

Comparison of Real Estate Bubbles in China and Japan, and Prospects for the Chinese Economy

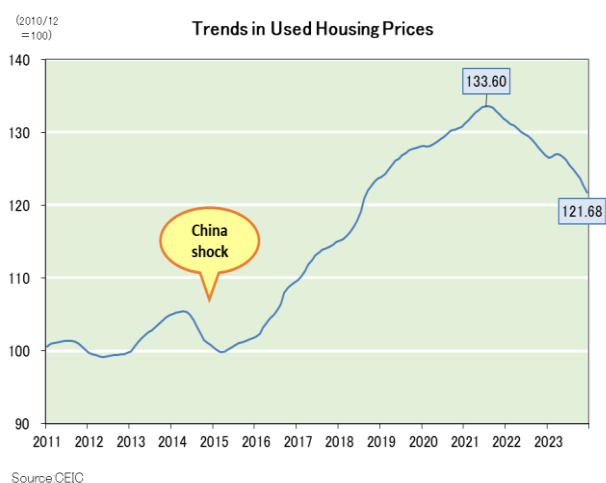
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1—China's Real Estate Market Continues to Decline

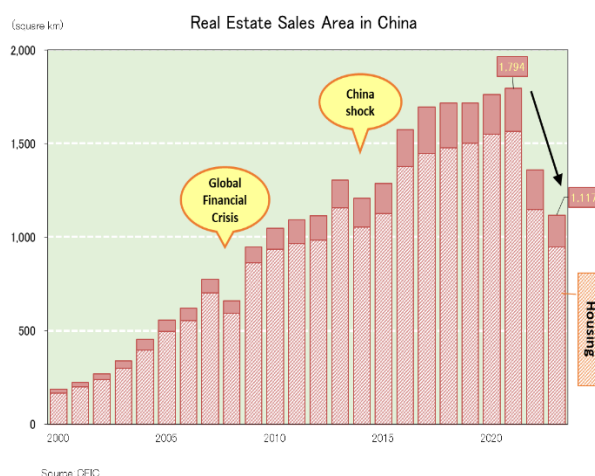
The slowdown in China's real estate market persists, with house prices gradually decreasing. Chart 1 illustrates the prices of existing houses in 70 cities, as reported monthly by the National Bureau of Statistics, indexed to December 2010 (=100). Prices peaked at 133.60 in July 2021 and have since declined to 121.68 in December 2023, a decrease of nearly 10%. During the late 2014 to early 2015 period, amid a previous shock, prices dropped by about 5%. However, the current decline is more pronounced, with no signs of stabilization.

This downturn is mirrored in sales figures. Real estate sales plummeted to 1,117 square kilometers in 2023, approximately 60% of the peak seen in 2021. Historically (Chart 2), sales dipped by around 10% during the global financial crisis (2008) and the China shock (2014–15), but recovered to pre-shock levels within a few years, continuing to rise thereafter.

[Chart -1]



[Chart -2]



However, the current decline is more severe. Additionally, in the housing sector, which accounts for over 80% of real estate sales (by area), inventory (including in-process inventory) is accumulating. Should the current sales slump persist, it could take several years to clear this inventory alone.

The real estate sector was once a key driver of the Chinese economy. Real estate growth, as measured by GDP, averaged 10.3% annually in the 1990s and 10.7% in the 2000s, with double-digit growth becoming the norm. However, real estate growth slowed to 4.7% in the 2010s, and it declined by -3.9% compared to the previous year in 2022, followed by a -1.3% decline in 2023, marking the second consecutive year of negative growth (Chart 3). Consequently, many real estate developers are facing financial instability. Despite the Chinese government's introduction of the "Article 16"¹ measures in November 2022, aimed at providing financial assistance, the effects of these measures were temporary, and real estate-related loans remain stagnant (Chart 4).

The current real estate downturn in China bears resemblance to the real estate bubble burst that Japan experienced in the 1990s. This article compares and analyzes the real estate bubbles in Japan and China, and subsequently delves into the future of the real estate bubble in China.

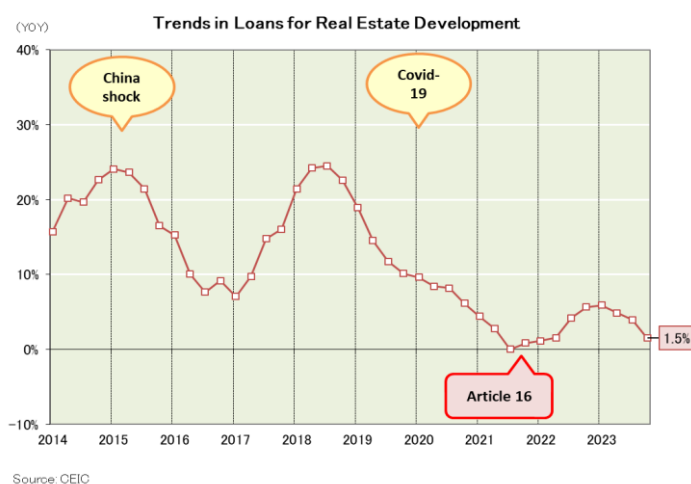
[Chart -3]

Real Growth Rate by Industry (%)

	2022年	2023年
GDP	3.0	5.2
Primary Industry	4.2	4.1
Secondary Industry	2.6	4.7
Manufacturing	1.7	4.4
Construction	2.9	7.1
Tertiary Industry	3.0	5.8
Transport, Storage and Post	0.7	8.0
Wholesale and Retail Trade	2.5	6.2
Accommodation and Catering Trade	▲ 2.8	14.5
Financial Intermediation	3.1	6.8
Real Estate	▲ 3.9	▲ 1.3
Information Transmission, Software	12.2	11.9

Source:CEIC

[Chart -4]



2—Real Estate Bubble in Japan

Before delving into the real estate bubble in China, let's first examine the real estate bubble that occurred in Japan. A real estate bubble typically refers to an inexplicable surge in real estate prices, likened to a "bubble" due to its fragile and unsustainable nature. In this section, we will describe the stages of a real estate bubble: the "Formation" stage, during which real estate prices soar and the bubble expands, and the subsequent "Collapse/Cleanup" stage,

¹ The People's Bank of China and the China Banking and Insurance Regulatory Commission issued a notice on November 11, 2022, to fully support the stable and healthy development of the real estate market through finance. They announced 16 support measures in six areas, including stabilizing loans to real estate developers, providing special loans to ensure the reliable delivery of housing, encouraging asset management companies to support financially troubled real estate developers, and protecting the interests of mortgage users.

when the bubble bursts, leading to bankruptcies among real estate developers, non-performing loans burdening banks, and other related consequences.

1 | Formation Stage of the Real Estate Bubble in Japan

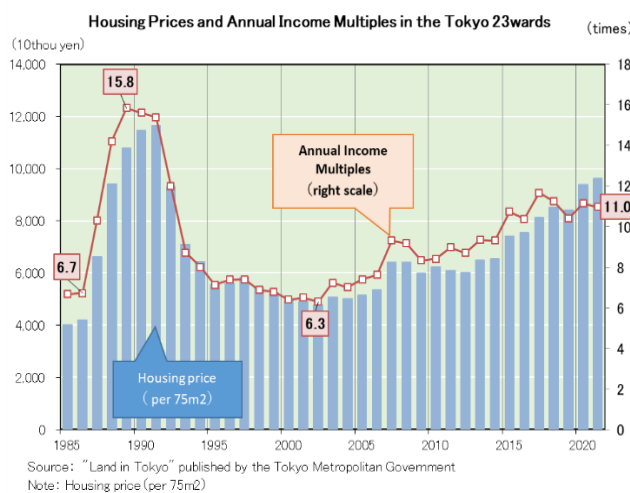
The real estate bubble in Japan began to take shape around 1987. According to data from "Land in Tokyo" published by the Tokyo Metropolitan Government (Chart 5), the price per 75 square meter of an apartment in the Tokyo 23wards area was 41.85 million yen (6.7 times the annual income) in 1986. However, it surged to 66.08 million yen (10.3 times the annual income) in 1987, 94.2 million yen (14.2 times the annual income) in 1988, and 107.85 million yen (15.8 times the annual income) in 1989.

This surge was fueled by the "land price myth," which asserted that land prices would always rise. Following the Plaza Accord in 1985, Japan experienced a sharp appreciation of the yen, prompting Japanese companies to enhance their ability to cope with the strong yen by expanding overseas production and cutting costs through streamlining and automation. Additionally, the Bank of Japan lowered its discount rate five times to address the economic downturn caused by the strong yen, leading to a structural shift from reliance on external demand to domestic demand. With low interest rates, Japan witnessed a speculative boom known as "Zaitech," with real estate emerging as a favored investment option.

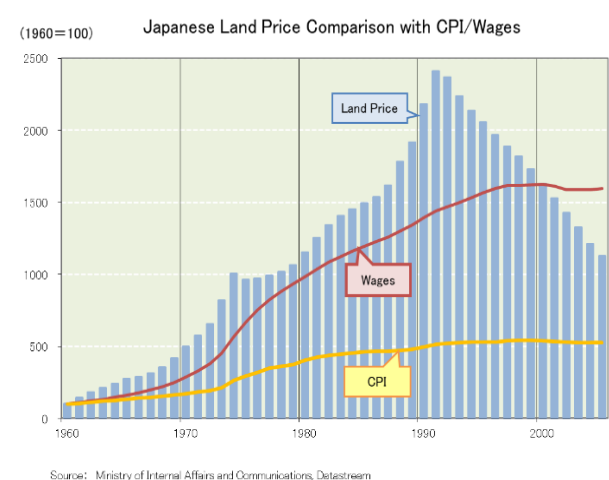
Examining the historical trends in land prices in Japan (Chart 6), we observe that while prices experienced periodic declines, they generally continued to rise over the long term, rebounding after a few years. Moreover, the growth in land prices consistently outpaced the growth in consumer prices and wages, reinforcing the notion of the "land price myth."

Consequently, real estate developers spearheaded a surge in real estate investments, while general corporations actively acquired real estate, and ordinary individuals began investing in condominiums with borrowed funds. Financial institutions provided financial backing for these speculative activities. As a result, Japan as a whole became complacent about high prices, leading to an unprecedented rise in real estate prices.

[Chart -5]



[Chart -6]



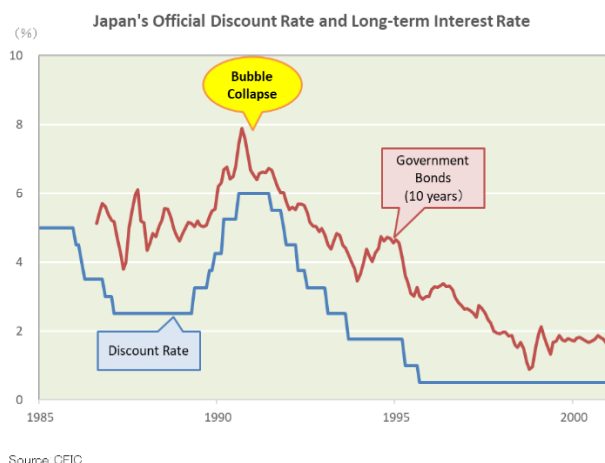
2 | Collapse/Cleanup Stage of the Real Estate Bubble

The real estate bubble in Japan reached a turning point around 1990, with land and condominium prices peaking in 1991 before starting to decline². Several factors contributed to this decline: (1) an increase in the official discount rate and subsequent rise in long-term interest rates since 1989 (Chart 7), (2) revisions to the tax system following the enactment of the Basic Act for Land, and (3) regulations such as "total volume control," which limited the growth rate of loans to the real estate industry (excluding loans to public housing development institutions) to prevent it from exceeding the overall rate.

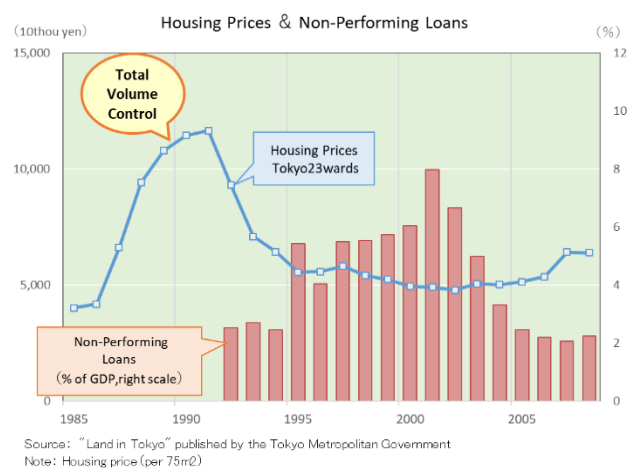
As prices began to fall, real estate developers, corporations, and individuals began to withdraw from the market, akin to rats fleeing a sinking ship. By around 2000, land and condominium prices had returned to pre-bubble levels (1986), and Japan's real estate bubble had finally burst.

Subsequently, Japan embarked on a cleanup effort to address the aftermath of the real estate bubble. Financial institutions reduced lending to the real estate industry under total volume controls. Real estate developers, who had been expanding their real estate investments using loans from financial institutions, faced declining asset values due to falling real estate prices and increased costs from rising interest rates on their liabilities. To manage this, they resorted to fire sales (selling properties below cost) to repay debts and began restructuring their balance sheets. Similarly, corporations and individuals who had leveraged investments (investments using borrowed funds) also adjusted their portfolios. The forced selling of properties led to a wave of bankruptcies among real estate developers, and some corporations faced bankruptcy despite profitability in their core businesses. Many individuals also went bankrupt due to their debt obligations. Non-performing loans at financial institutions surged, leading to financial instability, prompting institutions to reluctant lending, causing a credit crunch (Chart 8).

[Chart -7]



[Chart -8]

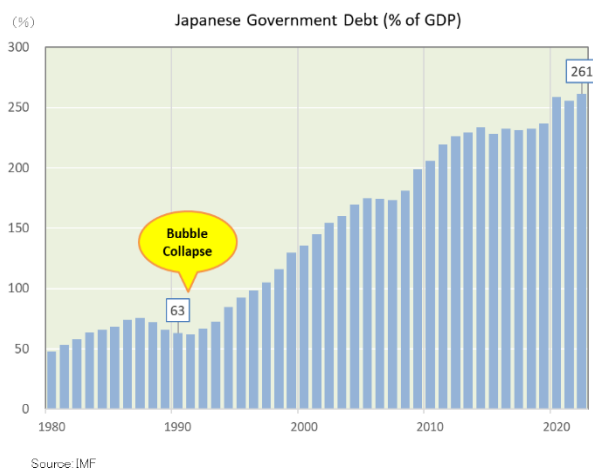


In an effort to mitigate this financial instability, the Japanese government injected public funds into financial

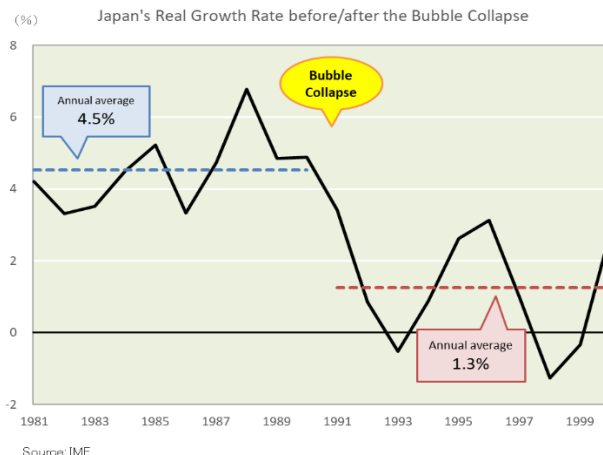
² The timing of the decline in land prices varied among regions. Around 1988, when land prices began to decline in Tokyo, they increased in metropolitan and regional areas such as Osaka and Nagoya. This was because funds were flowing into areas where prices were lower than in Tokyo.

institutions. Consequently, government debt, as a percentage of GDP, which had been declining, bottomed out at 63% in 1990 before starting to rise (Chart 9). As the Japanese government implemented large-scale economic stimulus measures to revive the ailing economy, government debt further increased. Despite the low number of individuals purchasing homes for personal use, high-interest mortgages dampened their willingness to spend. Following the bursting of the real estate bubble (1991–2000), the real growth rate averaged an annual increase of 1.3%, a significant decline from the 4.5% increase seen in the previous decade (1981–90) (Chart 10).

[Chart -9]



[Chart -10]

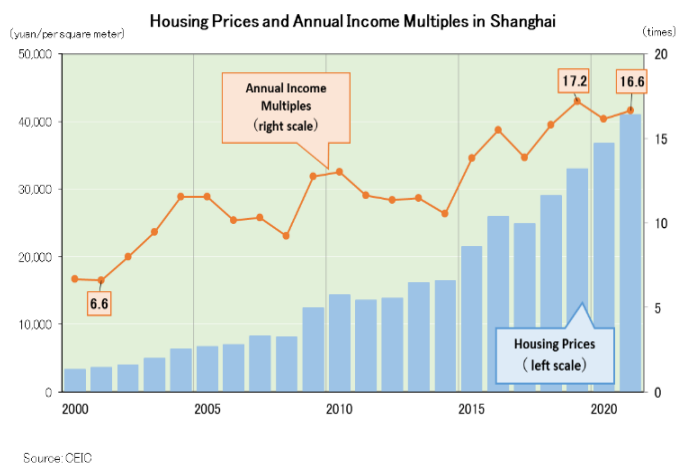


3—Similarities and Differences Between China's Real Estate Bubble and Japan's

1 | Degree of Bubble

During Japan's bubble period, as mentioned earlier, housing prices in the Tokyo metropolitan area surged inexplicably, becoming unaffordable for the average person. How does China compare? To assess this, we calculated the annual income multiple in Shanghai. The average annual wage in Shanghai, as reported by the National Bureau of Statistics, was 191,844 yuan in 2021. With an average of 1.45 workers per household in 2012, the combined annual wage is estimated at 278,174 yuan. In contrast, the housing price in Shanghai

[Chart -11]

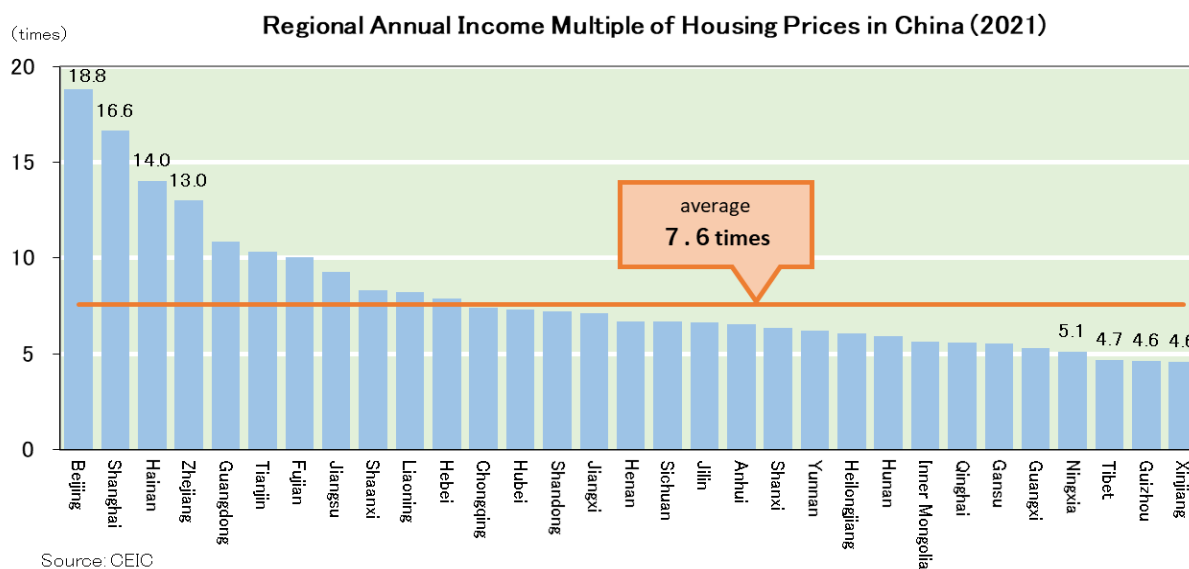


stands at 40,974 yuan per square meter, with an average housing area per capita (urban area) of 39.8 square meters in 2021 and an average of 2.84 persons per household in 2012, resulting in an estimated combined housing price per household of 4,631,404 yuan. Based on these estimates, the annual income multiple is calculated at 16.6 times

(Chart 11). This is nearly identical to the 15.8 times seen in 1989 for the Tokyo metropolitan area, indicating an inexplicable rise in housing prices in Shanghai. Internationally, a ratio of 4 to 6 times the annual income is considered reasonable.

A similar calculation for areas outside of Shanghai City (Chart 12) reveals that Xizang Autonomous Region, Guizhou Province, and Xinjiang Uygur Autonomous Region fall within the reasonable range (4 to 6 times). However, Beijing is more expensive at 18.8 times, exceeding Shanghai City, with a national average slightly higher at 7.6 times. While China exhibits significant regional disparities due to its vast land area, housing prices in major cities like Beijing and Shanghai are notably higher, indicating an extremely high degree of bubble.

[Chart -12]



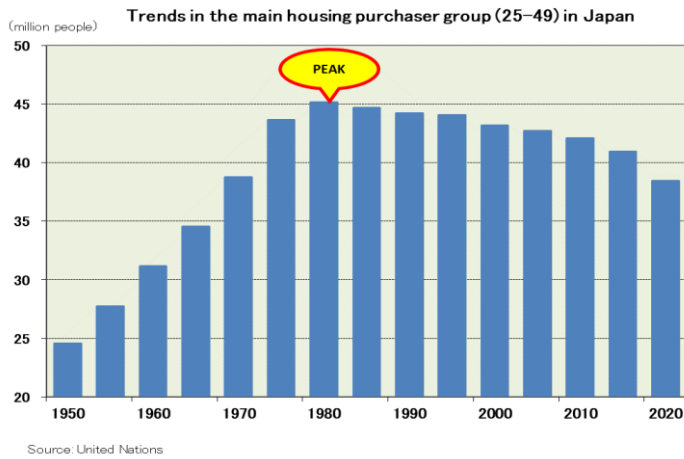
2 | Housing Demand Trends

As Japan's bubble economy began to deflate, the declining birthrate and aging population led to a peak and subsequent decline in the population of major homebuyers (aged 25-49) around 1980 (Chart 13). How does China fare in comparison?

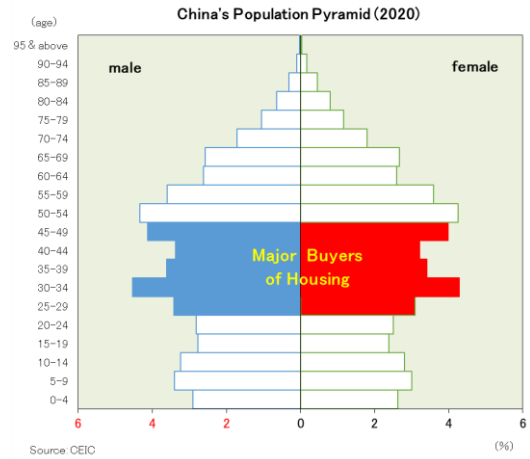
In China, the birthrate is declining, and the population is aging, causing the population of major homebuyers to decline after peaking around 2012. Analysis of China's population pyramid (Chart 14) shows a historically low number of individuals under 24, who are future homebuyers. Consequently, any potential future surge in housing purchases is unlikely to be sustained, with a downward trend expected.

Conversely, urbanization, the migration of people from rural to urban areas, continues in China. The urbanization rate in China stands at 66.2% (2023), lower than Japan's in 1990, which was around 77%. However, as noted earlier, the population under 24 is small, suggesting a slowdown in the pace of urbanization. It is also worth noting that while housing demand in major cities will rise as people migrate from rural to urban areas, it will decline in rural areas.

[Chart -13]



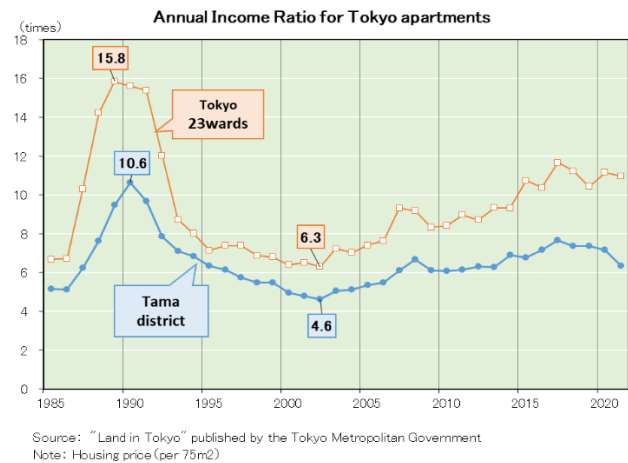
[Chart -14]



3 | Housing Price Volatility

Before and after the bursting of Japan's bubble, both the rate of increase to the peak and the rate of decline thereafter were greater in large cities such as Tokyo, Osaka, and Nagoya than in regional cities. In the case of Tokyo (Chart 15), although housing prices in 23wards area were initially somewhat expensive, they rose rapidly following the formation of the bubble after 1987, and then declined sharply following its burst. The Tama area, which is Tokyo suburban area, exhibited a similar trend, but with a smaller fluctuation rate compared to urban areas.

[Chart -15]



What is the situation in China today? Since new housing prices are heavily influenced by government controls, we will examine the price movements of used housing. Looking at this (Chart 16), the city with the highest rate of increase up to the peak was Shenzhen City (Guangdong Province), where prices nearly tripled since December 2010. In major cities like Beijing and Shanghai, prices doubled across the board. Although prices in Shenzhen City peaked in April 2021 and have since declined, the rate of decline remains at 8.9%, which is not sufficient to cause a bubble to burst.

Conversely, Mudanjiang City (Heilongjiang Province) experienced the largest drop from its peak, falling 36.6% since reaching its peak in April 2011. Looking at the trend of existing house prices, Mudanjiang City saw a 15% decline due to the China shock from 2014 to 2015 (Chart 17). Subsequently, while Mudanjiang City somewhat recovered due to the beginning of the bubble formation across China, it never returned to pre-China shock levels and began declining again in June 2019. In the four and a half years since then, Mudanjiang City has seen a 30% decline, and the bubble has burst. Incidentally, the annual income ratio in Heilongjiang Province, where Mudanjiang City is located, has fallen to 6 times, which is within a reasonable level (Chart 12).

In Japan, a bubble formed over several years before collapsing within a few years. In China, while the bubble has burst in some regional cities, the rate of decline in major cities (Beijing, Shanghai, Guangdong Province) is small, and the degree of the bubble is still high, with the annual income ratio exceeding 10 times (Chart 11). If the bubble were to burst in China's major cities, it would likely be in the future, not now.

[Chart -16]

Rise rate to peak (top 10)

Rank	City	Rate
1	Shenzhen	178.9%
2	Beijing	124.0%
3	Guangzhou	107.9%
4	Shanghai	100.0%
5	hefei	81.3%
6	Xiamen	71.2%
7	Wuxi	70.5%
8	Nanjing	70.5%
9	Wuhan	59.2%
10	Hangzhou	53.2%

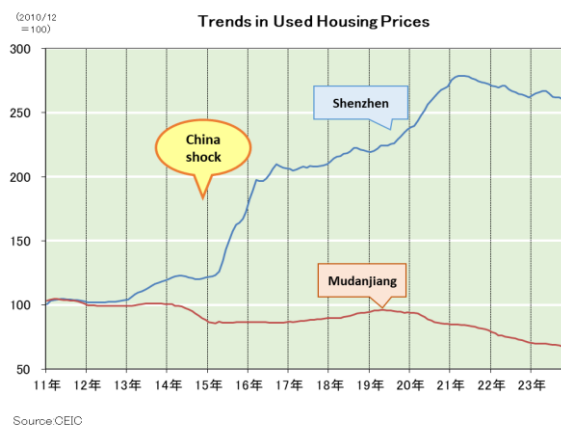
Source:CEIC

Note:The starting point for the rate of increase to the peak was December 2010.

Rate of decline from peak (top 10)

Rank	City	Rate
1	Mudanjiang	-36.6%
2	Wenzhou	-22.8%
3	Jinzhou	-19.8%
4	Anqing	-18.6%
5	Harbin	-18.5%
6	Zhengzhou	-17.8%
7	Beihai	-17.6%
8	Yichang	-17.5%
9	Jilin	-17.0%
10	Guiyang	-15.6%

[Chart -17]



Source:CEIC

4 | Finance

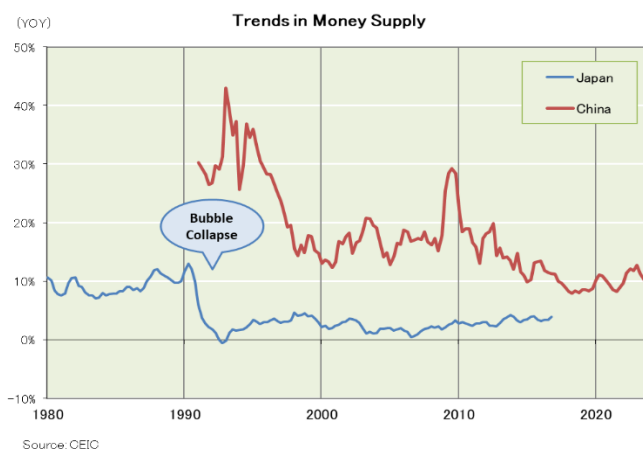
After the bursting of the bubble economy, not only real estate developers but also ordinary companies and individuals in Japan began selling their properties simultaneously, leading to the sudden manifestation of the effects of previous monetary tightening measures (Chart 7). Consequently, the growth of the money supply sharply decelerated (Chart 18), economic activity stagnated, and non-performing loans held by financial institutions surged (Chart 8), causing financial system instability.

What is the current situation in China? Although there has been considerable selling by real estate developers and individuals who purchased real estate for speculative purposes, the money supply has remained at around 10% compared to the previous year (Chart 18), and the amount of non-performing loans held by financial institutions has increased but remains at around 3% of GDP (Chart 19). This is partly because prices in major cities have only slightly declined due to government control, and the bubble has not burst.

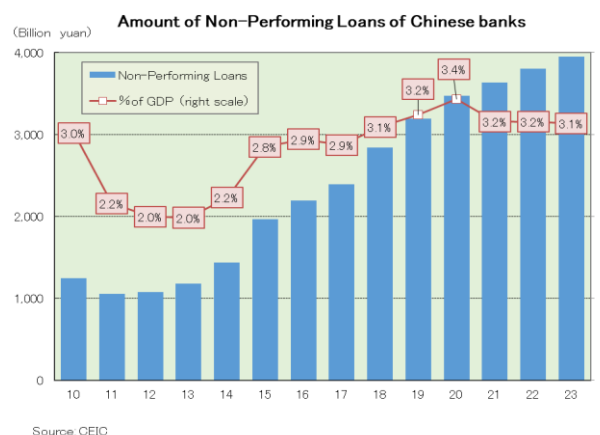
If bubbles do not burst in major cities, China may avoid the financial system instability experienced by Japan. However, there is no evidence to conclude that bubbles will not burst in major cities. While it is true that Chinese commercial banks do not have a large number of non-performing loans, with the ratio of non-performing loans to total loans only around 1%, and the ratio of non-performing loans to GDP at just over 3%, indicating healthier bank management compared to Japan after the bubble burst. However, Chinese banks have been disposing of non-performing loans worth about 3 trillion yuan for three consecutive years since 2020. The question then arises: where did the non-performing loans that were removed from banks' balance sheets go? Although their whereabouts are unknown, it cannot be ruled out that they were transferred to Asset Management Companies (AMCs). At present, this is not a major concern because the bubble has not burst in major cities, but if it does, the financial

condition of AMCs is something to watch out for. There is a not insignificant risk that China could fall into financial instability.

[Chart -18]



[Chart -19]



5 | Other Notable Points

Additionally, when comparing the bursting of the bubble in Japan with that in China, the following four points should be kept in mind.

Firstly, the level of GDP per capita: at the peak of the real estate bubble in 1991, Japan's GDP per capita was \$29,512, higher than that of the United States (\$24,303) (Chart 20). At that time, Japan was also in the midst of a trade dispute with the United States. Therefore, even if the real estate bubble burst and domestic demand was damaged, the hurdle for Japan to return to dependence on external demand was very high. In contrast, China is currently in the midst of the U.S.-China conflict, but its GDP per capita is only \$12,814, or 1/6 of the U.S. GDP (\$76,348). Therefore, the potential for international competitiveness of Chinese products is higher than that of Japan at that time.

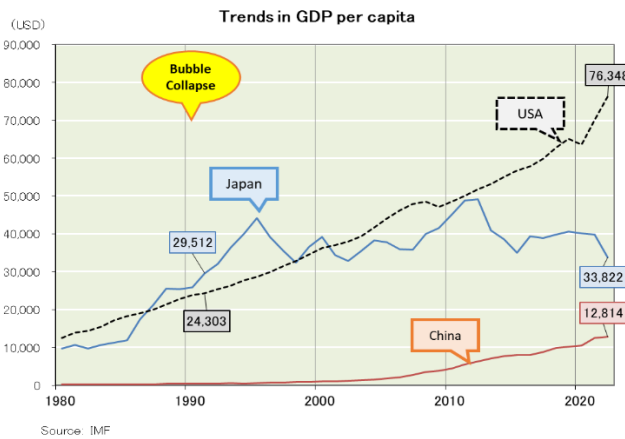
Secondly, the existence of promising export destinations: at that time, Japan had an extremely promising export destination called "China," which was certain to develop in the future. In fact, Japan expanded its exports to China after the bubble burst (Chart 21). On the other hand, there are countries and regions in that are certain to develop in the future, such as India, ASEAN, and Africa. In fact, China is working hard to incorporate the Belt and Road Initiative. However, due to border disputes between India and China, it is unlikely that China will be able to expand its exports as much as Japan expected at that time.

Thirdly, the stock bubble: when the real estate bubble burst in Japan, the stock bubble burst almost simultaneously, exacerbating the economic impact (Chart 22). In contrast, the current stock market in China has been sluggish due to the slump in business performance caused by the real estate recession. However, with a price-earnings ratio (PER) of 12 times and a price-to-book ratio (PBR) of 1.2 times, indicating a low degree of bubble (Chart 23). Although the stock market may fall due to further downturns in business performance, it is not a bubble in the first place, so it is not expected to collapse. In this regard, the impact on the economy is expected to be smaller than

that of Japan at that time.

Fourthly, the debt structure of developers: while real estate developers in Japan often invest in real estate with their own funds and loans, in China they often build on advances received from buyers. For example, in the case of Country Garden(碧桂园), properties under development account for half of its assets, while advances account for 44% of its liabilities. It is also necessary to pay attention to the influence of business practices that differ from those in Japan.

[Chart -20]



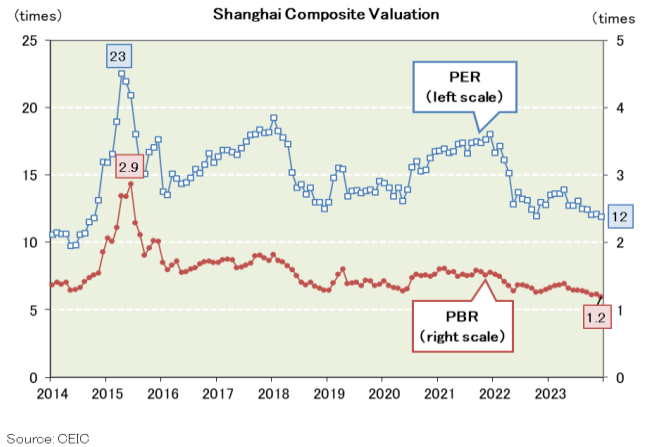
[Chart -21]



[Chart -22]



[Chart -23]



4—Chinese Economic Outlook

Based on the comparison of the real estate bubbles between Japan and China, let's now look at the future of the Chinese economy.

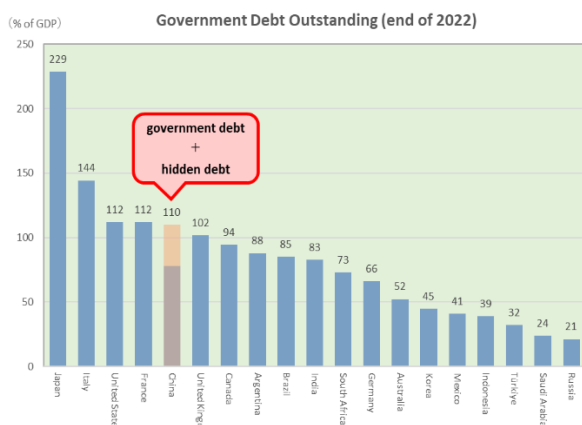
In the main scenario, although the real estate bubble has not yet burst in major Chinese cities, housing inventories are currently accumulating, and the demand for housing is expected to continue declining. Therefore, the slump in the real estate industry is expected to depress the overall growth rate of the Chinese economy for an extended period. Furthermore, China is facing demographic challenges such as a declining birthrate and an aging population,

and there is limited room for fiscal action. As a result, the economic growth rate is expected to gradually slow down and reach the 2% level in 10 years, aligning with that of developed countries. Each time China employs fiscal stimulus measures, its outstanding government debt (as a percentage of GDP) will increase, approaching the levels seen in Japan.

However, even if economic growth temporarily turns negative, it will likely be short-lived. In such a scenario, there is still some fiscal stimulus capacity available. China's outstanding government debt, including hidden debt, is currently around 110% of GDP, significantly lower than Japan's (Chart 24). Given that China's GDP per capita is only 1/6 of that of the United States, exports of new energy-related products such as electric vehicles and power batteries are expected to remain robust, and the information and communications services sector is expected to maintain double-digit growth through the utilization of artificial intelligence (AI), thus boosting the economic growth rate (Chart 25). Looking at Japan's economic growth rate after the bursting of its bubble (Chart 10), the decline was temporary, with an average annual increase of 1.3% in the 1990s.

Nevertheless, it is essential to be prepared for the risk of a hard landing in the real estate market. Mishandling of a bankrupt real estate developer could lead to social unrest, and a burst bubble in a major city like Shanghai could also result in financial instability at AMC. Therefore, the Chinese real estate market will continue to require careful attention.

[Chart -24]



Source: IMF, BIS
Note: China's dark blue color is government debt, and red is the value of the hidden debt added to it.

[Chart -25]



Source: CEIC

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