Working Paper Series
International Trade and Economic Diplomacy
Middlebury Institute of International Studies
Monterey, CA

China's Real Estate Crisis: Bubble Burst or Restructuring?

Qiying Liu

Middlebury Institute of International Studies

June 2024

Abstract

The Chinese real estate market, once a significant driver of economic growth, now faces a critical juncture characterized by mounting challenges and uncertainties. This paper provides a comprehensive analysis of China's housing policies, exploring whether the current situation signifies a bubble burst or a strategic restructuring. We begin by reviewing the historical context, examining early housing policies, tax-sharing reforms, the land classification system, and land sales practices that have shaped the current landscape. Key challenges such as imbalanced housing supply and demand, Chinese "ghost towns," low birth rate and aging population, and escalating real estate debt are discussed in detail. Additionally, we illustrate the roles and interests of major players, including homebuyers, property developers, private firms, banks, and local governments.

I. Introduction

China's economic growth has merited a lot scholarly attention around the world, with many analyses looking at this phenomenon through a variety of prisms. Watchers of the Chinese economy have found that the real estate sector is one of its most important contributors. The total market value of real estate in China was $52 trillion in 2019, which was twice that of the U.S. real estate market and four times larger than the China's gross domestic product (GDP). [1] [2] In contrast to many developed countries, where real estate typically represents 10-20% of the GDP, China's real estate sector contributes approximately 30% to the country's GDP annually.[2] It can be said that real estate serves as a barometer of the health of the Chinese economy. Understanding China's real estate sector will not only enrich our knowledge about the Chinese economy but also reveal the challenges it faces. Moreover, it will help shed light on the potential pathways for China's continued growth.

Due to the significance of the real estate sector in the Chinese economy, this essay delves into its development, the series of issues currently plaguing it, the key players and stakeholders involved, and different views from researchers to explore whether or not China's real estate market is facing a systemic crisis. Furthermore, it will also cast light on the strategies China has undertaken in the said domain.

II. Background of China's Housing Policies

1. Welfare Housing Policies and the Tax-sharing Reforms

Soon after the inception of the People's Republic of China in the late 1940s, it confronted immense housing problems. Prolonged wars and internal conflicts had led to severe destruction of urban infrastructure, resulting in a major shortage of housing facilities in numerous cities. During this period, the government took the lead in housing allocation and construction, focusing on providing affordable public housing to urban workers and government officials. These housing units were typically provided by the state, state-owned enterprises, and government agencies.

Decades after all this, in the 1990s, China implemented a tax-sharing reform, hoping to address the issue of uneven fiscal revenue distribution as well as drive the local economies. This reform transferred certain tax authority to local governments. As a result, local governments were granted the power to determine the scope and rates of taxation based on specific scenarios, as well as the autonomy to decide how to utilize the tax revenue generated. The tax-sharing reform enabled local governments to directly collect taxes from the real estate sector, including land

---

[1] The $52 Trillion Bubble: China Grapples With Epic Property Boom, The Wall Street Journal
[2] End to China's estate market boom could spell trouble for the economy, The Guardian

transfer fee, property tax, and land value-added tax, thereby reducing their dependence on central government finances. This practice, undoubtedly, marked the true marketization of China's real estate development.

2. The Land Classification System and Land Sales

The land classification system in China refers to the system of classifying and categorizing land based on factors, such as land use, development potential, and resource value. According to the land classification system, land can be divided into different types, including agricultural, residential, industrial, and commercial, among others. This system helps facilitate rational planning and management of land resources, fostering efficient utilization and conservation.

Under the Chinese constitution, all land in China is owned by the State. It is worth mentioning that land transactions were prohibited until 1998 in which The National Congress of the Communist Party enacted a law that conferred legal ownership rights over land on governments within their jurisdictions. It also grants local governments the authority to sell usufruct rights of the land to the people. Under the current land law, industrial land can be leased for a term of 30 years, commercial land for 40 years, and residential land for 70 years. It is commonly presumed that after a lease period expires, the property owners are allowed to renew, or extend their land lease.

III. Challenges in China's Real Estate Industry

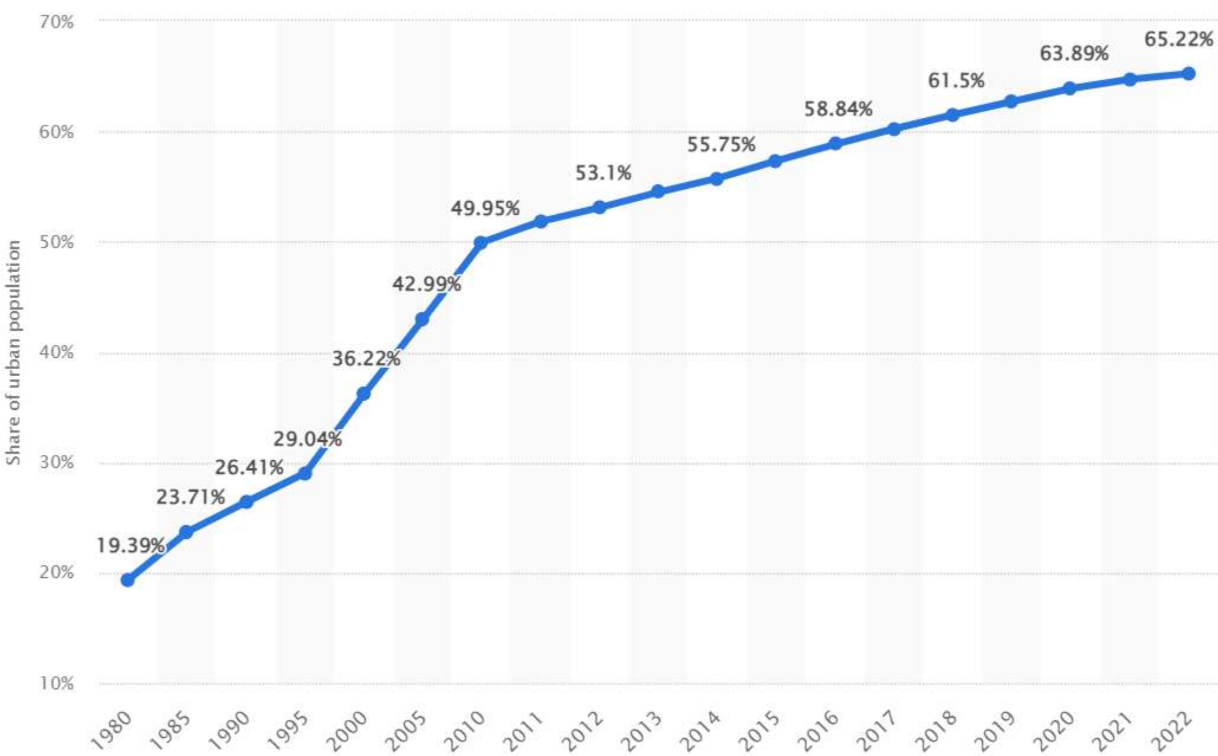
China's real estate sector currently faces a lot of issues and crises. These include soaring housing prices in major cities, a mismatch between supply and demand, excessive land development, high purchasing costs for low-income households, and inadequate regulation. The sector also encounters risks of market volatility, financial instability, and environmental sustainability. To understand these problems, it is important to look at some long-term factors.

1. The Imbalance Between Housing Supply and Demand

Since the adoption of the Reform and Opening-Up Policy, China's swift economic growth and increased population mobility have fueled urbanization. In recent decades, millions have moved from rural to urban regions, spurring urban economic expansion and infrastructure advancement. Currently, China's urbanization rate is 65%, relatively low given its position as the world's second-largest economy (The urbanization rate for developed countries is over 80%).[3] However, it is anticipated to keep growing despite a slower rate of progress. The rapid expansion of large cities and urban areas in recent times has resulted in a rising demand for housing.

[3] Urbanization, Our World in Data

Figure 1: Degree of urbanization in China from 1980 to 2022 [4]



Source: Statista

According to the International Monetary Fund (IMF), residential housing sales in China were between 1.5 and 1.6 billion square meters per year during the period 2018-2021.[5] Additionally, house ownership in the country accounts for 90%, which means most of the Chinese people have their own properties.[6] The US, in comparison, has a 65% home ownership rate.[5]

However, China's real estate sector suffers from a significant imbalance between supply side and demand side. Economic principles tell us that prices are influenced by this relationship. When demand outstrips supply, prices increase, and conversely. This discrepancy is evident in China with the steep housing costs and scarcity in eastern areas, notably tier one cities such as Beijing, Shanghai, Guangzhou, and Shenzhen. These regions have drawn many newcomers due to their superior resources. In contrast, less developed areas in northeast, northwest, central, and southwest China have surplus supply but insufficient demand, resulting in low prices and elevated vacancy rates.

Moreover, in areas experiencing rapid population influx, there is often a failure to meet the rising demand with sufficient land supply. Some regions even adopted a conservative approach, controlling the distribution of residential land. Consequently, developed areas witness soaring

---

[4] Statista, Published by C. Textor, Feb 28, 2023
[5] IMF Country Report No. 23/67
[6] The Evergrande crisis: 4 questions that explain why China's property market, which is twice as big as America's and where 20% of homes are empty, matters, INSIDER

housing prices caused by high demand and restricted supply, whereas underdeveloped regions face an excessive supply that cannot be adequately absorbed even at reduced prices. This disparity has greatly contributed to the creation of a real estate bubble in China.

2. China's "Ghost Town"

In many countries, ghost towns refer to cities where homes are abandoned and decayed. However, in China, ghost towns are not abandoned but unoccupied, representing a distinctive Chinese phenomenon where new buildings are bought as investments rather than for habitations. These ghost towns mirror the repercussions of unsuccessful or overly ambitious real estate ventures in China, attributed to the so-called real estate carpetbagger. It can be said that hidden Beneath China's economic upsurge is a whirlwind of real estate speculation. Astute individuals collaborate to scout potential properties nationwide, acquiring them in large quantities at negotiated rates, and later reselling at significantly inflated prices. These cohorts operate akin to seasoned speculators.[7] They study the market, determining the best times to trade, and manipulate local property prices through controlled supply and demand, resulting in inflated prices and discontent among buyers. According to an article from the Insider, one-fifth of the houses in China — at least 65 million units — are empty. That amount of empty housing is enough to house the entire population of France. In 2022, approximately one-third of new housing units in China remained unsold, marking a record since 2015.

Ghost towns are a prevalent issue in rural China, posing a significant but often ignored real estate challenge.[8] Given a potential 10% to 15% increase in China's urbanization rate, around 150 to 200 million people migrate from rural to urban areas, leaving behind substantial vacant properties.[7] These vacancies are permanent and cannot be reversed, indicating that rural real estate is essentially a substantial but concealed bubble. Fortunately, rural properties do not involve leverage or high prices, making them less likely to trigger a financial crisis. Nevertheless, many migrant workers still invest their hard-earned money in building houses or renovations in rural areas, which, from a broader perspective, represents a significant waste of resources. In the long run, the idea of "retiring to the countryside" will not be feasible in China, as urban areas can provide better services and facilities for the population.

3. Low Birth Rate and Aging Population

As one of the world's most populous countries, China once implemented the one-child policy in the late 1970s, aiming to control rapid population growth. This fundamental family planning policy has successfully curbed the birth rate, leading to a substantial "demographic dividend" that significantly contributed to China's economic development. However, after three decades, this policy has placed China in a dilemma: while it achieved its goal of reducing population growth, it also resulted in an increasingly aging population. This shift presents new challenges for the country's future economic and social stability. The soaring housing prices over the past 20

---

[7] The Reservoir ("水库论坛") is the most famous real estate speculators' platform in China where people share information and strategies, enabling lots of people to achieve financial freedom through real estate speculation. http://www.shuiku.cc/

[8] How Many Housing Units Has China Built ("中国到底盖了多少房子"), 长江商学院

years have further fueled the declining birth rate, as families faced financial constraints. Despite policy makers issuing numerous incentives to encourage couples to have two or even three children, the impact has remained limited.

In 2020, China's fertility rate was 1.3, significantly below the replacement level of 2.1 to maintain the population size.[9] At the same time, a growing trend of aging population exacerbates the situation where medical care and housing welfare are needed. According to statistics, by the end of 2020, the population aged 60 and above accounted for 18.7% of the total population, equivalent to approximately 270 million people.[10] The increasing proportion of the elderly population, in the short term, might have a positive impact on housing prices as more and more affordable housing for senior citizens is needed. While in the long run, the impact on housing prices cannot be sustained with the reduction of the whole population.

4. Real Estate Debt

From 2010 to 2021, household debt in China's real estate sector surged from $2 trillion to $10 trillion, with the non-performing asset disposal rate reaching as high as 130%, significantly higher than that of the United States. A survey by the People's Bank of China (PBC) found that 60% of Chinese household assets are tied to real estate, with mortgage loans comprising 12% of total assets. These figures bear troubling similarities to the conditions preceding the subprime mortgage crisis in the United States in 2008 and the bursting of the real estate bubble in Japan in the 1980s.

Compared to many developed countries, Chinese households bear a relatively low debt burden, partly due to the high savings rate among Chinese citizens, with approximately 40% of their income being deposited in savings. Unlike in Western countries, where individuals tend to invest in capital markets, which are more established and less volatile, real estate has long been the favored investment choice in China for its perceived stability and potential for returns. According to a survey by Hongkong and Shanghai Banking Corporation (HSBC), at least 40% of Chinese millennial buyers receive financial assistance from their families when purchasing homes. Additionally, they often rely on personal networks for house financing.

When considering the housing price-to-income ratio, significant discrepancies exist among regions and cities in China. In first-tier cities such as Beijing, Shanghai, Guangzhou, and Shenzhen, housing costs are approximately 24 times the average salary (Figure 2).[11] In second-tier cities, housing costs are about 12 times the average salary, while in third-tier, fourth-tier, and fifth-tier cities, housing prices are around 5 times the average salary.[12] Comparatively, housing price-to-income ratios in major global cities such as New York, Tokyo, London, and Paris are 10, 14, 15, 20,

[9] China's population is about to shrink for the first time since the great famine struck 60 years ago. Here's what that means for the world, WEF
[10] Main Data of the Seventh National Population Census, National Bureau of Statistics
[11] China Economic Update, World Bank, 2022
[12] Housing Affordability in Chinese Cities, Li Sun

respectively (Figure 3). This imbalance between housing prices and income in China restricts individual consumption behaviors. Even in major cities, middle-class families face extreme pressure to pay their monthly installments, constraining China's transition to a consumption-driven economy similar to that of the United States.

Figure 2: Home price to income ratios for city tiers (Ratio)

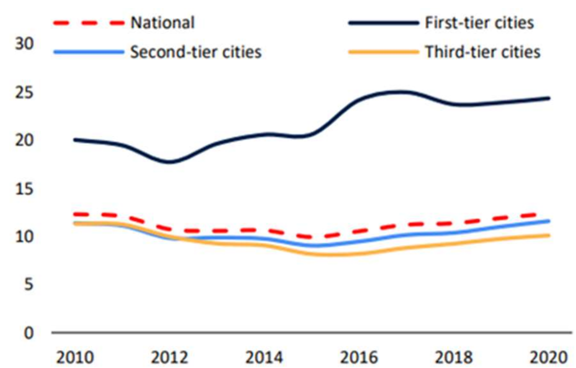
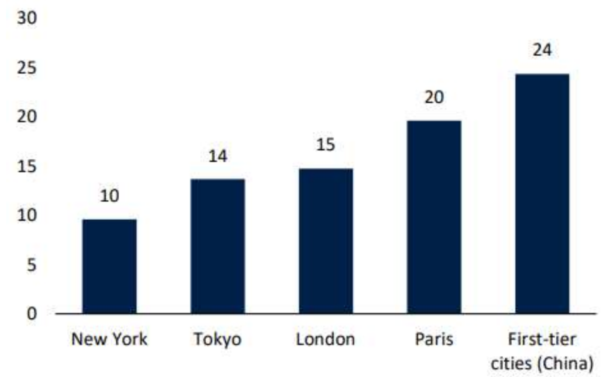


Figure 3: Home price to income ratios for major cities (Ratio)



Source: NBS, Numbeo, World Bank

IV. Major Players and Stakeholders within the Real Estate Industry

1. Homeowners and Potential Homebuyers

In China, homeownership is regarded as a symbol of economic stability and security. Traditionally, owning a house is seen as a fundamental requirement for marriage, symbolizing success and the couple's commitment to their family and future endeavors. Particularly for men, societal pressure often compels them to buy a house before getting married. Despite modest incomes, Chinese families pool their resources and take out loans to purchase homes worth several times their annual earnings. This practice, known as the "multi-generation loans" or the "6-wallet" theory, involves parents and grandparents contributing to help young couples buy their homes.[13]

[13] Economist's '6-wallet' theory triggers housing debate, China.org.cn

Some scholars argue that the willingness of Chinese people to buy houses costing several times their income is rooted in the anticipation of sustained high-income growth in the future. However, this consumption motive alone does not adequately account for the phenomenon. The willingness to borrow beyond one's means is also driven by a fear that housing prices will surge faster than their income growth. In the Chinese real estate market, there is a widespread saying: "We buy on the way up, not on the way down," reflecting a herd mentality of chasing gains and avoiding losses.

In addition, residences in China are regarded as valuable assets with the potential for both preservation and appreciation. Even though the real estate market has entered a less lucrative phase, property investment continues to be a preferred option for many, driven by limited investment alternatives in China's financial market and constrained capital mobility, which hinders Chinese citizens from investing abroad.

Another contributing factor is the absence of property tax. The lack of property tax in China incentivizes affluent households to acquire multiple properties, including second or even third homes. This phenomenon further widens the wealth gap in China, as early property purchasers experience significant asset appreciation, creating challenges for low-income families and young couples. These factors significantly contribute to China's prevailing inequality problems. In response, the Chinese government has introduced the concept of "common prosperity" (Chinese: 共同富裕), aiming to regulate wealth distribution, narrow the wealth disparity, and ensure that more people can partake in the benefits of societal progress.[14]

2. Property Developers

Chinese real estate companies are among the largest corporations in China. Over the past 20 years, with the advancement of urbanization, these property developers have accumulated a significant amount of wealth by acquiring residential land and developing massive real estate projects. According to data from the National Bureau of Statistics, the total sales of commercial residential properties increased from 5.8 trillion yuan (approximately $914 billion USD) in 2011 to 17.3 trillion yuan (approximately $2.7 trillion USD) in 2020, with an average annual growth rate of 21.8%.

The primary revenue streams for real estate developers are pre-sales and down payments. Pre-sales allow developers to sell properties prior to completion, while down payments enable buyers to secure housing units through an initial payment. This sales approach fostered market speculation: anticipating a future surge in the real estate market, buyers secure as many housing units as possible with minimal down payments and resell them upon completion. Additionally, the pre-sales and down payment model allows developers to acquire funds from buyers before ever starting a project, ensuring their financial security regardless of the product's completion.

Furthermore, real estate developers heavily rely on credit to obtain essential working capital. Few developers use their own funds for projects; instead, they rely on credit financing to acquire land and carry out development. They then use pre-sale deposits from customers to fund the

[14] How to Understand China's Common Prosperity Policy, China Briefing

remaining developmental processes. This practice transfers risks to both banks and buyers, who become key stakeholders in the project.

However, real estate developers also face potential risks and challenges. Firstly, the volatility of the real estate market exposes developers to uncertainties during market fluctuations. Secondly, dependence on credit financing may lead to debt risks, especially during economic downturns. Additionally, the pre-sales system has caused controversy by driving up property rates and increasing investor vulnerability.

3. Private Firms

In China, almost all large companies are involved in the real estate industry, driven by the need to build factories and company offices. After generating profits, these companies seek to diversify their investment portfolio to increase their returns. This trend was widespread due to China's robust real estate market and continuously rising housing prices.

Companies outside the real estate sector have found many ways to benefit from China's booming property marketplace: they can fund property development, invest in large real estate firms, or sell their own property for profit. For example, Youngor, a well-known Chinese men's apparel brand with branches in almost every city, is also an established financial and real estate investment company.[15] They actively engage in real estate development in Ningbo, where their headquarters are located, and their earnings from real estate far outweigh their earnings from national merchandise sales. Another example is Ping An Insurance Company, which generated substantial revenue from heavy stock market investment in Evergrande Group (prior to Evergrande's massive debt-induced collapse).[16]Additionally, many struggling manufacturing firms in China have managed to generate significantly greater profits from selling their real estate than from their core operations. These patterns reflect China's relatively limited domestic investment opportunities, exacerbating real estate speculation and raising concerns about developmental sustainability.

4. Banks and Financial Institutions

Real estate firms and financial institutions are closely connected, as the majority of real estate market funding comes from bank loans. In China, many banks heavily rely on real estate operations to expand their market share. This close collaboration poses inherent risk for the banking industry: although banks can profit from a growing real estate market, they also face market volatility and potential loan defaults, raising concerns about a future financial crisis.

Down payments serve as a crucial safeguard, protecting banks from potential default risks posed by mortgage borrowers, particularly if a housing market downturn occurs in the future. The high level of down payment in real estate aligns with the bank's strict mortgage policies issued by the PBC. According to the PBC, one housing unit cannot be used as collateral for multiple mortgage

[15] Youngor: http://www.youngor.com/en/index.html
[16] Ping An shares fall on fears of China Evergrande contagion, Financial Times

loans. Moreover, the mortgage policies require a minimum down payment of 30% for first homes, and range from 40% to 70% for second homes in many major cities, depending on market conditions and the homebuyers' financial situation.

The higher down payment ratio in China stands in stark contrast to the prevalent use of zero down payment loans and negative amortization loans during the U.S. housing bubble in the 2000s. By mitigating the risk of mortgage payment failure, China's down payment system minimizes the potential for a housing market collapse. In addition, mortgage loans in China are all recourse loans, indicating lenders have the right to collect a borrower's other assets if a mortgage default occurs. These institutional arrangements make a US-style subprime credit crisis less of a concern for China.

5. Local Governments

Local governments play a crucial role in the real estate sector. As administrators of their cities, they have the authority to manage and allocate all land within their jurisdiction. Businesses and individuals can acquire land usage rights from the government for a defined duration, which can be renewed upon expiration.

Land transactions are a major source of fiscal revenue for the government. By facilitating land transfers, they can stimulate economic growth and foster employment prospects. It is estimated that revenue from land transfers and real estate-special taxes accounted for 37.6 percent of local governments' fiscal revenue in 2020.[17] However, a heavy reliance on land sales can greatly restrain the development of local business. This means there is often a lack of promising sustainable projects, leading to less diverse and active economic activity, which can negatively affect the city's long-term development. In this sense, local government can be seen as manipulative city developers, dominating development by adjusting land sales and taxes.

Apart from generating fiscal revenue, land is also an important policy instrument for local governments to attract prominent firms, both domestic and international, to undertake supportive projects within their cities. For example, the government can provide industrial land either through land grants, involving complimentary distribution, or through discounted sales exclusively to companies in priority industries. In return, these supported companies are required to create a certain amount of jobs for local citizens, carry out government-led projects such as road construction or community investment, and fulfill their tax obligations.

Aditionally, local governments in China often structure future land sale revenues as debt financing through the "Local Government Financing Platform" (LGFP).[18] This financing mechanism enables local governments to use leverage to acquire funds and boost the real estate industry.

However, the discretionary power of local governments in granting land discounts can lead to excessive competition and corruption. To prevent price gouging and maintain market regulation,

[17] How Big the Impact of Real Estate toward China's Economy ("房地产对中国经济影响有多大？"), 泽平宏观, https://m.huxiu.com/article/814222.html
[18] Local Government Financing Platforms in China: A Fortune or Misfortune, IMF Working Paper

the central government sets minimum requirements for land sales and investment based on city development and geography. These regulations are intended to ensure a more balanced and fair real estate market while promoting sustainable urban development.

V. China's Real Estate Crisis

1. "Three Red Lines" Policy

In 2016, the Chinese government first used the slogan "houses are for living, not for speculation" (Chinese: 房住不炒) to express their concerns about the growing trend of property presales and investment. This highlighted the need to address potential risks associated with the surging housing market. According to the World Bank, real estate investment rose from 5 percent to almost 15 percent of GDP by 2014 and remained around 13 percent by the end of 2021. In contrast, the average figure in Organization for Economic Co-operation and Development (OECD) countries was around 5 percent. Furthermore, investment in residential property accounted for nearly 70 percent of total real estate investment in China.

The average liability to asset ratio of real estate companies listed on the stock exchanges in mainland China and Hong Kong was approximately 75% in 2020, with a net gearing ratio (debt-equity divided by shareholders' equity) of 1.4.[19] To curb excessive loan borrowing and reduce debt in the real estate sector, Chinese government introduced the "three red lines" policy in 2020. This policy stipulates that property developers must meet certain criteria before they can apply for refinancing. The "three red lines" are:

- A liability to asset ratio of less than 70%
- A net gearing ratio of less than 100%
- A cash to short-term borrowing ratio of at least 1

By setting these stringent requirements, the government aims to ensure a balanced financial structure, prevent excessive leverage, and mitigate financial risks, thereby guaranteeing sufficient liquidity for China to meet its short-term obligations.

2. Evergrande's Downfall and its Domino Effect

In late 2021, Evergrande, the world's most debt-saddled developer, faced Asia's largest corporate restructuring of the year with financial obligations amounting to $300 billion. This restructuring highlighted the debt crisis in China's real estate industry. On July 17, 2023, Evergrande released its delayed annual reports for 2021and 2022, revealing net losses of $81 billion over the two years and a total debt of $340 billion by the end of 2022.[20] [21] This debt was roughly 2% of

[19] Series: China's Real Estate Problem 1. The "Three Red Lines", CKGSB
[20] Evergrande Annual Report, 2021: https://doc.irasia.com/listco/hk/evergrande/annual/2021/ar2021.pdf
[21] Evergrande Announcement Results by 31st, December 2022: https://www1.hkexnews.hk/listedco/listconews/sehk/2023/0717/2023071700445.pdf

China's GDP and equaled 100 times the company's total net profit over the past decade.[22] To put this in perspective, the Czech Republic's national government debt was $132.5 billion in 2022, making Evergrande's debt nearly three times that amount.[23] On August 17, Evergrande filed bankruptcy protection under chapter 15 of the US bankruptcy code in New York.[24] Through bankruptcy protection, Evergrande could protect its $19 billion US bonds while seeking a restructuring deal and providing mechanisms for handling insolvency cases involving multiple countries.

Evergrande was among the first major companies to cross the "three red lines" over a year after the policy was implemented. Dan Wang, the chief economist in China for Hang Seng Bank, noted that the "three red lines" policy succeeded in reducing the sector's leverage. However, the abrupt shift within a short time frame led to a severe liquidity crunch among property companies. Within two years, dozens of major Chinese real estate companies, including Sunac, Shimao, Greenland, and Yango, failed to meet the new standards. These companies accrued debts exceeding $50 billion, with some over $150 billion. This series of crises left hundreds of suppliers without due payments and millions of families without homes.

Following Evergrande's crisis, Country Garden, China's largest property developer, also faced capital risks, threatening to miss two dollar bond payments due in September. Unlike Evergrande, Country Garden adhered to the "three red lines" policy, avoiding excessive expansion and maintaining relatively healthy business operations. However, the domino effect caused by leading developers and a lack of confidence in the real estate market led to Country Garden's financial troubles. Although the company managed to pay off its bonds within the grace period, the ongoing financial pressure and growing debt cast significant doubt on its ability to avoid bankruptcy.

In conclusion, while the "three red lines" policy aims to create a more stable and less leveraged real estate sector, its rapid implementation has triggered significant liquidity issues and exposed the vulnerabilities of major property developers like Evergrande and Country Garden. The resulting crises have not only affected the companies involved but also had far-reaching consequences for suppliers, homeowners, and the broader Chinese economy.

VI. Try to Stem the Tide

1. Household Deleverage

[22] Evergrande" Nuclear Bomb-grade Debt Drag Down China's Housing Market, Who Dare to Save It? ("「恒大」核弹级负债拖累中国房市 谁敢出手？等谁来救？"), 世界新闻网

[23] Czech Republic National Government Debt, CEIC: https://www.ceicdata.com/en/indicator/czech-republic/national-government-debt

[24] The purpose of Chapter 15 is to provide effective mechanisms for dealing with insolvency cases involving debtors, assets, claimants, and other parties of interest involving more than one country. (https://www.uscourts.gov/services-forms/bankruptcy/bankruptcy-basics/chapter-15-bankruptcy-basics)

The sight of Chinese citizens waiting in line to prepay their home loans amidst a gloomy economic outlook is shocking to Chinese policymakers. Despite banks cutting interest rates to stimulate market growth, homeowners have interpreted this as a sign of economic downturn and have responded by paying off their housing loans at an accelerated rate. This counterintuitive behavior is at odds with the intentions of policy makers.

The phenomenon can be explained by differences in the home-loan market between China and the U.S. According to Jay Guo, a former New York banker and current school dean in China, U.S. homeowners can refinance their loans without incurring penalties when interest rates fall, and U.S. banks can hedge their interest-rate risk with various financial portfolios. In contrast, Chinese borrowers cannot take out a new loan on their property from one bank to pay off a mortgage from another lender. It is illegal for individuals to use other types of consumer or business loans to pay off their mortgages in China. Consequently, those who borrowed at high interest rates prefer to save any spare money to prepay their mortgages.

This rush to prepay loans affects banks' stability, as housing loans are valuable assets due to their high quality and massive scale. To manage this, banks have set thresholds or restrictions on housing payments, such as requiring people to wait several months before completing the prepayment process or charging a default fee if they insist on prepaying earlier. Normally, people would carry their mortgages as long as possible because housing loans usually have lower interest rates than other loans. However, a downward-trending stock market combined with the rate of return for most wealth management products falling below mortgage rates encourages households to save. This reaction indicates a lack of confidence in the future and reflects deep macroeconomic trouble. As a Chinese economist at Australia and New Zealand Banking Group said, "The feelings of uncertainty that are leading people to pay off their mortgages early could pose a significant challenge at a time when China most needs confidence to boost consumption and the economy."

2. New Measures

On Aug. 31, 2023, the PBC and the National Administration of Financial Regulation (NAFR) released a joint statement to reduce down payment and housing loan rates.[25] According to this statement, minimum downpayments for mortgages will be cut to 20% for first-time buyers, and 30% for second-time buyers. Compared with the previous requirements of a 30% down payment for first-time buyers and up to 70% for second-time buyers, this new policy aims to boost household consumption and restrain loan prepayments. Additionally, existing mortgage rates will be reduced depending on specific scenarios, allowing local governments and banks to negotiate mutually beneficial lower rates with homeowners.

For instance, shortly after the "New Measures" were issued, Shenyang government released a notice on Sep. 4 to further support rigid and upgraded housing demand.[26] The notice not only

---

[25] 中国人民银行 国家金融监督管理总局关于降低存量首套住房贷款利率有关事项的通知 (https://www.gov.cn/zhengce/zhengceku/202309/content_6901351.htm)

[26] Notice on Further Support for Rigid and Improved Housing Needs ("关于进一步支持刚性和改善性住房需求的通知") http://fcj.shenyang.gov.cn/zwgkzdgz/fdzdgknr/bmwj/202309/t20230904_4521761.html

integrated the primary regulations outlined in the joint statement but also introduced a range of generous supporting policies covering various aspects, including taxes, housing provident funds, incentives for recent graduates. This proactive approach by local governments is likely to be adopted nationwide.

VII. Discussion

1. Reviews of Scholars

China's real estate bubble did not emerge overnight; discussions on mitigating it have been ongoing for over a decade, during which the world has faced several major economic and real estate crises. Regarding the current state of China's real estate industry, opinions among scholars are divided, with some expressing optimism and others holding a more pessimistic view.

According to a statement in China's IMF report, the country's property market has been running smoothly and is not in a "crisis" situation. The report describes the current state of the sector as a "natural evolution" resulting from recent "deleveraging and destocking" efforts. Central bank representatives have similarly noted that the risks in the property market are localized, affecting individual firms rather than having a significant global impact.

However, while officials portray a relatively stable picture, data from property agents and private data providers is more concerning. Government figures showed that new-home prices slipped by just 2.4%, and existing home prices dropped by 6% in August 2021. In contrast, private data indicated that existing home prices fell by at least 15% in most tier-1, tier-2, and tier-3 cities, with some areas experiencing drops of over 25%.[27] This discrepancy has led many scholars to question the reliability of China's official figures, suspecting they might underestimate the economic downturn. Some researchers argue that China's different calculation methodologies might aim to avoid extreme fluctuations, offering homebuyers reassurance that the situation is not as severe as it appears.

A widely cited paper by Chang Liu and Wei Xiong posits that, despite imperfections, China's real estate market is not expected to collapse abruptly. They argue that China's robust economic development over the past 40 years and ongoing urbanization provide a solid foundation for the real estate market. Additionally, China's banking system is generally healthy and protected due to the mandatory down payment requirements, which help mitigate leverage risks and safeguard the financial system. Liu and Xiong's perspectives align with the views expressed by central bank representatives and suggest that China's approach to maintaining capital controls will keep household wealth within the real estate market.

2. My Perspectives

1) Is China Facing its "Lehman Moment"?

[27] China's bursting housing bubble is doing more damage than official data suggest, Bloomberg

China's current challenges are rooted in its construction industry, similar to the U.S. situation in 2008. While many experts believe China's property sector may not trigger a global financial crisis like Lehman Brothers did, the crisis's scale and severity are perceived as worse than in the U.S. 15 years ago. Comparing these two giant economies for potential solutions might not yield meaningful insights due to fundamental differences in their real estate industries.

In the U.S., land supply for housing in a city is determined by the landscape and local zoning restrictions. In China, land is controlled by the government. Furthermore, U.S. down payment requirements were quite low, posing significant economic risks and exacerbating credit defaults in 2008. Conversely, China's mandatory 20% down payment minimizes collapse risks. Existing housing loans are among the highest quality assets for China's commercial banks, consistently having the lowest non-performing loan ratio. Moreover, China's rapid economic growth and urbanization make it challenging to assess the existence of a real estate bubble. While many Western analysts argue the bubble has burst, it seems more like a periodical restructuring given urbanization still being the foundation of economic development.

2) Is China Facing "Japanization" Risks?

Many Chinese believe they are entering a recessionary cycle similar to Japan's in the 1990s. Recent increases in Beijing's house prices resemble those in Tokyo three decades ago, a sign of an impending housing bubble burst.[28] Soon after, Japan's housing prices dropped sharply, by 87% from their peak. Economist Richard Koo, who has been frequently invited to China, highlighted his "balance sheet recession" theory, pointing out that many Chinese policymakers today are aware of this theory and how to manage it, unlike Japan in the early 1990s. Furthermore, Koo believes that the China's authoritarian government can better handle a "balance sheet recession" than a democratic one.

However, Koo expressed that China's challenges are more severe than Japan's, including a construction recession, decoupling with the West, the middle-income trap, population decline, and regulatory tightening in key sectors such as IT, education, finance, and real estate. While I agree with Mr. Koo's analysis, I take issue with his advice. Koo suggests that the Chinese government implement another major fiscal stimulus package to minimize the global impact of the crisis, similar to the 4 trillion yuan ($548 billion) package from 2008. However, while Koo views this stimulus as a success, Chinese economists have complained about the package's burden, which led to unprecedented credit expansion and unresolved regional government debt.

3) Does a Fiscal Stimulus Help to Boost China's Economy?

According to recent reports, China's domestic tourism market is expected to rebound to 90% of pre-pandemic levels this year, and revenue from domestic travel is projected to reach 5 trillion yuan ($700 billion), about 80% of pre-Covid levels.[29] Additionally, data from the National Bureau of Statistics shows that the revenue of the food and beverage industry reached 2,432.9

[28] 辜朝明：中國比 1990 年日本更艱難_【2023 財訊影響力論壇】專題演講 https://www.youtube.com/watch?v=V8rCBb4GkC4&t=3223s
[29] China's Domestic Tourism to Hit 90% of Pre-Covid Levels in 2023, Bloomberg

billion yuan ($334 billion), a year-on-year increase of 21.4%.[30] Despite the lack of generous fiscal stimulus during the Covid-19 pandemic and lockdown periods, which forced many households and businesses to endure the tough times independently, the current figures suggest a significant consumption potential. This "revenge consumption" could provide a temporary boost, but its longevity is uncertain, possibly being a result of survival bias, considering many businesses permanently closed during the pandemic.

Advocates for more fiscal stimulus argue that the success of stimulus and relief packages in response to the Covid-19 pandemic in the U.S. demonstrates its effectiveness.[31] Despite most of these stimulus measures being discontinued, they contributed to a strong economic rebound, with GDP and employment recovering at a remarkable pace—something China desperately needs. However, opponents of fiscal stimulus raise concerns about ensuring fair allocation and effective targeting to those who need it most. An article by the New Yorker points out that the fundamental problem China faces is a widespread lack of confidence. To address this, China needs to enhance corporate and government transparency, adhere to the rule of law, and establish robust auditing and accounting procedures to facilitate a well-functioning market.

In short, China's real estate crisis presents complex challenges that differ from those faced by other economies, such as the U.S. in 2008 and Japan in the 1990s. China's path forward will depend on restoring confidence among consumers and investors, ensuring transparent and fair implementation of policies, and possibly leveraging targeted fiscal stimulus to boost economic activity.

VIII. Outlook and Challenges

1. Further Mismatch

In response to declining transaction rates, Beijing lifted restrictions on listing prices of pre-owned homes on September 12th. Originally intended to curb overheated competition for school district housing, this move, along with Zhengzhou's removal of all housing purchase and sale restrictions on the same day, aims to stimulate the market. However, these actions might exacerbate the mismatch between supply and demand. Historically, many Chinese migrants flocked to big cities for better job opportunities, but high housing prices and stringent city requirements, such as work experience, educational background, and "hukou" (household registration), often made homeownership unattainable.[32] Additionally, the policy of resettling residents in suburban or less-developed cities to destock properties distorted the real estate

[30] 餐饮消费热情高 上半年增超两成 https://www.gov.cn/yaowen/liebiao/202308/content_6896523.htm

[31] A breakdown of the fiscal and monetary responses to the pandemic https://www.investopedia.com/government-stimulus-efforts-to-fight-the-covid-19-crisis-4799723

[32] Under China's hukou system, each citizen is required to register in one and only one place of (permanent) residence. An individual's hukou status defines his or her rights and eligibility for social welfare and various services, including public education and housing, within a specific administrative unit. (Forstall, R. L., & Chan, K. W. (2015, March 12). Urban Places: Statistical Definitions. International Encyclopedia of the Social & Behavioral Sciences (Second Edition) 2015, Pages 854-861. https://www.sciencedirect.com/science/article/abs/pii/B9780080970868740426

market by separating purchasing and residing. As major cities lift restrictions, the risk of creating more "ghost towns" in underdeveloped areas increases.

2. Moving Away from Land Finance

Local governments in China have been significantly impacted by the real estate crisis, primarily because a substantial portion of their revenue comes from real estate projects. Land transfer fees and related taxes account for 54% of local government revenue, with land finance revenue making up 89% of the local public budget in 2018, effectively serving as a "second (local) Treasury."[33] Consequently, local governments are now heavily indebted as the real estate sector no longer provides generous revenue. This situation resonates with the proverb "That which makes also breaks" (Chinese: 成也萧何，败也萧何).

A widely acknowledged solution for local governments to reduce their reliance on land finance involves a fundamental reform of the finance and investment practices that have persisted for two decades. Such a reform requires a systematic and transparent plan from the central government. However, this solution counters the interests of many Chinese government officials who have benefited from land finance throughout their careers. Local leader interventions and manipulation of the land market are common, reducing motivation for reform.[34] Despite President Xi Jinping's ongoing anti-corruption campaign, which has led to numerous arrests and sentences for rent-seeking behaviors, corruption remains prevalent. Sustainable reform may only be achievable once corruption is thoroughly addressed.

3. Potential Risk of Top-down Policy

Three years after the Evergrande crisis and widespread debt defaults among major property developers and associated businesses, the Chinese government has yet to implement a comprehensive rescue plan. Initially, the government chose to let the bubble gradually deflate. However, the central government's dual role as market regulator and major economic player complicates the situation. While the government can efficiently facilitate large-scale projects, its one-size-fits-all policies can harm entire industries. The drawbacks of such policies were masked by the booming property sector and GDP growth in recent years. Addressing accumulated problems is now challenging.

For example, to alleviate pressure on children and parents, China passed a family education law in 2021 requiring parents to reduce homework and private tutoring.[35] This policy decimated education businesses, leading to school closures and massive layoffs, while also giving rise to a black market for private tutoring. Without a comprehensive system, abrupt regulatory changes can harm the capital market and industry health.

---

[33] 《置身事内：中国政府与经济发展》, 兰小欢

[34] The impact of anti-corruption measures on land supply and the associated implications: The case of China

[35] 中共中央办公厅 国务院办公厅印发《关于进一步减轻义务教育阶段学生作业负担和校外培训负担的意见》https://www.gov.cn/zhengce/2021-07/24/content_5627132.htm

The dangers of top-down policies are not unique to China; they exist in every regime. Venezuela's political-economic failure under Hugo Chávez and his successor, Maduro, illustrates this. Chávez's top-down policies, such as price controls intended to make basic goods affordable, ultimately drove businesses out of the market. Maduro's continuation of these policies led to severe economic damage and mass migration. This highlights that well-intentioned top-down policies that ignore economic realities can lead to self-destruction.

Bibliography

Batarags, L. (2021). The Evergrande crisis: 4 questions that explain why China's property market, which is twice as big as America's and where 20% of homes are empty, matters. *INSIDER*. https://www.cnbc.com/2023/02/03/chinas-real-estate-crisis-isnt-over-yet-imf-says.html

Bloomberg. (2023). China's bursting housing bubble is doing more damage than official data suggest. *Fortune*. https://fortune.com/2023/08/17/china-home-sales-worse-than-official-data-real-estate-crisis/

Calder, V. B. (2017). Zoning, land-use planning, and housing affordability. *Cato Institute*. https://www.cato.org/policy-analysis/zoning-land-use-planning-housing-affordability

Cheng, E. (2023). China's real estate crisis isn't over yet, IMF Says. *CNBC*. https://www.cnbc.com/2023/02/03/chinas-real-estate-crisis-isnt-over-yet-imf-says.html

China's domestic tourism to hit 90% of pre-Covid levels in 2023. (2023). *Bloomberg*. https://www.bloomberg.com/news/articles/2023-07-28/china-s-domestic-tourism-to-hit-90-of-pre-covid-levels-in-2023#xj4y7vzkg

Chotiner, I. (2023). Did Authoritarianism Cause China's Economic Crisis? *The New Yorker*. https://www.newyorker.com/news/q-and-a/did-authoritarianism-cause-chinas-economic-crisis

Fu, R., Deng, D., & Liu, T. (2023). The impact of aging on housing market: Evidence from China. *Sustainability, 15*(5), 4161. https://doi.org/10.3390/su15054161

Guardian staff and agencies. (2023). China's struggling property giant Evergrande files for bankruptcy protection in US. *The Guardian.* https://www.theguardian.com/business/2023/aug/18/chinas-struggling-property-giant-evergrande-files-for-bankruptcy-protection-in-us

Hale, T. (2021). Ping An shares fall on fears of China Evergrande contagion. *Financial Times*. https://www.ft.com/content/7608a4a8-d791-4f7b-93ec-34be4c82a106

Hawkins, A. (2023). China's property crisis deepens with developer Country Garden at risk of default. *The Guardian*. https://www.theguardian.com/world/2023/aug/18/china-property-crisis-deepens-as-developer-country-garden-at-risk-of-default-evergrande

He, L. (2023). China's property crash is prompting banks to offer mortgages to 70-year-olds. *CNN*. https://www.cnn.com/2023/02/17/economy/china-mortgage-age-95-property-market-intl-hnk/index.html

He, L. (2023). Evergrande posts losses of $81 billion over two years as it reports long-delayed results. *CNN*. https://www.cnn.com/2023/07/18/investing/china-evergrande-losses-intl-hnk/index.html

He, L. (2023). Why China has few good options to boost its faltering economy. *CNN*. https://www.cnn.com/2023/08/06/economy/china-economy-stimulus-limited-options-intl-hnk/index.html

He, L. (2023). China takes aim at real estate crisis with new measures to boost economy. *CNN*. https://www.cnn.com/2023/09/01/economy/china-mortgage-stimulus-intl-hnk/index.html

Huld, A. (2022). Explainer: What's going on in China's property market? *China Briefing*. https://www.china-briefing.com/news/explainer-whats-going-on-in-chinas-property-market/

Kuo, L. (2023). Chinese parents trying to set screen limits get new ally: The government. *The Washington Post*. https://www.washingtonpost.com/world/2023/08/03/china-screen-time-limit-children/

Koty, A. C. (2022). How to understand China's common prosperity policy. *China Briefing*. https://www.china-briefing.com/news/china-common-prosperity-what-does-it-mean-for-foreign-investors/

Liu, C., & Xiong, W. (2018). China's real estate market. *NBER Working Paper Series*. https://wxiong.mycpanel.princeton.edu/papers/w25297.pdf

Liu, J. (2022). Series: China's real estate problem 1. The "Three Red Lines." *CKGSB Knowledge*. https://english.ckgsb.edu.cn/knowledge/professor_analysis/series-chinas-real-estate-problem-1-the-three-red-lines/

Liu, J. (2022). Series: China's real estate problem 2. The role of real estate companies. *CKGSB Knowledge*. https://english.ckgsb.edu.cn/knowledge/professor_analysis/series-chinas-real-estate-problem-2-the-role-of-real-estate-companies/

Liu, J. (2022). Series: China's real estate problem 4. Land finance and local government revenue structures. *CKGSB Knowledge*. https://english.ckgsb.edu.cn/knowledge/professor_analysis/series-chinas-real-estate-problem-4-land-finance-and-local-government-revenue-structures/

Lu, Y., & Sun, T. (2013). Local government financing platforms in China: A fortune or misfortune. *IMF Working Paper*. https://www.imf.org/external/pubs/ft/wp/2013/wp13243.pdf

Magnus, G. (2021). End to China's estate market boom could spell trouble for the economy. *The Guardian*. https://www.theguardian.com/world/2021/oct/15/chinas-booming-real-estate-market-could-spell-trouble-for-the-economy

Ning, J. (2021). Main data of the seventh national population census. *National Bureau of Statistics.*

http://www.stats.gov.cn/english/PressRelease/202105/t20210510_1817185.html

Peng, X. (2022). China's population is about to shrink for the first time since the great famine struck 60 years ago. Here's what that means for the world. *World Economic Forum*. https://ee.ckgsb.com/faculty/article/detail/157/6581.html

Pettis, M. (2021). What does Evergrande meltdown mean for China? *Carnegie Endowment for International Peace*. https://carnegieendowment.org/chinafinancialmarkets/85391

Real estate vulnerabilities and financial stability in China. (2022, June). *The World Bank*. https://thedocs.worldbank.org/en/doc/9b7191d416b0dbfd7d36f1a935464ea0-0070012022/original/CEU-June-2022-EN.pdf

Reuters. (2022). China's New Oriental education giant finds new life in English live streaming. *Reuters*. https://www.reuters.com/business/chinas-new-oriental-education-giant-finds-new-life-english-live-streaming-2022-06-15/

Ritchie, H., & Roser, M. (2019). Urbanization. *Our World in Data*. https://ourworldindata.org/urbanization

Rogoff, K. S., & Yang, Y. (2022). A tale of tier 3 cities. *NBER Working Paper Series*. https://www.nber.org/system/files/working_papers/w30519/w30519.pdf

Rosen, P. (2023). China's economic model isn't working, but that doesn't mean the country's headed for a "Lehman Moment." *INSIDER*. https://www.businessinsider.com/china-economy-beijing-lehman-moment-policy-deflation-economy-markets-property-2023-8

Stemp, D., & Liu, Z. (2021). The PBoC props up China's housing market. *Council Foreign Relations*. https://www.cfr.org/blog/pboc-props-chinas-housing-market

Sun, L. (2020). Housing affordability in Chinese cities. *Lincoln Institute of Land Policy*. https://www.lincolninst.edu/sites/default/files/pubfiles/sun_wp20ls1.pdf

Tang, Z., Gao, L., & Woo, R. (2023). Analysis: China's mortgage rate cuts spur prepayment rush, threaten bank earnings. *Reuters*. https://www.reuters.com/markets/asia/chinas-mortgage-rate-cuts-spur-prepayment-rush-threaten-bank-earnings-2023-02-17/

Venezuela crisis: How the political situation escalated. (2021). *BBC News*. https://www.bbc.com/news/world-latin-america-36319877

Wakabayashi, D., & Fu, C. (2023). Country Garden makes $22.5 million payment, with $15 billion to go. *The New York Times*. https://www.nytimes.com/2023/09/05/business/china-country-garden-debt.html

Wang, Z., & Wang, A. (2022). China's land finance by Lan Xiaohuan. *Pekingnology*. https://www.pekingnology.com/p/chinas-land-finance-by-lan-xiaochuan

Xia, C. (2018). Economist's "6-wallet" theory triggers housing debate. *China.Org.Cn*. http://www.china.org.cn/business/2018- 04/27/content_50973989.htm

Xie, S. Y., & Bird, M. (2020). The $52 trillion bubble: China grapples with epic property boom. *The Wall Street Journal*. https://www.wsj.com/articles/china-property-real-estate-boom-covid-pandemic-bubble-11594908517

Xie, Y. (2023). China's housing market has plenty of space but not enough buyers. *The Wall Street Journal*. https://www.wsj.com/articles/chinas-smaller-cities-struggle-to-unload-empty-apartments-1a70f551

Xu, Y., & Zhang, X. (2017). The residential resettlement in suburbs of Chinese cities: A case study of Changsha. *Cities*, 69, 46-55. https://www.sciencedirect.com/science/article/abs/pii/S0264275117300707

Zhao, R., Chen, J., Feng, C., & Zhong, S. (2020). The impact of anti-corruption measures on land supply and the associated implications: The case of China. *Land Use Policy*, 95, 104605. https://doi.org/10.1016/j.landusepol.2020.104605

碧桂园危机：背负"恒大级"万亿负债，会否成为"倒在黎明前"的悲情巨人. (2023). *BBC News 中文*. https://www.bbc.com/zhongwen/simp/business-66509334

公民论坛. (2021). 张伦：从恒大危机看中国经济模式的悖论. *RFI*.

关于进一步支持刚性和改善性住房需求的通知. (2023). *沈阳市房产局*. http://fcj.shenyang.gov.cn/zwgkzdgz/fdzdgknr/bmwj/202309/t20230904_4521761.htm

恒大危机：中国经济还有哪些隐患？四位学者来把脉. (2021). *BBC News 中文*. https://www.bbc.com/zhongwen/simp/chinese-news-58953048

李婕. (2023). 上半年，全国餐饮收入超 2.4 万亿元，同比增长 21.4%—— 餐饮业何以领涨消费市场？. *人民日报海外版*. http://paper.people.com.cn/rmrbhwb/html/2023-08/08/content_26010055.htm

刘劲. 中国到底盖了多少房子. *长江商学院*. https://ee.ckgsb.com/faculty/article/detail/157/6581.html

郑婷. (2022). 股价新低！万亿市值腰斩！中国平安跌落神坛. *深蓝财经*. https://finance.sina.cn/stock/ssgs/2022-08-10/detail-imizmscv5690045.d.html

中国房地产：为何出现"提前还贷潮"？银行又为何设门槛？. (2023). *BBC News 中文*. https://www.bbc.com/zhongwen/simp/chinese-news-64798127

中国新闻组. (2023). 「恒大」核弹级负债拖累中国房市 谁敢出手？等谁来救？. 世界新闻网. https://www.worldjournal.com/wj/story/121345/7323910?from=wj_catelistnews&zh-cn&zh-cn