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The Impact of China's Reopening on South Korean Economy

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The Chinese economy is gradually coming back amid easing in Covid-19 infections following the exit from the zero-virus policy in December 2022. Consumption is expected to pick up led by offline services in line with the normalization of economic activities. But uncertainties about the effect of reopening in China remain high due to sluggishness in China's property market and global economic slowdown. This research studies China's post-reopening developments and their impacts on the South Korean economy.

China's reopening is expected to play positively for the Korean economy through recovery in exports and return of Chinese tourists. Outbound shipments will first be led by items sensitive to domestic demand in China such as chemical products, followed by IT products like smartphones and semiconductors. The return of Chinese tourists will boost Korean services including transportation and tourism industry.

However, the Chinese contribution to the Korean economy can fall short of past levels as China's recovery will likely be led by rebound in consumer spending, while external demand remains constrained by inventory buildup. The rise in commodity prices coupled with inflationary pressure in China from its economic recovery and the return of Chinese tourists can add to inflationary buildup in Korea.

In order for the Korean economy to fully utilize China's reopening, it is necessary to steadily strengthen the export competitiveness of intermediate goods industries such as IT products. In addition, it is also important to increase the competitiveness of the service industry such as travel and cultural contents.

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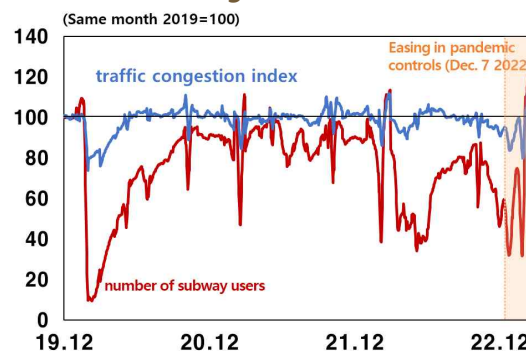


I. Post-reopening developments in China

China's economic activities have rebounded amid the easing of the infection wave following the abandonment of strict containment policies. The Covid-19 wave hit major cities after the lifting of pandemic controls in December 2022. However, the spread appears to have peaked out since the Lunar New Year's holiday period. Infection rates, the number of inpatients, and deaths have been declining, reducing the likelihood of another outbreak.¹⁾ Amid the easing of the virus, high-frequency mobility rate and other data suggest that economic activities are recovering. Mobility²⁾ has increased this year on grounds, according to the number of subway users

and traffic congestion (See <Figure 1>) as well as in air with increases in flights.³⁾

<Figure 1> Subway users¹⁾ and traffic congestion index²⁾



Notes: 1) Based on Beijing, Shanghai, Guangzhou, and Shenzhen.

2) The ratio of actual travel time to "free flow" travel time, higher=more congested, based on 100 major cities.

Sources: Wind, AMAP.

Revived consumer spending in contact services will likely lead a return to normal economic activities. According to data on in-person consumer spending⁴⁾ such as in travel, cultural activities, and transportation

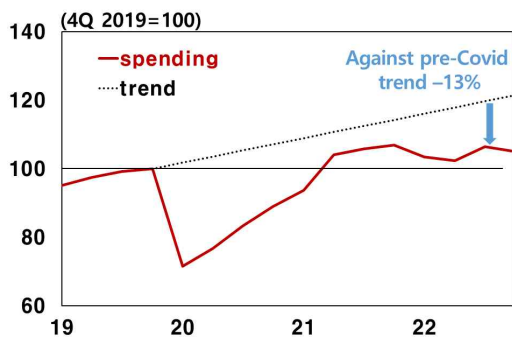
1) On February 8, Chinese authorities reported that no new variants had emerged during the Lunar New Year holiday period, and that the number of infections, critically-ill cases, and deaths had all dropped by more than 95% from their peak levels.

2) The number of subway users and the traffic congestion index in February 2023 were both higher than the levels observed in 2019.

3) On average, daily flights on international air routes increased by 212% compared to the same period the previous year, during February 2023.

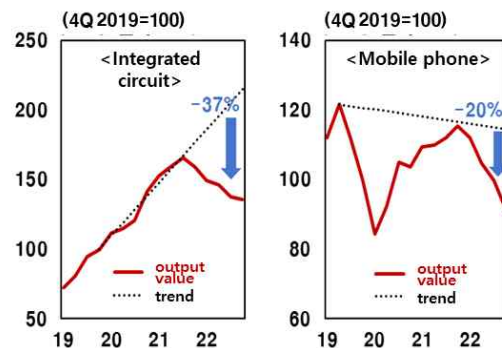
has been on the rise (See <Figure 2>) and will likely spill over to sales of goods such as mobile phones and cosmetics.⁵⁾ Output of IT products and components, such as integrated circuits and mobile phones, fell sharply⁶⁾ in the fourth quarter of 2022 compared to their trend level (See <Figure 3>) due to sluggish global demand and manufacturing and shipping constraints from virus spread. However, industrial activity is expected to pick up due to easing in domestic risk such as shutdown of production facilities and global supply chain disruptions.⁷⁾

<Figure 2> In-person services spending trend¹⁾



Note: 1) Expenditures in education, leisure, culture, transportation and tele-communication in per capita household spending survey.
Sources: National Bureau of Statistics (NBS) of China, BOK Research Department.

<Figure 3> Chinese IT device output trend¹⁾



Note: 1) In output volume term.
Sources: NBS, BOK Research Department.

However, real estate slump, tepid external demand, low excessive saving rate⁸⁾ and rise in youth unemployment rate⁹⁾ could hamper the recovery effect in China.

II. Impact on the Korean Economy

The reopening of China is expected to have a beneficial impact on the South Korean economy in two ways: firstly, by increasing exports to China and secondly, by attracting more Chinese tourists. However, the benefits may not be as significant as in the periods when Chinese economic growth was driven by investment. This is due to the fact that the current recovery is driven more by domestic consumption, and is constrained

- 4) Based on the consumption data from the in-person services sector in the fourth quarter of 2022, spending on education and recreation is estimated to have hovered around 19.7% below the 2013-2019 average, while spending on transportation and telecommunication is estimated to have been around 7.1% below the same period.
- 5) "China post-reopening consumption recovery: Large potential, lingering scars (Goldman Sachs, Jan. 2023, China recovery - commodity intensive or not (UBS, Feb. 2023).
- 6) The production of integrated circuits (ICs) and mobile phones in the fourth quarter of 2022 decreased by 37% and 20%, respectively, compared to their trend level during 2017-2019.
- 7) "China PMI, LNY activity and GDP re-configuration (JP Morgan, Jan. 2023)".
- 8) China's excess saving rate against disposable income was at around 6%, below half of the U.S. and other advanced economies benefiting from massive government household subsidies. (Goldman Sachs, Feb. 7, 2023)
- 9) Unemployment rate of youths (aged from 16 to 24,%) : 11.9 in 2019, 14.2 in 2020, 14.3 in 2021, 17.6 in 2022.

by a sluggish real estate market.

The increase in demand in China could lead to higher prices for international commodities and consumer goods in China, which could in turn limit the slowdown pace of inflation in Korea.

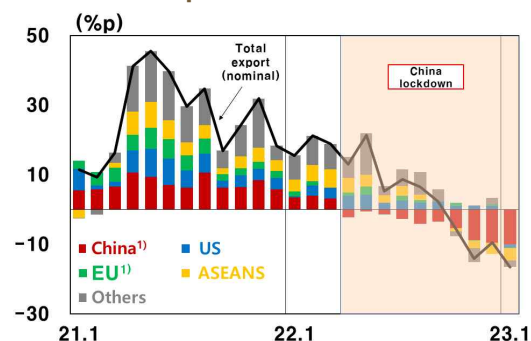
1. Exports of goods

The lockdowns in China severely impacted Korean shipments of goods to China, as shown in Figure 4. However, with the reopening effect, it is expected that Korean exports to China will improve in the second half of this year.

The rebound in each sector will occur at different times.¹⁰⁾ Chemical products, which are sensitive to domestic demand in China, will benefit first, followed by IT components and products such as mobile phones and semiconductors. The recovery pace of investment and exports will depend on policy measures from the Two Sessions of the Chinese National People's Congress and the Chinese People's Political Consultative Conference (CPPCC) in March.

However, the recovery of Korean exports in intermediate goods to China may be restrained by lethargic global IT demand, high inventory buildup and increased self-sufficiency rates in the Chinese manufacturing sector.

<Figure 4> Regional contributions to total exports



Note: 1) Including Hong Kong and the UK.

Source: Korea Customs Service.

The recovery of Korean IT intermediate exports is likely to be constrained due to softening global demand caused by the end of the pandemic boom and the global slowdown, as well as a recovery in services-driven demand in China. Additionally, the Chinese's preference for China-made smartphones¹¹⁾ may result in sluggish shipments of IT finished goods.

<Table 1> Correlation between Chinese indicators and Korean exports to China by item¹⁾

Item (share in exports to China)	Correlation (Lags of maximum correlation)	
	Consumption in China ²⁾	Exports in China
Exports to China (100.0)	0.40	0.51
IT items (51.1)	0.16 (1)	0.41 (2)
- Semiconductor chips (34.3)	0.12 (1)	0.30 (1)
Non-IT goods (48.9)	0.55 (1)	0.48 (2)
- Chemical goods (20.8)	0.43 (1)	0.54 (2)

Notes: 1) Based on monthly year-on-year growth rate between 2018-2022.

2) Based on retail sales.

Source: BOK Research Department estimates.

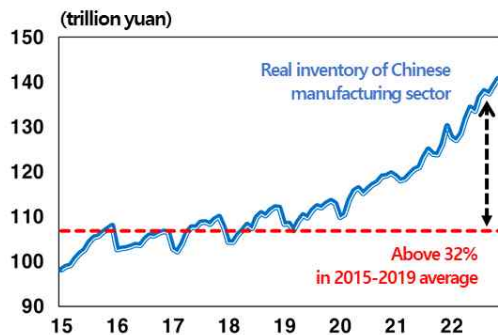
10) Non-IT items, such as chemical products, show a strong correlation with Chinese consumption, with a maximum time lag of one month, while chips and other IT items have a high correlation with exports to China, with a maximum time lag of two months.

11) Smartphone market share in mainland China 3Q 2022 (%), Canalys): vivo (China) 20, OPPO (China) 17, HONOR (China) 17, Apple (US) 16, Xiaomi (China) 13.

The stockpiling of inventories in China is another constraint. Inventories in PC, mobile phones, and other electronics at Chinese manufacturers have surged since the pandemic, exceeding the 2015-2019 average by a significant margin by the end of 2022 (See <Figure 5>).

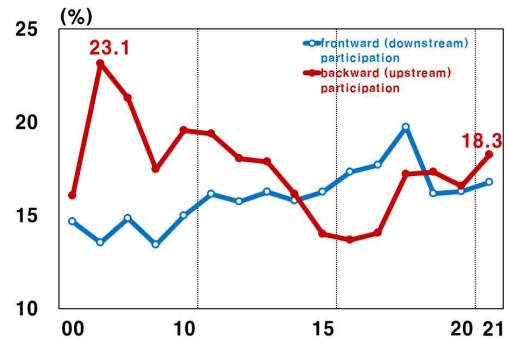
The increasing self-sufficiency rate¹²⁾ (<Figure 6>) and enhanced localized supply chain of intermediate goods in China's backward (upstream) industry participation rate in the global value chain are other factors that may negatively impact Korean exports. Nonetheless, there is still potential for growth in high-tech intermediate goods once the market reopens.¹³⁾

<Figure 5> Inventory levels of Chinese manufacturers



Note: 1) Adjusted inventory by dividing nominal sum by producer price index (PPI).
Source: NBS.

<Figure 6> China's role in global value chain (GVC)



Sources: ADB MRIO, BOK calculations.

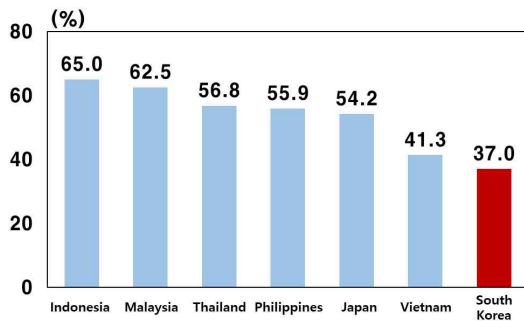
2. Chinese Tourist Influx

Chinese tourists are anticipated to return from March 2023 following the resumption of short-term visas for Chinese nationals starting from February 11 and the removal of PCR testing requirements from March 1. While foreign travelers to other Asian countries have been experiencing a swift recovery, the number of arrivals to Korea as of December 2022 remained at only 37 percent of the levels seen in 2019 before the pandemic. (<Figure 7>) The primary reason for the slow recovery in arrivals to Korea is the comparatively low number of Chinese tourists returning to the country. (<Figure 8>)

12) China's backward (upstream industry) participation rate in global value chain fell to 18.3% in 2021 from 23.1% in 2007 due to higher self-sufficiency rate.

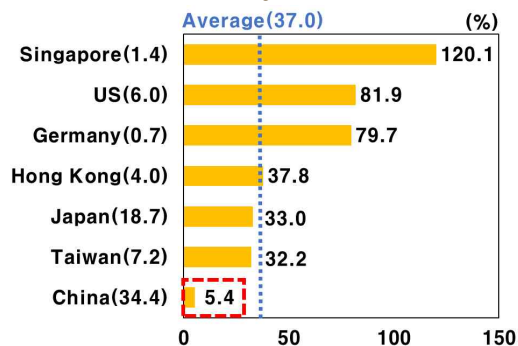
13) Growth rate in exports of intermediate goods to China by technology level from 2017 to 2021 (%), Korea International Trade Association): low-level technology intermediate products -3.6, mid-level intermediate products 3.9, high-level intermediate products 9.3.

<Figure 7> Recovery rate in foreign visitors to Asian countries¹⁾



Note: 1) Dec. 2022 data vs Dec. 2019, in Malaysia's case, as of Sept. 2022.
Source: CEIC.

<Figure 8> Recovery rate in foreign visitors to Korea by country¹⁾



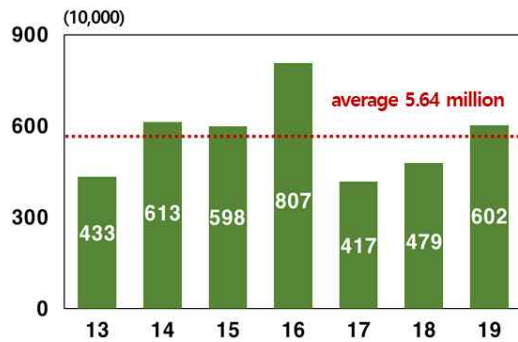
Notes 1) As of Dec. 2022 in comparison to Dec. 2019.
2) The number in parenthesis () is the share of the national in foreign visitors to Korea in 2019.
Sources: Korea Tourism Knowledge & Information System.

Considering the proportion of Chinese tourists in Korea's tourism industry in the pre-Covid19 period (<Figure 9>) and their average spending per tourist¹⁴⁾, the recovery of outbound travel from China could have a significant impact on Korea's domestic services sector. Based on an Input-Output table analysis, an increase of 1 million Chinese tourists in Korea can lead to a 0.08 percentage point increase in the country's

14) Spending per tourist (based on 2019 data, USD): China 1,689, Japan 674.8, US 1,106.4.

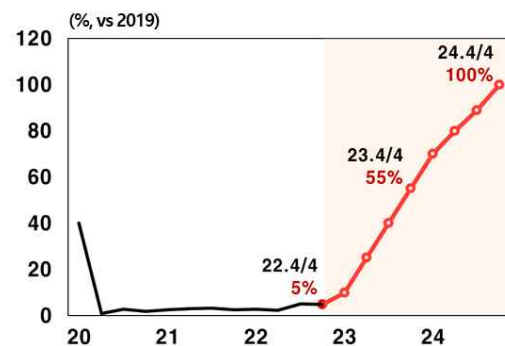
GDP growth rate. However, the delayed recovery in flight capacity could potentially hinder this effect.

<Figure 9> Pre-pandemic arrivals from China



Source: Korea Tourism Organization.

<Figure 10> Estimate on arrivals from China



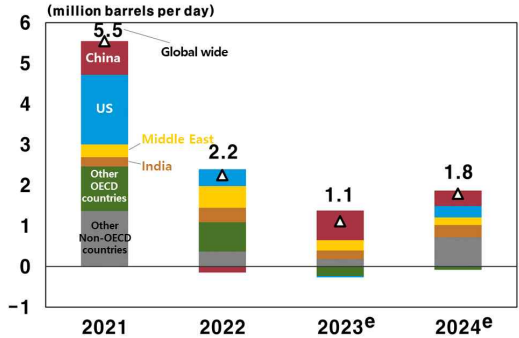
Note: 1) Reflecting consensus of investment institutions.
Sources: KTO and BOK estimates.

3. Prices

With increased demand from China, there is likely to be an impact on commodity prices such as crude oil. As China is the world's largest crude oil importer, there may be upward pressure on oil prices towards the second half of 2023, in line with the country's economic recovery.¹⁵⁾ (<Figure 11>). According to most forecasters,

international oil prices are expected to stabilize in light of the global economic downturn compared to the previous year. However, there is a possibility for oil prices to rebound depending on the rate of growth in China.

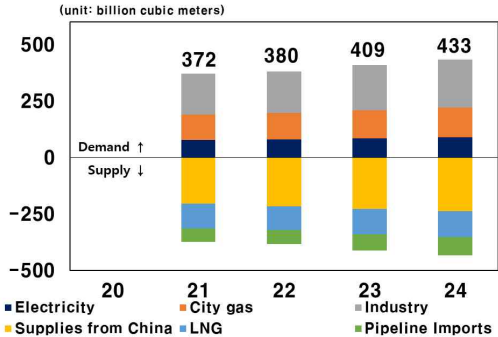
<Figure 11> Rise in global crude oil demand



Source: EIA.

As China's industrial and electricity production activities increase, there is likely to be a growth in the country's demand for liquefied natural gas (LNG)¹⁶. However, the price of LNG may not increase significantly due to the increase in supply from Chinese domestic production. In addition to the increase in domestic production of LNG in China, there are also other factors that could potentially limit the price of LNG. These include imports of Russian pipeline natural gas (PNG) as well as the expansion of LNG supply capacity mainly from producers in the United States. These factors could put downward pressure on the price of LNG.

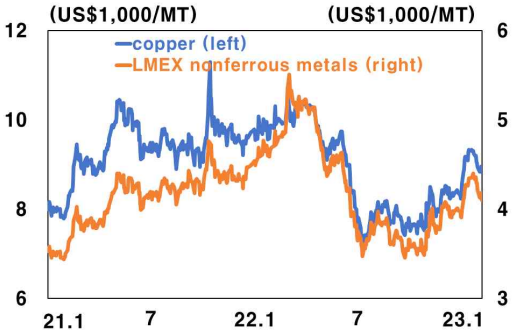
<Figure 12> Estimate on Chinese natural gas demand



Source: Bloomberg.

The prices of nonferrous metals such as aluminum and copper, which are used as industrial inputs, have been on the rise since the end of last year. The persistence of these price increases is expected to be closely linked to the pace of economic recovery in China.

<Figure 13> London Metal Exchange (LME) nonferrous metal and copper prices



Source: Bloomberg.

The reopening of China could potentially lead to upward pressure on global commodity prices. Additionally, it may result in higher inflation in China and demand-side oriented price increases in Korea.

The rise in oil and other energy prices

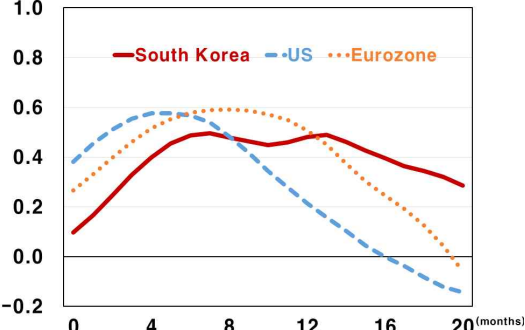
15) China's crude oil consumption is estimated to have fallen about 1 million barrels against pre-pandemic levels due to zero-Covid policy (Morgan Stanley, Nov. 2022).

16) China's LNG imports last year declined about 20% on year.

due to China's reopening could potentially lead to higher petroleum and utility prices. This could, in turn, limit the slowdown pace of inflation in Korea. Furthermore, the impact of higher petroleum and utility prices could potentially spill over into other consumer and service prices as a second-round effect, leading to an overall increase in inflationary pressures. (<Figure 14> and <Figure 15>)

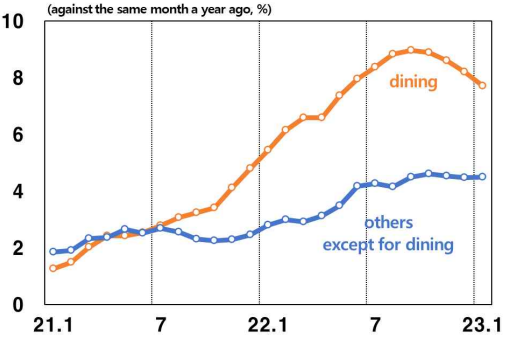
The reopening of China could potentially lead to inflationary pressures in Korea from the demand side as well as domestic inflation in China. While an accelerated recovery in China could aid the Korean economy through increased exports and Chinese outbound tourism, it could also lead to higher inflationary pressures. As the arrival of Chinese tourists picks up, it is possible that personal service prices, such as those for dining and lodging, could experience upward pressure. If inflationary pressures continue to build up in China due to faster normalization of the Chinese economy, these effects could potentially transmit to Korea with some time lags through trade channels¹⁷⁾ with China. The potential inflationary pressure resulting from the reopening of China could be mitigated by increased domestic output in China.

<Figure 14> Time lagged correlation between crude price¹⁾ and fuel utility charge²⁾ growth rate³⁾



Notes: 1) Based on Dubai crude.
 2) Electricity, city gas, and heating.
 3) Against the same month a year ago (Jan-Dec 2022).
 Sources: Statistical offices of each countries, Authors' calculations.

<Figure 15> Personal service prices



Source: Statistics Korea.

III. Conclusion

The Chinese economy is expected to experience a gradual recovery since the pandemic controls were lifted in December 2022, with consumer spending showing signs of rebounding. The reopening of China has the potential to be beneficial for Korea, particularly in terms of increased exports to China and an influx of Chinese outbound

17) "Chinese Price Pass-Through to Korean Prices through Import Structure"; BOK Issue Note 2021-32.

tourists. The initial increase in outbound shipments from Korea to China is likely to be driven by products that are sensitive to domestic demand in China, such as chemical products. This will likely be followed by an increase in shipments of IT products like smartphones and semiconductors. The return of Chinese tourists to Korea is expected to give a boost to the country's service sector, particularly the transportation and tourism industries.

The contribution of China to the Korean economy may not reach the levels seen in the past due to the fact that China's recovery is expected to be primarily driven by a rebound in consumer spending, while external demand may be limited by inventory buildup. Korea's exports to China may be limited due to several factors, including the increasing self-sufficiency rate of intermediate goods in China, which reduces the need for imports. Additionally, while China's consumer spending is expected to rebound, its external demand may still be constrained by inventory buildup. Meanwhile, the rise in international crude oil prices, demand-side price pressure in Korea, and increasing prices in China could add upward pressure to inflation in Korea.

Monitoring the pace of China's economic recovery is critical for Korea, as the country's long-term growth prospects could be constrained by various factors such as conflicts with the United States, inefficiencies in state-owned enterprises, and demographic challenges stemming from an aging population. Therefore, Korea needs to closely observe China's economic trajectory to prepare for potential challenges and identify opportunities for cooperation.

To maintain and increase its exports to

China, Korea should focus on securing competitiveness in IT and other advanced intermediate products. Additionally, Korea should upgrade its contents and travel services to attract more Chinese tourists.

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