A brief analysis of the dilemma China's housing market encounteredthe formation process of the domestic housing market and what course to follow

Tian Lu

Abstract

This paper aims to discuss the dramatic impact of the pandemic on China's housing industry and the underlying problems of the industry. Many seemingly strange circumstances happened in China, such as the continuously growing housing bubble and the housing prices that have not fallen in the recent decade. This paper uses the statistics collected by the authoritative data collection organization, the banks, and the housing agencies in Shanghai and the previous economics theory to briefly analyze China's housing industry's current situation and drawbacks and help explain the dilemmas as mentioned earlier. China's housing market has its particularity, which makes it distinct from the markets in Western countries. This makes it hard to mechanically apply the old crisis theories to China's market.

Consequently, the actual situation, such as the government's policy, must be taken into consideration- for example, in big cities, parking space prices rose even faster than housing prices. Different from ordinary economic analysis, the paper was written from the perspective of an ordinary citizen who had witnessed the growth of China's housing market. For this reason, financial aspects and other aspects, such as the people's livelihood and other industries, were considered. China's housing bubble was gradually formed for many historical reasons, and its elimination will also take a long time. However, with our government and our people's cooperation and coordination, it can be made sure that our market will be on the right track one day.

Keywords: China's housing bubble; Restoration of China's housing market; Economic analysis

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Introduction:

The real estate industry has always been crucial to a country's economy. We can tell from experience that the real estate industry may well serve as an indicator of the economy. For example, the subprime crisis was mainly a result of the depression in the American real estate industry. Appropriate mortgages can even reflect a healthy market environment. Based on the statistics offered by the National Bureau of Statistics, in 2018, the real estate

industry accounted for 7.12% of the GDP in China. The figure kept climbing, and the number was 14.68% in 2022. The GDP contributed by the real estate industry remained the first among all the industries in China for the past ten years. Thanks to the real estate industry, many other industries are thriving, such as furniture, decoration, painting, etc. In summary, the prosperity of real estate has dramatically contributed to the development of the domestic economy.

However, the issue of the housing bubble has always been a ghost that kept swirling around Chinese economists. For decades, China has relied on the property market as one of its main engines to fuel growth, even though the housing boom was leading developers and households to take on worrying debt levels—leaving both vulnerable to a downturn. Many have raised their concerns about the unreasonable prices and worried about the well-being of middle-income and low-income urban residents. However, the statistics collected by the government seem to demonstrate China's economic situation in a diametrically different way. Below is the GDP of the three primary industries in China in the last ten years. In the following paragraphs, I will successively discuss the dilemma that regular Chinese face when trying to settle down, the

particularity of the real estate industry and the reasons that caused the housing bubble, and my suggestion for the real estate industry.

年份	GDP (亿元)	人均 GDP (元人)	第二产业 (亿元)	第二产业 (亿元)	第一产业 (亿元)
2022	1210207.00	85698.00	638698.00	483164.00	88345.00
2021	1149237.00	80976.00	614476.00	451544.00	83216.00
2020	1013567.00	71828.15	551973.70	383562.40	78030.90
2019	986515.20	70078.00	535371.00	380670.60	70473.60
2018	919281.10	65534.00	489700.80	364835.20	64745.20
2017	832035.90	59592.00	438355.90	331580.50	62099.50
2016	746395.10	53783.00	390828.10	295427.80	60139.20
2015	688858.20	49922.00	349744.70	281338.90	57774.60
2014	643563.10	46912.00	310654.00	277282.80	55626.30
2013	592963.20	43497.00	277983.50	261951.60	53028.10
2012	538580.00	39771.00	244856.20	244639.10	49084.60

Description of China's housing market's current situation By summarizing the statistics, we can quickly come to the idea that our country's economy is in the ascendant. At the same time, everyone living in mainland China understands that it is not the case. Simpson Paradox can be accounted for these faults. According to the National Bureau of Statistics statistics, specific crucial sectors, such as finance, are showing signs of depression. The growth rate of finance in 2021 was 6.7%, significantly lower than the year before the last, which was 11.2%. Enough foreclosures and bankruptcies of tycoons who were once the dominant leaders. Similarly, the retail business, closely related to people's lives, is declining. Even the most extensive online shopping platform, Tao Bao, which accounted for 51.2% of all the market shares¹, has fallen in stock, let alone those mini-size or mediumsized enterprises. Most retailers have found it extremely hard to survive in the turbulent market. Many industries with close connections with people's livelihoods show signs of recession, while specific sectors, such as manufacturing, are still booming. Combining both leads to the inconsistency between the statistics and people's experiences. The real estate industry belongs to the sectors that are declining.

The pandemic has been a significant blow to China's economy, and many industries have shown signs of recession during and after the pandemic. In contrast, the natural industries remain at least seemingly prosperous. Certain traits of the housing market appear unreasonable: when the supply outnumbers demands, the prices should fall to compete with the consumers. However, the housing prices in China do not fail even when there are so many vacant rooms in the city. This essay will discuss the connection between China's economy and the housing industry and explore the Chinese people's situation after

the pandemic.

Judging from my perspective, I believe that the real estate's seeming prosperity reflects the recession of the Chinese economy. On the other hand, a slump in the market negatively affects the real estate industry, forming a vicious circle. Chinese government's measurements were indeed effective in the past decade. Still, the housing bubble will finally collapse into a severe financial crisis if we refuse to observe the apparent descending trend. Proper cures must be put onto schedule to alleviate the pain after the pandemic.

China's downturn is now fueling a surge in foreclosures. Considering China's huge population, the seats in the real estate agencies should be overcrowded. For the convenience of the calculation, let's suppose that everyone in China owns a family of three (Namely, father, mother, and son/daughter). According to the recent population census, China holds 1.41175 billion population. Even excluding those who live in public residences, such as students and laborers, the number of apartments required can be astonishing.

China is still a developing country, so many people have to work and live in different places. Many people work in big cities such as Beijing, Shanghai, and Shenzhen to attain better financial resources. Unlike developed countries, the distinction of consumption levels in different cities in China is so tremendous that we can consider separate cities as other countries. The average income in Shanghai is approximately 10,000 yuan; in less-fledged cities, this number can be 3000. Many people are forced to work out of their hometown because the jobs in the small towns simply cannot supply the whole family. Take Shanghai, the most fashionable, international, and productive city in China, as an example. The external population is approximately 10.319 million people², which makes up 41.44% of the whole Shanghai population. The policy in Shanghai³ Requires all the external population and the offspring of the residents to buy houses to be qualified for settlement in Shanghai. Consequently, there should be a huge demand for real estate because one can enjoy various benefits from living in big cities, such as better medical conditions, education, and employment opportunities. From an everyday perspective, the housing prices in Shanghai should have risen quickly in the early stages when the market was still immature (There were only a few estate agencies in the market, and we can approximately assume that by that time, it was an oligopoly since there were specific barriers to entry for real estate agents in China including permission given by the government, fixed service location, a limitation of more than 50% of the total number of people engaged in real estate must have secondary or higher education in real

estate and related majors, a junior or higher education, or a junior or higher professional and technical title, etc.). In this way, agencies choose the prices that maximize their profits) and fall afterward. Consequently, the demand for real estate, especially in large cities, should be boomed, and the permanent population in the towns should remain at a high level or even increase.

Yet the statistics collected tell another story. According to the 2021 China Leverage Ratio Report⁴, the number of foreclosed homes has skyrocketed from 500,000 in 2019 to more than 1.6 million in 2021. Many middleincome citizens, especially those single ones, have met the problem of debt crunch in the second half of 2021. China prohibited people from going outdoors and offered free antigen detection to contain the infected numbers. During these times, the market was almost stagnant: because all possible offline contact was forbidden, both online and offline trades had to be postponed since logistics were frozen. Many people could work online, but what would the company think? The operation of the company would be much more inefficient, and judging from the companies' perspectives, they have to try every means to reduce expenses, including giving their employees a pay cut, especially for those senior executives in the companies since they got paid the most, or even reducing the staff. Generally, those better companies encountered more significant difficulties during the pandemic because they usually bore much more debt. In the pandemic, things could go wrong due to cash flow shortage, etc. Consequently, people with better jobs suffered more during the pandemic. Banks simply don't care about your situation. Those middle-income individuals or families who do not have the habit of depositing money have to suffer through the darkest four months with much less financial income and much more expenses such as disinfection costs or catering costs (In China, many companies offer free meals as rewards), enduring the increasing pressure of paying back their loan day by day. After the ban was over, when people finally got back to work, no bonus or subsidy was offered by either the company or the government, but only food allowing for the most minor living was given. This was the leading reason why the foreclosures skyrocketed.

Current risks in the real estate market

This is not the end of the story, however. The debt crunches were not only worrying to the individuals but also harmful to China's market. The chain reaction of the debt crunches was that banks could not get their money and consequently could not make both ends meet. Some banks could not afford to pay back to their investors and

had to go bankrupt. Similarly, some small companies were forced to go bust. 11 banks went bankrupt in the pandemic, including the ones that were once reputable to people- for example, Liaoning Taizihe Village Bank, Baoshang Bank, and Shantou Commercial Bank. If things were left unchanged, another substantial financial would occur, just like America in 2007, but for different reasons. According to the National Bureau of Statistics, compared with the same period of the previous year, the first period lost 6.8% and the second period lost 3.2%⁵. Although the percentage does not seem to be very much, the output could be much less considering China's large volume. The number in the previous year was positive 15.2% and don't forget that our economic volume gets bigger annually.

Luckily, the Chinese government dealt with the upcoming financial crisis timely. Just as Professor Tang mentioned in his work⁶, the central government sent a financial incentive to the market immediately after people got back to their working positions, aiming at boosting consumption. The central government also lowered the interest rates just as Japan and America did during their financial crisis and deferred the deadline for repaying the loan, allowing people to have a chance to pay back their loans. Moreover, many banks, such as Bank of Communications, which has debts with many big companies, received money to avoid bankruptcy. A total of 1.6 trillion yuan was given to the Large state-owned commercial banks. The local government also ensured that the obligation of compensation was timely fulfilled and the financial institutions lend as soon as possible. China's GDP's growth rate was steady, maintaining at approximately 9.5%, however.

With these proper measurements being placed into the market in time, the Chinese economy has shown signs of getting back on track. However, what happened to the houses which the banks took?

Admittedly, some of the houses entered the real estate auction market and offered business opportunities for the auction assistance agencies. Auction assistance agencies have mushroomed in areas that have seen many businesses go bankrupt, such as Shanghai and neighboring provinces Jiangsu and Zhejiang.

However, most of the other apartments left unsold were not that lucky. Most of them became vacant since no one was willing to pay for these houses under such circumstances EXCEPT those who were already interested in them, who had just given up on them. According to the **Urban Real Estate Management Law** published in 1994, recently revised in 2021, the real estate developer is allowed to start selling their properties after the top roof of their building is sealed. Some of the developers who had just finished the framework construction of their building met the situation above had to 'temporarily' (Because

most of the time, the structure simply ceases to happen for many reasons), and the building just 'stuck' before completion. These buildings are so-called big-name 'Lan Wei Lou,' which I will underscore later.

Conclusively, our economy is recovering as time passes, but the damage our pandemic caused to the real estate industry is irreversible.

The developing process of China's real estate market and certain defects

According to Varian's view, when the supply outnumbers demand in one market where everyone is the price taker (which has been the case in the recent decade of China), the suppliers should lower the price to compete with the buyers. However, the costs simply don't, and the housing bubble gets bigger every day, but why?

One of the reasons is that properties in China have high values other than just the Value of residence, and speculation is often included in the market. For example 2022, a new educational policy was introduced in Shanghai. To ensure education fairness, children won't be able to choose their school. Instead, they will be randomly distributed to the primary and lower secondary school near their home. For this reason, the school district housing has caused a gory war between parents. Consequently, the prices of the apartments near the famous schools were often sky-high, not because they own spectacular landscapes but because of their educational Value. Many investors use Guanxi to get to know the future school districts and buy these properties as an investment. For this reason, housing prices in China, especially in those first-tier cities, are unstable to a large extent- demand is high as long as prices are expected to rise, but it collapses when prices are expected to fall

As I mentioned above, one of the primary reasons that China's economy could make so much progress in a short period (compared to other developed countries) is that we attached much importance to infrastructure construction. This strategy achieved great success in the initial stage thanks to Deng Xiaoping (1904-1997), the paramount post-Mao leader's reform and opening up strategy, since Domestic and international market volume significantly increased. However, after Deng, no more such unprecedented policy was introduced, and China has to find a way to continue with the upward trend, or otherwise, our people may lose faith in the government. The property sector was what China used as a substitute for the infrastructure.

In the past thirty years, cities sprung up like mushrooms. Tall buildings have been typical for all the cities as if they were already there. When the property developers were busy laying the foundation for their new projects and cutting the melon of this new-emerging industry (at that time), neither the developers nor the government ever thought of the proper arrangement of the land since China has always been proud of our vast territory. The repercussion is that the newly developed properties kept springing up before the urban planners found it too late. For this reason, compared to the Western cities that have a clear boundary of different sectors, cities in China may seem a little 'messy .' Walking down a street in Shanghai, you may see various pictures that seem to come from totally different worlds. That can be blamed on the excessive rapid development of China's property business. Developing the Chinese real estate industry is a lengthy and drawn-out process. Many questions have appeared in the seemingly simple and transparent industry. For example, the notorious 'Lan Wei Lou,' namely the halffinished buildings. At the preliminary stage of the industry, the law and the legal systems had flaws for the cunning businessmen to avail themselves of loopholes. Before 2000, there was no precise regulation on the property sale before the building was built. Many developers convinced the consumers of the Value of the building and made them pay before they could live in it. The developers then used the money collected to finish building construction. However, in some cases, the developers met a shortage of funds even with the money donated, and the structure had to be stopped. Some black-heart developers intended to run away from the beginning. In such times, the system was flawed and was finally revised. The phenomenon as mentioned earlier was defined as fraud, and the 'Lan Wei Lou's were finally getting rectified.

However, that isn't to say that the real estate industry is terrible for our economy. On the contrary, the real estate industry has greatly helped our economy. As I mentioned earlier, the vast population base in China makes infrastructure construction necessary. After most of the buildings in one city are built, the most fundamental sectors, such as downtown, living quarters, and agricultural region (in China, most cities' peripheral area is for agricultural use to meet the citizen's need because transportation fee can be very high) are built, the urban planners must emphasize the infrastructures with the cities. Convenient public transportation, lovely recreational places, etc., are essential indexes outlanders consider when migrating. Accordingly, the real estate industry has brought numerous jobs and consumption to our nation. No wonder our country would make the real estate industry the first place.

A possible explanation for the ascending housing prices Returning to the main question, why do housing prices remain a growing trend? Many reasons should account for that.

Judging from my perspective, the most important reason is that the central government would not let it fall easily. The government would interfere with housing prices whenever the real estate industry shows signs of recession. It won't be hard to predict what will happen after the housing bubble is pricked, either intentionally or unintentionally: The government's leverage will continue to increase; the enterprises' and the individuals' leverage will be passively reduced due to a large number of bankruptcies and debt restructuring; numerous people will lose their jobs in the wave of corporate bankruptcy; families will broke up because of financial problems; most of the projects under construction will be incomplete while people who paid for that will get nothing and be burdened with immense mortgage. These are things that will happen if the natural industry declines. If the government determined to deal with the industry with a laissez-faire policy 15 years ago when the bubble wasn't yet so exaggerated, the same things would happen, except on a smaller scale that can still be handled. However, the central government refused to see a chance of reviving our country slip away when the public desperately needed something to stabilize their morale. By the time the world was affected by the American sub-prime crisis, China was no exception.

Additionally, a severe earthquake, the Wenchuan Earthquake, occurred, and the Olympic Games were held in 2008, both money-consuming. Over 220 million people were affected by the natural disaster, and people lost in the earthquake significantly weakened China's economic strength. The Second National Economic Census results showed that in 2008, China's GDP's growth rate was steady, maintaining at approximately 9.5%, however.8. This growth percentage can be surprising regarding the bad things that happened in China. This can be attributed to the flourishing property businesses to a large extent. Hence, it won't be hard to understand our government's decision since I believe all governments would do the same thing under that kind of circumstance. After that, the real estate industry has weight on the whole economy got heavier every year and gradually turned into our pillar industry. For now, there are not many things that our government can do to quickly overturn this situation.

China's compromising strategy to gradually shrink the housing bubble

Another factor differentiating the domestic real estate industry from the abroad ones is that the 'properties' in China can contain more than apartments or land. Many other appendages can be given to consumers other than the house. Our government uses this strategy to increase the Value of the properties to make the properties worth

their prices. In China, a growing trend seems bizarre: the costs of parking spaces have skyrocketed. The growth rate of the parking space even outnumbers the housing prices. Take Shanghai as an example. As far as I'm concerned (the following statistics are collected from the nearby real estate agency), the costs of the parking space in a regular resident quarter average 5 million RMB (83333 US dollars per square meter), namely approximately 24 thousand RMB per square meter (4000 US dollar per square meter). In comparison, the housing price there is about 1 million RMB per square meter (16666 US dollar per square meter). Ten years ago, the average cost of parking space was only 1 million, one-fifth of today's number.



(The prices of parking space in different locations in Shanghai, 2023) (Unit: 100 thousand RMB)

楼盘名	位置	板块	户数 II	车位数	车位比	车位 价格 (万)
东方曼 哈顿	内环内	徐家汇	1796	444	0.25 J	150
明园森 林都市	中环内	静安 大¥	2298	843	0.37	60
阳城 贵都	中环内	静安 阳厘	1339	770	0.58	55
上海滩 大宁城	中环内	静安 大 w	1583	915	0.58	60- 65
香溢花 园住宅	中环内	普陀 光 *	2203	1570	0.71	50- 55
海上国 际花园	中环内	浦东北蔡	958	900	0.94	60
陆家嶙 锦绣 前城	中环内	浦东北	2088	2100	1.01	50
静安府 东区	中环内	静安 大*	1472	1526	1.04	50

(The prices of parking space in representative resident quarters in Shanghai, in the order of the distance to the city center, 2023)

The parking space itself isn't worth the price. What matters is that the real estate agencies want to make the consumers believe that their properties are worth all that money since most of the apartments are sold with the parking space as a gift. Through this type of compromising method can, the government gradually shrink the housing bubble.

The future expectation of the domestic real estate industry

The housing bubble in China did not form overnight, and its vanishment may take longer. With my humble knowledge, I expect the following for our real estate industry's future.

We are already on the brink of the edge. The pandemic was a necessary propulsion force that pushed the industry to collapse. Even without the pandemic, we will come to today's stage very soon, and the pandemic just accelerated that process. If the government does nothing about it and lets the market develop as it can, I believe a crisis that is even more severe than the subprime crisis will happen shortly. The housing prices in most of the big cities in China are almost stagnant, and the market is virtually frozen: no one will take the risk of entering the market under such circumstances, and nobody dares to make a move. The collapse of the Evergrande Group has taught everyone in the market a lesson and has indicated that our real estate industry is now on the decline. If nothing is done to the market, the same thing will happen to all property developers. It is already happening. According to the latest news, at Beijing time 8 P.M, August 12, 2023, Country Garden Holdings Company Limited, the second most prominent residential developer in China, announced that the trading of 11 domestic corporate bonds under its control would be suspended from the market opening on August 14, 20239. The concession represents the recession of China's real estate market. I believe that if the government still does nothing about it, housing prices will come to a peak and then decline rapidly. The psychology behind the consumers and the suppliers who own properties is that they believe they can sell their houses immediately after the housing prices begin to fall. However, the American sub-prime crisis taught us that it is impossible and that most people won't be able to squeeze into the agencies. This kind of wishful thinking will lead to disaster.

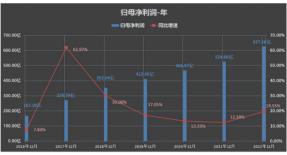
The future of the real estate industry and the possible measurements to fix it

The compromising measurements, as I mentioned above, are only temporary compensation. Something has to be done step by step to revive our market.

I believe that our government has emphasized the wrong place. For years, we have been focusing on building houses in the big cities while little people cared for the less flourishing towns. The nature of the capital determines that the money will more likely flow to the more profit-seeking places, while the poorer classes have little chance to attract investment. That is why the gap between the wealthy and poor, the big cities and the small cities, is so astonishing. That's where the government should play its part.

Firstly, the government should help the small cities and towns to improve their infrastructure. In this way, residents in these cities can be more satisfied. Additionally, roads with better condition, especially the expressway, can improve transportation efficiency. The construction can also offer jobs for those unemployed and those who suffered from the debt crunch. I am suggesting a long-term project. The lower-tier cities receive less attention and funds than the first-tier cities, while the fact is that they are the ones with much more potential since the resources there are primarily untapped. The housing industry can then prosper in those cities with an ascending trend. People will flood into the agencies, trying to buy these promising properties as speculation or for their use. This strategy eases the pressure on the first-tier cities in many aspects-for example. When the external population goes down, the crime rate would decrease, per capita resources would increase, etc. After all, the housing bubble mainly affects first-tier rather than lower-tier cities. Secondly, the local government should try to find its characteristics. It is obvious that not all the towns in China are suitable for developing the real estate industry, even though it makes profits quickly. Many cities in China have already made themselves an example. For example, Gui Zhou, a province located on the Yunnan-Guizhou Plateau, had a harsh environment. The fragile soil makes it hard for most modern buildings to lay foundation on the plateau; vipers and lizards spread over the land, and the steep terrain leads to lousy transportation. However, those adversities make it a perfect tourist attraction. Because Gui Zhou is adjacent to the Yangtze River and Yellow River sources, it is also an ideal place for breweries. Mao Tai, the most luxurious wine in China, was first produced in Gui Zhou. Its annual income, profits, and growth rate in the past seven years are the following.1°





(Unit: 100 million RMB)

Judging from the sheet, the future for the wine industry is even brighter than the real estate industry. Many other industries in China are also promising. They need our government and our people's attention.

Gui Zhou's local government turned these disadvantages into their edges and developed the third industry vigorously. Likewise, other cities in China can find their features and form mature industrial chains.

Thirdly, letting the prices fall according to supply and demand may trigger many unexpected chain reactions. For example, people and investors may crowd into the agency and scramble to sell their properties. As I mentioned earlier, housing prices, especially in first-tier cities, are primarily unstable, and sudden market volatility could cause the whole market to collapse, just like Americans did in 2007. Moreover, unlike Western countries, our market is under the government's supervision. Our government intends to stabilize the market for now, and letting the prices fall themselves may be the last thing they wish to happen.

For this reason, the government should try to reduce the added Value of housing prices. For example, the government can levy a tax on the income that the agencies get other than the land value. This will gradually lower housing prices because the more you offer, the more taxes you pay. On balance, the agencies and developers will reduce the costs rather than develop new properties.

Moreover, specific policies may even be introduced. For example, the Shanghai government promulgated a policy in 2010 that requires all foreigners to Shanghai who want to settle down to buy a house or have a graduate child. As I mentioned above, the registered permanent residence in Shanghai is precious because it concerns education, medical treatment, etc. Consequently, it boosts the housing market in Shanghai in a way. This policy is quite intelligent and should be promoted to other big cities in China. There are dissenting voices in the beginning, and our economy may even contract. That's the only way to stop the housing bubble from going even further.

Conclusion

China's real estate industry differs from the Western ones in several ways. When we come down to it, however, our national conditions determine that our developing trajectory is different from the Western ones. Even without these probabilistic events like the Wenchuan Earthquake and COVID, the difference between socialism and capitalism makes it hard to copy the foreign economic mode. The pandemic just serves as a propeller to China's economy. Admittedly, I believe there are flaws and mistakes in my paper. As a university student, my knowledge is limited, and I still haven't interacted with our society. Any companies did not employ me, and I did not go through the pandemic on my own- my family supported me to continue with my education even in the darkest times. Some of my conclusions may even contain biases because I simply can't write about things I didn't experience. I could use modeling to support my point and make it more precise with more time and references.

Acknowledgment

Thanks to my parents and the school, who supported me with the best resources they could offer during the pandemic before I went to the college entrance exam. Thanks to the previous researchers who laid the foundation for my research. I sincerely hope that China's economy can revive and the issues of the housing bubble can be solved after the pandemic.

Best wishes to my country.

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