by 23.4 percent — exports by 24.5 percent and imports by 22 percent. All of these numbers exceeded market expectations.

"They [China] are not growing at 10 percent, but they are still growing faster

than everyone else," Nicholas Lardy, a senior fellow at the Peterson Institute, told Marketplace. He indicated that China is rapidly attracting foreign direct investments, and when others' trade shrank last year, China's trade has grown and will maintain growth. "They are increasing their share of global trade quite dramatically," said Lardy.

According to Financial Times, global investor holdings of Chinese stocks and bonds rose by about 120 billion USD in 2021, despite Beijing's recent regulatory crackdown on the private sector. By the end of September 2021, international investors held 7.5 trillion RMB (1.1 trillion USD) worth of yuan-priced stocks and fixed-income securities, an increase of about 760 billion RMB (117 billion USD) from the end of 2020.

## Emerging Role of the Circular Economy on Green Development

Edited by QI Liming

According to the International Institute for Sustainable Development (IISD), circular economy solutions will play a critical role in the path to decarbonization. However, to date few nationally determined contributions explicitly identify circular actions. Yet achieving *The Paris Agreement* goals will be impossible without them: the carbon footprint associated with the extraction and processing of resource materials (including fossil fuels and agriculture) accounts for half of global greenhouse gas emissions.

Kevin Moss from the World Resources Institute, Mari Pantsar from the Finnish Innovation Fund, and Scott Vaughan from the China Council for International Cooperation on Environment and Development outline how trade policy can support the transition. In their opinions released on IISD website, one dimension of circular economy actions involves different dimensions of trade and supply chains, namely:

- Introduce government incentives that extract new value from waste material
- A core objective of the circular economy is to reduce waste streams

through the reuse and recycling of materials

- Government policy plays an important role in helping markets and consumers find new values in secondary materials

- Scale up circular business models that maximize value from reusing goods

- Consumers need to use products for longer before buying a replacement

- Use international trade policy as an enabler for a fully circular economy

- Given the growing impact of circular economy actions on domestic and international supply chains, more proactive trade policies are needed

- Bilateral and regional free trade agreements represent the best option to advance circular economy actions

**ABI research: circular economy to grow rapidly in the next five years**

As Environment+Energy Leader reported on their website, global technology intelligence firm ABI Research recently forecasted that the circular economy will grow rapidly in the next five years. By the end of the decade, the world economy is expected to achieve 10.5 percent circularity.

The circular economy is a vision for the global economy in which waste

is eliminated, resources are reused, and nature is regenerated. By repurposing materials instead of throwing them away, the circular economy can reduce greenhouse gas emissions, waste, and pollution.

Lindsey Vest, Smart Cities & Smart Spaces research analyst at ABI Research, describes the circular economy in the following terms: "The circular economy is an often-misunderstood concept that goes much further than waste management and can become a blueprint for cities. It is a movement away from our take-make-waste economy to one which designs out waste, keeps products and materials in use, and regenerates natural systems."

**The pivotal role of technology pushing forward the circular economy**

Technology will be key to realize the circular economy vision. Smart-city innovations such as the sharing economy, smart lighting, and green infrastructure are already supporting the shift. One emerging technology that is expected to play a central role is Digital Twin: a virtual model of something tangible, such as a building, bridge, or jet engine, which receives performance data via sensors placed on it.

By providing better information, Digital Twins can help inform businesses and governments about how to design-out waste from their workflows. Michael Jansen, founder and CEO of Digital Twin provider Cityzenith, says that Digital Twin, "...can cut the operating costs of buildings by 35 percent, boost their productivity by 20 percent, and cut their carbon emissions by 50-100 percent" by identifying and managing potential inefficiencies.

Digital Twin technology was recognized as one of five top tech-growth sectors by the World Nano Foundation. MarketsandMarkets predicts the Digital Twin market will grow from 3.1 billion USD today to 48.2 billion USD by 2026.

According to DW, the transition to a circular economy is still in its early stages. Today less than 9 percent of the global economy reflects circular principles, according to the *Circular Economy Gap Report*. Resources are being depleted with increasing intensity, consumption is rising, and little progress has been made in dealing with products at the end of their life cycle.

Research suggests that the benefits of the circular economy on overcoming these challenges could be significant.

## Nuclear Heating System on the Way

By Staff Reporters

Heating from fossil fuels accounts for a major share of energy consumption in many developed countries. Currently, with climate change and energy issues being so important to the planet's well-being, it is imperative to develop nuclear energy heating to mitigate these factors.

On November 15, the second phase of China's nuclear energy heating commercial demonstration project, covering an area of 4.5 million square meters, was put into operation in Haiyang city,

Shandong province, the first city in China to heat without using carbon. However, an often asked question is whether nuclear energy heating will pose the risk of nuclear pollution and leakage?

Wu Fang, a leader in Shandong Nuclear Power Company of State Power Investment Corporation, said that the public has nothing to worry about. "Nuclear heating and coal-fired plant heating are the utilization of waste heat from power plants. There is only heat exchange between the producer and the user, and other medium transmissions do not ex-

ist," said Wu.

As he explained, the nuclear heating process is mainly to extract steam from the secondary circuit of the nuclear power unit as a heat source, conduct multi-stage heat exchange through the in-plant first heat exchange station and the external heat exchange station of a heating supply enterprise, and finally transfer the heat to end-users via the municipal heating pipe network.

"Throughout the whole process, there are only two steps, i.e., water heating by steam and water heating by water,"

said Wu. There are multiple circuits for isolation between nuclear power plants and users. Only heat is transferred between circuits, and no water exchange nor radioactive materials enter the user's heating pipelines. The hot water is only circulated in a closed way in the community, isolating from the nuclear power plants layer by layer, thus eliminating any exposure and improving safety.

Yu Bing, deputy director of the National Energy Administration, said that nuclear heating brings a new option to build a clean, efficient and diversified

## Zero Tolerance: Better Prepared for COVID-19

## Voice of the World

Edited by QI Liming

A newly released report on Nature.com about the new Omicron variant has updated its transmissibility, severity and ability to evade vaccines. Omicron has prompted countries to reimpose travel restrictions, including the UK, the EU and the U.S. It was China, with strict yet valid quarantine requirements, that looked most prepared to deal with the new variant.

**Faster spreading**

Epidemiologists measure an epidemic's growth using R, the average number of new cases spread by each infection. In late November, South Africa's National Institute for Communicable Disease (NICD) in Johannesburg determined that R was above 2 in Gauteng province, South Africa. That level of growth was last observed in the early days of the COVID-19 pandemic, Richard Lessels, an infectious-disease physician at KwaZulu-Natal University in Durban, South Africa, said at a press briefing.

Gauteng's R value was much lower in September, when Delta was the predominant variant and the number of cases were falling, suggesting that Omicron has the potential to spread much faster and infect vastly more people than Delta, said Tom Wenseleers, an evolutionary biologist at KU-Leuven in Belgium. Based on the rise of COVID-19 cases and sequencing data, Wenseleers estimates that Omicron can infect 3 to 6 times as many people as Delta, over the same time period. "That's a huge advantage for the virus, but not for us," he added.

**Lower vaccines' potency against the Omicron variant**

The variant's swift rise in South Africa hints that it has some capacity to overcome immunity. Around one-quarter of South Africans are fully vaccinated, and it's likely that a large fraction of the population was infected in earlier waves, said Wenseleers, based on heightened death rates since the start of the pandemic.

In this context, Omicron's rise in South Africa might be due largely to its capacity to infect people who recovered from cases of COVID-19 caused by Delta and other variants, as well as those who've been vaccinated. A December 2 preprint from researchers at the NICD found that reinfections in South Africa have increased, as Omicron has spread. "Unfortunately, this is the perfect environment for immune escape variants to develop," said Christian Althaus, a computational epidemiologist at the Univer-

sity of Bern, Switzerland.

How well the variant spreads elsewhere might depend on factors such as vaccination and prior infection rates, said Aris Katzourakis, an expert in viral evolution at the University of Oxford, UK. "If you throw it into the mix in a highly vaccinated population that has given up on other control measures, it might have the edge there."

"The profile of the mutations strongly suggest that it's going to have an advantage in transmissibility and that it might evade immune protection that you would get," U.S. infectious disease expert Dr. Anthony Fauci told NBC.

**Safer and more effective: zero tolerance on COVID-19**

According to Bloomberg, China's "COVID-Zero" stand was vindicated as Omicron forces borders around the world to be shut down.

Currently, countries across the world scrambled to impose border and travel curbs after the new Omicron variant emerged. But in China, it was business as usual.

"Omicron is a booster shot for COVID-Zero," said Huang Yanzhong, a senior fellow for global health at the New York-based Council on Foreign Relations. "If Western countries are walking back on their reopening and closing their borders, they'll lose ground for accusing China of sticking to what they say is an unsustainable and incorrect approach."

While the verdict is still out on whether the startling genetic changes found in Omicron justify the preemptive lock down approach, some analysts said China's approach may offer benefits. Kinger Lau, a strategist with the Goldman Sachs Group Inc., said the economic fundamentals and ongoing COVID curbs in the world's second largest economy put it in a better position to face the new variant.

The lower mortality rates were tied to the stringent curbs, including changes in behavior such as mask-wearing and social distancing, that led to reduced air pollution, better hygiene and fewer traffic accidents, according to the study published in *Nature*.

"The results suggest that virus countermeasures not only effectively controlled COVID-19 in China but also brought about unintended and substantial public health benefits," the researchers said.

With more definitive data on Omicron's ability to wreak havoc likely to take weeks, more countries are expected to shut their borders. That shows other governments are also unwilling to take chances, rather than rely on science, said Jin Dong-Yan, a virologist at the University of Hong Kong.



A quarantine sign at Honolulu International Airport. (PHOTO: VCG)

heating system in northern China. At present, it is a mature technology with plenty of domestic enterprises actively participating in it. In addition to the Haiyang project, the nuclear power plants in Qinshan and Hongyanhe are also undergoing renovation.

Wu said that Haiyang residents would have their heating fee for households reduced by one RMB per square meter compared with previous years, and various indicators have met the requirements after the nuclear energy heating promotion: including saving

100,000 tons of raw coal, reducing carbon dioxide emissions by 180,000 tons, 691 tons of dust, 1123 tons of nitrogen oxides, and 1188 tons of sulfur dioxide in every heating season.

In the future, after the Phase II Demonstration Project is put into operation, the thermal efficiency of the nuclear power unit will also increase from 36.69 percent to 39.94 percent, thus achieving a win-win result among local people, local governments, heating companies, nuclear power companies, and ecological and environmental protection aspect.