Section 3
Risks in the Chinese Economy: Real Estate and Local Public Finance

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1. The Real Estate Market Slump and Its Macroeconomic Background

In the aftermath of China's 'zero-Covid' policy, uncertainty about the future of the Chinese economy has never been higher. China's GDP (gross domestic product) showed a modest recovery in the first quarter of 2023, increasing by 4.5% year on year. On the other hand, the consumption of large durable consumer goods such as automobiles remains sluggish, and the real estate market remains a major source of economic uncertainty due to an imbalance between supply and demand for housing, especially in small and medium-sized cities. Although it seems to have recovered from its temporary slump, the real estate market remains a major source of concern for the economy.

In consideration of the above, the purpose of this paper is to analyze trends in the real estate market, which is the greatest risk factor for the Chinese economy over the medium to long term, and then to reassess the problem from the perspective of a "rational bubble" and its demise. The risks faced by local government finances, which are closely related to the slump in the real estate market, are discussed as well.

First, let us examine the aspects of the current real estate market slump. In February 2020, when lockdowns were implemented in Wuhan and other cities, the Chinese government swiftly embarked on a policy of monetary easing. This policy and the implementation of thorough zero-Covid measures to suppress the infection were initially successful, and the real estate market quickly recovered to pre-pandemic levels, even showing signs of overheating. In August 2020, the government, fearing growing public criticism of the soaring housing market, established "three red lines": (1) an asset-liability ratio of 70% or less, excluding advances; (2) a net debt-to-equity ratio of 100% or less; and (3) cash holdings that exceed short-term liabilities. A decision was made not to provide loans to real estate companies that did not meet these conditions. However, as a result of this policy, many real estate companies, which had been borrowing at low interest rates to service their growing debts, began to struggle for funds, and in July 2021, stock prices and corporate bonds of real estate companies plummeted, triggered by fears of default by real estate giant Evergrande Group. In September of the same year, the average price of new condominiums in 70 major cities in China dropped for the first time in six years and five months, and the real estate market rapidly cooled. The economic impact of the prolonged lockdowns, best exemplified by the lockdown that was implemented in Shanghai for about two months from the end of March 2022, further exacerbated the situation.

In the summer of 2022, the issue of homebuyers refusing to pay their loans due to the suspension of construction of properties they had already purchased became a social problem. As a result, the catchphrase for real estate policy became *bao jiao lou, bao min sheng* (ensuring delivery of housing and protecting people's wellbeing). In November of the same year, the "Notice on Financial Support for the Stable and Healthy Development of the Real Estate Market" ("Article 16: Finance") was announced, and the policy bank provided special loans to *bao jiao lou*, supported developers who had fallen into business risks, and guaranteed financial interests to homebuyers, among other measures to support housing construction and prevent further price declines. In January 2023, the government reasserted its stance on stabilizing the real estate market by relaxing the "three red lines" for only 30 major companies (China Research Office, Research & Advisory Department, 2022). As a result of these government measures, new condominium prices in 70 major cities rose an average of 0.3% MoM in February 2023, marking the first increase in 18 months, however the housing market recovery still lacks strength.

Apart from the microeconomic aspect of the management of individual real estate companies, the destabilization of the real estate market can be attributed to three macroeconomic trends: (1) fiscal and monetary policies following the Covid-19 pandemic; (2) the long-term development strategy for China's urbanization; and (3) the end of the intergenerational resource transfer scheme through a continuing rational bubble.

This paper focuses mainly on the third trend, which is closely related to the problems afflicting China's real estate market. In the following paragraphs, this topic is analyzed in detail from a macroeconomic perspective.

2. Dynamic inefficiencies and "rational bubbles"

Before analyzing China's real estate market from the perspective of "rational bubbles," we first briefly explain the concept of "rational bubbles" in recent macroeconomics.

Sakuragawa (2021) pointed out that as long as the economic (GDP) growth rate exceeds the lending interest rate, an asset bubble can persist for a long time even in a steady-state economy. Such a persistent bubble is referred to as

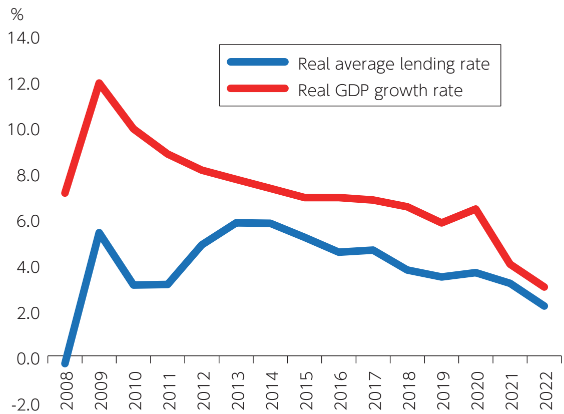

Figure 1-3-1 GDP Growth Rate and Average Lending Rate

Note: The real average lending rate is the weighted average of financial institution lending rates substantiated by the commodity retail price index.
Source: CEIC Data, National Bureau of Statistics.

a "rational bubble." Sakuragawa also argues that in a low-interest-rate economy, in which the GDP growth rate exceeds the interest rate, bubbles keep moving from one sector to another. For example, after the real estate and stock bubbles of the 1980s ended, a bubble emerged in Japanese government bonds, which is the cause of Japan's huge budget deficit.

In China, the GDP growth rate has consistently exceeded the average lending rate since the Great Recession (Figure 1-3-1). In macroeconomics, a situation in which economic growth exceeds the interest rate under steady-state conditions is called a dynamically inefficient state. When investment is saturated in a decentralized economy, the Pareto-optimal allocation of resources among different points in time cannot be achieved through market transactions, and there is room for the government and other economic actors to improve the total welfare by forcibly redistributing resources. In explaining the resource allocation problem in a state of dynamic inefficiency, the so-called overlapping generations model is often used, as in Tirol (1985) and others.

The model assumes that all people live for two periods: 'youth' and 'old age.' In their youth, people work and earn income, and they consume a portion of that income. In their old age, people live off the savings they accumulated in their youth. Now consider an economy where investment is saturated, and the rate of return on real investment is low, i.e. the real interest rate is lower than the rate of economic growth. To simplify the discussion, we assume that the ratio of people in each generation is constant. In such a case, young people are forced to save under low interest rates for their own consumption in old age (Figure 1-3-2).

Even without the government's semi-mandatory reallocation of resources, as described above, this sort of dynamic inefficiency can be eliminated through the successive purchase of assets whose value increases in tandem with economic growth, such as real estate assets. In this way, the welfare of all economic agents can be improved. Tirol proved that in order to achieve efficient intergenerational capital transfers, it is necessary for assets that have no fundamental value to be traded as having a certain value, and that value tends to expand over time. This is the situation in which the so-called "rational bubbles" occur.

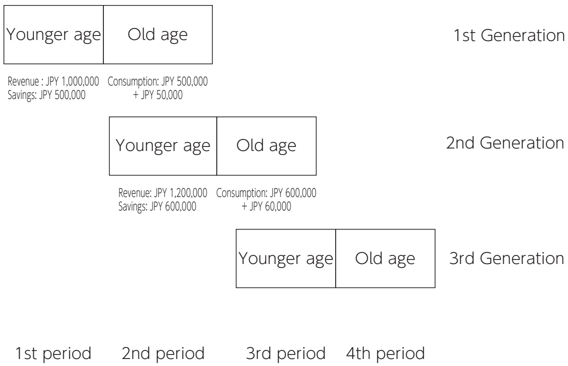

Figure 1-3-2 Asset Formation with Market Interest Rates

Source: Prepared by the author

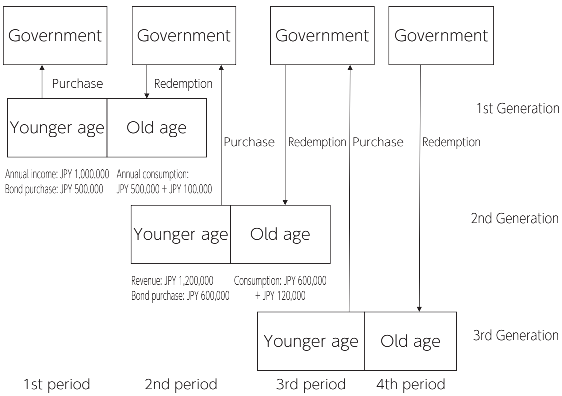

Figure 1-3-3 Cases in which the government issues bonds with interest payments equal to the economic growth rate

Source: Prepared by the author

3. The “Rational Bubble” and China’s Real Estate Market

(1) High growth due to excess accumulation of capital

One of the important issues in viewing China’s real estate market as a “rational bubble” is that “capital overaccumulation” has become the norm as a result of the high growth of the Chinese economy led by vigorous domestic investment.

Under the Hu Jintao administration this state of excessive capital accumulation became exacerbated. This is attributable to three major factors: (1) a decline in the labor participation rate due to state-owned enterprise reforms and intensified competition among enterprises; (2) an increase in retained earnings (corporate savings) by non-state-owned enterprises that had difficulty borrowing from financial institutions; and (3) a high savings rate by the household sector due to the delayed development of social security systems (Kajitani, 2012). In particular, the stimulus packages implemented after the Great Recession increased the degree of government intervention in the market, leading to what some economists have criticized as “national progress and national regression.” Such stimulus packages combined with excessive fixed capital investment led by local governments did not bring about a fundamental solution to the problem of excessive capital accumulation, but instead postponed the problem through state intervention in the market.

When the economy is in such a state of “excessive capital accumulation,” the productivity of fixed capital investment declines, consumption is suppressed, and excessive fixed asset investment is sustained, even though economic welfare would clearly increase if current investment were reduced and consumption were increased. The reason why fixed capital investment keeps growing despite its low productivity is generally attributed to the fact that earnings = capital gains (losses) from the rise (fall) in asset prices fill the gap between the time preference rate and the productivity of investment. On the other hand, in an economy like China, where the government has strong authority over fixed asset investment, it is necessary to consider the possibility of excessive capital accumulation due to aggressive investment activities without regard to government profitability.

As already mentioned, the overlapping generations model theoretically suggests that such a state of excess capital accumulation occurs even though each economic agent tries to maximize consumption in a decentralized market economy. When such excessive accumulation of capital occurs, the economy is said to be in a dynamically inefficient state. Based on an empirical analysis of the dynamic efficiency of the Chinese economy, Kajitani (2012) points out that the real estate market is likely to have been in a state of “rational bubble” since the

Great Recession.

(2) Inadequacies of the levy-based social security system

As mentioned above, another major determinant of the excessive capital accumulation in China is the inadequacy of the levy-based pension system. China's public pension system consists of the compulsory 'Basic Pension for Civil Servants and Urban Employees,' and the voluntary 'Basic Pension for Urban and Rural Residents.' The latter was established in 2014 by integrating the 'New Rural Social Pension' and the 'Basic Pension for Urban Residents' for urban non-regular workers, and it is voluntary. The pension benefit amount is only one-twentieth that of the Basic Pension for Civil Servants and Urban Employees, and its insufficient level is problematic (Katayama, 2017).

On the other hand, the 'Basic Pension for Civil Servants and Urban Employees' is a two-tiered pension insurance plan that combines a levy-type common fund as the source of the pension with an accumulation-type individual account. The individual account is a pension account in the employee's name, and the employee and employer accumulate premiums in proportion to wages.

As shown in Subsection 3.2, it is widely known that when the economy is dynamically inefficient, intergenerational resource transfers, such as levy-based pensions, can eliminate the excessive accumulation of capital and thereby raise economic welfare (Futagami, 2012).

In other words, in a dynamically inefficient state, if the government establishes a social insurance system, such as an old-age pension system, and enhances services such as social security, excessive capital accumulation can be suppressed and the economic welfare of all generations can be improved. In contrast, if the social security system is not sufficiently developed, excessive capital accumulation will continue and the economy will be stuck in a dynamically inefficient state.

As already mentioned, China's current public pension system does not provide sufficient pensions to the peasantry and urban informal workers, who make up the majority of the population. Even for urban formal workers, pensions that do not include intergenerational resource transfers are heavily weighted toward the accumulation system, which does not include intergenerational resource transfers. If dynamic inefficiency is the cause of the recent asset bubbles in China, it is clearly due in part to the government's failure to provide adequate intergenerational resource transfers, as exemplified by the public pension system.

In his recent book, Olivier Blanchard argues that in an economy where interest rates, the "safe rate of interest" (the yield on government bonds), remain at very low levels, sometimes below the effective lower boundary of the growth rate and even the real rate of interest (Blanchard, 2023). Blanchard argues that the government could improve economic welfare by increasing the issuance of public debt and conducting aggressive fiscal policy. Applying this argument to the current state of the Chinese economy, the policy implication would be that the government should aggressively spend money, especially to improve the inadequacies of the levy-based pension system and to improve intergenerational resource transfers.

(3) Real estate ownership as a means of retirement security

Under these circumstances, where intergenerational resource transfers through levy-based pensions have been insufficient, people have purchased condominiums in order to secure rent-free accommodation for their retirement. In addition, relatively affluent urban families often purchase a second condominium for their sons to live in after they get married. This is because parents as well as grandparents are willing to provide financial support for the purchase of a condominium, since in present-day China finding a marriage partner is almost impossible unless the person who is seeking marriage (usually a man) owns a condominium whose price continues to rise (Saito, 2023). At the same time, parents expect their sons and daughters to support them in their old age. Against the backdrop of such social values, there is empirical evidence that the price increase of condominiums is greater in areas with a larger proportion of the male population (Wei et al., 2017).

The strong demand for condominiums in urban areas and the inadequacy of the levy-based pension system have driven the continuous rise in real estate prices in China since the beginning of this century, and has also been the cause of excessive capital accumulation via vigorous real estate construction.

4. The future of rational bubbles and the problems facing local finances

It is unclear whether a hard landing in the real estate market and widespread economic turmoil can be avoided as the overaccumulation of capital in the Chinese economy begins to dissipate.

From a macroeconomic viewpoint of economic theory, rational bubbles in the real estate market should theoretically become unsustainable once the overaccumulation of capital is eliminated and the GDP growth rate stops exceeding the lending interest rate. Even if this happens, it is possible to achieve a certain level of economic growth while temporarily suppressing people's dissatisfaction under low interest rates. This could happen either by encouraging intergenerational transfers by widely holding government bonds with low interest rates, or by expanding the levy-based public pension system, which currently only covers urban full-time employees, to all citizens, as was the case in Japan after the collapse of the bubble economy.

Another concern is the situation of local government finances. The finances of local governments have been largely supported by the sale of farmland and other land holdings. The tightening of the real estate market, as described in this paper, has caused a significant drop in this income, and the financial situation of many local governments has deteriorated significantly. Some local governments, such as Hegang City in Heilongjiang Province, are reported to have cancelled their staff recruitment plans and announced that they were implementing a financial restructuring plan, effectively "going bankrupt."

In response to this situation, an editorial in the April 24, 2023 issue of the influential economic journal "Caixin Weekly" warned once again that the severe economic impact of the Covid-19 pandemic, falling prices in the real estate industry, and various tax exemptions were worsening the debt problems of local governments. The May 22nd issue of the same journal's special feature article, "The Debt Issuance Boom of Local Government Financing Vehicles," points out that Local Government Financing Vehicles, which have been a breeding ground for local government "hidden debt," are increasing their debt through the issuance of bonds known as "municipal bonds," thereby increasing the risk to local government finances. According to a think tank's estimate, at the end of 2022, local government hidden debt amounted to RMB 52-58 trillion, which is 1.5-1.7 times the amount of official debt outstanding.

Financing through the issuance of "municipal bonds" by Local Government Financing Vehicles has been used by many local governments since the establishment of Local Government Financing Vehicles to implement economic stimulus measures after the Global Recession.

However, according to an article in Caixin Weekly, the issuance of more complex bonds, so-called "structured bonds," has been a major characteristic of recent municipal bond issues.

A typical example is the asset-backed securities (ABS) scheme, in which Local Government Financing Vehicles uses its own funds to purchase municipal bonds it has issued, posts them as assets, and uses them as collateral to raise new funds. This is strictly regulated as a way to reduce the participation of outside capital and issue bonds at interest rates lower than the market level, which distorts the market. For example, in 2023, the government issued a notice restricting new financing by firms whose own bonds account for more than 50%

of the net assets of Local Government Financing Vehicles, and tightened penalties for firms that do not comply with the new restrictions.

At the same time, however, some local governments, such as those in Guizhou Province, have been experiencing financial difficulties, and it is said that they are no longer able to resolve their debts on their own. In many cases, these local financing platforms have asked the local or central government to reschedule (review the repayment terms of) the municipal bonds they have issued.

In a well-known case, in December 2022, Zunyi Daoqiao Construction Group, headquartered in Zunyi City, Guizhou Province, defaulted and announced a debt restructuring that postponed the repayment date by 20 years and only required interest payments for the first 10 years. It is clear that the state of local government debt is posing risks to the Chinese economy as a whole, and this is a problem that cannot be left unaddressed.

Some economists in China have pointed out that the reason for this tightness in local government finances is that the central government does not spend enough money, thereby imposing an excessive burden on local governments, which is a very plausible explanation.

If the soft landing from the "rational bubble" situation in the real estate market is to be achieved, it is necessary to maintain the current rate of economic growth, to suppress the sharp decline in exchange rates while continuing the low-interest-rate policy. In the meantime, it is necessary to expand and improve the social security system while minimizing the level of social unrest that will accompany the decline in real estate prices. Additionally, since the declining birthrate and aging population are bound to become more serious and the government's fiscal burden is expected to increase, it will also be necessary to review the current fiscal system that places much of the burden, from the provision of social security to economic stimulus measures, onto local governments.

In this context, the decision by the Standing Committee of the National People's Congress in October 2023 to issue RMB one trillion in special government bonds and allow a budget deficit of 3.8% of GDP is a notable move. Will this catalyze the Chinese government to adopt a more proactive fiscal policy? In any case, we will continue to keep a close eye on China's real estate market and local government finances for some time to come.

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